SURFACE TRANSPORTATION BOARD
Washington, DC 20423

Section of Environmental Analysis

December 5, 2008

Re: STB Finance Docket No. 35087, Canadian National Railway Company and Grand Trunk Corporation – Control – EJ&E West Company; Issuance of Final Environmental Impact Statement

Dear Reader:

The Section of Environmental Analysis (SEA) is pleased to provide you with the enclosed Final Environmental Impact Statement (Final EIS) for the proposed acquisition of the Elgin, Joliet & Eastern Railway by the Canadian National Railway and Grand Trunk Corporation (Applicants). The Applicants would use the EJ&E rail line to connect all five of CN's rail lines in the Chicago, Illinois, metropolitan area. CN would shift much of the rail traffic currently moving over CN's rail lines in Chicago to the EJ&E rail line.

In preparing this Final EIS, SEA conducted additional environmental analyses, consulted further with Federal, state, and local agencies, and fully considered the more than 9,500 comments received from the public in response to the Draft EIS. As you read the Final EIS, you will note that SEA is concluding that the Proposed Action would have beneficial impacts for some communities and would have adverse impacts to other communities. Communities along the CN rail lines inside the EJ&E arc would experience reduced numbers of freight trains and reductions in vehicle traffic delays, which would have environmental benefits. On the other hand, many communities along the EJ&E rail line already experience traffic congestion; the increased train traffic that would result from the Proposed Action would likely exacerbate that congestion. SEA has recommended environmental mitigation designed to address the project-related adverse impacts, as discussed in Chapter 4 of this Final EIS. In addition to SEA's recommended mitigation, Chapter 4 also sets forth the Applicants' voluntary mitigation and any negotiated agreements that have been reached as of the issuance of this Final EIS, such as the agreement between the Applicants and the City of Joliet, Illinois.

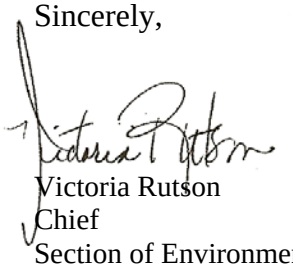
The Final EIS, which is organized consistent with the President's Council on Environmental Quality (CEQ) regulations, is intended to be read in conjunction with the Draft EIS, which provides more detailed information on the Proposed Action and Alternatives to agency decisionmakers and the public. In making its final decision on the proposed acquisition, the Board will consider the entire environmental record, including all public comments, the Draft EIS, the Final EIS, and SEA's final recommended environmental mitigation.

SEA anticipates that the U.S. Environmental Protection Agency (EPA) will publish a notice of the availability of the Final EIS in the *Federal Register* on December 12, 2008. Under the CEQ regulations (40 CFR 1506.10(b)), agencies must wait 30 days from EPA's *Federal Register* notice before issuing a final decision unless they have an internal appeal process. The Board has such a process, which means that the Board could issue a final decision in less than 30 days from December 12, 2008. If the Board were to do so, SEA recommends that the Board's administrative review period be extended to permit parties to seek agency reconsideration of the final decision within 30 days after it is served, rather than the typical 20 days. The Board would consider any administrative appeals in a subsequent decision.

The Final EIS has been mailed to key reviewing agencies, elected officials, and organizations, as well as the parties of record. It is also available to all interested persons for review in the reference section of public libraries in the project area, where the Draft EIS is also available. For information on where to view a copy of the Final EIS or to receive a copy, please call SEA's toll-free Environmental Hotline at 1-800-347-0689. The entire document is also available on the project web site: www.stbfinancedocket35087.com.

SEA appreciates the efforts of all parties who reviewed and commented on the Draft EIS. Thank you for your participation.

Sincerely,



Victoria Rutson
Chief
Section of Environmental Analysis

Enclosure

STB ID No. 39515

Service Date: December 5, 2008

CN | EJ&E

Environmental Impact Statement

Final Environmental Impact Statement

for the Proposed Canadian National Railway Company Acquisition of the Elgin, Joliet & Eastern Railway Company

Location: The EJ&E freight rail line is an approximately 200-mile long railroad located in northeastern Illinois and northwestern Indiana that forms an arc around Chicago extending from Waukegan, Illinois to Gary, Indiana; and from Gary northwest to Chicago along Lake Michigan.

Abstract: On October 30, 2007, Canadian National Railway Company and Grand Trunk Corporation ("CN" or the "Applicants") filed an application with the Surface Transportation Board (the Board) seeking the Board's approval to acquire control of the EJ&E West Company, which today is a wholly owned non-carrier subsidiary of Elgin, Joliet and Eastern Railway Company (EJ&E). The Applicants have proposed acquiring control of the EJ&E Rail Company to use EJ&E's rail line to connect all five of CN's rail lines in the Chicago, Illinois metropolitan area. Rail traffic on CN rail lines inside the EJ&E arc would generally decrease, and the number of trains operating on the EJ&E main line outside Chicago would increase by approximately 15 to 24 trains per day. In January 2008, Public Open House Meetings were held following the Board's announcement that they would conduct an environmental impact study (EIS). More than 5,000 comments were received during this period. These comments were incorporated by the Board to help determine the Final Scope of Study. The Draft EIS was released for public comment on July 25, 2008 and analyzed the environmental impacts to the human and natural environment that might occur if the Applicants were to acquire and operate trains over the EJ&E Railroad. The Board then held a series of Public Meetings that took place across the Chicago region in August and September. During the 60-day comment period, the Board received over 9,500 comment letters from the public and resource agencies that identified nearly 55,000 issues. The Final EIS contains new analysis and corrections to the Draft EIS in addition to SEA's responses to comments received from the public. The Applicant's voluntary mitigation and SEA's final mitigation recommendations are also presented in the Final EIS.

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Surface Transportation Board

Finance Docket No. 35087

Canadian National Railway Company, Grand Trunk Corporation
–Control–
Elgin, Joliet, and Eastern Railway

Guide to the Final Environmental Impact Statement

This Final Environmental Impact Statement (Final EIS) evaluates the environmental impacts of the proposed acquisition of the Elgin, Joliet, and Eastern Railway by the Canadian National Railway and Grand Trunk Corporation, together with its affiliates (Applicants). The Surface Transportation Board (Board), Section of Environmental Analysis (SEA), has examined and evaluated concerns beyond those originally presented in the Draft EIS. More than 9,500 comments were received by SEA from the public, agencies, elected officials, organizations, businesses, individuals and other stakeholders during the 60-day comment period.

The Final EIS responds to public comments on the Draft EIS; identifies corrections and changes to information presented in the Draft EIS; discusses SEA's conclusions regarding environmental effects; and reflects additional work on all of the rail operations and resource issues raised during the Draft EIS comment period. Furthermore, the Final EIS includes SEA's final environmental mitigation recommendations, including the requirement that the Applicants comply with the terms of the Negotiated Agreements with Joliet, Illinois, and Crest Hill, Illinois, and mitigation for the transaction-related construction activities.

This document has been prepared in accordance with the requirements of the National Environmental Policy Act (NEPA) of 1969, as amended (42 U.S.C. 4321); the Council on Environmental Quality (CEQ) regulations implementing NEPA; the Board's environmental rules (49 CFR Part 1105); and other applicable environmental statutes and regulations.

This Final EIS contains an Executive Summary and five chapters which include: 1) Introduction and Background; 2) Revised Information; 3) Comment Summaries and Responses; 4) Final Recommended Conditions; and 5) Public Involvement and Community Outreach.

Executive Summary

- The **Executive Summary** provides an overview of the Applicants' stated purpose of and need for the Proposed Action; responds to comments received on the Draft EIS; identifies corrections and changes to the information presented in the Draft EIS; discusses SEA's conclusions regarding environmental effects; and includes SEA's final environmental mitigation recommendations.

Volume I: Chapters 1 – 2

- **Chapter 1, "Introduction and Background"** provides a brief background of the Chicago rail system, including both freight and commuter services. It also describes the Applicants' Purpose and Need, Proposed Action and Alternatives to the Proposed Action. This chapter also describes the Board's jurisdiction and review process for this proposed

transaction. Finally, Chapter 1 provides a brief summary of the community outreach and public involvement activities that have occurred since the Draft EIS was issued.

- **Chapter 2, "Revised Information"** describes the additional analyses SEA conducted in response to issues raised during the Public Comment Period. This information includes additional environmental analysis conducted at the Matteson and Leithton connections, as well as additional analyses for the STAR Line, school safety, hazardous materials transport, emergency services, noise and vibration, air quality, environmental justice, biological resources, and cumulative effects. Chapter 2 also presents a section showing changes and corrections to text in the Draft EIS.

Volume II: Chapters 3 – 5, Preparers, References, Index

- **Chapter 3, "Comment Summaries and Responses"** summarizes the nearly 55,000 comment issues on the Draft EIS that were raised during the comment period on the Draft EIS. The chapter provides a brief description of the comment process, followed by highlights of the comments SEA received. Specific responses to letters provided by the US Department of Interior, US Department of Transportation, and US Environmental Protection agency are presented, as are responses to issues raised by the Applicants in their comment letter. Finally, Chapter 3 presents summaries of and responses to the many comments SEA received on concerns about traffic congestion, emergency services, rail safety, and many other issues.
- **Chapter 4, "Final Recommended Conditions"** discusses SEA's recommended environmental mitigation that is designed to address the project-related adverse impacts. In addition to SEA's recommended mitigation, Chapter 4 also sets forth the Applicants' voluntary mitigation and the two negotiated agreements that Applicants have reached with Joliet Illinois, and Crest Hill, Illinois.
- **Chapter 5, "Outreach and Coordination"** describes the process SEA undertook to engage the public, community organizations, and elected officials in the Board's environmental review process. The process began with the 14 Scoping Meetings held in January 2008, the eight public meetings held in August and September 2008 to receive comments on the Draft EIS, and concluded with a Public Meeting in November 2008 in Washington, D.C. In addition to the public meetings, SEA held numerous meetings with resource agencies, stakeholders, and elected officials.

Volume II also includes the following:

- **List of Preparers**, which lists the names and qualifications of all the individuals primarily responsible for preparing the EIS.
- **References**, which lists the sources of information used in preparing the EIS.
- **Index,** which lists names, places, and key topics alphabetically, together with the page numbers on which they occur in the EIS.

The Final EIS also includes **Appendices** containing the detailed analyses conducted in various technical disciplines. Additional appendices contain administrative information, public outreach and agency consultation information and documents, relevant Board decisions, and information provided by CN in response to SEA's request for additional information. Also included in the appendices are transcripts of all of the Draft EIS Public Meetings and copies of all comments received on the Draft EIS.

The **Appendices** are organized as follows:

Volume III: Appendix A

Appendix A – Additional Technical Information

- A.1 Revised Matteson Rail Connection
- A.2 Revised Leithton Rail Connection
- A.3 Metra STAR Line analysis
- A.4 Rail Safety
- A.5 Transportation Systems
- A.6 Environmental Justice Statistical Analysis
- A.7 Air Quality Modeled Impacts
- A.8 Noise and Vibration
- A.9 Biological Report
- A.10 Cultural Resources
- A.11 Corrections & Revisions to Draft EIS Appendices

Volume IV: Appendices B through C

Appendix B – Administrative Information

- B.1 Relevant Board Decisions and Federal Register Notices
- B.2 Agency Consultation and Coordination
- B.3 Public Outreach Materials
- B.4 Alternative Language Materials

Appendix C: Applicant Information

- C.1 Information Requests
- C.2 Additional Information from the Applicants

Volume V: Appendices D through E

Appendix D: Meeting Transcripts

- D.1 Matteson, Illinois
- D.2 Mundelein, Illinois
- D.3 Barrington, Illinois
- D.4 Bartlett, Illinois
- D.5 Chicago, Illinois
- D.6 Aurora, Illinois
- D.7 Gary, Indiana
- D.8 Joliet, Illinois

Appendix E: Comments on the Draft EIS

- E.1 Comments from the U.S. Department of Interior
- E.2 Comments from the U.S. Department of Transportation
- E.3 Comments from the U.S. Environmental Protection Agency
- E.4 Comments received from the Applicants
- E.5 Comments from all others on the Draft EIS (on CD only)

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SEA's Summary of Major Conclusions

The Section of Environmental Analysis (SEA) has conducted an extensive review of the potential beneficial and adverse environmental impacts that could result from the proposed acquisition of the Elgin, Joliet & Eastern Railway (EJ&E) by Applicants Canadian National Railway Company and Grand Trunk Corporation (CN). Based on the information available to date, consultation with Federal, state, and local agencies, a wide variety of organizations, citizens of Illinois and Indiana, and its own independent environmental analysis, SEA has reached the following conclusions:

1) The Proposed Action would result in environmental benefits to communities located along the five CN rail lines leading into and out of Chicago. Communities along the EJ&E rail line would experience adverse impacts. The potential benefits from the reduction in train operations near the communities along the five CN rail lines inside the EJ&E arc include decreased vehicle traffic delay, reduced noise, reduced air emissions, and fewer shipments of hazardous materials by rail. Communities located along the EJ&E rail line would experience an increase in train traffic, which could result in increased vehicle traffic delay, increased noise, increased air emissions, and an increase in the shipment of hazardous materials by rail.

2) The pre-existing conditions—that is, the heavy vehicular traffic and the number of passenger and freight trains that currently traverse the communities along the EJ&E rail line—are far from ideal. These communities currently experience substantial vehicular traffic delays during peak travel times, existing freight and passenger rail operations, train noise, and safety risks due to the high volume of cars, trucks, and freight and passenger trains. The Proposed Action would likely exacerbate these pre-existing conditions.

3) SEA has identified potentially adverse traffic delay impacts and impacts to emergency service providers in several communities on the EJ&E rail line where rail traffic would increase. But it should be noted that instead of coming to the Board for authority to acquire the line under 49 U.S.C. 11324 of the Interstate Commerce Act, the Applicants could have increased freight traffic on the EJ&E rail line through a negotiated haulage agreement with the EJ&E. Under a freight haulage agreement on an existing rail line, the Applicants would not be required to seek prior approval from the Board, and there would have been no NEPA review.

4) A large part of the EIS process has been devoted to developing mitigation measures to reasonably address the potential adverse environmental impacts associated with the Proposed Action. In the Final EIS, SEA is recommending mitigation for 13 emergency service responders in Illinois and Indiana. SEA is also recommending mitigation on eight substantially affected highway/rail at-grade crossings, including two grade separations: one at Ogden Avenue near Aurora, Illinois, and one at Lincoln Highway in Lynwood, Illinois. In addition, SEA identified both Woodruff Avenue and Washington Street in Joliet, Illinois, as substantially affected and would have recommended mitigation that could have included a grade separation, given the level of potential adverse impacts from the Proposed Action. However, the City of Joliet and the Applicants have negotiated a mutually acceptable agreement that includes tailored mitigation that the Applicants would provide for the City and is more far-reaching, in some respects, than mitigation the Board unilaterally could impose. Because the Applicants and Joliet have been able to come to terms that both the Applicants and the City find satisfactory, SEA does not recommend

mitigation for either Woodruff Avenue or Washington Street beyond requiring compliance with the parties' Negotiated Agreement.

5) Given all of the pre-existing traffic congestion at Ogden Avenue and Lincoln Highway, SEA believes that the Applicants should not bear the full costs for design and construction of the two recommended grade separations. However, since the Proposed Action would have a substantial adverse effect on vehicular traffic delays, and in some areas regional and local mobility and grade crossing safety, SEA concludes that the Applicants' share of the grade separations' cost should be more than the traditional railroad share for similar projects. To determine a reasonable and appropriate approach for the Applicants' cost participation, SEA applied two different approaches. First, SEA applied a regional approach that considered all of the highway/rail at-grade crossings affected by the Proposed Action on both the EJ&E rail line and the CN rail line segments. Second, SEA focused locally on just the potential impact of the Proposed Action on vehicle traffic delay at Ogden Avenue and Lincoln Highway. SEA believes that the regional analysis forms a more reasonable and appropriate basis for assigning a percentage of the proposed grade separation cost to the Applicants in this case, because it would not hold the Applicants responsible for remedying as much of the pre-existing conditions at the two crossings and would reflect the benefits of the Proposed Action to communities along the CN lines. SEA's regional analysis, described in full in Chapter 4 of this EIS, shows that the Applicants' contribution to the cost of the two recommended grade separations should be 15 percent, and SEA is recommending that this cost share percentage be imposed.

6) In response to comments on the Draft EIS raising concerns about the effects of the Proposed Action on Metra's STAR Line and future Northern Indiana Commuter Transportation District (NICTD) expansion plans, SEA performed additional detailed analysis for this Final EIS. Based on this analysis, SEA concludes that the Proposed Action would not have a substantial adverse effect on the potential implementation of Metra's STAR Line service on the EJ&E rail line and that the Proposed Action could potentially benefit future NICTD expansion plans.

7) Based on its independent environmental analysis and consideration of reasonable and feasible mitigation strategies, SEA believes the Applicants have proposed effective voluntary mitigation for potential noise and vibration impacts. This voluntary mitigation includes constructing noise control devices such as noise barriers, installing vegetation or berms, or installing enhanced warning devices to allow communities to achieve quiet zone requirements. The Final EIS also includes additional noise mitigation, including assisting Barrington, Illinois to maintain their existing quiet zone and mitigation for Fermi Lab in Batavia, Illinois.

8) Even though the Proposed Action would increase the transport of hazardous materials on the EJ&E rail line, SEA concludes that the likelihood of a hazardous materials spill would be extremely low. SEA further concludes that both the existing regulations and the Applicants' current system of spill prevention and emergency spill response, should a spill occur, are both effective and provide a better plan than other containment measures raised in comments (such as impermeable membranes).

9) In response to comments on the Draft EIS related to school and pedestrian safety, SEA did additional analysis and provides examples of approaches to ensure safety that potentially affected communities could consider to protect the safety of children and others. With regard to community quality of life issues, SEA concludes that air emissions, noise, vibration, and traffic delays from the increase in train traffic on the

EJ&E rail line would annoy residents located near the EJ&E rail line. But these potential adverse effects are not expected to be great enough to induce a large number of residents to change their behavior or move, and impacts would be limited to the vicinity of the EJ&E rail line. And while the Proposed Action could have some adverse impact on property values, SEA's analysis shows that the impacts typically would be far less than the amounts claimed by some commenters.

10) As a result of its public and agency outreach, SEA established a Natural Resources/Water Resources Stakeholder Group and recommends that the Applicants designate a local resource agency liaison to work closely with this stakeholder group to ensure that adaptive management strategies are developed to protect the area's threatened and endangered species habitat and sensitive ecological resources, such as Cuba Marsh, near Barrington, Illinois, and the Lake Renwick heron rookery. In addition, the Final EIS contains mitigation for Pratt's Wayne Woods Forest Preserve near Wayne, Illinois.

11) Based on extensive informal consultation with the U.S. Fish and Wildlife Service, SEA concludes that the Proposed Action may affect, but is not likely to adversely affect, listed threatened or endangered species.

12) SEA concludes that the Proposed Action would not affect any property eligible or listed on the National Register of Historic Places within the transaction-related area of potential affects.

13) SEA determines that the Applicants' preferred alternatives for each of the proposed rail connections, including the Revised Matteson Connection and Revised Double Track-Leithton Connection, are also the environmentally preferred alternatives, because the Applicants' modifications would improve existing rail infrastructure and reduce delay at adjacent highway/rail at-grade crossings.

14) Based on its independent environmental analysis and review of all public and agency comments, SEA recommends that the Board require the Applicants to implement the environmental mitigation measures set forth in both the Executive Summary and Chapter 4 of this Final EIS, which includes all of the Applicants' voluntary mitigation, as conditions in any final decision approving the Proposed Action. SEA's final recommended mitigation also requires the Applicants to comply with the terms of the Negotiated Agreements with Joliet, Illinois, and with Crest Hill, Illinois, and mitigation for the transaction-related construction activities.

15) SEA is recommending a five-year environmental reporting and monitoring period that would require the Applicants to file quarterly reports on their progress in implementing the Board's final mitigation and allow the Board to take appropriate action if there is a material change in the facts or circumstances upon which the Board relied in imposing specific environmental mitigation conditions.

16) Finally, SEA continues to encourage communities and the Applicants to reach Negotiated Agreements at any time (including during the reporting period should the Proposed Action be approved). Mutually acceptable Negotiated Agreements can be more far reaching than site-specific Board recommended mitigation and are tailored to the specific needs of the community.

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Executive Summary

Introduction

The Surface Transportation Board, Section of Environmental Analysis (SEA), prepared this Final Environmental Impact Statement (Final EIS) to identify and evaluate the potential beneficial and adverse environmental impacts of the Canadian National Railway Company and Grand Trunk Corporation (collectively, CN or the Applicants) proposal to acquire control of the EJ&E West Company, a wholly owned non-carrier subsidiary of Elgin, Joliet and Eastern Railway Company (EJ&E). During its environmental review process, SEA considered a range of environmental issues potentially affecting a large number of communities on a system-wide, regional, and local level. This approach allowed SEA to identify and assess potential environmental benefits and adverse impacts, and develop reasonable mitigation measures that would address potentially adverse impacts should the Proposed Action be approved. Throughout the environmental review process, SEA sought public input from agencies, elected officials, organizations, businesses, individuals, and other stakeholders.

This case involves the acquisition of the EJ&E rail line, which has provided railroad transportation service to the Chicago region for 120 years. Communities along the EJ&E rail line have benefited from the freight and passenger transportation services created by the EJ&E. These services enabled or enhanced the ability of these communities to become centers for commerce and services, and function as a shipping point for farm commodities. The EJ&E rail line encouraged the development of economic activity that required rail transportation such as farming of grain and general manufacturing. The EJ&E rail line also enabled homes and businesses to purchase coal for home heating moved by rail from southern and central Illinois coal fields. Train volumes on the EJ&E rail line have fluctuated during its history in response to technological and economic changes, but there has always been some rail traffic on the line. Regular passenger service was provided in the early 1900s on most of the EJ&E rail line but was discontinued as electrified interurban railways replaced its steam-hauled trains. During World War II, the EJ&E rail line generated as many as fifty trains per day to support Chicago's steel and heavy manufacturing industries. The EJ&E rail line continued to thrive throughout most of the 1950s and 1960s. While traffic levels declined during the 1970s, it rebounded in the early 1990s when the rail lines that pass through the center of Chicago became more congested and the EJ&E rail line became an alternative route for freight moving through Chicago, such as coal and containerized import/export freight. Throughout its history, the EJ&E rail line has been an integral part of the rail system and economic infrastructure of Chicago, supporting the needs of the many railroads that move traffic through the city and, numerous local rail-dependent shippers.

Under the Proposed Action, the Applicants would use EJ&E's rail line to connect all five of CN's rail lines in the Chicago, Illinois, metropolitan area. The EJ&E rail line, located in northeastern Illinois and northwestern Indiana, extends in an arc around Chicago, Illinois. Figure ES- 1, Project Vicinity, shows the existing CN and EJ&E rail systems in the Greater Chicago, Illinois, area.

CN would shift much of the rail traffic currently moving over CN's rail lines in Chicago to the EJ&E rail line. Rail traffic on CN rail lines inside the EJ&E arc would generally decrease, and the number of trains operating on the EJ&E rail line outside Chicago would increase. The proposed transaction would also involve construction of several short rail connections and five segments of siding extensions, or second mainline track (double track), totaling approximately 19 miles, predominantly within existing rights-of-way (ROW).


Waukegan
North Chicago
Green Oaks
Libertyville
Lake Bluff
Mundelein
Hawthorn Woods
Mettawa
Vernon Hills
Lincolnshire
Lake Zurich
Long Grove
Buffalo Grove
Deer Park
Barrington
Barrington Hills
Lake Co.
McHenry Co.
Cook Co.
Kane Co.
Wheeling
Prospect Heights
South Barrington
Hoffman Estates
Mount Prospect
Des Plaines
Elgin
South Elgin
Hanover Park
Bartlett
O'Hare Airport
Bloomingdale
Freeport Subdivision
Waukesha Subdivision
Chicago
Lake Michigan
Wayne
Carol Stream
Addison
Glendale Heights
Elmhurst
Melrose Park
River Grove
River Forest
West Chicago
Villa Park
Hillside
Berwyn
Cicero
Westchester
Riverside
Warrenville
Aurora
Eola
Naperville
Willow Springs
Justice
Western Subdivision
Kane Co.
Kendall Co.
DuPage Co.
Will Co.
Joliet Subdivision
Elsdon Subdivision
Chicago Subdivision
Lake Front Line
Whiting Line
Normantown
Romeoville
Plainfield
Lemont
Crest Hill
Lockport
Fairmont
Joliet
New Lenox
Brisbane
Frankfort
Matteson
Eastern Subdivision
Illinois River Line
Harvey
Hazel Crest
South Holland
Homewood
Flossmoor
Chicago Heights
Richton Park
Park Forest
Sauk Village
Cook Co.
Will Co.
University Park
Monee
Manhattan
Minooka
Kendall Co.
Grundy Co.
Gary / Chicago Airport
South Bend Subdivision
Munster
Highland
Dyer
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Sources:
U.S. Census TIGER Data, CN,
National Transportation Atlas Database
Data to be used for reference only.
EJ&E Rail Line
CN Rail Line
Other Rail Line
CN | EJ&E
Environmental Impact Statement
Figure ES-1
Project Vicinity

Chicago, Illinois, is unique in that it is the only city in the United States where six Class I railroad systems (those having annual carrier operating revenues of $250 million or more) meet to exchange freight. In Chicago, the railroads exchange freight between the East, West, and Gulf coasts and between the United States and Canada. In addition to the six Class I railroads with rail lines in Chicago, a seventh Class I railroad functions by means of trackage rights. This allows Kansas City Southern (KCS) to operate its trains over another railroad's tracks. Thus, all seven of the North American Class I freight railroads converge in Chicago.

More than 600 freight trains operate within Chicago each day, transporting approximately 37,500 rail cars carrying 2.5 million tons of freight.

The major rail lines meet in the Chicago Terminal District, a 2,800-mile network of rail lines within the Chicago metropolitan area. The district comprises 70 yards and more than 1,950 at-grade crossings. The at-grade crossings include both rail/rail crossings, where rail lines intersect, and highway/rail crossings, where a rail line and a road meet at the same level.

Numerous smaller regional and switching railroads operating in Chicago connect Class I railroads and provide short-haul capacity within the Chicago Terminal District. The Class I railroads also use the rail lines of these switching railroads, by means of trackage rights, to connect from one rail line to another within the Chicago metropolitan area. One-third of all rail freight in the United States moves to, from, or through Chicago. More than 600 freight trains operate within the Chicago Terminal District each day, transporting an average of 37,500 rail freight cars carrying about 2.5 million tons of freight.

Trains providing passenger service in the Chicago metropolitan area and from Chicago to other cities also operate on the rail network within Chicago. Currently, Amtrak operates about 78 trains per day in the Chicago metropolitan area. Metra, the commuter rail division of the Regional Transportation Authority of Northeast Illinois (RTA), provides commuter service on its own rail lines and also has trackage rights on freight railroads. Metra operates 720 trains per day and the Northern Indiana Commuter Transportation District (NICTD) operates 41 trains per day.

Metra's rail lines are intertwined with Class I freight rail lines through a series of parallel tracks, trackage rights granted to Metra on freight rail lines, and dozens of rail/rail at-grade crossings. Freight trains use many of the same tracks and critical junctions as the Metra trains. During each weekday rush hour, freight movements are substantially curtailed while Metra and Amtrak passenger trains take priority. The large volume of freight and passenger trains moving on these rail lines (more than 1,400 trains per day), and the use of the same rail lines by multiple rail companies result in delays as trains wait to cross other rail segments. Delays also occur as Class I railroads wait to use switching rail lines and yards within the Chicago Terminal District. Because of rail traffic congestion, a CN freight train can take more than 24 hours to travel through an area about 30 miles in length, from near O'Hare International Airport to near Blue Island, Illinois.

This Final EIS should be read in conjunction with the Draft EIS, which provides more detailed information on the Proposed Action and alternatives for agency decision-makers and the public. The Draft EIS describes the project's Purpose and Need; the Proposed Action and alternatives; the existing environment, the potential environmental benefits and adverse impacts associated with the Proposed Action, and the Applicants' voluntary mitigation measures, along with SEA's suggested mitigation conditions. The Final EIS responds to public comments on the Draft EIS; identifies corrections and changes to information presented in the Draft EIS; discusses SEA's conclusions regarding environmental effects; and includes its final environmental mitigation recommendations to the Surface Transportation Board (the Board). Furthermore, the Final EIS reflects additional work on all of the rail operations and resource issues raised during the Draft EIS comment period. Both the Draft EIS and the Final EIS are available on the Board's website (http://www.stb.dot.gov).

Following the issuance of the Final EIS, the Board will decide whether to approve, approve with conditions, or deny CN's request to acquire the EJ&E. To reach its decision, the Board will consider the Draft and Final EIS, including CN's voluntary mitigation measures. SEA's recommended mitigation measures, the public and agency comments received on the Draft EIS, and any other relevant environmental information. The Board has stated that it will issue a final decision on the CN Application as soon as possible after the issuance of the Final EIS.

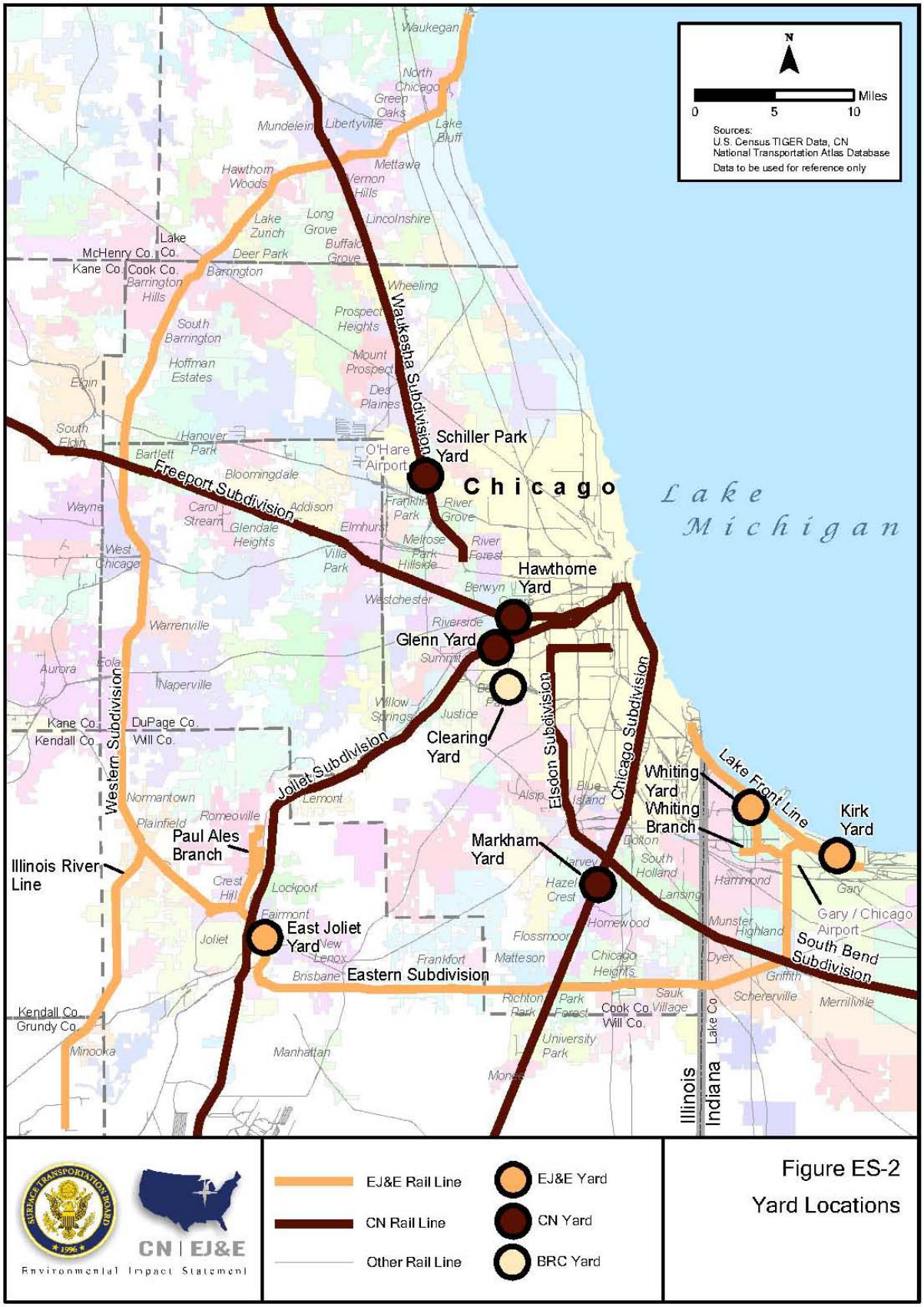
Purpose and Need for the Proposed Transaction

The Applicants give three primary purposes for seeking to acquire control of the EJ&E rail line:

- To improve the Applicants' operations in and beyond the Chicago metropolitan area by providing a continuous rail route around Chicago, under CN's ownership, that would connect its five rail lines radiating from Chicago
- To make EJ&E's Kirk Yard, as well as smaller facilities at East Joliet, Illinois, and Whiting, Indiana, available to the Applicants, enabling them to consolidate rail car classification work, thereby reducing the use of the Belt Railway Company of Chicago (BRC) Clearing Yard
- To allow the CN system to benefit from an important supply line that EJ&E provides for North American steel, chemical, and petrochemical industries, as well as utility companies, enabling the Applicants to develop more extensive relationships with these industries and the companies that serve them

The Applicants maintain that the availability of a continuous CN route around Chicago, and its connection to the five CN rail lines radiating from Chicago, would greatly improve the fluidity of intermodal (and other) CN traffic that must move into, from, or through Chicago. The Applicants maintain that the Proposed Action, if approved, would result in more efficient rail traffic flow by shifting much of CN's rail traffic in the Chicago Terminal District to the EJ&E rail line, which would reduce CN's use of congested switching rail lines to connect its rail lines. The Applicants state that shifting a large portion of the CN rail traffic to the EJ&E rail line would decrease the traffic density in Chicago's urban core.

The Applicants state that trains traveling within Chicago currently experience delays because of the congested rail lines and the reliance on the Belt Railway Company of Chicago (BRC) Clearing Yard for switching traffic between rail subdivisions. Most of the Class I freight railroads in Chicago use the BRC Clearing Yard for train classification. According to the Applicants, acquisition of Kirk Yard and other EJ&E yards located along the EJ&E rail line and near the edge of the congested Chicago Terminal District would permit CN to use these yards to classify and switch trains passing through the Chicago metropolitan area. Approval of the Proposed Action by the Board would allow trains that stop in the Chicago metropolitan area for crew changes, locomotive inspections, and delivery of goods to industries use the EJ&E rail line, and Kirk and East Joliet yards. The Applicants expect this to reduce the number of CN trains that, though bound for other destinations, would otherwise need to travel into Chicago. The proposed transaction would reduce classification work at CN's Glenn, Hawthorne, and Markham yards and at the BRC Clearing Yard. See Figure ES- 2 for yard locations in the Chicago metropolitan area.


N
Miles
0
5
10
Sources:
U.S. Census TIGER Data, CN
National Transportation Atlas Database
Data to be used for reference only
Waukegan
North Chicago
Green Oaks
Mundelein
Libertyville
Lake Bluff
Hawthorn Woods
Mettawa
Vernon Hills
Lincolnshire
Lake Zurich
Long Grove
Buffalo Grove
Deer Park
Barrington
Barrington Hills
Lake
McHenry Co.
Kane Co.
Cook Co.
Wheeling
Prospect Heights
Waukesha Subdivision
South Barrington
Hoffman Estates
Mount Prospect
Des Plaines
Elgin
South Elgin
Hanover Park
Bartlett
O'Hare Airport
Schiller Park Yard
Chicago
Lake Michigan
Freeport Subdivision
Bloomingdale
Wayne
Carol Stream
Addison
Franklin Park
River Grove
Glendale Heights
Elmhurst
Melrose Park
River Forest
West Chicago
Villa Park
Hillside
Hawthorne Yard
Berwyn
Westchester
Warrenville
Riverside
Glenn Yard
Summit
Aurora
Eola
Naperville
Willow Springs
Justice
Clearing Yard
Western Subdivision
Kane Co.
Kendall Co.
DuPage Co.
Will Co.
Joliet Subdivision
Elsdon Subdivision
Chicago Subdivision
Whiting Yard
Whiting Branch
Lake Front Line
Kirk Yard
Normantown
Lemont
Alsip
Blue Island
Dolton
Romeoville
Plainfield
Paul Ales Branch
Markham Yard
South Holland
Harvey
Illinois River Line
Crest Hill
Lockport
Hazel Crest
Harrimond
Lansing
Gary
Fairmont
East Joliet Yard
New Lenox
Homewood
Flossmoor
Munster
Highland
Gary / Chicago Airport
Joliet
Frankfort
Matteson
Chicago Heights
Dyer
South Bend Subdivision
Brisbane
Eastern Subdivision
Griffith
Richton Park
Park Forest
Sauk Village
Schererville
Merrillville
Cook Co.
Will Co.
Kendall Co.
Grundy Co.
Minooka
Manhattan
University Park
Lake Co.
Illinois
Indiana
SURFACE TRANSPORTATION BOARD
1996
CN | EJ&E
Environmental Impact Statement
EJ&E Rail Line
CN Rail Line
Other Rail Line
EJ&E Yard
CN Yard
BRC Yard
Figure ES-2
Yard Locations

According to the Applicants, approval of the proposed transaction would enable CN to improve its service to many companies in the Chicago metropolitan area and to companies shipping products through Chicago by reducing congestion and expediting shipments on CN rail lines. The Applicants maintain that shippers would benefit from shortened transit times through the Chicago Terminal District.

Description of the Proposed Action

The Applicants are seeking the Board's authorization, under 49 USC 11323- 11325, to acquire control of EJ&E's land, rail line, and related assets. Under the Proposed Action, CN would redirect its trains from the five CN subdivisions in Chicago to the EJ&E rail line, greatly increasing the volume of freight rail traffic along the EJ&E rail line, which would result in a corresponding decrease in the volume of freight rail traffic along the CN subdivisions. Figure ES- 3 below, shows the proposed changes in rail traffic volumes.

Connected Actions

The Proposed Action would also result in: 1) the construction of new rail connecting tracks at Munger (near Wayne, Illinois), Joliet, Illinois, and Matteson, Illinois, and at Griffith, Indiana, Ivanhoe (in Gary, Indiana), and Kirk Yard in Gary, Indiana; 2) the construction of five segments totaling 19 miles of double track to augment the existing single track, at or near Leithton, Illinois (near Mundelein, Illinois); Diamond Lake Road to Gilmer Road near Mundelein, Illinois; East Siding to Walker, Illinois, (two segments) near Aurora, Illinois, Naperville, Illinois, and Plainfield, Illinois; and East Joliet to Frankfort, Illinois; and 3) an increased use of Kirk Yard and East Joliet Yard for rail car classification and train assembly and disassembly. Although the proposed construction activities and changes in yard operations do not require prior Board approval, SEA analyzed the potential environmental impacts of these related actions because they would not occur but for the Proposed Action and are connected actions. Figure ES- 4 shows the locations of the proposed new double track construction, the connecting tracks between existing rail lines, and the location of the Kirk Yard and East Joliet Yard.

SEA conducted an independent investigation to examine the Applicants' proposed connecting tracks between existing railroad lines to determine if alternative locations or configurations would meet the purpose of and need for the Proposed Action while minimizing adverse environmental effects. For each connection, SEA considered the Applicants' proposed connection, a No-Build Alternative, and alternative configurations developed by SEA, where appropriate.

Railroads may add trackage and change operations within their existing rights-of-way at any time without Board approval. Under the Proposed Action, construction of 19 miles of double track and changes in yard operations would predominantly occur within the existing EJ&E rail line right-of-way. No feasible alternatives to the double track or yard operations were identified by SEA. Therefore, SEA did not analyze alternatives to the construction of double track or changes to yard operations.

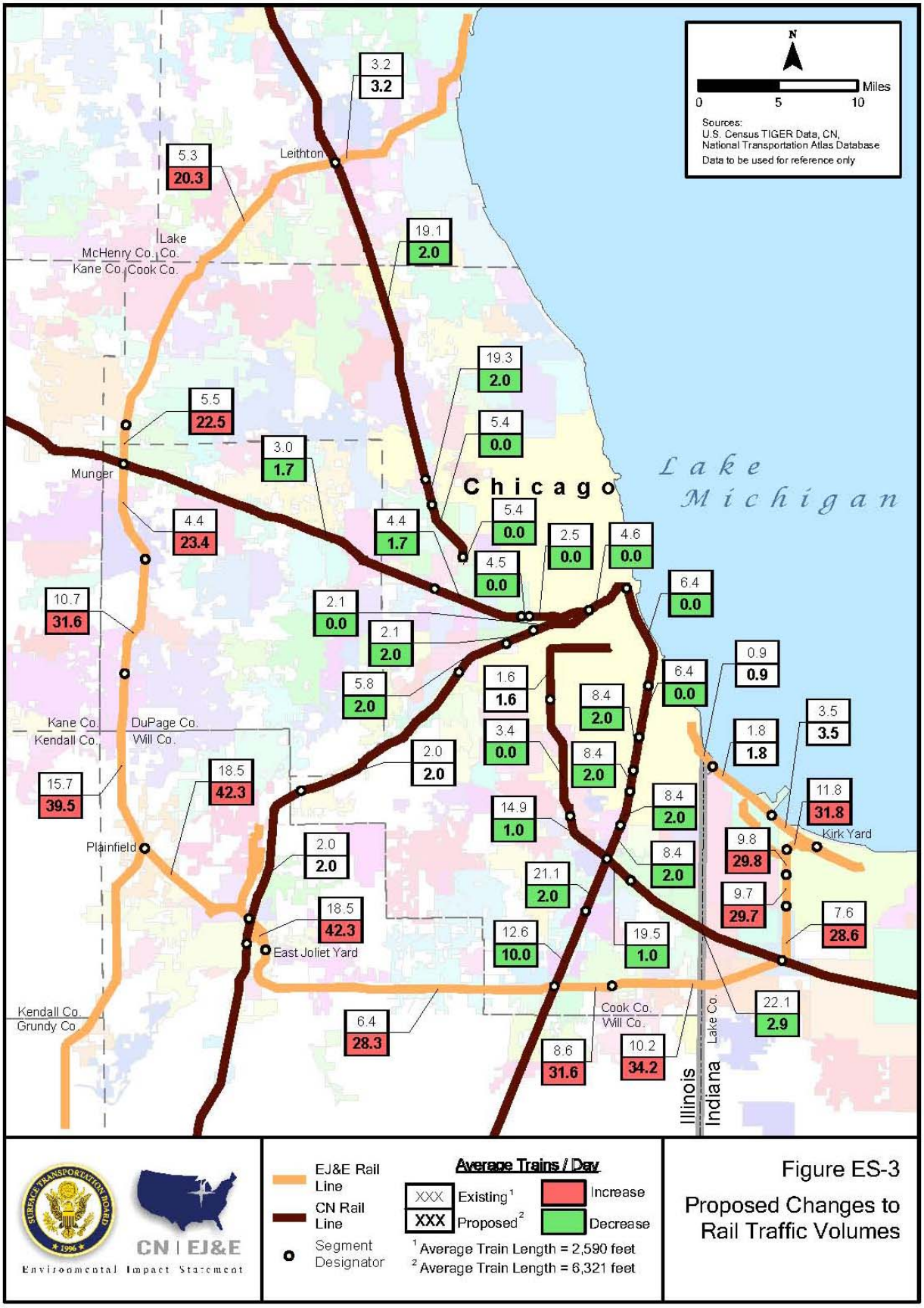


Figure ES-3
Proposed Changes to Rail Traffic Volumes



Figure ES-4
Proposed Connections and Double Track Locations

Alternatives to the Proposed Action

SEA evaluated three alternatives: the Proposed Action, the No-Action, and the Proposed Action with conditions, including environmental mitigation measures. SEA initially considered another four alternatives, but eliminated them from detailed study because they did not meet the Applicants' purpose and need.

No-Action Alternative

The Council on Environmental Quality's (CEQ) regulations implementing the National Environmental Policy Act (NEPA) of 1969, as amended (40 CFR 1502.14(d)) require consideration of a No-Action alternative. The No-Action alternative provides a basis for understanding the impacts of the Proposed Action. Under the No-Action Alternative, the Applicants would not acquire control of the EJ&E land, rail line, and related assets, and SEA assessed rail operations on the EJ&E rail line at existing levels. The Applicants would continue to make connecting train movements through the Chicago Terminal District in the same manner as the movements now occur, would not construct the proposed improvements to the proposed connections or the double track, and would not make changes to existing yard operations.

Proposed Action with Conditions

The Proposed Action with Conditions is the alternative under which the Board would approve the proposed CN acquisition of the EJ&E with specific conditions and mitigation requirements, including environmental mitigation conditions. The Proposed Action with Conditions Alternative could also include potential modifications resulting from proposals by other parties requesting modifications or alterations to the Proposed Action and negotiated agreements between the Applicant and communities or other governmental units that address potential environmental impacts or other issues.

Alternatives Eliminated from Detailed Analysis

SEA considered four additional alternatives, but found them to be unreasonable because they would not meet the Applicants' purpose of and need for the Proposed Action. These alternatives were: 1) expanded trackage rights to CN; 2) implementation of the Chicago Region Environmental and Transportation Efficiency (CREATE) Program in lieu of CN's acquisition of the EJ&E rail line; 3) acquisition of a different rail line within the Chicago metropolitan area; and 4) construction of a bypass outside of the EJ&E rail line in Northern Illinois. In general, SEA found these alternatives to be unreasonable because they would not give CN full ownership and use of a continuous rail route around Chicago, the Applicants could not gain access to EJ&E rail yards, the alternative(s) would be more expensive, or they would have more of an adverse effect on the environment than the Proposed Action would have.

Overview of Environmental Activities since the Draft EIS

As part of its ongoing environmental review, and in response to public and agency comments on the Draft EIS, SEA prepared revised information to clarify, update, and correct some of the information contained in the Draft EIS. SEA made substantive corrections or additions to data and incorporated changes received from the Applicants. In addition, SEA conducted additional analysis and evaluated new information furnished or suggested by agencies and the public during the public comment period, as described below. The results of SEA's additional evaluations are fully presented in Chapter 2 of the Final EIS.

Revised Matteson Connection

SEA conducted additional evaluations and assessed the potential effects resulting from planned changes in rail operations, and the associated construction due to revisions to the Proposed Matteson Connection alternative. The proposed connection at Matteson, as presented by the Applicants in their October 2007 Application, limited the maximum operating speed along the EJ&E double track rail line to 25 mph. Following issuance of the Draft EIS, the Applicants revised the Proposed Matteson Connection to accommodate a maximum operating speed of 40 mph on the main track. Increasing main track speeds for through-trains from 25 to 40 mph would reduce vehicle delays at nearby highway/rail at-grade crossings such as Cicero Road, Main Street, and Western Avenue.

SEA evaluated the Revised Matteson Connection for potential environmental effects. The results of SEA's evaluation are presented in Chapter 2 of the Final EIS. SEA concludes that the Revised Matteson Connection is the environmentally preferred alternative.

Revised Double Track-Leithton Connection

For the Final EIS, SEA conducted additional evaluations and assessed the potential effects resulting from planned changes in rail alignment and from the associated construction due to the Revised Double Track-Leithton Connection. The Revised Double Track-Leithton Connection involves the construction of a new double track connection and the removal of an existing single track connection between the EJ&E rail line and the CN Waukesha Subdivision line. The Applicants revised the initial design of the proposed connection to allow higher train speeds. As a result of the higher train speeds, potential vehicular delays at highway/rail at-grade crossings would be reduced (including Allanson Road, Diamond Lake Road, and IL 60/83). Therefore, SEA concludes that this alternative would be environmentally preferable.

The results of SEA's re-evaluation of the Revised Double Track-Leithton Connection are presented in Chapter 2 of the Final EIS.

Commuter Rail Services

In response to comments on the Draft EIS, SEA conducted additional analysis of the potential impacts of the Proposed Action on the Metra STAR Line service and the NICTD Commuter Service. Based on the additional analysis, SEA concludes that, with some additional track infrastructure, it would be feasible for Metra and CN to jointly operate freight and commuter passenger service on the EJ&E rail line, similar to the way that Metra currently co-exists with several other freight railroads in the Chicago region. SEA estimates that the added infrastructure to allow for the STAR Line service would potentially add only a nominal amount (between 2 and 9 percent) to the capital cost of the EJ&E segment of the STAR Line. For these reasons, SEA concludes that the Proposed Action would not have a substantial adverse effect on the potential implementation of the STAR Line service using the EJ&E rail line.

In the Draft EIS, SEA concluded that NICTD's proposed commuter service expansions did not require analysis. However, in order to address commenters' concerns about this issue, SEA did analyze the West Lake Corridor commuter service rail alternatives as reasonably foreseeable commuter rail service in this Final EIS. Following this analysis, SEA concludes that the Proposed Action could potentially benefit the future NICTD expansion plans.

School Safety

SEA conducted an additional evaluation of the proximity of schools to the rail lines in response to comments expressing concern over the effects that the Proposed Action would have on school safety and on school bus and student delays. With respect to school safety, the state and the communities

have authority over the warning and safety devices at highway/rail at-grade crossings along the EJ&E or CN rail line and are responsible for considering pedestrian traffic (including students) and the types of warning devices that are appropriate. Therefore, in the Final EIS, SEA provides examples of safety recommendations that these jurisdictions could consider.

In addition to concern for students walking and driving to and from school, commenters on the Draft EIS raised concerns ranging from crossing the tracks at locations other than designated crosswalks and accidents/derailments, which may include hazardous materials, and timely emergency response should crossings be blocked by a train. To address these concerns in the Final EIS, SEA identified the number of schools located along the rail lines that would see a change in train traffic as a result of the Proposed Action. As explained in this Final EIS, there are 44 schools within 0.25 mile of the EJ&E rail line and 118 schools within 0.25 mile of the CN lines; there are 344 schools within 2 miles of the EJ&E rail line and 983 schools within 2 miles of the CN rail lines.

With respect to school bus delays, the Final EIS clarifies that the potential for delayed operations of the school bus fleet is the same as that for all other vehicles. In other words, existing congestion occurring in proximity to schools would continue to delay all traffic, including school buses. Subsequent to publication of the Draft EIS, new train data and traffic counts were supplied to SEA by the Applicants, the Illinois Department of Transportation, and the City of Plainfield; SEA revised its analysis using the updated data. SEA's new vehicle delay analyses found that vehicles in the study area would experience an average increase of 0.6 minutes of delay per delayed vehicle at intersections along the EJ&E line, and a decrease of 0.9 minutes of delay per delayed vehicle at intersections along the CN Study Area segments.

Updated Transportation Information

SEA updated its analysis of transportation systems based on new or revised information on average daily traffic counts and potential effects resulting from changes to: highway/rail at-grade crossings; delays to emergency services; rail operations and safety; air quality; and intersection mobility. The Draft EIS listed 16 crossings as substantially affected. After publication of the Draft EIS, SEA received updated information that resulted in re-analysis of any adverse effects the Proposed Action might have on transportation systems. Updated information includes average daily traffic volumes or number of vehicles per day and train operations. SEA's updated analysis resulted in 13 highway/rail at-grade crossings being designated as substantially affected by the Proposed Action. Additional analysis was also conducted with emergency services facilities and is presented in Chapter 2 of this Final EIS.

Hazardous Materials Transport

In response to comments on the Draft EIS, SEA revised its analysis of hazardous materials transport and the potential effects of spillage on water resources and wetlands. Further information about the types of hazardous materials that are currently and would be hauled by the Applicants and spill prevention measures were also provided.

The analysis in the Draft EIS shows that the risk of a hazardous material spill at any one specific location along the EJ&E rail line would be extremely low. Further, since the same commodity groups (for example, combustible liquids, corrosive materials, explosives, hazardous waste, poisonous gases, and radioactive materials) would be carried on the EJ&E rail line as are currently carried on the CN subdivisions, emergency responders would face the same incident-specific issues they face today. In addition, the CN subdivisions are generally in more densely populated areas. SEA anticipates that, in the unlikely event of a hazardous materials spill, the spill would potentially lead to environmental exposure of relatively short duration. The spill would be limited by the volume in the railcar.

Moreover, existing regulations, the Applicants' voluntary mitigation, and SEA's proposed final mitigation would ensure prompt containment and cleanup of any spill.

SEA also re-examined potential impacts to groundwater and wells as a result of a hazardous material spill. Additional analysis following the publication of the Draft EIS identified an area near Joliet, Illinois, where the Silurian dolomite aquifer has a relatively high potential for ground water contamination from a hazardous materials spill. In the unlikely event that a contaminant was released in these areas, public and private wells drilled into bedrock in the vicinity of the release could be affected. The precise number of affected wells cannot be determined because of the absence of information on the type of hazardous material, the specific location of the release, the amount of the release, the effectiveness of the response, and specific hydrogeological factors such as fracture patterns, well construction, pumping rates and general flow directions. It should be noted, however, that since hazardous materials are already transported on the EJ&E rail line, the threat to these wells already exists. The Proposed Action changes the likelihood that a given well could be affected, but does not change the potentially affected areas or populations. If a spill were to occur, Applicants would be required by law to mitigate the impacts by remediating the groundwater resource and/or providing an alternate supply of water to the property owner.

Socioeconomics and Quality of Life

SEA conducted additional analysis on effects to property values and potential effects to residential property taxes for this Final EIS. The additional analysis included a supplemental literature search to find studies of potential effects of freight rail traffic on property values or other closely related studies, a comparative assessment of current residential property values along the EJ&E rail line, an estimate of the number of residences potentially affected by changes in rail traffic, and an estimate of the extent of the effect to residential property values and tax revenues for the communities that would experience additional freight train traffic. Nothing in the additional analysis changes the basic conclusions in the Draft EIS.

Environmental Justice

SEA re-assessed the potential effects on environmental justice communities based on new and revised information. The environmental justice analysis presented in the Draft EIS has been updated based on the additional analyses of noise, safety, and traffic delay included in this Final EIS and recalculation of the environmental justice threshold criteria. SEA reanalyzed the environmental justice criteria for minority and low-income populations. Based on the additional analysis, SEA concluded that minority and low-income populations were not likely to experience high and adverse impacts due to safety concerns, vehicle delay, construction, or exposure to hazardous materials. SEA also identified benefits to minority and low-income populations along the CN rail lines as a result of decreased train traffic along the CN lines, corresponding with decreased train noise, vehicle/train interaction frequency, and vehicular delay at crossings. Results of the additional environmental justice analysis, which confirm the conclusions of the Draft EIS, are included in Chapter 2 of the Final EIS.

Air Quality

A number of comments received on the Draft EIS raised concerns about localized effects to air quality from locomotive emissions. In response, SEA conducted additional air quality analysis using dispersion modeling, presented in Chapter 2 of this Final EIS. This quantitative analysis addressed emissions from moving trains and emissions from idling trains on sidings. Effects to air quality focused on:

- Criteria air pollutants-those for which National Ambient Air Quality Standards have been established
- Mobile source air toxic pollutants

Climate change is also addressed in Chapter 2 of this Final EIS. As a result of the additional analysis, SEA validated the conclusions in the Draft EIS that the Proposed Action air quality impacts would be minor.

Noise and Vibration

As a result of comments on the Draft EIS, SEA refined the analysis of noise associated with the Proposed Action to more fully address noise associated with connections, crossovers, and wheel squeal on curved track. SEA also refined the analysis of ground-borne vibration on historic structures and construction vibration. Additionally, SEA assessed the cost-effectiveness of noise mitigation measures at 96 locations along the EJ&E corridor. SEA concludes that the Applicants' proposed voluntary mitigation measures would result in meaningful and appropriate noise reduction. In addition, SEA proposes additional noise mitigation regarding maintaining an existing quiet zone in Barrington, Illinois, and vibration mitigation for Fermi Lab.

Biological Resources

In response to Draft EIS comments from the Department of Interior's U.S. Fish and Wildlife Service (USFWS), SEA undertook additional analysis for the Federally-listed Hine's emerald dragonfly, the Karner blue butterfly, the Eastern prairie fringed orchid/Prairie white fringed orchid, and the Indiana bat. Additional coordination with USFWS and the Illinois and Indiana departments of natural resources was also conducted on these species and their associated habitat. A biological report was prepared that documents the results of the coordination and specific investigations and analysis undertaken. The biological report is contained in Appendix A of this Final EIS. Following informal consultation with the USFWS, the Applicants proposed six additional voluntary mitigation measures to address transaction-related impacts to a number of important species. SEA concludes in the Final EIS that the Proposed Action may affect, but is not likely to adversely affect, listed threatened or endangered species.

Cumulative and Indirect Effects

SEA reviewed the locations where other railroads intersect or run parallel to the EJ&E rail line to determine whether implementation of the Proposed Action could result in additional cumulative or indirect effects on rail/rail at-grade crossings and nearby highway/rail crossings that were not addressed in the Draft EIS. For this analysis, SEA examined the potential indirect and cumulative effects where other railroads cross the EJ&E rail line. SEA concluded that any potential for cumulative or indirect effects would be reduced by the Applicants' voluntary mitigation measure VM 38, where the Applicants commit to operate the key interlockings (rail/rail at-grade crossings) in accordance with the current agreements.

Monitoring and Enforcement

Should the Proposed Action be approved, SEA is recommending a five-year environmental reporting and monitoring period that would require quarterly reporting from the Applicants on the implementation of the Board's final environmental mitigation and allow the Board to take appropriate action, if warranted, if there is a material change in the facts or circumstances upon which the Board relied in imposing specific environmental mitigation conditions.

Corrections to the Draft EIS

Corrections to the Draft EIS are presented in Section 2.14 of this Final EIS.

Public Outreach and Agency Coordination

SEA conducted extensive public outreach and agency coordination. Public participation throughout the environmental review process has been extraordinary and unprecedented: more than 3,400 scoping comments were received; approximately 4,600 people attended the Draft EIS public meetings; and over 9,500 comment documents were received on the Draft EIS addressing more than 55,000 issues and concerns. Interested parties, Federal, state, and local agencies, Federally-recognized tribes, elected officials, low-income and minority groups, potentially affected communities, and the general public all actively participated in the environmental review process.

Scoping

The Board published a Notice of Intent to Prepare an EIS in the Federal Register on December 21, 2007, to request comments on the scope for the EIS as required by the CEQ regulations implementing NEPA and the Board's regulations at 49 CFR 1105.10(a). SEA held 14 scoping open house meetings at seven locations in January 2008. The scoping comment period concluded on February 15, 2008. After reviewing and considering all comments received, the Board published the Notice of Availability of the Final Scope of Study for the EIS in the Federal Register on April 28, 2008.

Commenting on the Draft EIS

SEA issued the Draft EIS on July 25, 2008, and made it available for public review and comment for a 60-day period. In addition to soliciting written comments on the Draft EIS, SEA held eight open house/public meetings throughout the Study Area, as shown in Table ES- 1 below. Each meeting included an open house session and a more formal public meeting during which attendees could present oral comments. Comment forms were provided in several languages, including Spanish, Polish, and Chinese, at the public meetings and were accepted on-site or by mail. The project toll-free telephone line remained open for the duration of the comment period to record comments over phone lines; commenters could also submit electronic comments through the STB's website (www.stb.dot.gov).

Table ES- 1. Summary of Draft EIS Public Meetings

Date	Location	Approximate # of Attendees	#Speakers
Monday, August 25, 2008	Matteson, Illinois Holiday Inn Hotel & Conference Center	350	33
Tuesday, August 26, 2008	Mundelein, Illinois Crowne Plaza Chicago North Shore	200	35
Wednesday, August 27 , 2008	Barrington, Illinois Barrington High School	3,000	69
Thursday, August 28 , 2008	Bartlett, Illinois Bartlett High School	250	38
Monday, September 8, 2008	Chicago, Illinois Loyola University of Chicago	75	21
Tuesday, September 9, 2008	Aurora, Illinois West Aurora High School	420	55

Wednesday, September 10, 2008	Gary, Indiana Indiana University Northwest	100	19
Thursday, September 11, 2008	Joliet, Illinois Holiday Inn Hotel & Conference Center	250	35
TOTAL		**4,645 Attendees**	**305 Speakers**

The following outreach efforts were also undertaken:

- On July 25, 2008, the Board issued a press release to regional media outlets announcing the availability of the Draft EIS; the press release was reissued to the regional press prior to the eight public meetings referenced above.
- SEA placed posters announcing the eight Draft EIS public meetings in 53 public libraries, 53 city halls, and 47 chambers of commerce in the Chicago metropolitan area.
- SEA maintained a website (http://www.stbfinancedocket35087.com) throughout the environmental review process. The website includes information regarding the project, the environmental review schedule, public involvement opportunities and contact information, information requests from SEA and responses from the Applicants, published documents including the Scope of Study and the Draft EIS, current news and project information, and Frequently Asked Questions. The website has been continually updated to include reports of the types and quantities of comments received during the comment period.
- SEA has maintained a bilingual toll-free project information hotline throughout the project's duration.

Agency and Elected Official Outreach

SEA notified 20 Congressional members, 31 State of Illinois elected officials, and 10 State of Indiana elected officials of the public meetings. It consulted with Federal, state, and local agencies in the Chicago metropolitan area by letter, telephone, and meetings to coordinate issues, collect data, and provide information. Through its interaction with those agencies, SEA gathered data and information about the Chicago metropolitan area and related planning efforts.

Under 40 CFR 1503.2, "Federal agencies with jurisdiction by law or special expertise with respect to any environmental impact involved and agencies which are authorized to develop and enforce environmental standards shall comment on statements within their jurisdiction, expertise, or authority." The following Federal resource agencies were specifically invited to review/comment on the Draft EIS:

- U.S. Army Corps of Engineers
- U.S. Coast Guard
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- U.S. Department of Energy
- U.S. Department of Transportation

In addition, SEA mailed copies of the Draft EIS to seven Federally recognized tribal groups, seven State of Illinois agencies, five State of Indiana agencies, local agencies including county and regional governments and forest preserve districts, and other groups. SEA encouraged the recipients to submit

environmental comments for consideration in preparing the Final EIS. A list of recipients is provided in Section 5.3 in Chapter 5 of this Final EIS.

Local Governments

On June 25, 2008, SEA attended a Metropolitan Mayors Conference meeting with 27 officials from the Chicago metropolitan area. On September 30, 2008, SEA attended a meeting of the South Suburban Mayors and Managers Association, a group of stakeholders representing cities on the south side of Chicago.

Stakeholder Meetings

Prior to publication of the Draft EIS in July 2008, SEA met with Federal, state, and local agencies on April 29, April 30, and May 1, 2008, to discuss the Proposed Action. Participants with similar concerns were combined into stakeholder groups to facilitate discussion. On September 2, 3, and 4, 2008, these groups were invited to discuss their comments on the Draft EIS. A total of 31 agencies participated. Meetings were held in Chicago, Illinois, and in Hammond and Indianapolis, Indiana.

Minority and Low-Income Communities

Consistent with Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations, SEA reached out to minority and low-income populations (also known as environmental justice populations) to provide meaningful involvement opportunities, and to fully consider their concerns.

To further expand SEA's environmental justice outreach after the Draft EIS was issued, SEA identified 10 Hispanic organizations in Illinois and 27 additional African-American organizations from Illinois and Indiana. Each of these organizations received a letter and materials summarizing the Proposed Action and potential environmental effects.

Staff Briefing

The Board held a public meeting on November 18, 2008, at its Washington, D.C. headquarters, to discuss the analysis and preliminary conclusions and recommendations in the Final EIS. SEA briefed the Board on the major issues raised in comments on the Draft EIS and how SEA proposed to address them in the Final EIS. Topics discussed included rail operations, rail safety, hazardous materials, transportation, noise and vibration, biological resources, water resources, quality of life issues, and mitigation and how it should be funded. SEA also briefed the Board on the extensive public outreach that was conducted for the environmental review process for the Proposed Action. Following SEA's presentations, the Board questioned SEA staff on various issues. The meeting was open for public observation, but not public participation. The public meeting was at the Board's headquarters at Patriots Plaza, 395 E Street, S.W., Washington, D.C. A video broadcast of the hearing was accessible to all interested parties, including those in the Chicago area, through the website at http://www.stb.dot.gov, under "Information Center"/"Webcast"/"Live Video" on the home page.

Final EIS Distribution

More than 30,000 individuals are on the environmental distribution list. SEA will distribute the Final EIS to individuals who provided mailing addresses in four different distribution categories as described in Chapter 5 of this Final EIS.

Next Steps

SEA anticipates that the U.S. Environmental Protection Agency (EPA) will publish a Notice of Availability of the Final EIS in the Federal Register on December 12, 2008. Under CEQ regulations (40 CFR 1506.10(b)), agencies must wait 30 days from EPA's Federal Register notice before issuing a final decision unless they have an internal appeal process. The Board has such a process, which means that the Board could issue a final decision in less than 30 days from December 12, 2008. If the Board were to do so, SEA recommends that the Board's administrative review period be extended to permit parties to seek agency reconsideration of the final decision within 30 days after it is served, rather than the typical 20 days. The Board would consider any administrative appeals in a subsequent decision.

Overview of the Comments

SEA received over 9,500 comment documents containing over 55,000 issues and concerns about the Draft EIS. Elected officials submitted 52 of the comment documents, Federal, state agencies and local governments submitted 264 documents. SEA did not receive any comment documents from tribal entities on the Draft EIS.

SEA created a database to track all comment documents received on the Draft EIS and used a multistage process that included assigning each comment document a tracking number, identifying substantive issues within each document, grouping issues into subject matter categories as appropriate, and responding to each substantive issue raised. Many issues in each category raised similar concerns; therefore, to eliminate unnecessary repetition, SEA grouped and sorted issues together for response.

SEA has reviewed and considered all of the comment documents and issues both individually and collectively as required by CEQ NEPA regulations, and prepared the comment/issue responses in accordance with CEQ guidance. SEA's responses clarify or correct information presented in the Draft EIS, explain and communicate government policies or regulations, direct commenters to information in the Draft EIS or to new information in the Final EIS, or answer technical questions.

SEA received comment documents expressing both support and opposition to the Proposed Action. Many of those expressing support talked generally of project benefits, and sometimes specifically of reduced noise or congestion along CN rail lines that would experience a decreased volume of freight rail traffic or improved regional rail traffic efficiency. Many of CN's freight customers wrote in support of the Proposed Action because, by providing the Applicants a quicker route through Chicago, it would give their customers faster and more reliable service in shipping their products both regionally and nationally. Many of the commenters opposing the Proposed Action made specific mention of issues such as traffic delays and congestion, safety, and noise. Commenters also questioned whether the reduction of rail traffic along the CN lines would be permanent and raised concerns that if rail traffic through Chicago increases in the future, the potential benefits of the Proposed Action could be short-lived. Figure ES- 5, below, illustrates both the number of issues raised within major issue categories and the major issues of public concern.

Overall, commenters most frequently submitted issues related to transportation systems, socioeconomics, rail safety, mitigation, and the Proposed Action and Alternatives. Comment highlights are provided below.

Transportation Systems

The public's paramount concerns with the Proposed Action focused on the effect it may have on local and regional highway systems. Key issues within this category were the impacts of the additional train traffic on the response times of emergency service providers such as ambulance, fire, and law

enforcement personnel, and the effects these trains would have on already congested streets and highways.

Socioeconomics and Quality of Life

The primary socioeconomic concerns expressed by commenters were potential impacts on property values and effects on community cohesion due to increased train traffic. Commenters stated that their quality of life would be negatively affected because the increase in train traffic would bisect their communities.

Rail Safety

The principal concern of the public in the rail safety category was the safety of school buses. Many commenters noted that school buses cross the EJ&E rail line daily during the school year, and the expected increase in rail traffic would increase the potential for accidents and delays. Concerns for the safety of pedestrians and bicyclists, particularly school children and seniors, were also frequently expressed. Commenters noted that increased train traffic would result in more accidents and more injuries to, or deaths of, vehicle passengers, pedestrians, and bicyclists.

Mitigation

Many of the concerns regarding mitigation focused on which highway/rail at-grade crossings SEA would recommend for mitigation. In addition, many commenters expressed interest in how mitigation would be funded, emphasizing in particular that local communities should not shoulder the bulk of the cost of grade separations.

Noise and Vibration

Residents adjacent to the EJ&E rail line raised the issues of the noise from idling trains, noise from nighttime train operations, and protection for noise-sensitive receptors such as homes, schools, and parks. Other commenters questioned SEA's methodology and stated that it was outdated and used incorrect thresholds. Some commenters also expressed concerns about the potential impacts that would result from increased vibrations caused by the increased train traffic.

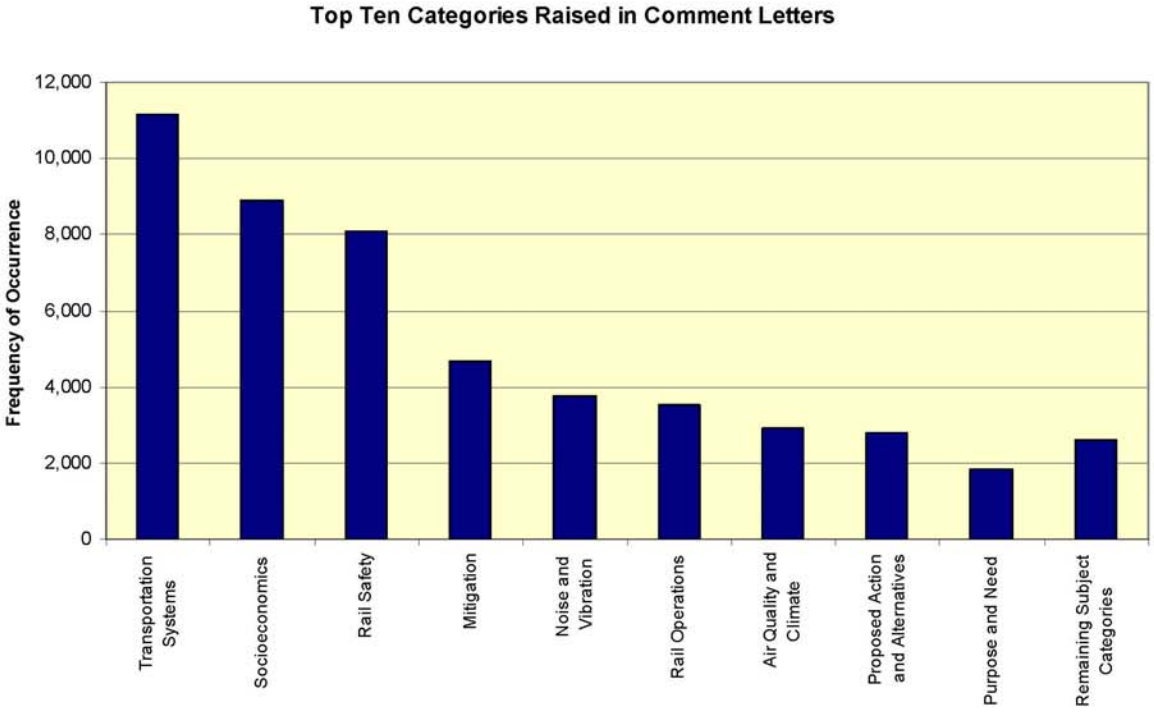
Rail Operations

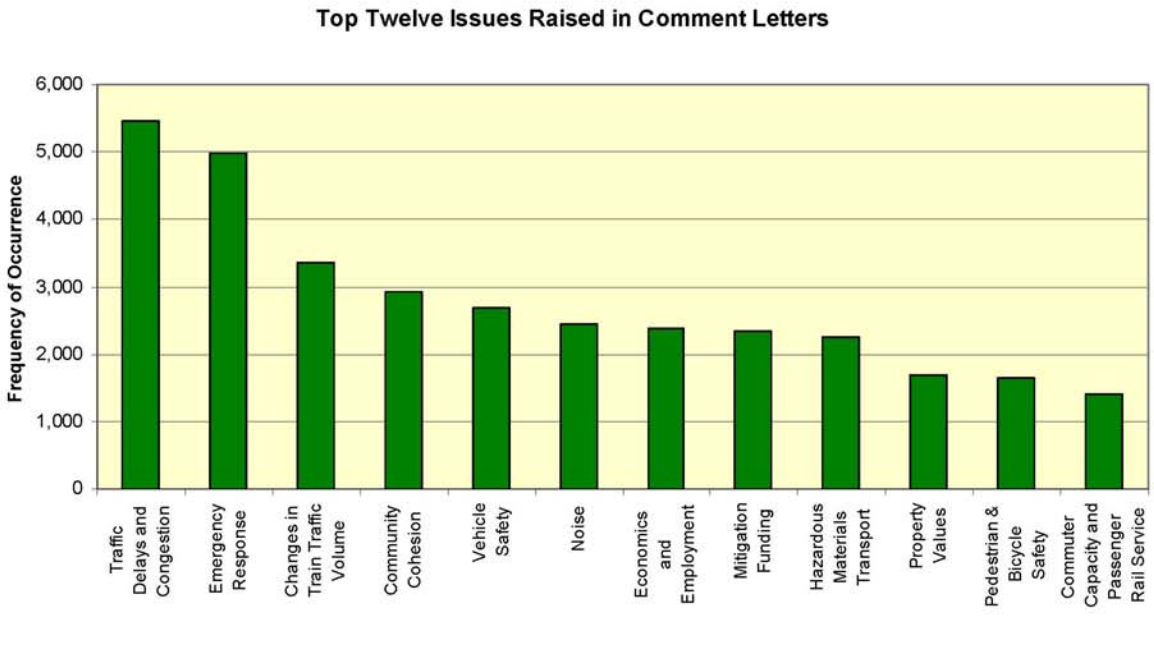
Many commenters expressed concern about the number and length of trains that would be shifted onto the EJ&E rail line without relating that issue to any specific environmental impact. Other commenters questioned the capacity of the EJ&E rail line and wondered if plans for commuter rail could still be fulfilled if the Board approved the Proposed Action.

Other Important Public Concerns

In addition to the issue categories noted above, SEA received many comments regarding:

- Worst-case scenarios
- Emergency response delays
- Traffic congestion
- Hazardous materials transport
- Mitigation funding of grade-separated crossings





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Figure ES-5
Summary of the Issues Raised During the Public Comment Period

Comments from Federal Agencies

Four Federal agencies with jurisdiction by law submitted comments on the Draft EIS. These were the U.S. Environmental Protection Agency (EPA), the Federal Railroad Administration (FRA), the U.S. Department of the Interior (U.S. Fish and Wildlife Service), and the U.S. Department of Transportation. SEA's summary of these comments and responses to them can be found in Section 3.4 in Chapter 3 of this Final EIS.

Applicants' Comments

The Applicants also submitted comprehensive comments regarding the Draft EIS. Applicants' comments included a revised voluntary mitigation proposal and specific comments regarding SEA's analysis of potential impacts in several resource areas. On November 13, 2008, the Applicants submitted supplemental voluntary mitigation. SEA's summary of the Applicants' comments and responses to them can be found in Chapter 3 of this Final EIS.

Conclusions

In short, SEA has determined that the Proposed Action would have beneficial environmental effects to communities located along the five CN rail lines leading into and out of Chicago, including decreased traffic delay, reduced noise, reduced air emissions, and fewer shipments of hazardous materials by rail. At the same time, SEA recognizes that nothing would prevent Applicants from reintroducing more trains back onto the CN rail lines if the demand for the Applicants' rail service increases. In that case, the potential benefits of the Proposed Action to communities along the CN rail lines could be short-lived.

While communities along the EJ&E rail line would experience adverse effects, including increased traffic, delay, noise, air emissions, and the shipment of hazardous materials by rail, many of these communities already experience traffic congestion. Therefore, the increased train traffic that would result from the Proposed Action would likely exacerbate the congestion. SEA has recommended reasonable and appropriate environmental mitigation measures designed to address the transaction-related adverse impacts, including recommending two grade separations and recommending that the Board set Applicants' financial responsibility for these crossings at 15 percent of the cost.

If the Board decides to approve the Proposed Action, SEA recommends that the Board require the Applicants to implement SEA's final recommended environmental conditions set forth in Chapter 4 of this Final EIS.

SEA's final recommended mitigation measures would minimize the potential adverse effects and would not compromise the potential benefits of the Proposed Action. The recommended mitigation measures reflect the Board's practice of mitigating only the direct effects of a proposed action and not pre-existing conditions.

SEA's Final Recommended Mitigation

SEA identified both potential beneficial and adverse environmental effects associated with the Proposed Action during its environmental review. For the Draft EIS, SEA developed preliminary environmental mitigation measures to address identified adverse environmental impacts of the Proposed Action. SEA's environmental analysis and its resulting preliminary environmental mitigation recommendations reflected the variety and complexity of the environmental issues and the most reasonable and feasible way to minimize some of the environmental impacts discovered during the course of SEA's environmental review. CN also proposed extensive voluntary mitigation

measures that were set forth in the Draft EIS. SEA specifically sought public comment on CN's proposed voluntary mitigation and SEA's preliminary environmental mitigation measures.

Based on its further analysis of potential environmental effects (described in Chapter 2 of this Final EIS) and comments received on the Draft EIS from the public, agencies, other railroads, and the Applicants, SEA developed final environmental mitigation measures that it recommends the Board impose as environmental conditions should it approve the Proposed Action. These mitigation measures address the potential adverse environmental effects that SEA determined could be significant. In addition, the Applicants submitted revised voluntary mitigation measures in its comment letter on the Draft EIS dated September 30, 2008, and supplemental voluntary mitigation measures on November 13, 2008, to address concerns raised by the U.S. Department of the Interior related to effects to biological resources. All of the Applicants' voluntary mitigation measures and SEA's final recommended mitigation is set out below and in Chapter 4 of this Final EIS.

The Board has authority to impose conditions to mitigate potential environmental effects, but that authority is not limitless. As a government agency, the Board can only impose conditions that are consistent with its statutory authority. Any conditions that the Board imposes must relate directly to a specific transaction, be reasonable, and be supported by the record before the Board. The Board's practice consistently has been to mitigate only those impacts that result directly from a proposed action. The Board does not require mitigation for existing environmental conditions, such as the effects of current railroad operations.

Applicants' Voluntary Mitigation

Safety

Grade Crossings

VM 1. Applicants shall consult with appropriate agencies to determine the final design and other details of the grade crossing protections or rehabilitations on EJ&EW's[1] rail line. Implementation of all grade crossing protections shall be subject to the review and approval of the Federal Railroad Administration ("FRA") and the appropriate state Departments of Transportation.

VM 2. Applicants shall coordinate with the appropriate state departments of transportation, counties, and affected communities along the EJ&E rail line to develop a program for installing temporary notification signs or message boards, where warranted, in railroad right-of-way ("ROW") at highway/rail at-grade crossings, clearly advising motorists of the increase in train traffic on affected rail line segments. The format and lettering of these signs shall comply with the Federal Highway Administration's (FHWA) *Manual on Uniform Traffic Control Devices* (FHWA 2007b) and shall be in place no less than 30 days before and six months after the acquisition by CN of the control of EJ&EW. The Applicants shall conduct a media campaign throughout the affected counties and communities surrounding the EJ&E rail line advising the public of increased operations along the EJ&E rail line. The campaign shall include the use of different media (radio, television, newspaper, Internet). Applicants shall distribute all information in both English and Spanish, where appropriate.

[1] The Applicants use EJ&EW to refer to EJ&E West Company. EJ&E would transfer all of its land, rail, and related assets located west of the centerline of Buchanan Street in Gary, Indiana, to EJ&E West Company. The Applicants are seeking the Board's approval to acquire control of EJ&E West Company. Should the Board approve the Proposed Action, EJ&E would change its name to Gary Railway and EJ&E West Company would assume the EJ&E Company name. This Final EIS refers to EJ&E West Company as EJ&E.

VM 3. Where necessary for implementation of a Quiet Zone,[2] and in consultation with the affected community, FRA, and the appropriate state Department of Transportation, Applicants shall construct or install roadway median barriers to reduce the opportunity for vehicles to maneuver around a lowered gate.

VM 4. Applicants shall cooperate with the municipalities affected to determine which improvements would be necessary for existing Quiet Zones to maintain FRA compliance.

VM 5. Applicants shall cooperate with interested communities for the establishment of Quiet Zones and assist in identifying supplemental or alternative safety measures, practical operational methods, or technologies that may enable the community to establish Quiet Zones.

VM 6. Applicants shall consult with affected communities to improve visibility at highway rail at-grade crossings by clearing vegetation or installing lighting to illuminate passing or stopped trains.

VM 7. Within 6 months of acquisition by CN of the control of the EJ&EW, Applicants shall cooperate with the Illinois Department of Transportation, Indiana Department of Transportation and other appropriate local agencies to coordinate a review of corridors surrounding highway/rail at-grade crossings to examine safety and adequacy of the existing warning devices, and identify remedies to improve safety for highway vehicles.

VM 8. Where grade-crossing rehabilitation is agreed to, Applicants shall assure that rehabilitated roadway approaches and rail line crossings meet or exceed the standards of the State Department of Transportation's rules, guidelines, or statutes, and the American Railway Engineering and Maintenance of Way Association ("AREMA") standards, with a goal of eliminating rough or humped crossings to the extent reasonably practicable.

VM 9. For each of the public grade crossings on EJ&EW's rail line, Applicants shall provide and maintain permanent signs prominently displaying both a toll-free telephone number and a unique grade-crossing identification number in compliance with Federal Highway Regulations (23 C.F.R. Part 655). The toll-free number shall enable drivers to report accidents, malfunctioning warning devices, stalled vehicles, or other dangerous conditions and shall be answered 24 hours per day by Applicants' personnel. At crossings where EJ&EW's ROW is close to another rail carrier's crossing, Applicants shall coordinate with the other rail carrier to establish a procedure and share information regarding reported accidents and grade-crossing device malfunctions.

VM 10. Within 6 months of acquisition by CN of the control of EJ&EW, Applicants shall cooperate with school and park districts to provide fencing where schools or parks are within one-quarter mile of the right of way and to identify at-grade crossings where additional pedestrian warning devices may be warranted.

VM 11. Applicants shall continue ongoing efforts with community officials to identify elementary, middle, and high schools within 0.5 miles of EJ&EW's ROW and provide, upon request, informational materials concerning railroad safety to such identified schools.

VM 12. Within 6 months of the effective date of the Board's final decision, Applicants shall initiate review of the locations of designated pedestrian and recreational trail at-grade crossings along the EJ&E rail line that would see an increase in train traffic under the Proposed Action. The Applicants shall cooperate in the review with local agencies and community trail groups to assess the adequacy of the existing warning devices, to

[2] A Quiet Zone is a location along a rail line where horns are not sounded at highway/rail at-grade crossings.

ascertain if particular trail uses or issues reduce the effectiveness of these warning devices, and to identify appropriate remedies to improve safety for pedestrian and recreational trail users.

Construction

VM 13. Before starting any construction activities for the proposed connections or installation of double track, Applicants shall develop – in conjunction with the affected communities and local fire and emergency response departments along the EJ&E rail line – an adequate plan for fire prevention and suppression and subsequent land restoration during construction and operation along the EJ&E rail line. Applicants shall submit the plan to local communities and local fire and emergency response departments. Applicants' plan shall ensure that all non-turbocharged locomotives are equipped with functional spark arrestors on exhaust stacks, and carry fire extinguishers suitable for flammable liquid fires, electrical fires, and combustible materials fires, as well as provide for the installation of low-spark brake shoes on all locomotives.

Hazardous Materials Transportation

VM 14. Applicants shall comply with the current Association of American Railroads ("AAR") "key route" guidelines, found in AAR Circular No. OT-55-I, and any subsequent revisions.

VM 15. Applicants shall comply with the current AAR "key train" guidelines, found in AAR Circular No. OT-55-I, and any subsequent revisions.

VM 16. To the extent permitted and subject to applicable confidentiality limitations, Applicants shall distribute to each local emergency response organization or coordinating body in the communities along the key routes a copy of the Applicants' current Hazardous Materials Emergency Response Plans.

VM 17. Applicants shall incorporate EJ&EW into their existing Hazardous Materials Emergency Response Plan.

VM 18. Applicants shall comply with all hazardous materials regulations of the United States Department of Transportation (including the Federal Railroad Administration and the United States Pipeline and Hazardous Materials Safety Administration) and Department of Homeland Security (including the Transportation Security Administration). Applicants shall dispose of all materials that cannot be reused in accordance with applicable law.

VM 19. Upon request, Applicants shall implement real-time or desktop simulation emergency response drills with the voluntary participation of local emergency response organizations.

VM 20. Applicants shall continue their ongoing efforts with community officials to identify the public emergency response teams located along EJ&EW and shall provide, upon request, hazardous material training.

VM 21. Applicants shall conduct Transportation Community Awareness and Emergency Response Program (TRANSCAER) workshops (training for communities through which dangerous goods are transported) in those communities along the EJ&E rail line that request this training.

VM 22. Applicants shall assist in the hazardous materials training emergency responders for affected communities that express an interest in such training. Applicants shall support

through funding or other means the training of one representative from each of the communities located along the EJ&E rail line segments where the transportation of hazardous materials would increase. Applicants shall complete the training within 3 years from the date that the Applicants initiate operational changes associated with the Proposed Action.

VM 23. Applicants shall develop internal emergency response plans to allow for agencies to be notified in an emergency, and to locate and inventory the appropriate emergency equipment. Applicants shall provide the emergency response plans to the relevant state and local authorities within 6 months of acquisition by CN of the control of EJ&EW.

VM 24. Applicants shall provide dedicated toll-free telephone number to the emergency response organizations or coordinating bodies responsible for communities located along the EJ&E rail line. This telephone number shall provide access to applicant personnel 24 hours per day, seven days a week, enabling local emergency response personnel to obtain and provide information quickly regarding the transport of hazardous materials on a given train and appropriate emergency response procedures should a train accident or hazardous materials release occur.

VM 25. In accordance with their Emergency Response Plan, Applicants shall make the required notifications to the appropriate Federal and state environmental agencies in the event of a reportable hazardous materials release. Applicants shall work with the appropriate agencies such as the United States Fish and Wildlife Service, Illinois Environmental Protection Agency and Indiana Department of Environmental Management to respond to and remediate hazardous materials releases with the potential to affect wetlands or wildlife habitat(s), particularly those of federally threatened or endangered species.

VM 26. Prior to initiating any Transaction[3]-related construction activities, Applicants shall develop a spill prevention plan for petroleum products or other hazardous materials during construction activities. At a minimum, the spill prevention plan shall address the following:

- Definition of what constitutes a reportable spill;
- Requirements and procedures for reporting spills to appropriate government agencies;
- Methods of containing, recovering, and cleaning up spilled material;
- Equipment available to respond to spills and location of such equipment; and
- List of government agencies and Applicants' management personnel to be contacted in the event of a spill. In the event of a reportable spill, Applicants shall comply with their spill prevention plan and applicable Federal, state, and local regulations pertaining to spill containment and appropriate clean-up.

Transportation Systems

Grade Crossing Delay

VM 27. Applicants shall comply with the Voluntary Mitigation Agreement concluded with the City of Joliet, which among other things addresses delay at the public highway/rail at-grade crossings at Woodruff Road and Washington Street.

[3] The Applicants use the term Transaction to refer to the Proposed Action. This Final EIS uses the term Proposed Action to define the Applicants' proposal to acquire the EJ&E rail line, land, and related assets.

VM 28. Although Applicants have not identified any grade crossings, other than Woodruff Road and Washington Street, that would require mitigation under SEA's established standards,[4] Applicants shall, upon request, cooperate with municipalities and counties in support of their efforts to secure funding, in conjunction with appropriate state agencies, for grade separations where they may be appropriate under criteria established by relevant state Department of Transportation. Applicants shall contribute their statutorily required amount of funding[5] to the cost of the grade separation.

VM 29. Applicants shall examine train operations for ways of reducing highway/rail at-grade crossing blockages.

VM 30. Applicants shall cooperate with the appropriate state and local agencies and municipalities to:

- Evaluate the possibility that one or more roadways listed in Table ES-1 [of the Draft EIS] could be closed at the point where it crosses the EJ&E rail line, in order to eliminate the at-grade crossing.
- Improve or identify modifications to roadways that would reduce vehicle delays by improving roadway capacity over the crossing by construction of additional lanes.
- Assist in a survey of highway/rail at-grade crossings for a determination of the adequacy of existing grade crossing signal systems, signage, roadway striping, traffic signaling inter-ties, and curbs and medians.
- Identify conditions and roadway, signal, and warning device configuration may trap vehicles between warning device gates on or near the highway/rail at-grade crossing.
- Cooperate with state and local agencies to develop and implement a plan to grade-separate the highway/rail crossing.

VM 31. Applicants shall install power switches along EJ&EW where Applicants determine that manual switches could cause stopped trains to block grade crossings for excessive periods of time and that power switches would increase the speed of rail traffic and reduce the likelihood of such blockages.

VM 32. In order to minimize the number of trains being stopped by operators at locations that block grade crossings on the EJ&EW system, Applicants shall work with other railroads to establish reasonable and effective policies and procedures to prevent other railroads' trains from interfering with Applicants' trains on EJ&EW.

VM 33. Applicant's design for wayside signaling systems shall be configured and implemented to minimize the length of time that trains or maintenance-of-way vehicles or activities occupy at-grade crossings or unnecessarily activate grade-crossing warning devices.

VM 34. Applicants shall install control signals ("A" block or absolute stop signals) at the ends of sidings, double track sections, crossovers, and other control switch locations (Applicants 2008a).

VM 35. Applicants shall operate under U.S. Operating Rule No. 526 (Public Crossings), which provides that a public crossing must not be blocked longer than 10 minutes unless it cannot be avoided and that, if possible, rail cars, engines, and rail equipment may not stand closer than 200 feet from a highway/rail at-grade crossing when there is an adjacent

[4] SEA's environmental rules are silent on standards for at-grade crossing delay. Applicants frequently use criteria established in prior transactions as a basis for evaluating impacts.

[5] The Applicants' statutorily required amount of funding typically is 5 percent of the total cost of the grade-separated crossing.

track (Applicants 2008a). If the blockage is likely to exceed this time frame, then the train shall then be promptly cut to clear the blocked crossing or crossings.

VM 36. Applicants shall develop and submit to SEA a report on frequency and duration of trains delay at crossing for a period covering the first three years of operational changes.

Commuter and Passenger Rail Service

VM 37. Applicants shall abide by the commitment made to Amtrak in a letter dated March 10, 2008 concerning Amtrak's use of the St. Charles Air Line (Air Line). In general, the commitment allows Amtrak to remain indefinitely on the Air Line after CN's trains are re-routed from the Air Line onto the EJ&E rail line should the Proposed Action be approved and implemented, thereby preserving Amtrak's access to Chicago's Union Station and Amtrak's ability to continue to provide service to and from points such as Champaign and Carbondale, Illinois. Applicants shall abide by the commitment to capping the cost to Amtrak for maintaining the Air Line at the current level, indexed for inflation (Applicants 2008p).

VM 38. Applicants shall operate the key interlockings at West Chicago and Barrington, Illinois, according to the current agreements under which EJ&E operates. Those agreements require EJ&E to give priority to passenger trains over either UP or EJ&E freight trains (Applicants 2008k).

VM 39. Applicants shall work with Metra to explore all options for service on the proposed STAR Line, including use of the EJ&E rail line. The timing and implementation of STAR Line service remain subject to numerous variables, including securing government funding, but the Applicants are committed to continuing discussions with Metra on the STAR Line (Applicants 2008j).

VM 40. During and after construction, Applicants shall maintain the pedestrian tunnel from the Metra Park-n-Ride lot to the Metra train station on the east side of the Chicago Subdivision rail line at Matteson (Applicants 2008l).

VM 41. Applicant shall comply with any written and executed curfew agreements that are now in effect regarding operations affecting passenger or commuter train service.

Emergency Vehicle Delay

VM 42. Applicants shall notify Emergency Services Dispatching Centers for communities along the affected segments of all crossings blocked by trains that are stopped and may be unable to move for a significant period of time. Applicants shall work with affected communities to minimize emergency vehicle delay by maintaining facilities for emergency communication with local Emergency Response Centers through a dedicated toll-free telephone number; and providing, upon request, dispatching monitors that allow Emergency Response Center dispatching personnel to see real-time train locations.

VM 43. Applicants shall make Operation Lifesaver programs available to communities, schools, and other organizations located along the affected segments.

VM 44. For up to 3 years after acquisition by CN of the control of the EJ&EW, Applicants shall provide Operation Lifesaver programs in Spanish, upon request.

Construction

VM 45. At least one month prior to initiation of Transaction-related construction activities, Applicants shall provide the information described below regarding Transaction-related

construction of sidings, double-tracking, or connections, as well as any additional information, as appropriate, to fire departments and the Local Emergency Planning Commissions ("LEPC") for communities within or adjacent to the construction area:

- The schedule for construction throughout the project area, including the sequence of construction work relating to public grade crossings and approximate schedule for these activities at each crossing;
- A toll-free number to contact Applicants' personnel, to answer questions or attend meetings for the purpose of informing emergency-service providers about the project construction and operations; and
- Revisions to this information, including changes in construction schedule, as appropriate.

VM 46. In undertaking Transaction-related construction activities, Applicants shall use practices recommended by AREMA and recommended standards for track construction in the AREMA Manual for Railway Engineering.

VM 47. During Transaction-related construction concerning at-grade crossings, when reasonably practicable, Applicants shall consult with the appropriate state Department of Transportation regarding detours and associated signage, as appropriate, or maintain at least one open lane of traffic at all times to allow for the quick passage of emergency and other vehicles.

VM 48. Applicants shall minimize temporary road closures during construction activities associated with the connections and double track. Applicants shall manage construction schedules to:

- Minimize highway/rail at-grade crossing closures
- Relay highway/rail at-grade crossing closure schedules to local emergency service providers

Land Use

General Land Use

VM 49. Before beginning construction activity, Applicants shall survey all suitable habitats potentially impacted by the construction activity for Federally- and state-listed threatened or endangered plant species. If any listed plant species are located, Applicants shall implement a mitigation plan in consultation with the appropriate Federal and state agencies.

VM 50. If identified in the area, Applicants shall coordinate with USFWS-Indiana and The Nature Conservancy (TNC) to monitor effects on the Karner blue butterfly in the West Gary Recovery Unit.

VM 51. Applicants shall continue with the existing agreements for Paul Ales Branch operation for the protection of the Federally-listed Hine's emerald dragonfly.

VM 52. Applicants shall identify suitable habitat for Franklin's ground squirrel within construction limits, and minimize mowing along the ROW beyond what is necessary for reasonable railroad maintenance and safety.

VM 53. Land areas that are directly disturbed by Applicants' Transaction-related construction and are not owned by the Applicants (such as access roads, haul roads, and crane pads) shall be restored to their original condition, as may be reasonably practicable, upon completion of Transaction-related construction.

VM 54. During construction, temporary barricades, fencing, and/or flagging shall be used in sensitive habitats to contain construction-related impacts to the area within the construction Right Of Way ("ROW"). Staging areas shall be located in previously disturbed sites and not in sensitive habitat areas.

VM 55. To the extent reasonably practicable, Applicants shall confine construction traffic to a temporary access road within the construction ROW or established public roads. Where traffic cannot be confined to temporary access roads or established public roads, Applicants shall make necessary arrangements with landowners to gain access from private roadways. The temporary access roads shall be used only during project-related construction. Any temporary access roads constructed outside the rail line ROW shall be removed and restored upon completion of construction unless otherwise agreed to with the landowners.

VM 56. During Transaction-related earthmoving activities, Applicants shall remove topsoil and segregate it from subsoil. Applicants shall also stockpile topsoil for later application during reclamation of disturbed areas along the ROW. Applicants shall place the topsoil stockpiles in areas that would minimize the potential for erosion and use appropriate erosion control measures around all stockpiles to prevent erosion.

VM 57. Applicants shall commence reclamation of disturbed areas as soon as reasonably practicable after Transaction-related construction ends along a particular stretch of rail line. The goal of reclamation shall be the rapid and permanent reestablishment of native ground cover on disturbed areas. If weather or season precludes the prompt reestablishment of vegetation, Applicants shall use measures such as mulching or erosion control blankets to prevent erosion until reseeding can be completed.

VM 58. Applicants shall limit ground disturbance to only the areas necessary for Transaction-related construction activities.

VM 59. Applicants shall review the limits of land disturbance prior to construction to determine whether any U.S. Department of Commerce, National Geodetic survey monuments (that is, a government owned permanent survey marker) would be disturbed. If any survey monuments would be disturbed, Applicants shall give a 90-day notification to the U.S. Department of Commerce.

VM 60. Applicants shall consult with the appropriate state, county personnel, Forest Preserve and trail managers prior to construction activities on state land and shall flag the boundaries of the ROW.

VM 61. Applicants shall notify the trail managers of new construction that intersects trails during final design. Where possible, Applicants shall maintain access to all existing trails, greenways, and scenic corridors during construction. If temporary trail closures are required during construction, Applicants shall provide appropriate signage to detour pedestrian and recreational trail users to a safe alternate route.

VM 62. Before construction of the Applicants' Proposed Munger Connection adjacent to the Pratt's Wayne Woods Forest Preserve, Applicants shall flag the boundaries of the CN ROW, the EJ&E ROW, and the portion of the Commonwealth Edison ROW required for construction. Applicant shall remain within the flagged boundaries. Unless agreed by the Forest Preserve Management, no construction shall take place outside of the flagged construction area. Where possible, Applicants shall maintain access during construction activities to all existing roads, trails, and facilities within the Pratt's Wayne Woods Forest Preserve.

VM 63. Applicants shall require contractors to dispose of waste generated during Transaction-related construction activities in accordance with all applicable Federal, State, and local regulations.

Community Outreach

VM 64. Prior to initiation of Transaction-related construction activities, Applicants shall name a Community Liaison to: consult with affected communities, businesses, and agencies; seek to develop cooperative solutions to local concerns regarding construction activities; be available for public meetings; and conduct periodic public outreach regarding Transaction-related construction activities. The Community Liaison shall be available to consult with businesses and agencies until all Transaction-related construction activities are complete. Applicants shall provide the name and phone number of the Community Liaison to mayors and other appropriate local officials in each community where Transaction-related construction activities will occur.

VM 65. Applicants shall continue their ongoing community outreach efforts by maintaining, throughout the period of construction of Transaction-related sidings, double-track, and connections, a website about the construction.

Residential

VM 66. Applicants' Transaction-related construction vehicles, equipment, and workers shall not access work areas by crossing residential properties without the permission of the property owner or occupant.

Business and Industrial

VM 67. Applicants' Transaction-related construction vehicles, equipment, and workers shall not access work areas by crossing business or industrial areas, including parking areas or driveways, without advance notice to the business owner.

VM 68. Applicants shall work with affected businesses or industries to appropriately redress Transaction-related construction activity issues affecting any business or industry.

VM 69. To the extent reasonably practicable, Applicants shall ensure that entrances and exits for businesses are not obstructed by Transaction-related construction activities, except as required to move equipment.

State Lands

VM 70. Applicants shall consult with the General Land Office ("GLO") of Illinois to coordinate an Easement Agreement for crossing State-owned parks to reach Transaction-related construction areas.

Utility Corridors

VM 71. Applicants shall make reasonable efforts to identify all utilities that are reasonably expected to be materially affected by the proposed construction within their existing ROW or that cross their existing ROW. Applicants shall notify the owner of each such utility identified prior to commencing Transaction-related construction activities and coordinate with the owner to minimize damage to utilities. Applicants shall also consult with utility owners to design the rail line so that utilities are reasonably protected during Transaction-related construction activities.

VM 72. Applicants shall use the services of a qualified pipeline engineering firm that is familiar with the project area to assist in the identification of the various pipeline crossings and to assist in the design of crossings as necessary for Transaction-related construction activities.

Air Quality

VM 73. Applicants shall accelerate implementation of EPA locomotive emissions reduction efforts[6] by installing idling control systems on their switching locomotives assigned to the Chicago area and shall accelerate replacement of switching locomotives that are excluded from EPA emission standards and are now in service at Chicago-area yards that will experience increased yard activity as a result of the Transaction with locomotives that are compliant with EPA Tier 0 or more stringent emission standards.

VM 74. Applicants, to the extent reasonably practicable, shall adopt efficient fuel saving practices that may include a range of operating practices that will help reduce locomotive emissions, such as shutting down locomotives when not in use and when temperatures are above 40 degrees.

VM 75. To minimize fugitive dust emissions created during Transaction-related construction activities, Applicants shall implement appropriate fugitive dust suppression controls, such as spraying water or other approved measures. Applicants shall also regularly operate water trucks on haul roads to reduce dust.

VM 76. Applicants shall work with their contractors to make sure that construction equipment is properly maintained and that mufflers and other required pollution-control devices are in working condition in order to limit construction-related air emissions.

Noise and Vibration

VM 77. Applicants shall work with affected communities that have sensitive receptors that would experience an increase of at least 5 dBA [A-weighted decibel] and reach 70 dBA to mitigate train noise to levels as low as 70 dBA by cost effective means as are agreed to by an affected community and Applicants. In the absence of such an agreement, Applicants shall implement cost effective mitigation that could include such measures as (1) constructing noise control devices such as noise barriers, (2) installing vegetation or berming, or (3) installing, or providing funding for installation of, enhanced warning devices in order to provide the level of warning necessary to allow the community to request a waiver from Federal Railroad Administration (FRA) of the requirement to sound the horn and achieve quiet zone requirements.

VM 78. Applicants shall consult with affected communities and work with their construction contractors to minimize, to the extent reasonably practicable, construction-related noise disturbances near any residential areas.

VM 79. Applicants shall work with their construction contractors to maintain Transaction-related construction and maintenance vehicles in good working order with properly functioning mufflers to control noise.

VM 80. In addition to the development of other noise mitigation measures, Applicants shall consider lubricating curves where doing so would both be consistent with safe and efficient operating practices and significantly reduce noise for residential or other noise sensitive receptors. Applicants shall also continue to employ safe and efficient operating

[6] EPA has issued rules designed to reduce locomotive emissions over time.

procedures that, in lieu of, or as complement to, other noise mitigation measures can have the collateral benefit of effectively reducing noise from train operations. Such procedures include:

- inspecting rail car wheels to maintain wheels in good working order and minimize the development of wheel flats;
- inspecting new and existing rail for rough surfaces and, where appropriate, grinding these surfaces to provide a smooth rail surface during operations;
- regularly maintaining locomotives, and keeping mufflers in good working order; and
- removing or consolidating switches determined by Applicants to no longer be needed.

VM 81. To minimize noise and vibration, Applicants shall install and maintain rail and rail beds according to AREMA standards.

VM 82. Applicants shall comply with FRA regulations establishing decibel limits for train operations.

VM 83. Applicants shall install or relocate a Wheel Impact Load Detector (WILD) on the EJ&E rail line within three years of acquisition by CN of control of EJ&EW.

Biological Resources

VM 84. For impacts to non-jurisdictional isolated wetlands habitat along the new line, Applicants shall survey the route to determine if the Hines Emerald Dragonfly is present along the ROW.

VM 85. Upon consultation with U.S. Fish and Wildlife Service, should the Hines Emerald Dragonfly be observed on the site of Transaction-related construction activities, Applicants shall implement appropriate measures prior to and during construction to reduce or eliminate impacts on the Hines Emerald Dragonfly.

VM 86. Prior to initiating Transaction-related construction activities, Applicants shall consult with the local offices of the Natural Resource Conservation Service ("NRCS") to develop an appropriate plan for restoration and re-vegetation of the disturbed areas (including appropriate seed mix specifications).

VM 87. During construction activity, Applicants shall take reasonable steps to ensure contractors use fill material appropriate for the project area.

VM 88. Applicants shall, to the extent reasonably practicable, revegetate the bottom and sides of the drainage ditches using natural recruitment from the native seed sources in the stockpiled topsoil.

Water Resources

VM 89. In the case where there is a potential for a railroad drainage ditch to influence wetland hydrology, Applicants shall construct low permeability clay berms (wetland berms adjacent to the drainage channels that would be proximal to the isolated wetlands). These berms would minimize the impact to surface water drainage from the proposed drainage ditch.

VM 90. Applicants shall compensate in accordance with USACE regulations in both Illinois and Indiana for wetland impacts that cannot be avoided and for impacts that are determined by USACE to be on waters of the U.S. for construction related to the proposed action.

VM 91. Applicants shall maintain drainage ditches as permanent vegetated swales to provide storm water retention and treatment. Removal of accumulated sediments shall be conducted only as necessary to maintain storm water retention capacity and function.

VM 92. To minimize sedimentation into streams and waterways during construction, Applicants shall use best management practices, such as silt fences and straw bale dikes, to minimize soil erosion, sedimentation, runoff, and surface instability during project-related construction activities. Applicants shall seek to disturb the smallest area possible around any streams and shall conduct reseeding efforts to ensure proper revegetation of disturbed areas as soon as reasonably practicable following Transaction-related construction activities.

VM 93. In order to control erosion, Applicants shall establish staging and lay down areas for Transaction-related construction material and equipment at least 300 feet from jurisdictional waters of the United States and in areas that are not environmentally sensitive. Applicants shall not clear any vegetation between the staging area and the waterway or wetlands. To the extent reasonably practicable, areas with non-jurisdictional isolated waters will not be used for staging and lay down and will only be impacted when necessary for construction. When Transaction-related construction activities, such as culvert and bridgework, require work in streambeds, Applicants shall conduct these activities, to the extent reasonably practicable, during low-flow conditions.

VM 94. During Transaction-related construction activities, Applicants shall require all contractors to conduct daily inspections of all equipment for any fuel, lube oil, hydraulic, or antifreeze leaks. If leaks are found, Applicants shall require the contractor to immediately remove the equipment from service and repair or replace it.

VM 95. Applicants shall employ best management practices to control turbidity and disturbance to bottom sediments of surface waters during Transaction-related construction. Applicants shall implement best management practices in wetlands or other waters of the United States to avoid adverse downstream impacts on fish, mussels, and other aquatic biota.

VM 96. Applicants shall implement their current noxious weed control program during construction and operation of Transaction-related sidings, double-track, and connections. All herbicides used by Applicants shall be approved by the U.S. EPA.

VM 97. Applicants shall ensure that any herbicides used in ROW maintenance to control vegetation are approved by the U.S. EPA and are applied by licensed individuals who shall limit application to the extent necessary for rail operations. Herbicides shall be applied so as to prevent or minimize drift off of the ROW onto adjacent areas.

VM 98. During construction, Applicants shall prohibit Transaction-related construction vehicles from driving in or crossing streams at other than established crossing points.

VM 99. Applicants shall, to the extent reasonably practicable, ensure that any fill placed below the ordinary high water line of wetlands and streams is appropriate material selected to minimize impacts to the wetlands and streams. All stream crossing points shall be returned to their pre-construction contours to the extent reasonably practicable and the crossing banks will be reseeded or replanted with native species immediately following project-related construction.

VM 100. Applicants shall obtain a National Pollutant Discharge Elimination System ("NPDES") storm water discharge permit from U.S. EPA or appropriate State agencies for Transaction-related construction activities.

Monitoring and Enforcement

VM 101. Applicants shall submit quarterly reports to SEA on the progress of, implementation of, and compliance with the mitigation measures for a period covering the first three years of operational changes.

Supplemental Voluntary Mitigation Measures

VM 102. Applicants shall cooperate with Midwest Generation, LLC ("MWG"), to identify locations on Applicants' property, or available to Applicants, on which loaded coal trains could be staged while awaiting delivery to MWG's Will County Generating Station and Joliet Generating Station and which would make unnecessary the construction of additional train storage capacity on MWG property that would adversely affect the Hine's emerald dragonfly or its habitat. If no adequate existing train storage locations can be identified, Applicants shall make reasonable efforts to acquire or construct, at MWG's expense, new train storage capacity, at locations where construction would not have adverse impacts on the Hine's emerald dragonfly or its habitat, and which would make construction of additional storage capacity on MWG's property unnecessary, and shall make that capacity available as needed for staging of coal trains destined for Will County and Joliet Stations.

VM 103. In consultation with the U.S. Fish and Wildlife Service (USFWS) and relevant natural resource stakeholders, Applicants shall participate in the development of a Habitat Conservation Plan for the Hine's emerald dragonfly or necessary work plans applicable to State and Federally listed threatened and endangered species and take the necessary measures to ensure that rail operations do not cause undue impact to those species.

VM 104. [Migratory Birds] Where warranted, Applicants shall work with relevant natural resource stakeholder groups, Forest Preserve Districts, the Indiana office of The Nature Conservancy (TNC), Illinois Department of Natural Resources (IDNR), Indiana Department of Natural Resources (INDNR), and USFWS to support the creation or enhancement of migratory bird habitat away from those segments of the EJ&E rail line on which Applicants project Transaction-related increases in rail traffic, and where there is proposed Transaction-related construction of double-track and new or improved connections.

VM 105. [Rare and Listed Turtles] In consultation with USFWS, Applicants shall construct and maintain adequate passages (that is, pipes or culverts) for turtles to cross through the track bed in areas on the EJ&E rail line between Leithton and Gary on which Applicants expect to increase rail traffic and where habitat for rare and/or listed turtle species (that is, Blanding's or spotted turtle) exists on both sides of the rail line.

VM 106. [Karner Blue Butterfly] In consultation with USFWS, Applicants shall identify areas of suitable habitat of the Karner blue butterfly within Kirk Yard and in the vicinity of all planned Transaction-related construction of double track and new or improved connections within the State of Indiana for potential habitat protection and/or enhancement. Applicants shall contact TNC about participation in the Safe Harbor Agreement for the Karner blue butterfly.

VM 107. [Indiana Dune and Swale] In consultation with appropriate Federal and State natural resource stakeholders, including USFWS, INDNR and TNC, Applicants shall designate EJ&EW-owned areas of prime prairie and dune swale habitat for potential land management agreement and/or conservation easement. Should modifications to Kirk Yard be proposed in the future, Applicants shall review proposed plans for upgrading and

expansion of Kirk Yard in order to avoid construction in identified dune swale areas. In the event that unavoidable impacts are identified, the Applicants shall work with TNC to develop a plan for mitigation of those impacts and improvement of the quality of remaining dune swale areas.

VM 108. [Eastern prairie fringed orchid] Prior to any ground disturbing activities, Applicants shall hire a qualified biologist to survey for the Eastern prairie fringed orchid (Platanthera leucophaea) in areas containing suitable habitat. Applicants shall survey each area on at least three non-consecutive days between June 28 and July 11, as this is when the orchid typically flowers and is most identifiable. If the Applicants' biologist finds orchids, Applicants shall not conduct any construction activities in that area and Applicants shall notify USFWS and the Board immediately. The Board shall reinitiate consultation with USFWS. Applicants shall work with the Board and USFWS to determine appropriate measures to offset impacts, most likely providing funding for an ongoing hand pollination project, or providing funding to be used to enhance another orchid site (that is, brush cutting, prescribed burning).

SEA's Final Recommended Mitigation Measures

Applicants' Voluntary Mitigation

1) Applicants shall comply with their voluntary mitigation measures.

Rail Operations

2) As part of the Applicants' quarterly reports that would be required under VM 101, VM 36, and Condition 70, Applicants shall report quarterly to SEA and communities adjacent to or intersected by the EJ&E rail line on the frequency, cause, and duration of train blockages of crossings of 10 minutes in duration or greater, listing each delay and including any notifications from persons affected by the blockage and the time of the beginning and end of each delay. Applicants shall summarize the cause of each type of blockage that the Applicants self-report and shall state how the Applicants intend to reduce the incidence of all blockages not attributed to emergencies or weather-related incidents (sometimes called Acts of God) in the quarterly report.

3) Applicants shall distribute to communities adjacent to or intersected by the EJ&E rail line the contact information for the Applicants' community liaison established in VM 64 to ensure that Applicants are aware of highway/rail at-grade crossing blockages lasting 10 minutes or more.

Rail Safety

Safety Integration Plan

4) Applicants shall comply with their approved final Safety Integration Plan (SIP), prepared pursuant to 49 CFR 1106, which may be modified and updated as necessary to respond to evolving conditions.

5) Applicants shall continue to coordinate with FRA in implementing the approved final SIP, including any amendments thereto. The ongoing safety integration process shall continue until FRA notifies the Board that the integration of the Applicants' operations has been safely completed.

Freight Rail Safety

6) Applicants shall adhere to all applicable Federal Occupational Safety and Health Administration (OSHA), FRA, and state construction and operational safety regulations to minimize the potential for accidents and incidents on the EJ&E rail line.

Vehicle Safety

High Accident Frequencies

7) If Applicants have not initiated a corridor study (as committed to in VM 7) in Griffith, Indiana, within 6 months of the effective date of the Board's final decision, or if the appropriate road authority having jurisdiction over the roadway prefers, Applicants shall meet with the appropriate road authority, Indiana Department of Transportation (INDOT), the City of Griffith, and other appropriate local agencies and shall participate in an on-site diagnostic review of the Lake Street and Miller Street highway/rail at-grade crossings. The purpose of the diagnostic review would be to examine the adequacy of the existing warning devices, to ascertain if there are particular roadway uses or localized issues that would reduce the effectiveness of these warning devices, to prescribe appropriate remedies to improve safety for highway vehicles, and to establish the time frame and funding for identified improvements. Because the at-grade crossings at Lake Street and Miller Street are less than 0.25 mile apart, the diagnostic review shall consider closure of one at-grade crossing or the other and make appropriate improvements to the other. In the absence of any other funding agreements, Applicants' funding participation for any improvements shall be limited to the cost of installation of a standard, automatic flashing light signal and automatic half roadway, gate-warning devices at one highway/rail at-grade crossing.

8) If the Applicants and the appropriate agencies do not come to an agreement concerning Lake Street and Miller Street within 2 years of the effective date of the Board's final decision, Applicants, with the concurrence of the other parties, shall participate in and assume the cost of binding arbitration or mediation to determine a solution for Lake Street and Miller Street, without further involvement or review by the Board. Applicants shall notify the Board within 30 days of completing the negotiations, the arbitration, or the mediation.

Industry Track

9) As requested by the Illinois Commerce Commission (ICC), Applicants shall notify ICC prior to modifying rail service to existing rail shippers along the EJ&E rail line during the morning and evening commuter rush hours, in areas where: 1) industry tracks cross highway/rail at-grade crossings, and 2) those industry track highway/rail at-grade crossings are protected with warning devices that are not interconnected with or part of the warning devices at a highway/rail at-grade crossing of the same roadway located within 300 feet which experiences commuter rail traffic. Before modifying the rail service Applicants shall allow ICC to review the adequacy of the highway/rail at-grade crossing warning devices and abide by the ICC's reasonable determination(s), including contributing to funding any required modifications.

Quiet Zones

10) Applicants shall work with Barrington, Illinois, to determine which improvements would be necessary for the City to maintain its quiet zone designation, should the transaction cause it to fall out of compliance with FRA regulations. The existing Barrington Quiet

Zone includes the highway/rail at-grade crossings at Lake/Cook Road, Otis Road, Penny Road, Old Sutton Road, Shoe Factory Road, Spaulding Road, and West Bartlett Road. For 3 years from the effective date of the Board's final decision, the Applicants shall fund reasonable improvements FRA deems necessary to maintain existing quiet zone.

Hazardous Materials Transportation Safety

11) To supplement Applicants' VM 21, Applicants shall conduct TRANSCAER workshops in English and Spanish upon request for 3 years from the effective date of the Board's final decision authorizing the Proposed Action.

12) In addition to Applicants' VM 25, Applicants shall adhere to all EPA regulations as described in 40 CFR 263 and shall coordinate with EPA, state agencies, and local agencies on spill responses.

Pedestrian and Bicycle Safety

13) To supplement Applicants' VM 10, Applicants shall coordinate with each affected community prior to installation of this fencing and shall install fencing where the community deems appropriate. Applicants shall furnish and install at their sole expense a standard 6-foot-high, galvanized, chain-link fence at all locations where an effective fence does not currently exist. Upon completion of construction, the fence shall be owned and maintained by the community unless both parties agree otherwise in writing. The community may decide to install fencing that differs from this standard, but Applicants shall only be obligated to provide funds sufficient to construct the standard fence.

14) Applicants shall coordinate with representatives from Camp Manitoqua in Frankfort, Illinois, to determine if fencing is warranted along the camp's property line. If it is, Applicants and Camp Manitoqua shall cooperate to determine a reasonable allocation of construction and maintenance costs, with the Applicants' cost share limited to an amount sufficient to construct the standard fence described in Condition 13, above.

15) To supplement Applicants' VM 43 and 44, Applicants shall make Operation Lifesaver programs available to communities, schools, and other appropriate organizations located along the EJ&E rail line for 3 years after the effective date of the Board's final decision. The programs will be designed and provided in coordination with ICC and INDOT.

16) To address concerns raised by the U.S. Department of Transportation, Applicants shall either continue EJ&E's practice of holding trains south of Ann Street in West Chicago, Illinois, or work with the community to replace the George Street pedestrian crossing. Ann Street is located approximately 0.1 mile south of the George Street pedestrian crossing and 0.3 mile south of the signal in West Chicago. Applicants shall hold their trains at this location to avoid blocking the at-grade crossing at Ann Street (USDOT # 260545V, MP 28.50), the pedestrian crossing at George Street (USDOT # 260806T, MP 28.27), and the at-grade crossing at Church Street (USDOT # 260543G, MP 28.77). Upon obtaining a clear signal, to the extent possible, Applicants' trains shall not stop and block the at-grade crossings.

Transportation Systems

Regional and Local Highway Systems

17) In addition to VM 28, Applicants shall coordinate with the following state and local officials for the expeditious implementation of a grade separation at:

- The highway/rail at-grade crossing of Ogden Avenue and the EJ&E rail line in Aurora (USDOT # 260560X). Coordinate with DuPage County, Illinois, and Aurora, Illinois, the Illinois Department of Transportation (IDOT), and ICC
- The highway/rail at-grade crossing of Lincoln Highway (US 30) and the EJ&E rail line in Lynwood (USDOT # 260651D). Coordinate with Cook County, Illinois, Lynwood, Illinois, IDOT, and ICC

The substantial effects of the Proposed Action on traffic delay, regional and local mobility, and grade-crossing safety warrant an increase over the traditional railroad share of the final design and construction cost of grade separations that are approved and funded. As explained in this Final EIS, Applicants' share of the responsibility for total vehicle delay in the Chicago metropolitan area is calculated to be 15 percent. Therefore, Applicants shall contribute 15 percent of the preliminary engineering and environmental analysis, final design, ROW acquisition, utility relocation, and construction costs of these grade separations. This obligation shall be in effect for projects where construction is initiated within 10 years of the effective date of the Board's final decision. SEA anticipates that IDOT would be the lead agency for the development of these grade separations.

18) Applicants shall coordinate with IDOT and the appropriate counties and affected communities to develop a program to install traffic advisory signs on roadway ROW at certain public highway/rail at-grade crossings along the EJ&E rail line. These signs shall clearly advise motorists not to block intersections, and the format and lettering of these signs shall comply with FHWA's *Manual on Uniform Traffic Control Devices.* These signs shall be in place within a year of the effective date of the Board's final decision, subject to the approval of the coordinating agencies, and shall be located near the following intersections:

a. Old McHenry Road/Midlothian Road, Hawthorn Woods, Illinois
b. Main Street/IL 22, Lake Zurich, Illinois
c. Hough Street (IL 59)/Northwest Highway (US 14), Barrington, Illinois
d. Plainfield-Naperville Road/IL 59, Plainfield, Illinois

19) Applicants shall construct the revised connection at Matteson, Illinois, and the revised double track connection at Leithton (near Mundelein, Illinois) as described in the Applicants' letters dated August 21, 2008 and September 17, 2008, respectively.

20) As requested by ICC, Applicants shall consult with ICC, as well as INDOT, to locate roadway intersections with traffic lights within 1,000 feet of existing highway/rail at-grade crossings along the EJ&E rail line to identify circumstances where queued cars could extend over the EJ&E rail line and to consider reasonable solutions.

Emergency Response

21) In addition to VM 42, to further assist with the timely response of the emergency service providers listed in Table ES- 2 below, Applicants shall consult with all appropriate

agencies to implement a CCTV system with video cameras placed in locations so that the movement of trains can reasonably be predicted at the highway/rail at-grade crossings listed in Table ES-2. Applicants shall pay for the necessary equipment, including cameras, monitors, poles, cables, controllers, cabinets, communications equipment, electrical connections, or other necessary components, the installation of the equipment, and equipment training for up to two individuals for each emergency service provider listed in Table ES-2. Applicants shall work with all appropriate agencies to determine specifications and scheduling for the installation of this system. Applicants shall not be responsible for the ongoing maintenance and operation of the CCTV system after the system is installed and operational.

Table ES- 2. Emergency Service Providers Receiving CCTV at Affected Highway/Rail At-Grade Crossing Locations

Community	Facility	Highway/Rail At-Grade Crossings
Mundelein, Illinois	Countryside Fire Protection District - Station No. 1	Allanson Road Diamond Lake Road IL 60 & 83 Gilmer Road
Lake Zurich, Illinois	Lake Zurich Rural Fire Protection District - Station No. 3	Gilmer Road Old McHenry Road Oakwood Road
Barrington, Illinois	Barrington Fire Department - Station No. 1	Lake Zurich Road Northwest Highway (US 14) Hough Street (IL 59) Lake Cook Road/Main Street
Barrington, Illinois	Advocate Good Shepherd Hospital	Lake Zurich Road Northwest Highway (US 14) Hough Street (IL 59) Lake Cook Road/Main Street
Bartlett, Illinois	Bartlett Fire Protection District - Future Station No. 3	Spaulding Road West Bartlett Road Stearns Road
West Chicago, Illinois	West Chicago Fire Protection District Headquarters/Station No. 1	Washington Street Aurora Street Church Street Ann Street
West Chicago, Illinois	West Chicago Fire Protection District - Station No. 3	Washington Street Aurora Street Church Street Ann Street
Plainfield, Illinois	Plainfield Fire Protection District - Station No. 3	111th Street Ferguson Road/119th Street 127th Street
Chicago Heights, Illinois	Saint James Hospital and Health Centers - Chicago Heights	Euclid Avenue Chicago Road West End Avenue/Halsted Street East End Avenue
Schererville, Indiana	Schererville Fire Department Headquarters	Kennedy Avenue Broad Street

Table ES- 2. Emergency Service Providers Receiving CCTV at Affected Highway/Rail At-Grade Crossing Locations		
Community	**Facility**	**Highway/Rail At-Grade Crossings**
Griffith, Indiana	Griffith Volunteer Fire Department Headquarters/Station No. 1	Broad Street East Main Street East Lake Street East Miller Street East Elm Street East 45th Avenue
Griffith, Indiana	Griffith Volunteer Fire Department - Station No. 2	Broad Street East Main Street East Lake Street East Miller Street East Elm Street East 45th Avenue

Airports

22) Applicants shall comply with the four-party Preliminary Memorandum of Understanding (PMOU) announced by the Gary/Chicago International Airport, EJ&E, CSX, and NS on June 27, 2008, regarding the airport's plan to extend its main runway and to relocate the EJ&E rail line.

Land Use

23) Applicants shall consult with and comply with the reasonable requirements of INDNR to demonstrate compliance with the Coastal Zone Management Act (CZMA) (16 USC 1451-1456) and the Indiana Lake Michigan Coastal Program in accordance with the guidelines found in the Indiana Natural Resources Commission's Information Bulletin #43 (Indiana Natural Resources Commission 2007). Applicants shall demonstrate CZMA compliance prior to initiating any project-related construction activities in Indiana.

Environmental Justice

24) In addition to VM 23, which requires Applicants to provide a copy of their emergency response plan to all appropriate state and local authorities within 6 months of the effective date of the Board's final decision, Applicants shall provide the appropriate authorities a Spanish-language version of the emergency response plan, upon request.

25) In addition to VM 11, all of Applicants' informational materials concerning railroad safety shall be provided to elementary, middle, and high schools within 0.5 mile of the EJ&E ROW in both English and Spanish, upon request. In addition to VM 65, Applicants shall make materials and information on their project-related website available in both English and Spanish.

26) In addition to VM 64, Applicants shall provide a Spanish-language translator to work with the Applicants' community liaison as needed to consult with affected communities and businesses, to attend public meetings, and to conduct public outreach.

Air Quality and Climate

27) Applicants shall comply with EPA emissions standards for diesel-electric railroad locomotives (40 CFR 92) when purchasing and rebuilding locomotives.

28) Applicants shall notify local fire departments along the EJ&E rail line at least 4 hours before any open burning activities along the EJ&E rail line ROW and in proposed construction areas and shall obtain oral or written permission from the fire departments prior to such burning activities.

Noise and Vibration

29) Upon request, Applicants shall consult with communities affected by wheel squeal at existing locations on the EJ&E rail line, and cooperate in determining the most appropriate methods for implementing VM 80.

30) Applicants shall make reasonable efforts to notify the U.S. Department of Energy Fermi National Accelerator Laboratory (Fermilab) in Batavia, Illinois, of potentially significant operational changes, such as substantial increases in train speed and/or axle loadings that could affect their vibration-sensitive equipment.

31) In addition to VM 77 through 83 and Condition 70, Applicants shall include in their quarterly reports documentation of their efforts to implement in a timely manner their voluntary noise and vibration mitigation, which is intended to provide effective and measurable noise reduction in areas that qualify for noise mitigation under IDOT or INDOT criteria, as discussed in Chapter 2 of the Final EIS.

Biological Resources

Resource Agency Liaison

32) In addition to VM 64, Applicants shall establish a local resource agency liaison(s) with expertise in environmental and natural resource management to work closely with Federal, state, and local natural and water resource agencies (including Fermilab) for the purpose of improved adaptive natural resource management. Applicants shall name their liaison(s) within 1 month of the effective date of the Board's final decision. Applicants' liaison(s) shall ensure that the adaptive management measures developed shall be incorporated into all relevant railroad ROW maintenance contracts. Applicants' liaison(s) shall be available to consult with resource agencies for 5 years following the effective date of the Board's final decision.

33) Applicants shall work with relevant natural resource stakeholder groups, forest preserve districts, TNC, INDNR, IDNR and USFWS to establish appropriate monitoring programs. These programs shall include identifying baseline conditions and post-transaction conditions, in areas adjacent to forest preserves and designated natural areas on species of concern to the above groups. Applicants shall fund the monitoring programs for a period of 5 years from the effective date of the Board's decision.

Plant Communities

34) In addition to VM 96 and VM 97, Applicants shall work with the natural resource agencies through the Applicants' resource agency liaison(s) (see Condition 32, above) to define sensitive areas where use of herbicides should be restricted.

35) In addition to VM 96, Applicants shall consult with and develop cooperative and adaptive management strategies with natural resource agencies to address invasive species spread directly by transaction-related operations. Applicants' local resource agency liaison(s) (see Condition 32, above) shall serve as coordinator(s).

36) Applicants, through the local resource agency liaison (established in Condition 32, above), shall work with the forest preserve districts to minimize disruptions and complications to the management and implementation of district-prescribed burn programs, to the extent possible.

Federally-Listed and State-Listed Threatened and Endangered Species

37) In addition to VM 51, Applicants shall continue to abide by the special conditions of the 1996 USACE Permit #19960211 for train operations on the Paul Ales Branch in order to minimize further effects on the Hines' emerald dragonfly.

38) To avoid any direct take of Indiana bats, Applicants shall not remove trees within the former EJ&E ROW with a diameter of 3 or more inches between April 15 and September 15. Applicants shall avoid or minimize tree clearing and snag removal within project-related construction area limits.

Water Resources

39) Within 6 months of the effective date of the Board's final decision, Applicants shall consult with EPA, Illinois Environmental Protection Agency (IEPA), and Indiana Department of Environmental Management (IDEM) regarding sensitive surface or groundwater resources along the EJ&E rail line and potential cost-effective preventative measures that could be taken to protect such resources from potential contamination in the unlikely event of a hazardous material release from a rail car on the EJ&E rail line. Applicants shall include in their quarterly reports documentation of the outcome of their consultations and shall abide by the consulting agencies' reasonable requirements.

40) In addition to VM 90, and in response to concerns raised by INDNR, Applicants shall coordinate project-related wetland mitigation planning with INDNR.

41) Applicants shall meet with EPA, USFWS, and USACE during the design of all project-related construction (including the locations of connections and double track) and shall comply with the reasonable requirements of those agencies in order to avoid and minimize, to the extent feasible, effects on wetlands and biological resources.

Constructions

Rail Operations

42) In addition to VM 40, Applicants shall maintain access to the pedestrian tunnel from the Metra Park-n-Ride lot to the Metra train station on the east side of the Chicago Subdivision at Matteson, Illinois. Construction of the Applicants' proposed connection shall not interfere with the public's access along Front Street in Matteson. Prior to the proposed construction, Applicants shall consult with Metra to devise reasonable requirements pertaining to coordinating tunnel access, track construction and existing pedestrian safety.

Rail Safety

43) Applicants shall consult with state Departments of Transportation and other appropriate agencies and shall abide by the reasonable requirements of ICC or INDOT prior to constructing, relocating, upgrading, or modifying highway/rail at-grade crossing warning devices on the EJ&E rail line.

Hazardous Waste Sites

44) Applicants shall use established standards for recycling or reuse of construction materials, such as ballast and rail ties. When recycling construction materials is not a viable operation, the Applicants shall use disposal methods that comply with applicable solid and hazardous waste regulations.

45) Applicants shall follow American Society of Testing and Materials (ASTM) E1527-05, Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process, prior to construction activities related to the Proposed Action in areas where potential contamination may be encountered (ASTM 2005). If the Applicants encounter contamination (or signs of potential contamination) during these activities, Applicants shall perform a Phase 2 environmental investigation.

Land Use

46) In addition to VM 70, in response to concerns raised by IDNR, Applicants shall consult with IDNR or INDNR to coordinate a reasonable easement agreement for crossing state-owned parks in Illinois or Indiana, respectively, to reach project-related construction areas.

47) In addition to VM 54, VM 60, and VM 62, Applicants shall flag the boundaries of any project-related construction near a forest preserve, nature preserve, protected area, local park, scenic corridor, or land and water reserve and shall coordinate with the respective owners and/or managers and abide by their reasonable requirements.

48) Applicants shall store construction-related equipment and materials in established storage areas or on the Applicants' property.

49) Prior to construction of double track near Gilmer Road near Hawthorn Woods, Illinois, Applicants shall coordinate with and abide by the reasonable requirements of Hawthorn Woods regarding the Gilmer Road scenic corridor.

Noise and Vibration

50) Applicants shall implement best management practices when developing construction plans and performing transaction-related construction activities to ensure that construction-related noise and vibration effects are minimized to the extent possible.

51) Applicants shall design and build all new transaction-related, curved track sections of 3 degrees or above in a manner that minimizes or eliminates the potential for wheel flange squeal using guidance provided by AREMA standards.

Biological Resources

52) Applicants shall immediately cease transaction-related construction in the event that a previously unidentified Federally- or state-listed threatened or endangered species is encountered during transaction-related construction activities. In that event, Applicants shall consult with USFWS for Federally-listed species and IDNR and/or INDNR for state-listed species for guidance on how to minimize transaction-related effects and protect these species, and shall comply with the reasonable solutions suggested by those agencies. Applicants' resource agency liaison(s) (see Condition 32, above) shall serve as coordinator(s).

53) In addition to VM 86, Applicants shall not include any invasive weed species in seed mixes for revegetation of areas that would be disturbed during transaction-related construction activities.

54) Applicants shall avoid construction of the Munger connection within Pratt's Wayne Woods Forest Preserve, or any other identified migratory bird nesting or breeding area, during the bird breeding season (April through August) to avoid disturbance of breeding birds.

55) Prior to transaction-related construction activities, Applicants shall reexamine the Federal and state lists of threatened and endangered species for any newly listed species and shall consult with the appropriate resource agencies on any newly listed species. Applicants' resource agency liaison(s) (see Condition 32, above) shall serve as coordinator(s).

56) Applicants shall ensure that all equipment for transaction-related construction activities is washed prior to entering the construction site and after the construction activities are completed. Prior to leaving the construction site, Applicants shall inspect all construction equipment and remove any attached flora, fauna, mud or seeds.

57) Applicants shall maintain the current access to Pratt's Wayne Woods near Wayne, Illinois at the Applicants' Proposed Munger Connection in accordance with existing access and management agreements.

Water Resources

58) Applicants shall compensate for effects on isolated wetlands according to the regulations of the State of Indiana for transaction-related construction activities. Isolated wetlands in Indiana are regulated as State Regulated Wetlands (SRWs) under 327 Indiana Administrative Code (IAC) 17.

59) For transaction-related construction activities, Applicants shall mitigate for effects on isolated wetlands according to the regulations of Lake and DuPage counties in Illinois, both of which have specific mitigation requirements for effects on isolated waters and their associated buffer areas.

60) When performing transaction-related construction activities, Applicants shall not affect existing wetlands in order to create the ponds or stormwater detention that may be required for the management of stormwater runoff.

61) Applicants shall comply with the reasonable requirements of the Will County, Illinois Stormwater Management Ordinance for all transaction-related construction activities in Will County.

62) When performing transaction-related construction activities, Applicants shall avoid increasing upstream flood elevations in Federal Emergency Management Agency (FEMA)-regulated floodplains and shall obtain a Letter of Map Revision (LOMR) from FEMA where construction of bridges, culverts, or embankments would result in an unavoidable increase in 100-year flood elevations greater than 0.1 foot.

63) Prior to beginning transaction-related construction activities, Applicants shall delineate wetlands and conduct floristic quality assessments in jurisdictional wetland and non-jurisdictional wetland habitat in transaction-related construction areas along the EJ&E rail line (including the six connections and the proposed double track).

Cultural Resources

64) During transaction-related construction activities, Applicants shall immediately cease excavation work if archeological resources are encountered during construction activities. Applicants shall inform and consult with the appropriate State Historic Preservation Office and/or appropriate Tribal Historic Preservation Office regarding appropriate measures for addressing the resource, and shall comply with the reasonable requirements those agencies suggest.

Negotiated Agreements

65) Applicants shall comply with the terms of the negotiated agreement that was executed by Joliet, Illinois, and the Applicants on August 25, 2008.

66) Applicants shall comply with the terms of the negotiated agreement that was executed by Crest Hill, Illinois, and the Applicants on November 18, 2008.

67) If Applicants enter into negotiated agreements with communities or other entities following publication of this Final EIS, Applicants shall submit a copy of the agreement to the Board, and the Board will impose a condition that requires the Applicants to comply with the terms of the agreement. The agreement then would substitute for any site-specific mitigation for that particular community or other entity.

Monitoring and Enforcement

68) If there is a material change in the facts or circumstances upon which the Board relied in imposing specific environmental mitigation conditions, and upon petition by any party who demonstrates such material change, the Board may review the continuing applicability of its final mitigation, if warranted.

69) Applicants shall retain a third-party contractor to assist SEA in the monitoring and enforcement of mitigation measures on an as-needed basis until the Applicants have completed transaction-related construction activities, as well as a period covering the first 5 years from the effective date of the Board's final decision, or for any period the Board imposes.

70) In addition to VM 101, Applicants shall submit quarterly reports to SEA on the progress of, implementation of, and compliance with these mitigation measures for a period covering 5 years from the effective date of the Board's final decision or for any period the Board imposes.

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Abbreviations, Acronyms, and Short Forms	
Abbreviation, Acronym, or Short Form	**Definition**
AAR	Association of American Railroads
ACC	American Chemistry Council
ADID	advanced identification
ADT	average daily traffic
AEI	Automatic Equipment Identification
AHCP	Advisory Council on Historic Preservation
AHPA	Archeological and Historic Preservation Act
AIRFA	American Indian Religious Freedom Act
Air Line	St. Charles Air Line
Amtrak	National Railroad Passenger Corporation
APE	area of potential effect
Applicants	Canadian National Railway Company and Grand Trunk Corporation
Application	Railroad Control Application
AREMA	American Railway Engineering and Maintenance Association
ARPA	Archeological Resources Protection Act of 1979
ASTM	American Society of Testing and Materials
BACOG	Barrington Area Council of Governments
BFE	base flood elevation
B&LE	Bessemer & Lake Erie Railroad
BMP	Best Management Practices
BNSF	BNSF Railway Company
Board	Surface Transportation Board
BOCT	Baltimore and Ohio Chicago Terminal Railroad
BRC	Belt Railway Company of Chicago
C	degress Celcius
CAA	Clean Air Act
CATS	Chicago Area Transportation Study
CCP	Chicago, Central & Pacific Railroad Company
CCSP	Climate Change Science Program
CCTV	Closed Circuit Television Surveillance System
CDOT	Chicago Department of Transportation
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CGWP	Certified Ground Water Professional
CHEMTREC	Chemical Transportation Emergency Center
cm	centimeters
CMAP	Chicago Metropolitan Agency for Planning
CO	carbon monoxide
ComEd	Commonwealth Edison Company
CP	Control Points
CRL	Chicago Rail Link
CN	Canadian National Railway Company and Grand Trunk Corporation
CPR	Canadian Pacific Railway Company
CREATE	Chicago Region Environmental and Transportation Efficiency
CSSB	Chicago SouthShore & South Bend Railroad
CSX	CSX Transportation, Inc

Abbreviations, Acronyms, and Short Forms	
Abbreviation, Acronym, or Short Form	**Definition**
CTC	Centralized Traffic Control
CTEH	Center for Toxicology and Environmental Health
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
dBA	decibel above reference noise
DDT	dichloro-diphenyl-trichloroethane
DM&IR	Duluth, Missabe and Iron Range Railroad
DPM	Diesel Particulate Matter
Draft EIS	Draft Environmental Impact Statement
EAC	Early Action Compact
EIS	Environmental Impact Statement
EIT	Engineer in Training
EJ&E	Elgin, Joliet and Eastern Railway Company
EJ&EW	Elgin, Joliet and Eastern Railway West Company
EO	Executive Order
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ERP	Emergency Response Plan
F	degrees Fahrenheit
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
Fermilab	Fermi National Accelerator Laboratory
FHWA	Federal Highway Administration
Final EIS	Final Environmental Impact Statement
FIRM	Flood Insurance Rate Map
FIS	Flood Insurance Studies
FPDCC	Forest Preserve District of Cook County
FPDDC	Forest Preserve District of DuPage County
FPDWC	Forest Preserve District of Will County
FPPA	Farmland Protection Policy Act
FR	Federal Register
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
GCM	Global Circulation Model
GHG	greenhouse gases
GIS	geographic information systems
GLO	General Land Office (Illinois)
GPS	Global Positioning System
GTW	Grand Trunk Western Railroad
HAARGIS	Historic Architectural and Archeology Resources Geographic Information System
HED	Hine's emerald dragonfly
HEI	Health Effects Institute
HMIRS	Hazardous Material Incident Reporting System
I-	interstate highway
IAC	Indiana Administrative Code

Abbreviations, Acronyms, and Short Forms	
Abbreviation, Acronym, or Short Form	**Definition**
IAIS	Iowa Interstate Railroad
IC	Illinois Central Railroad Company
ICA	Interstate Commerce Act
ICC	Illinois Commerce Commission
ICCTA	Interstate Commerce Commission Termination Act of 1995
IC&E	Iowa, Chicago & Eastern Railroad
IDEM	Indiana Department of Environmental Management
IDNR	Illinois Department of Natural Resources
IDCEO	Illinois Department of Commerce and Economic Opportunity
IDOT	Illinois Department of Transportation
IEPA	Illinois Environmental Protection Agency
IGIC	Indiana Geographic Information Council
IHB	Indiana Harbor Belt Railroad
IHPA	Illinois State Historic Preservation Agency
I&M Canal	Illinois & Michigan Canal
IL	Illinois
IN	Indiana
INAI	Illinois Natural Areas Inventory
INDNR	Indiana Department of Natural Resources
INDOT	Indiana Department of Transportation
INPC	Illinois Nature Preserves Commission
IPCC	International Panel on Climate Change
IRIS	Integrated Risk Information System
ISGS	Illinois State Geological Survey
KCS	Kansas City Southern Railway Company
LCFPD	Lake County Forest Preserve District
Ldn	day-night noise level
LEPC	Local Emergency Planning Committee
LMCP	Lake Michigan Coastal Program
LOMR	Letter of Map Revision
LOS	level of service
LWCFA	Land and Water Conservation Fund Act
m	meters
Metra	Commuter rail division of the Regional Transportation Authority of Northeast Illinois, d/b/a Metra
$\mu g/m^3$	micrograms per cubic meter
mg/m^3	milligrams per cubic meter
MOA	Memorandum of Agreement
MOEs	Measures of Effectiveness
MP	milepost
mph	miles per hour
MSATs	mobile source air toxics
MSU	Microwave Sounding Unit
MUTCD	Manual on Uniform Traffic Control Devices
MWG	Midwest Generation, LLC
NAAQS	National Ambient Air Quality Standards

Abbreviations, Acronyms, and Short Forms	
Abbreviation, Acronym, or Short Form	**Definition**
NAFTA	North American Free Trade Agreement
NAGPRA	Native American Graves Protection and Repatriation Act
National Register	National Register of Historic Places
NASA	National Aeronautics and Space Administration
NEPA	National Environmental Policy Act of 1969, as amended
NFIP	National Flood Insurance Program
NFPA	National Fire Protection Association
NHPA	National Historic Preservation Act of 1966
NICTD	Northern Indiana Commuter Transportation District
NIPC	Northeastern Illinois Planning Commission
NIRPC	Northwestern Indiana Regional Planning Commission
No.	Number
NO_2	nitrogen dioxide
NO_x	oxides of nitrogen
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register for Historic Places
NS	Norfolk Southern Rail Road
NSRT	Nationwide Significant Risk Threshold
O_3	ozone
OSHA	Occupational Safety and Health Administration
Pb	lead
PCB	polychlorinated biphenyl
PDO	Pacific Decadal Oscillation
PE	Professional Engineer
PG	Professional Geologist
pH	potenz Hydrogen
PHMSA	Pipeline and Hazardous Material Safety Administration
PM	Particulate Matter
PMOU	Preliminary Memorandum of Understanding
ppm	parts per million
Proposed Action	CN acquiring control of EJ&E and using the existing EJ&E rail line to connect all five of its corridors in Chicago via an arc around Chicago
QEP	Qualified Environmental Professional
QZRI	Quiet Zone Risk Index
REACT	Responder Education Assistance and Certification Training
RfC	reference concentration
ROD	Record of Decision
ROW	right-of-way
RPG	Registered Professional Geologist
RRA	Resource Rich Area
RSPA	Research and Special Programs Administration
RTA	Regional Transportation Authority of Northeast Illinois

Abbreviations, Acronyms, and Short Forms	
Abbreviation, Acronym, or Short Form	**Definition**
RTC	Rail Traffic Controller
S.A. de C.V.	Sociedad Anonima de Capital Variable (Variable Capital Company)
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SARA	Superfund Amendments and Reauthorization Act of 1986
SCIH	South Chicago and Indiana Harbor Railway Company
SEA	Section of Environmental Analysis, Surface Transportation Board
SHAARD	State Historic Architectural and Archeological Research Database
SHPO	State Historic Preservation Officer
SIL	Significant Impact Level
SIP	Safety Integration Plan
SO_2	sulfur dioxide
SRS	Service Reliability Strategy
SRW	State Regulated Wetlands
SSM	supplemental safety measures
STAR	Suburban Transit Access Route
STB	Surface Transportation Board
STCC	Surface Transportation Commodity Code
TEU	twenty-foot equivalent unit
THPO	Tribal Historic Preservation Officer
TIGER	Topological Integrated Geographic Encoded Referencing
TIH	toxic inhalation hazard
TNC	The Nature Conservancy
TRANSCAER	Transportation Community Awareness and Emergency Response Program
TRI	Toxics Release Inventory
Transaction**	The proposed acquisition by Canadian National Railway Company and Grand Trunk Corporation of control of EJ&E West Company
TSA	Transportation Safety Administration
UAH	University of Alabama Huntsville
UHI	Urban Heat Island
Uniform Act	Uniform Relocation Assistance and Real Property Acquisition Policies Act
UP	Union Pacific Railroad Company
U.S.	United States
USACE	U.S. Army Corps of Engineers
USC	United States Code
USDA	U.S. Department of Agriculture
USDOT	U.S. Department of Transportation
USFWS	U.S. Fish and Wildlife Service
USFWS CIFO	U.S. Fish and Wildlife Service Chicago, Illinois, Field Office
USFWS NIESS	U.S. Fish and Wildlife Service Northern Indiana Ecological Services Sub-Office
USGS	U.S. Geological Survey
USS	United States Steel Corporation
VdB	velocity decibels
VM	Voluntary Mitigation measure
VMT	vehicle miles traveled

Abbreviations, Acronyms, and Short Forms	
Abbreviation, Acronym, or Short Form	**Definition**
VOC	volatile organic compounds
WCL	Wisconsin Central Ltd.
WHPA	wellhead protection area
WILD	Wheel Impact Load Detectors

Glossary

303(d) list.....A list of threatened and impaired waters prepared biennially by a state and submitted to the US EPA under the Clean Water Act. The list specifies streams with known or foreseeable future pollution or other biological impairments. Listing a stream as impaired my have implications in water quality related permitting, including the NPDES and 401/404 programs.

abandonment .....The discontinuance of service on a rail line segment and the salvaging and/or the removal of railroad-related facilities from the line and the national rail transportation system pursuant to authority issued by the Board.

absolute block .....A length of track that no train is permitted to enter while the track is occupied by another train.

absolute signal *("A" block)*.....A block or interlocking signal without a number plate, or designated by an "A" marker.

accelerometer.....An electromechanical device that measures acceleration forces such as vibration.

Action Area .....Under the Federal Endangered Species Act, the area potentially subject to direct or indirect project-related impacts.

Advisory Council on Historic Preservation *(ACHP)*.....An independent Federal agency charged with advising the President and Congress on historic preservation matters and administering the provisions of Section 106 of the National Historic Preservation Act.

adverse environmental effects .....Any adverse change to the environment wholly or partially resulting from the action before the Board.

acceptable mobility.....Mobility is acceptable in a community if: 1) roadways operate at LOS D or better, 2) queue lengths do not block a major roadway, and 3) roadways operating at LOS E and F have an alternate route.

alternate route.....One or more other routes that have the capacity to handle additional traffic volumes and are within a mile of a congested street that is sometimes blocked by a train. Alternate routes may or may not be grade separated.

Amtrak .....Amtrak is the operating name of the National Railroad Passenger Corporation, a federal government-owned corporation that was organized in 1971 and now provides intercity passenger rail services to more than 500 destinations in 46 states on a 21,000-mile route system within the United States.

Applicants.....Canadian National Railway Company and Grand Trunk Corporation; also referred to as "CN" in this EIS.

aquifer ..... A subsurface zone that yields economically important amounts of water to wells. The term is synonymous with water-bearing formation. An aquifer may be porous rock, unconsolidated gravel, fractured rock, or cavernous limestone.

Area of Potential Effects *(APE)* .... From the National Historic Preservation Act, the Area of Potential Effects is the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if such properties exist. The APE is influenced by the scale and nature of the undertaking and may be different for different kinds of effects caused by the undertaking.

arterial..... A class of street that allows significant traffic movements for travel between major points and provides regional connectivity.

attainment..... Compliance with the National Ambient Air Quality Standards (NAAQS) promulgated under the Clean Air Act.

Beltway Corridor ..... Planned rail line segment designated by CREATE that would primarily handle freight traffic between Franklin Park and South Holland, Illinois.

Board..... The Surface Transportation Board (STB) is the federal agency that is charged with approving proposed acquisitions, such as this. See Surface Transportation Board.

branch line ..... A branch line is a rail line which serves one or more rail station(s) beyond the junction of the main line or another branch line.

brownfields ..... Abandoned, idled, or under-used industrial and commercial property where expansion or redevelopment is complicated by environmental contamination.

calcareous.....With a high proportion of calcium carbonate; alkaline, with a relatively high pH. In the Chicago region, usually referring to soils associated with limestone or dolomite bedrock.

Canadian National Railway Company……..... A rail carrier that controls its U.S. rail subsidiaries through Grand Trunk Corporation, a noncarrier holding company.

Central Corridor..... Planned rail line segment as designated by CREATE that would primarily handle freight traffic between Franklin Park, Illinois and Chicago.

census block groups ..... The U.S. Census Bureau uses this geographical unit, which is between the census tract and the census block. It is the smallest geographical unit for which the bureau publishes sample data, i.e., data that is only collected from a fraction of all households.

Chicago Metropolitan Agency for Planning (CMAP).....Formed in 2005, the Chicago Metropolitan Agency for Planning integrates planning for land use and transportation in the seven counties of northeastern Illinois.

Chicago Subdivision.....One of five rail lines that converge in Chicago; this subdivision approaches Chicago from the south and constitutes the former Illinois Central (ICRR).

Chicago Terminal District.....A 2,800-mile network of rail lines within the Chicago area.

Chicago Terminal Zone.....CN's Waukesha, Freeport, Joliet, Chicago, and Elsdon subdivisions.

Class I, II, III railroads.....The Surface Transportation Board's regulations divide railroads into three classes based on annual operating revenues (in 1991 dollars): Class I railroads, with annual carrier operating revenues of $250 million or more; Class II railroads, with annual carrier operating revenues of more than $20 million but less than $250 million; and Class III railroads, with annual carrier operating revenues of $20 million or less (49 CFR 1201, General Instruction 1-1[a]).

classification.....The sorting and assembling of rail cars in station or delivery order for making up or breaking up trains. Rail cars are sorted and assembled by their destination.

classification yard.....A facility used for sorting and grouping rail cars in accordance with movement requirements, such as the destination point of the rail cars.

Clean Air Acts.....Enacted in 1963 and 1970 and amended in 1977 and 1990, this Federal legislation authorized the development of comprehensive Federal and state regulations to limit emissions from both stationary (industrial) sources and mobile sources and also substantially expanded enforcement authority.

CN.....Canadian National Railway Company and Grand Trunk Corporation; also referred to as "the Applicants" in this EIS.

construction limits.....The physical limits of all disturbance due to construction and construction-related activities.

Coastal Management Zone.....An area in the Great Lakes region that is part of a nationwide Federal-state partnership established under the Coastal Zone Management Act of 1972, which established the national Coastal Zone Management Program. To provide public access for recreation, preserve and restore historic, cultural, and esthetic coastal features, and protects natural resources.

Code of Federal Regulations ..... The Code of Federal Regulations (CFR) is the codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the Federal Government. It is divided into 50 titles that represent broad areas subject to Federal regulation. Each volume of the CFR is updated once each calendar year and is issued on a quarterly basis. The Board's regulations are in Title 49 of the CFR.

common carrier ..... A carrier that transports people, goods, or services and offers its services to the general public.

containment basin ..... A structure used to contain liquid spillage, particularly of hazardous materials.

Control Point *(CP)* ..... A location where remote control operators divert trains onto different tracks.

Council on Environmental Quality ..... Federal agency responsible for developing regulations and guidance for agencies implementing the National Environmental Policy Act.

CREATE ..... The objective of the Chicago Region Environmental and Transportation Efficiency (CREATE) Program is to enhance the efficiency of freight and passenger rail service in the Chicago area by making significant improvements to railroad infrastructure.

critical habitat ..... A designation under the Federal Endangered Species Act, defined as (1) specific areas within the geographical area occupied by the species at the time of listing, if they contain physical or biological features essential to conservation, and those features may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by the species but essential for conservation. All Federal agencies must ensure that any actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of a listed species, or destroy or adversely modify its designated critical habitat.

crossbuck ..... A regulatory sign that requires vehicles to yield to trains and stop if necessary. The U.S. Federal Highway Authority's (FHWA) 2003 Manual on Uniform Traffic Control Devices (MUTCD) requires the crossbuck sign for all highway approaches to railroad grade crossings.

crossover ..... Two turnouts that form a continuous passage between two nearby and generally parallel tracks.

cut-through traffic ..... Traffic that used local streets rather than the collector/arterial roadway network to avoid congestion.

daily exposure ..... The total number of potential conflicts at each rail-rail crossing based on the number of trains that cross the location in a 24-hour period

dB ..... Decibel: A sound's intensity is determined by how much its pressure fluctuates above and below that of the atmosphere and is expressed in units of decibels (dB). The range of normally encountered sound can be expressed in values between 0 and about 140 dB.

dBA ..... A-weighted decibel: Since the human ear does not respond equally to all frequencies (or pitches), measured sound levels often are adjusted or weighted to correspond to the frequency response of human hearing and the perception of loudness. The A-weighted decibel (dBA) scale is most widely used for this purpose.

Dixie and hump leads ..... The two lead tracks providing access to Kirk Yard in Gary, Indiana.

dolomite ..... A type of rock composed of calcium magnesium carbonate. Similar to limestone but with the presence of magnesium. The dominant underlying bedrock of the Chicago region.

double track ..... A second railroad track immediately adjacent to an existing track designed to perform railroad activities similar to those occurring on the existing track.

drift thickness ..... The total thickness of Quaternary deposits covering bedrock.

dynamic braking ..... A method of train braking where the kinetic energy from the train movement generates current at the locomotive traction motors and is dissipated in a resistor grid on the locomotive.

East-West Corridor ..... Planned rail line segment as designated by CREATE that would primarily handle freight traffic between Chicago and Bridgeview, Illinois.

EJ&E arc ..... The EJ&E main line extends in an arc around Chicago. The area inside the EJ&E arc includes the portions of Lake, Cook, DuPage, and Will counties in Illinois and Lake County in Indiana located within the arc formed by the EJ&E main line between Waukegan, Illinois; Joliet, Illinois; and Gary, Indiana.

EJ&E main line ..... EJ&E's principle railroad track consisting of their eastern and western divisions and includes sidings, spurs, and yards at a number of different locations to serve train meets, customers, and/or hold freight cars.

EJ&E rail line ..... A rail line in northeastern Illinois and northwestern Indiana that extends in a 120-mile arc around the city of Chicago.

EJ&E West Company ..... An Illinois corporation that was formed on August 16, 2007, and is a wholly owned noncarrier subsidiary of Elgin, Joliet and Eastern Railway Company (EJ&E); if the Board approves the Applicants' proposed acquisition, EJ&E West Company would assume the EJ&E name.

Elsdon Subdivision ..... One of five rail lines that converge in Chicago; this subdivision approaches Chicago from the southeast.

Emergency Response Plan (*ERP*) ..... A guide upon which actions and decisions can be based to govern the immediate response to an emergency. The intent of the ERP is to identify certain responsibilities delegated to various teams and employees, present details of the notification procedures, and describe alternate measures and response actions.

emergency service provider..... Usually includes police, sheriffs, the highway patrol, fire departments, and emergency medical providers such as clinics and hospitals.

environmental justice..... The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income by identifying and addressing the effects of transportation projects on the public, especially disproportionately high or adverse impacts on minority or low-income populations.

Environmental Impact Statement ..... A document that the National Environmental Policy Act requires Federal agencies to prepare for major projects or legislative proposals having the potential to significantly affect the environment. A tool for decision-making, it describes the positive and negative environmental effects of the undertaking, and alternative actions and measures to reduce or eliminate potentially significant environmental impacts.

environmental review process..... A process conducted by SEA that assesses the potential environmental effects of the Proposed Action on the human and natural environment through preparation of an EIS.

extraction well ..... A well or a drill hole in an "in situ leach" operation through which the solutions (or groundwater) are extracted to the surface treatment plant. "In situ leaching" refers to the in-place mining of a mineral without removing overburden (see "overburden") or ore by installing a well and mining directly from the natural deposit thereby exposed to the injection and recovery of a fluid that causes the leaching, dissolution, or extraction of the mineral.

Federal Register ..... The official daily publication for rules, proposed rules, and notices of Federal agencies and organizations, as well as Executive Orders and other Presidential documents.

FEMA flood zone ..... Geographic areas that the U.S. Federal Emergency Management Agency (FEMA) has defined according to varying levels of flood risk. Each zone reflects the severity or type of flooding in the area.

fen ..... A type of wetland fed by alkaline groundwater.

fixed-span bridge..... A non-moveable bridge that does not open to allow boats to pass through.

flat-switching yard.....A yard at which switching depends on locomotive power, with little assistance from gravity, to move cars to and from various tracks in the process of classifying these cars.

floodplain.....The area on the sides of a stream, river, or watercourse that is subject to periodic flooding. The extent of the floodplain is dependent on soil type, topography, and water flow characteristics.

floodway .....The area regulated by Federal, state, or local requirements to provide for the discharge of the base flood so the cumulative increase in water surface elevation is no more than a designated amount (not to exceed one foot as set by the National Flood Insurance Program) within the 100-year floodplain.

forbs.....A non-wooded, broad-leaved plant other than a grass, especially one growing in a field, prairie, or meadow.

Freeport Subdivision.....One of five rail lines that converge in Chicago, this Subdivision approaches Chicago from the west.

glaciofluvial.....Glaciofluvial deposits were left behind by rivers that helped drain melting glaciers. These deposits are typically composed of coarse-grained soil.

glaciolacustrine.....Glaciolacustrine deposits were created by temporary lakes that formed when glaciers were melting. These deposits usually have a high concentration of fine-grained soil.

Glenn Yard.....One of CN's three major terminals in Chicago.

grade separated.....An intersection of roads or rail lines that is separated by a bridge.

graminoid.....Grasses and grasslike plants.

Greenway .....A corridor of open space that runs through urban and suburban developments to protect natural and cultural resources, provide recreational opportunities, improve and sustain hydrological functions, and enhance the natural beauty and the quality of life in neighborhoods and communities.

growth factor.....Traffic data are not collected by every transportation agency every year, so it is not always possible to directly compare traffic growth among counties and cities. To make year-to-year comparisons possible, traffic counts can be multiplied by a growth factor, a percentage of previous growth, to obtain a realistic estimate of average daily traffic (ADT).

haulage rights.....The right (or combination of rights) of one railroad to have its trains operated by another railroad over the designated trackage of that railroad.

haulage trains.....Trains that transport another railroad's cars across their system.

Hawthorne Yard.....One of CN's three major terminals in Chicago.

hazardous materials .....A solid, liquid, or gas transported by a railroad that requires emergency response to protect the public or the environment if released. Any item or agent (biological, chemical, physical)

which has the potential to cause harm to humans, animals, or the environment, either by itself or through interaction with other factors. Hazardous materials are defined and regulated in the United States primarily by laws and regulations administered by the U.S. Environmental Protection Agency (EPA), the U.S. Occupational Safety and Health Administration (OSHA), the U.S. Department of Transportation (USDOT), and the U.S. Nuclear Regulatory Commission (NRC). Each has its own definition of a "hazardous material."

hazardous waste ..... Waste with properties defined under the Resource Conservation and Recovery Act (RCRA) that make it dangerous or potentially harmful to human health or the environment.

head protection elements ..... Devices that limit the potential for puncturing the end of a car in an accident.

highway/rail at-grade crossing..... The general area of an intersection of a public or private road and a railroad where the intersecting rail and highway traffic are at the same level.

hi-rail..... A hi-rail is a self-propelled road-rail vehicle that can be legally used on both roads and rails. Sometimes referred to as a "Hy-rail" or "HiRail," they are normally converted rubber-tired road vehicles that have additional steel wheels for running on rails.

hostlers ..... Rail yard employees who operate locomotives around a shop area, taking them in and out of the shop for repair.

hump ..... In some classification yards, an artificial hill, or hump, over which rail cars are first pushed and then released to roll by gravity onto specific tracks.

hydraulic structures..... Anything that can be used to divert, restrict, stop, or otherwise manage the natural flow of water.

Incident Command System *(ICS)* . A standardized, on-scene, all-hazard incident management concept used in the United States. It is a management protocol originally designed for emergency management agencies and later federalized.

incidental take ..... Under the Federal Endangered Species Act, the "take" (loss of or harassment of) a species "incidental" to some other action; that is, the take is not the primary intent of the activity, but it is a result of the activity.

Interstate Commerce Commission Termination Act *(ICCTA)* ..... A statute that eliminated the Interstate Commerce Commission effective December 31, 1995, and transferred certain rail regulatory functions of that commission to the Board, including the licensing of rail mergers and acquisitions.

interchange ..... The transfer of cars from one rail road to another.

interlocking..... An arrangement of signal equipment so interconnected that train movements must succeed each other in safe, proper sequence. It may be operated manually or automatically.

intermodal hub or facility.....A facility that provides for transfer of containerized cargo or truck trailers between two or more modes of transportation, such as trucks, railroads, and cargo ships.

Joliet Subdivision.....One of five rail lines that converge in Chicago; this subdivision approaches Chicago from the southwest.

kames.....A conical hill of sorted drift formed in depression created by a passing glacier.

karst.....A geologic formation of irregular limestone deposits that dissolve, forming sink holes, underground streams, and caverns.

Kirk Yard.....A major, automated hump type classification yard at Gary, Indiana, currently owned and operated by the EJ&E that CN would acquire as part of the Proposed Action.

Land and Water Conservation Fund *(LWCF)*.....A matching assistance program established by Congress that provides grants to pay half the acquisition and development cost of outdoor recreation sites and facilities.

lead track.....Trackage connecting a rail yard or an intermodal hub with the main line.

Ldn, Leq.....Hour equivalent sound level (Leq) and daily day-night noise level (Ldn).

level of service *(LOS)*.....Level of service (LOS) refers to the efficiency at which a roadway, intersection, or highway/rail at-grade crossing operates, and is a reflection of vehicle delay and congestion. Letters from A to F are assigned to the LOS, with LOS A indicating relatively free-flowing traffic and LOS F indicating extreme congestion.

lift bridge.....(see vertical lift bridge)

line-haul carrier.....A rail carrier that moves freight over its rail line or part of its rail line.

line occupancy index *(LOI)*.....Line Occupancy Index (LOI) is a ratio between the theoretical train capacity of a line segment and the projected actual train use of a line segment. This analysis calculates the amount of time a train would take to pass through a specific segment, while taking into consideration such factors as train speed and length, track speed, number of tracks, and other related factors that may affect capacity, such as the number of bridge lifts, etc.

Local Emergency Planning Committee *(LEPC)*.....A group of concerned citizens and officials from local governments, law enforcement, fire and emergency medical services, hospitals, schools, civic and environmental groups, business and industrial facilities, and the news media that prepares for and manages emergencies associated with hazardous materials.

maintenance of way.....The repair and maintenance of a railroad's right-of-way.

Markham Yard ..... An intermodal hub that is one of CN's three major terminals in Chicago.

marsh..... A type of wetland dominated by emergent vegetation such as cattail or bulrush, but usually without trees or shrubs.

marshaling ..... Another word for classification. See "classification" and "classification yard."

mesic..... A habitat type with a moderate or well-balanced amount of moisture.

Metra..... Metra is a regional commuter rail system that serves more than 100 communities at 239 rail stations within a across a six county service area, which includes Cook, DuPage, Kane, Lake, McHenry and Will Counties, all of which includes the City of Chicago and the surrounding metropolitan area. Known as the Northeast Illinois Regional Commuter Railroad Corporation, Metra is responsible for system wide management of day-to-day operations, fare and service levels, capital improvements and planning of commuter rail services.

mitigation..... An action taken to prevent, reduce, or eliminate potential adverse environmental effects.

moraines..... The accumulations of fragments of rock brought down by glaciers.

Mobile Source Air Toxics..... The Clean Air Act defined this subset of 188 air toxics. Mobile Source Air Toxics (MSATs) are compounds emitted from highway vehicles and non-road equipment. Some toxic compounds are present in fuel and are emitted to the air when the fuel evaporates or passes through the engine unburned. Other toxics are emitted from the incomplete combustion of fuels or as secondary combustion products. Metal air toxics also result from engine wear or from impurities in oil or gasoline.

mobility ..... The ease of moving people and goods within a transportation network. In this context, mobility means the ability of the people in a community to move easily from place to place on the local roadway network, which includes the ability to cross active rail lines.

multi-modal ..... The transportation of goods and people via freight rail, passenger rail, and highway.

National Ambient Air Quality Standards *(NAAQS)* ..... The Clean Air Act requires EPA to set National Ambient Air Quality Standards for wide-spread pollutants from numerous and diverse sources considered harmful to public health and the environment.

Native American..... According to the Native American Graves Protection and Repatriation Act of 1990, as amended (25 United States Code

[USC] 3001 et seq.; P.L. 101-601), of, or relating to, a tribe, people, or culture that is indigenous to the United States.

National Environmental Policy Act *(NEPA)* ..... The National Environmental Policy Act of 1969, amended, requires Federal agencies to take a hard look at the environmental consequences of their licensing decisions.

National Historic Preservation Act *(NHPA)* ..... The National Historic Preservation Act of 1966, last amended in 2000, established a program for the preservation of additional historic properties throughout the nation and requires Federal agencies to consider how proposed actions could affect historic properties.

New Starts funding ..... New Starts funds are grants and generally require local matching funds. Projects eligible for New Starts (49 USC 5309) funding from FTA include rapid rail, light rail, commuter rail, automated guideway transit, people movers, and exclusive facilities for buses (such as bus rapid transit) and other high-occupancy vehicles.

nonattainment ..... Failure to comply with the National Ambient Air Quality Standards promulgated under the Clean Air Act.

Northwestern Indiana Regional Planning Commission *(NIRPC)* ..... A regional council of local governments serving the three counties of northwest Indiana. The NIRPC provides a forum that enables local citizens to address regional issues relating to transportation, the environment, and community and economic development.

NO_x and NO_2 ..... Most combustion processes emit nitrogen oxides (NO_x), primarily in the form of nitrogen oxide (NO) and to a lesser degree in the form of nitrogen dioxide (NO_2). The emitted NO then converts to NO_2 in the atmosphere as the emissions disperse downwind of a source. While compliance with the NAAQS is measured as NO_2, the emissions from sources are typically measured as NO_x (the sum of NO and NO_2 emitted).

Operation Lifesaver ..... A non-profit, international continuing public education program established in 1972 to end collisions, deaths, and injuries at places where roadways cross train tracks, and on railroad rights-of-way. Federal, state, and local government agencies; highway safety organizations; and the nation's railroads all cooperatively sponsor Operation Lifesaver.

outwash ..... A deposit of sand and gravel carried by running water from the melting ice of a glacier and laid down in stratified deposits. An outwash may attain a thickness of 328 feet at the edge of a glacier, although the thickness is usually much less; it may also extend many miles in length.

overburden ..... Soil or rock overlying a valuable mineral deposit.

ozone..... A photochemical oxidant and the major component of smog that is formed through complex chemical reactions between precursor emissions of volatile organic compounds and oxides of nitrogen in the presence of sunlight.

palustrine..... Pertaining to a marsh or wetlands; wet or marsh habitats.

particulate matter *(PM)*..... Airborne dust or aerosols.

Passenger Express Corridor..... Two planned rail line segments as designated by CREATE that will primarily handle commuter and interstate passenger traffic from Chicago to South Chicago and from Chicago to Oak Lawn, Illinois.

peak period..... Often referred to as rush hour, peak period typically refers to weekday morning and evening hours when traffic congestion is at its worst.

placard..... A sign affixed to a rail car or truck indicating the hazardous designation of the product being transported in that vehicle.

prime farmland..... Land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses.

Proposed Action..... Applicants' proposed acquisition of control of EJ&E West Company and use of the EJ&E rail line to connect all five of CN's rail lines in Chicago.

protective action area..... An area of land expressed as a radial distance from the site of a hazardous materials release or fire that depends on a number of factors specific to the hazardous chemical released and the circumstances of the accident.

quadrant..... Any of the four quarters into which an area is divided by two rail lines that intersect each other at right angles.

queue..... A line of waiting people or vehicles.

queue length..... Queue length is the measurement of the estimated number of vehicles in line at a blocked crossing caused by a single-train event at the end of the time the crossing is blocked. Traffic engineers use a formula to determine queue length, which takes into consideration such factors as the length of time it takes for a train to pass a crossing, the number of highway traffic lanes at a crossing, and the volume of traffic at the crossing.

quiet zone..... An area along a rail line where crossing safety has been improved so that trains are no longer required by the Federal Railroad Administration (FRA) to sound their horns at crossings.

rail carrier..... An entity providing common carrier rail service.

rail line segments ..... Portions of rail lines that extend between two terminals or junction points.

rail/rail at-grade crossing..... The general area of an intersection of two railroads where the intersecting rail traffic is at the same level.

rail station ..... A place designated by name in the railroad timetable.

Resource Conservation and Recovery Act *(RCRA)*..... The United States' primary law governing the disposal of solid and hazardous waste. Congress passed RCRA on October 21, 1976, to address the increasing problems the nation faced from its growing volume of municipal and industrial waste. RCRA, which amended the Solid Waste Disposal Act of 1965, set national goals for 1) protecting human health and the environment from the potential hazards of waste disposal, 2) conserving energy and natural resources, 3) reducing the amount of waste generated, and 4) ensuring that wastes are managed in an environmentally-sound manner.

recovery well ..... A well used to remove contaminants from, or otherwise remediating, ground water.

release ..... An unwanted discharge of material into the environment.

release interval..... The interval between releases on a segment is essentially the average or expected time that would elapse between two successive release events on a particular rail segment.

right-of-way..... The strip of land for which a railroad has a property right to build, operate, and maintain a rail line.

riparian habitat..... Areas adjacent to rivers and streams with a differing density, diversity, and productivity of plant and animal species relative to nearby uplands.

repair in place *(RIP)* track..... A designated track or tracks in a rail yard where locomotives and/or railroad cars are set out for minor repairs without removing the units from service, sometimes without even removing a freight load from the car. In some yards, a RIP track may be used for staging locomotives or "bad order" cars for major repairs. Some yards may have more than one RIP track to serve both functions.

roadway capacity..... The maximum traffic flow obtainable on a given roadway using all available lanes; it is usually expressed in vehicles per hour or vehicles per day. A roadway would be considered to at or near capacity if it is at LOS E. It is at capacity or over capacity if it is at LOS F.

roundhouse..... A large, circular or semicircular building which railroads use to service locomotives.

Safety Integration Plan *(SIP)* ..... Plan that Applicants prepare and submit to the Board and to FRA under Board regulations at 49 CFR 1106 to explain how they propose to provide for the safe integration of their separate

corporate culture and operating systems, if the Board approves the proposed action.

Safe Harbor Agreement ..... Under the Federal Endangered Species Act, an agreement between U.S. Fish and Wildlife Service and a private landowner which assures that the landowner will not be penalized for actions such as land management which attract or increase populations of protected species. A Safe Harbor Agreement can authorize certain levels of "take" consistent with the overall land management objectives.

scenic corridor..... Road corridor consisting of 50 feet between the road right-of-way and the edge of development to provide natural landscaping elements including berming or generous landscaping materials.

scoping ..... The process for determining the scope of environmental issues to address in the EIS and their potential significance.

sedge meadow..... A type of wetland dominated by sedges, often with a tussock-forming growth habit.

Section of Environmental Analysis *(SEA)* ..... The Section of Environmental Analysis is the office within the Board responsible for directing the environmental review process, conducting independent analysis of all environmental data, and making environmental recommendations to the Board. At the conclusion of the environmental review process, the Board considers the entire environmental record, including all public comments submitted during the review process, as well as the transportation merits before making a final decision.

siding ..... A track parallel to a main track that is connected to the main track at each end. A siding is used for the passing and/or storage of trains.

sound exposure level *(SEL)* ..... The total amount of sound that a person receives from a noise event, such as a train pass-by. SEL values are used in noise models to predict future noise levels from increased train traffic.

Standard Transportation Commodity Code *(STCC)* ..... A 7-digit coding structure designed to classify all commodities or articles that move or may move in freight transportation.

staging location..... A location where trains can wait to proceed through a crossing without blocking other crossings.

State Implementation Plan..... State Implementation Plans are the regulations and other materials for meeting clean air standards and associated Clean Air Act requirements. State Implementation Plans include: 1) state regulations that EPA has approved; 2) state-issued, EPA-approved orders requiring pollution control at individual companies; 3) in rare cases, federally promulgated regulations, designated as FIPs (federal implementation plans); and 4) planning documents such as area-specific compilations of emissions estimates and computer simulations (modeling

analyses) demonstrating that the regulatory limits assure that the air will meet air quality standards.

state-listed.....An animal or plant protected under a state endangered species act.

Study Area.....Chicago metropolitan area, generally encompassing northeast Illinois and northwest Indiana.

subdivision.....Smaller entities of the rail lines under consideration in this Draft EIS. Five of CN's subdivisions—Waukesha, Freeport, Joliet, Chicago, and Elsdon—are within the Chicago Terminal District.

Suburban Transit Access Route *(STAR)* .....A proposed commuter service that would use the EJ&E corridor from Hoffman Estates to Joliet, Illinois.

Surface Transportation Board…..An economic regulatory agency authorized by Congress to review proposed railroad mergers and acquisitions and rail constructions and abandonments, and resolve railroad rate and service disputes. The Board is decisionally independent, although it is administratively affiliated with the U.S. Department of Transportation.

swing bridge .....A bridge over water that can be rotated horizontally on a central pier to allow ships through; also known as a pivot bridge.

switch .....The portion of the track structure (consisting of rails and connecting parts) that is used to direct cars and locomotives from one track to another.

switching.....The activity of moving cars from one track to another in a yard or where tracks go into a railroad customer's facility.

switching and blockswap facility...Used to switch rail cars (5 to 10 at a time) and assemble groups of "blocked" rail cars (25 to 100) in proper sequence routed for a common destination.

switching carriers .....Connecting railroads that link all of the major railroads in the Chicago area. Some switching carriers transfer rail cars from one rail line to another; others operate in switching yards, where trains are classified in accordance with movement requirements such as destinations.

terminus.....The end of a railroad's ownership of a rail line, often indicated by rail station name.

thermal protection systems.....Equipment that protects a rail car and its contents from exposure to nearby fires.

threshold for environmental analysis.....A level of proposed change in railroad activities that determines the need for SEA's environmental review.

throttle modulation.....Minor adjustments of the throttle for the purpose of controlling tractive effort.

toxic inhalation compounds *(TIH)* ..... Materials that are poisonous or toxic if inhaled.

TPC ..... A Train Performance Calculator (TPC) is an industry standard model that looks at the performance characteristics of a single train, such as trip duration, speed, fuel use, and fuel efficiency.

trackage rights..... The right (or combination of rights) of one railroad to operate over the designated trackage of another railroad.

trail ..... An off-road route generally used for recreational and leisure purposes that has been created by use over time or by development and construction.

train accident..... Reportable accidents are those with equipment damage greater that $8,500. FRA defines a train accident as "A safety related event involving on-track rail equipment (both standing and moving), causing monetary damage to the rail equipment and track above a prescribed amount."

trainset ..... A group of railroad cars that is permanently or semi-permanently coupled together to form a unified set of equipment; the term is most often applied to passenger train configurations.

Transaction..... The proposed acquisition by Canadian National Railway Company and Grand Trunk Corporation of control of EJ&E West Company.

transects ..... Straight lines with defined start and end points and known direction, traversed by biologists during the gathering of data.

transloading..... The direct transfer of bulk materials from train to truck.

turnout ..... A grouping of two tracks joined together with a frog and switch, so arranged as to allow for the transfer of rolling stock and on-track equipment from one track to another.

undivided arterial..... An arterial, whether it is two lanes or four lanes, that does not have a median, such as a strip of land, separating the lanes of opposing traffic.

universal crossover..... The location on a double track where trains can change from one track to another.

Urban Heat Island effect *(UHI)* .... The Urban Heat Island effect is used to describe situations in which urban and suburban areas are 2°F to 10°F warmer than the surrounding area. Heat islands form when cities replace natural land cover with pavement, buildings, and other infrastructure.

vehicle exposure ..... The total number of potential conflicts between highway traffic and train traffic at highway-rail grade crossings at each rail-rail crossing based on the number of trains that cross the location in a 24-hour period.

vertical lift bridge..... A bridge consisting of a rigid deck frame held between two tall towers; it opens by hoisting the entire bridge roadway upward between the towers in an elevator-like fashion.

Waukesha Subdivision.....One of five rail lines that converge in Chicago; this subdivision approaches Chicago from the north.

Western Avenue Corridor.....Planned rail line segment as designated by CREATE that will primarily handles freight traffic from South Holland to Chicago.

wetlands.....Areas that are inundated or saturated by surface water or groundwater for all or some portion of the year and that support vegetation typically adapted for life in saturated soil conditions.

yard.....A yard is where rail cars are stored and sorted.

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Chapter 1
Introduction and Background

1.1 Background

On October 30, 2007, Canadian National Railway Company and Grand Trunk Corporation (collectively, CN, or the Applicants) filed an application with the Surface Transportation Board (the Board) seeking its approval to acquire control of EJ&E West Company,[1] a wholly owned noncarrier subsidiary of Elgin, Joliet and Eastern Railway Company (EJ&E). The Applicants propose to acquire control of EJ&E West Company and to use EJ&E's main rail line to connect all five of CN's rail lines in the Chicago, Illinois, metropolitan area (herein referred to as the Proposed Action). The EJ&E main line, located in northeastern Illinois and northwestern Indiana, extends in an arc around Chicago as follows:

- From Waukegan, Illinois, southwest to Joliet, Illinois
- From Joliet eastward to Gary, Indiana
- From Gary northwest to Chicago, along Lake Michigan

Figure 1.1-1, Project Vicinity, shows the existing CN and EJ&E rail systems.

Under the Applicants' Proposed Action, EJ&E would transfer all of its land, rail, and related assets west of the centerline of Buchanan Street in Gary, Indiana, to EJ&E West Company. These assets include EJ&E's main line as well as double track, branch lines, and yards. At that time, EJ&E West Company would become a rail common carrier. EJ&E would retain its land, rail, and related assets east of the centerline.[2] If the Board approves the Proposed Action, EJ&E will change its name to Gary Railway Company and EJ&E West Company will assume the Elgin, Joliet and Eastern Railway Company name.

CN would shift much of the rail traffic currently moving over CN's rail lines in Chicago to the EJ&E main line. Rail traffic on CN rail lines inside the EJ&E arc[3] would generally decrease, and those areas would see environmental benefits. The number of trains operating on the EJ&E main line outside Chicago would increase by approximately 15 to 24 trains per day, resulting in potential adverse effects. The Proposed Action would also involve construction of six short rail connections for operational efficiency; CN would construct these connections within, or very close to, existing rail right-of-way (ROW). In addition, CN would construct five segments of siding extensions, or second mainline track (double track), totaling approximately 19 miles. The Applicants state that they do not anticipate any rail line abandonments in conjunction with the Proposed Action (Applicants 2007a).

1 EJ&E West Company is an Illinois corporation formed on August 16, 2007.

2 Except for property associated with two lead tracks (the Dixie and hump leads) providing access to Kirk Yard in Gary, Indiana.

3 The area inside the EJ&E arc includes the portions of Lake, Cook, DuPage, and Will counties in Illinois and Lake County in Indiana located within the arc formed by the EJ&E main line between Waukegan, Joliet, and Gary. The area outside the EJ&E arc includes portions of the aforementioned counties as well as Kendall and Grundy counties in Illinois.



Figure 1.1-1
Project Vicinity

On December 21, 2007, the Board issued a Notice of Intent (NOI) to prepare, through its Section of Environmental Analysis (SEA), an Environmental Impact Statement (EIS) for this proceeding (Federal Register (FR) 2007a). The Board determined that the Applicants' proposal warranted an EIS in accordance with the National Environmental Policy Act of 1969, as amended (NEPA) (Board 2007a; 42 United States Code [USC] 4321 et seq.). The President's Council on Environmental Quality (CEQ) regulations implementing NEPA and the Board's own environmental rules prescribe the level of documentation required for the environmental review process; actions significantly affecting the quality of the human environment generally require an EIS (42 USC 4332(2)(C); 40 Code of Federal Regulations (CFR 1508.11; 49 CFR 1105.4(f); 49 CFR 1105.5). In the case of the Proposed Action, the projected increases in train traffic on certain rail line segments and at rail facilities would exceed the Board's thresholds for environmental analysis (49 CFR 1105.7(e)). The Board based its decision to prepare an EIS on the information provided in the Application and on concerns expressed by communities potentially affected by the Proposed Action.

Following the scoping process that determined the issues to be addressed in the EIS, SEA served the Draft EIS on July 25, 2008, and established a 60-day public review and comment period, which closed September 30, 2008. The same day, the Board issued Decision No.13, which set a procedural schedule for the completion of this Final EIS. EPA published a Notice of Availability for the Draft EIS in the Federal Register on August 1, 2008 (FR 2008). SEA then hosted eight public meetings throughout the Chicago metropolitan area, and five stakeholder meetings with local, Federal, and state agencies, to facilitate public review and comment on the Draft EIS. These efforts are discussed in Chapter 5, Public Involvement and Stakeholder Outreach.

This Final EIS should be read in conjunction with the Draft EIS, which provides more detailed information on the Proposed Action and alternatives to agency decision makers and the public. The Draft EIS describes in detail the project's purpose and need, operational changes under the Proposed Action, the existing environment, and the potential environmental effects associated with the Proposed Action. The Final EIS, which is organized consistent with CEQ regulations, responds to public comments on the Draft EIS; identifies corrections and changes to information presented in the Draft EIS (principally concerning average daily traffic (ADT) and train counts at two of the rail connections); discusses SEA's conclusions regarding environmental effects; and includes SEA's final environmental mitigation recommendations. Further, the Final EIS reflects additional analysis on hazardous materials transport, schools, air quality, and property values, prepared in response to comments on the Draft EIS. Both the Draft EIS and the Final EIS are available on the Board's website (http://www.stb.dot.gov).

The following sections address the existing rail system in the Chicago metropolitan area, and provide information about the CN and the EJ&E rail systems.

1.1.1 The Existing Rail System in the Chicago Metropolitan Area

Chicago, Illinois is the only city in the United States where six large Class I railroad systems–BNSF Railway Company [BNSF], CN, Canadian Pacific Railway Company [CPR], CSX Transportation, Inc. [CSX], Norfolk Southern [NS], and Union Pacific Railroad Company [UP]– meet to interchange freight. In Chicago, the railroads exchange freight among the East, West, and Gulf coasts and between the United States and Canada. In addition, a seventh large Class I railroad (The Kansas City Southern Railway Company [KCS]) operates by means of "trackage rights," which allow KCS to operate its trains over another railroad's tracks. Thus, all seven North American Class I freight railroads currently converge in Chicago.

What is a Class I railroad?

Class I railroads have annual carrier operating revenues of $250 million or more. Class I railroads account for 93% of the railroad industry's freight revenue.

These rail lines meet in the Chicago Terminal District, a 2,800-mile network of rail within the Chicago metropolitan area. The district includes 70 yards and terminals (including 26 intermodal hubs, which allow transfer of containerized cargo or truck trailers between two or more modes of transportation) and more than 1,950 at-grade crossings (Chicago Region Environmental and Transportation Efficiency [CREATE] 2005; Business Leaders for Transportation [BLT] 2002). These include both rail/rail line intersections and highway/rail at-grade crossings, where a rail line and a road meet at the same level.

Much of the existing Chicago rail network has been in place for more than a century (Chicago Metropolis 2020–2004). The rail lines of the Class I railroads, originally built to provide access to the center of Chicago, do not facilitate efficient freight movement through the Chicago metropolitan area because the railroads and business leaders of Chicago did not foresee that need during the era of railroad construction (Conzen 2005). In addition to Class I railroads, numerous smaller, regional, and switching railroads operating in Chicago connect to one or more Class I railroads and provide short-haul capacity within the Chicago Terminal District. The Class I railroads also use the rail lines of these switching railroads, by means of trackage rights, to connect from one rail line to another within the Chicago metropolitan area (see Figure 1.1-2, Major Routes Used by CN Through Chicago).

One-third of all rail freight in the United States currently moves to, from, or through Chicago (CREATE 2005). More than 600 freight trains now operate within the Chicago Terminal District each day, transporting an average of 37,500 rail freight cars carrying about 2.5 million tons of freight (Chicago Area Transportation Study [CATS] 2000; BLT 2002).

Amtrak, Metra, and the Northern Indiana Commuter Transportation District (NICTD) operate passenger trains servicing the Chicago metropolitan area and other cities on the rail network within Chicago. The National Railroad Passenger Corporation, better known as Amtrak, provides passenger service in the Chicago metropolitan area using rail lines owned by BNSF, CN, NS, and Metra, as well as their own rail lines. In 2002, Amtrak served more than two million intercity passengers traveling to or from Chicago (CREATE 2005). Currently, Amtrak operates about 78 trains per day in the Chicago metropolitan area (Amtrak 2008a). Metra, the commuter rail division of the Regional Transportation Authority of Northeast Illinois (RTA), provides commuter service on its own rail lines and also uses trackage rights on freight railroads (Metra 2007a). Metra operates 720 trains per day with service to 82 million passengers in 2007 (Metra 2008a; Metra 2007a), and NICTD operates 41 trains per day (NICTD 2007a).

Metra's rail lines are intertwined with the Class I freight railroads through a series of parallel tracks, trackage rights, and dozens of rail/rail at-grade crossings, using many of the same tracks and critical junctions. During each weekday rush hour, freight movements are substantially curtailed while Metra and Amtrak passenger trains take priority (Ryan 2007). The more than 1,400 trains per day now sharing these rail lines result in delays as trains wait to cross other rail line segments (Illinois Department of Transportation [IDOT] 2006; BLT 2002).

Delays also occur when the Class I railroads wait to use switching rail lines and yards within the Chicago Terminal District. Because of existing rail traffic congestion, a CN freight train may need more than 24 hours to travel about 30 miles, from near O'Hare International Airport to near Blue Island, Illinois (CN 2008a). Forecasts for both freight and passenger train traffic predict a considerable increase within the Chicago Terminal District, which would further exacerbate congestion and delays (BLT 2002). According to the Applicants, the availability of a continuous CN route around Chicago and connection of the five CN rail lines radiating from Chicago would

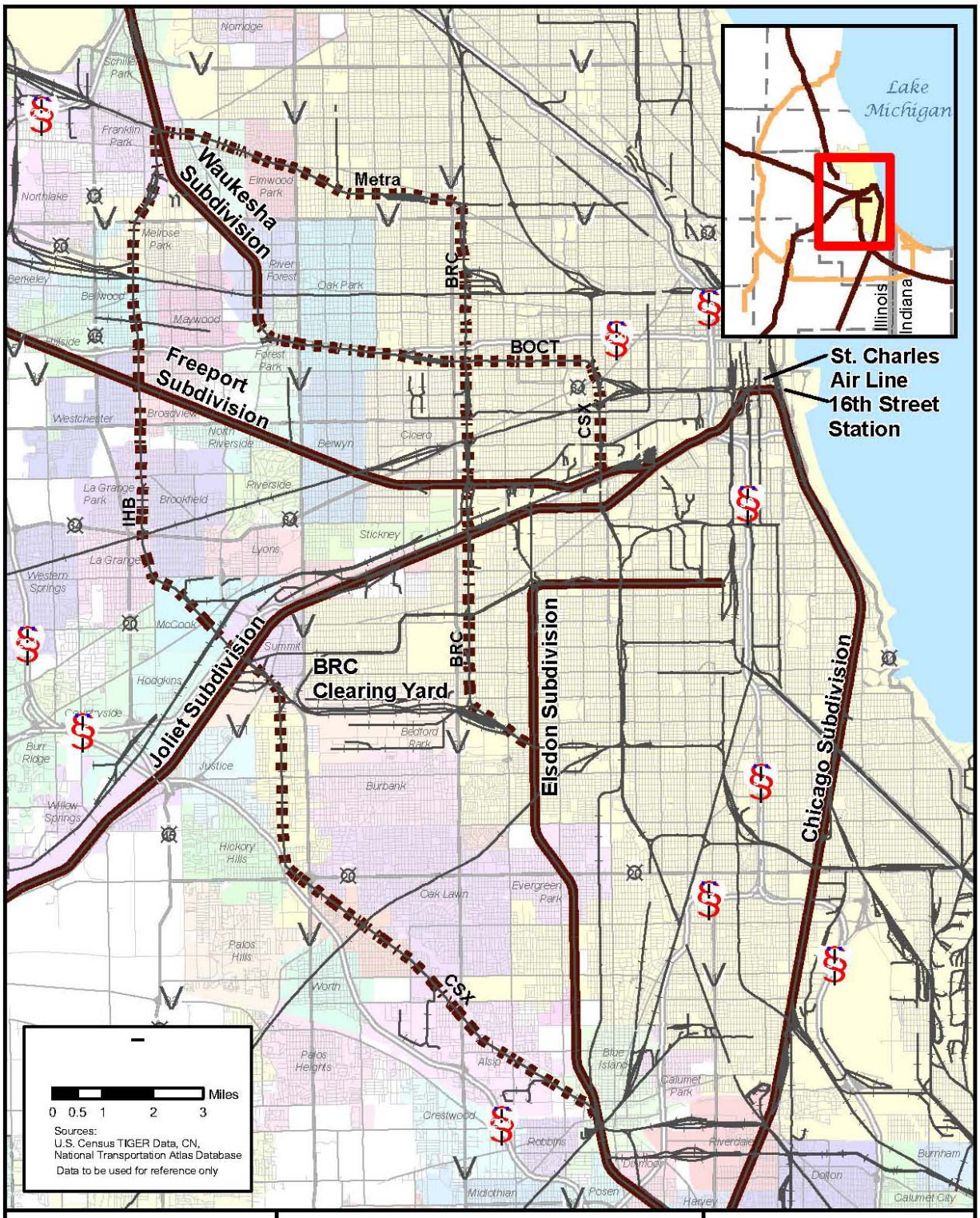


Figure 1.1-2

Major Routes Used by CN Through Chicago

1.1.2 The Applicants

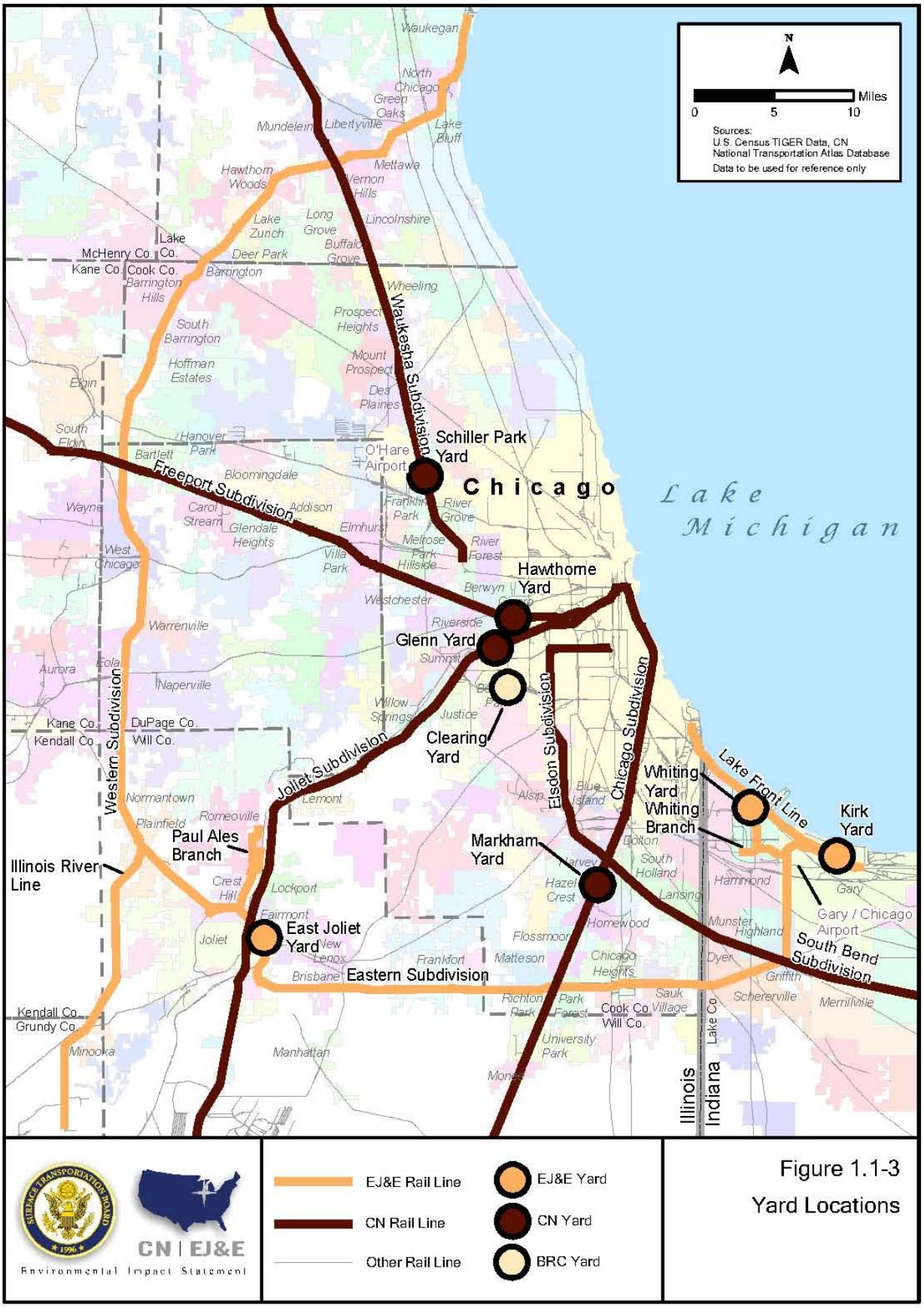
Canadian National Railway Company (CN), incorporated in 1919, operates the largest rail network in Canada and the only transcontinental network in North America. With headquarters in Montreal, Canada, and Homewood, Illinois, the company employs about 22,700 people, and operates approximately 20,421 route-miles of track in Canada and the United States. In Canada, the CN network encompasses 12,900 route-miles in eight Canadian provinces, including the nation's five major ports–Vancouver and Prince Rupert, British Columbia, on the Pacific Ocean; the key Great Lakes port of Thunder Bay, Ontario; Montreal, Quebec; and Halifax, Nova Scotia, on the Atlantic Ocean. The U.S. network of 6,400 route-miles in 16 states connects the Canadian network to the U.S. midwest and the Gulf of Mexico ports of Mobile, Alabama, and New Orleans, Louisiana. CN also connects with other rail carriers to all points in North America, and, as part of the North American Free Trade Agreement (NAFTA) rail network, provides trackage rights to Kansas City Southern de México Railroad, S.A. de C.V., through a marketing alliance with KCS (CN 2008b).

CN owns and operates five rail lines that converge in Chicago (see Figure 1.1-1, Project Vicinity, above):

- The Waukesha Subdivision approaches Chicago from the north
- The Freeport Subdivision approaches Chicago from the west
- The Joliet Subdivision approaches Chicago from the southwest (from Joliet)
- The Chicago Subdivision approaches Chicago from the south
- The Elsdon Subdivision approaches Chicago from the east

CN operates three major yards in the Chicago Terminal District: Glenn Yard (in Chicago), Hawthorne Yard (near Cicero, Illinois), and Markham Yard (an intermodal hub in Harvey, Illinois, that extends into Homewood, Illinois) (see Figure 1.1-3, Yard Locations, below). In addition, CN has smaller yards, also located within the EJ&E arc, and uses the Belt Railway Company of Chicago (BRC) Clearing Yard for rail car switching.

Chicago is currently a major junction for CN freight trains moving between the Gulf Coast and either Canadian coast. About two-thirds of the CN trains operating in the Chicago metropolitan area are en route to other cities (Applicants 2007a); most of these trains must travel into Chicago for classification and switching at CN yards. In addition, most CN trains moving from one CN rail line to another must travel on the rail lines of BRC, Baltimore and Ohio Chicago Terminal Railroad (BOCT), CSX, and Indiana Harbor Belt Railroad (IHB), and on segments of the EJ&E main line (see Figure 1.1-2, above).


N
Miles
0
5
10
Sources:
U.S. Census TIGER Data, CN
National Transportation Atlas Database
Data to be used for reference only
Waukegan
North Chicago
Green Oaks
Mundelein
Libertyville
Lake Bluff
Hawthorn Woods
Mettawa
Vernon Hills
Lake Zurich
Long Grove
Lincolnshire
Buffalo Grove
Lake
McHenry Co.
Kane Co.
Cook Co.
Deer Park
Barrington
Barrington Hills
Wheeling
Prospect Heights
South Barrington
Hoffman Estates
Mount Prospect
Des Plaines
Elgin
South Elgin
Hanover Park
Bartlett
O'Hare Airport
Schiller Park Yard
Waukesha Subdivision
Freeport Subdivision
Bloomingdale
Chicago
Lake Michigan
Wayne
Carol Stream
Addison
Glendale Heights
Elmhurst
Franklin Park
River Grove
Melrose Park
River Forest
Hillside
West Chicago
Villa Park
Hawthorne Yard
Berwyn
Westchester
Riverside
Warrenville
Glenn Yard
Summit
Aurora
Eola
Naperville
Willow Springs
Justice
Clearing Yard
Western Subdivision
Kane Co.
Kendall Co.
DuPage Co.
Will Co.
Joliet Subdivision
Elsdon Subdivision
Chicago Subdivision
Whiting Yard
Whiting Branch
Lake Front Line
Kirk Yard
Normantown
Lemont
Alsip
Blue Island
Romeoville
Plainfield
Paul Ales Branch
Markham Yard
Dolton
South Holland
Illinois River Line
Crest Hill
Lockport
Harvey
Hazel Crest
Hammond
Lansing
Gary
Fairmont
Homewood
Gary / Chicago Airport
East Joliet Yard
Joliet
New Lenox
Flossmoor
Highland
Munster
South Bend Subdivision
Frankfort
Matteson
Chicago Heights
Dyer
Brisbane
Eastern Subdivision
Griffith
Richton Park
Sauk Village
Schererville
Merrillville
Kendall Co.
Grundy Co.
Cook Co.
Will Co.
Lake Co.
Minooka
Manhattan
University Park
Illinois
Indiana
EJ&E Rail Line
CN Rail Line
Other Rail Line
EJ&E Yard
CN Yard
BRC Yard
CN | EJ&E
Environmental Impact Statement
Figure 1.1-3
Yard Locations

1.1.3 Elgin, Joliet and Eastern Railway Company

What is a Class II railroad?

A Class II railroad is one with annual carrier operating revenues between $20 million and $250 million.

EJ&E is a Class II railroad wholly owned by, and an indirect subsidiary of United States Steel Corporation (U.S. Steel), a noncarrier. U.S. Steel owns all issued and outstanding stock of Transtar, Inc., a noncarrier holding company, which owns all issued and outstanding stock of seven common carrier railroads, including EJ&E.

EJ&E operates on slightly more than 200 miles of track in northeastern Illinois and northwestern Indiana. The EJ&E main line, popularly known as "the J," consists of a 120-mile arc of mainline track around Chicago, as described in Section 1.1, Introduction, above. The EJ&E rail system includes this main line as well as double track, branch lines, and yards (see the Draft EIS, Chapter 2, Section 2.1.3, EJ&E Rail System). EJ&E has the following three main yards (see Figure 1.1-3, Yard Locations, above):

- Kirk Yard, a major automated classification yard in Gary, Indiana
- East Joliet Yard, a major flat-switching yard[4] near Joliet, Illinois, used primarily for rail car storage
- Whiting Yard, a small industrial support yard near Whiting, Indiana

What is an Interline?

Interline connections refer to freight that is moved from one location to another by transferring cars, or "connecting" to rail, owned by various companies, to deliver goods shipped by customers using the national rail system.

EJ&E provides rail service to approximately 100 customers in the Chicago and northwest Indiana region, including steel mills and processors, electric utilities, plastics and chemical producers, distribution centers, and scrap processors. In addition, EJ&E connects customers to Class I rail lines, giving customers access to the entire North American rail system. Interline connections include those with BNSF, CN, CPR, Chicago SouthShore & South Bend Railroad (CSSB), CSX, Iowa Interstate Railroad (IAIS), NS, and UP.

This case involves the acquisition of the EJ&E rail line, which has provided railroad transportation service to the Chicago region for 120 years. Communities along the EJ&E rail line have benefited from the freight and passenger transportation services created by the EJ&E. These services enabled or enhanced the ability of these communities to become centers for commerce and services, and function as a shipping point for farm commodities. The EJ&E rail line encouraged the development of economic activity that required rail transportation such as farming of grain and general manufacturing. The EJ&E rail line also enabled homes and businesses to purchase coal for home heating moved by rail from southern and central Illinois coal fields. Train volumes on the EJ&E rail line have fluctuated during its history in response to technological and economic changes, but there has always been some rail traffic on the line. Regular passenger service was provided in the early 1900s on most of the EJ&E rail line but was discontinued as electrified interurban railways replaced its steam-hauled trains. During World War II, the EJ&E rail line generated as many as fifty trains per day to support Chicago's steel and heavy manufacturing industries. The EJ&E rail line continued to thrive throughout most of the 1950s and 1960s. While traffic levels declined during the 1970s it rebounded in the early 1990s when the rail lines that pass through the center of Chicago became more congested and the EJ&E rail line became an alternative route for freight moving through Chicago, such as coal and containerized import/export freight. Throughout its history, the EJ&E rail line has been an integral part of the rail system and economic

[4] A flat-switching yard is one at which switching depends on locomotive power with little assistance from gravity, to move rail cars to and from various tracks in the process of classifying these rail cars.

infrastructure of Chicago, supporting the needs of the many railroads that move traffic through that City and, numerous local rail-dependent shippers. Appendix A contains more information about the history of the EJ&E rail line.

1.2 Purpose and Need

The Applicants give three primary reasons for seeking to acquire control of the EJ&E rail assets (FR 2007a; Applicants 2007a):

- To improve the Applicants' operations in and beyond the Chicago metropolitan area by providing a continuous rail route around Chicago, under CN's ownership, that would connect its five rail lines radiating from Chicago
- To make EJ&E's Kirk Yard, as well as smaller facilities at Joliet, Illinois, and Whiting, Indiana, available to the Applicants, thus enabling them to consolidate rail car classification work, thereby reducing the use of the BRC Clearing Yard
- To enable the CN system to benefit from an important supply line EJ&E provided for North American steel, chemical, and petrochemical industries, as well as utility companies, thereby allowing the Applicants to develop more extensive relationships with these industries and the companies that serve them

The Applicants maintain that the availability of a continuous CN route around Chicago, and its connection to the five CN rail lines radiating from Chicago, would greatly improve the fluidity of intermodal (and other) CN traffic that must move into, from, or through Chicago (Applicants 2007a). According to the Applicants, if approved, the Proposed Action would result in more efficient rail traffic flow by shifting much of CN's rail traffic in the Chicago Terminal District to the EJ&E main line, thus reducing CN's use of currently congested switching lines to connect its rail lines. The Applicants state that shifting a large portion of the CN rail traffic to the EJ&E main line would decrease the traffic density in Chicago's urban core on CN and BRC rail lines.

The Applicants attribute delays in Chicago to congested rail lines and too much dependence on the BRC Clearing Yard for switching traffic between rail subdivisions. Most of the Class I freight railroads in Chicago now use the BRC Clearing Yard for train classification. According to the Applicants, acquisition of Kirk Yard and other EJ&E yards located along the EJ&E main line and near the edge of the congested Chicago Terminal District would permit CN to use these yards to classify and switch trains passing through the Chicago metropolitan area. The Applicants state that the Proposed Action would allow trains that stop in the Chicago metropolitan area for crew changes, locomotive inspections, and set-outs to use the EJ&E main line, and Kirk and East Joliet yards. The Applicants expect this to reduce the number of CN trains that, though bound for other destinations, would otherwise need to travel into Chicago. The Proposed Action is expected to reduce classification work at CN's Glenn, Hawthorne, and Markham yards and at the BRC Clearing Yard.

What is a Set-out?

Set-out refers to rail cars that are disconnected from a train and set onto a customer's track.

What is Classification?

Classification is the sorting and grouping of rail cars according to their destination points.

According to the Applicants, approval of the Proposed Action would reduce congestion in Chicago, enabling CN to improve service to many companies in the Chicago metropolitan area and to those shipping products through Chicago. The Applicants maintain that shippers would benefit from shortened transit times through the Chicago Terminal District and that residents in areas along CN rail lines inside the EJ&E arc would see environmental benefits.

1.3 Role of Surface Transportation Board and Other Agencies

The Board is the lead agency in this proceeding, with exclusive and plenary[5] permitting authority. The Board is an independent adjudicatory[6] body within the U.S. Department of Transportation (USDOT) responsible for economic regulation of interstate surface transportation–primarily freight railroads–within the United States.

The Board was created by the Interstate Commerce Commission Termination Act of 1995, as a successor to the Interstate Commerce Commission. It is responsible for the economic regulation of freight railroads under the Interstate Commerce Act (ICA), pursuant to 49 USC 701-727 and 10101-16106. Among its various duties, the Board reviews railroad proposals to construct and operate new rail lines, abandon rail lines, or acquire and operate other rail lines or railroads.

In meeting its responsibilities under both the ICA and NEPA, the Board's role is to review CN's Application through two parallel but distinct processes: 1) one that examines the competitive implications of the Proposed Action, and whether the Proposed Action would have anticompetitive effects or present significant countervailing transportation needs, and 2) one conducted by the Board's Section of Environmental Analysis (SEA) that examines the potential environmental effects resulting from the Proposed Action based on the environmental review.

The Board will either approve the Proposed Action as proposed by CN, disapprove the Proposed Action, or approve it with conditions. Such conditions may offset or reduce the potential adverse effects on competition or the environment, or may be statutorily-prescribed conditions to protect affected railroad employees.

To assess the environmental effects, an independent third-party contractor assisted SEA with environmental analysis and preparation of the Draft and Final EIS.

For this project, as in all Board proceedings where third-party contractors are retained, the independent third-party contractor's scope of work, approach, and activities are administered under SEA's supervision, direction, and control. Personnel from HDR Engineering, Inc. work as an extension of SEA's staff to conduct independent analysis, develop appropriate environmental methodologies, and provide technical support. Use of agency-approved, independent third-party contractors is specifically permitted by the President's Council on Environmental Quality (CEQ) and the Board's own environmental regulations (49 CFR 1105.10(d) and 40 CFR 1506.5(c), respectively).

CEQ regulations require agencies preparing Environmental Impact Statements (EIS) to solicit the comments of other Federal agencies with expertise or jurisdiction over any part of the EIS. Here, SEA sought comments from the agencies listed below. Chapter 5 of this Final EIS summarizes SEA's agency coordination and public outreach.

- U.S. Army Corps of Engineers
- U.S. Coast Guard
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- U.S. Department of Energy

[5] Plenary authority is absolute authority that is complete in every respect.
[6] An adjudicatory body is one that acts as a judge and settles matters judicially.

1.4 Board Decisions

Issuance of the Final EIS concludes the environmental review process. The Board subsequently will decide what action to take on CN's request to acquire the EJ&E West Company. To reach its decision, the Board will consider the Draft and Final EIS, including SEA's final recommended mitigation, the comments received on the Draft EIS, and other environmental information provided by interested parties. If the application is approved, the Board will identify what, if any, mitigation measures, including environmental mitigation, should be imposed.

The Applicants do not have the authority required under 49 USC 11324(d) to control the EJ&E West Company until the Board makes a decision granting CN the authority to do so.

1.5 Administrative Appeal and Timing of the Board's Final Decision

CEQ regulations (40 CFR 1506.10(b)) provide that an agency shall not make a decision on a proposed action less than 30 days from the publication of a notice of a Final EIS in the *Federal Register*, unless the Board's decision is subject to a formal administrative review process after publication of the Final EIS. In such cases, CEQ regulations provide that the period for appeal of the agency's decision and the 30-day period prescribed in 40 CFR 1506.10(b) may run concurrently.

SEA anticipates that the U.S. Environmental Protection Agency (EPA) will publish a Notice of the Availability of the Final EIS in the Federal Register on December 12, 2008. Under the CEQ regulations (40 CFR 1506.10(b)), agencies must wait 30 days from EPA's Federal Register notice before issuing a final decision unless they have an internal appeal process. The Board has such a process, which means that the Board could issue a final decision in less than 30 days from December 12, 2008. If the Board were to do so, SEA recommends that the Board's administrative review period be extended to permit parties to seek agency reconsideration of the final decision within 30 days after it is served, rather than the typical 20 days. The Board would consider any administrative appeals in a subsequent decision.

1.6 Proposed Action and Alternatives

SEA evaluated three alternatives: No-Action, the Proposed Action, and the Proposed Action with conditions, including environmental mitigation measures. SEA initially considered another four alternatives (discussed in Section 1.6.4, Alternatives Eliminated from Detailed Analysis), but eliminated them from detailed study.

1.6.1 Proposed Action

The Applicants are seeking the Board's authorization, under 49 USC 11323-11325, to acquire control of EJ&E's land, rail line, and related assets. Under the Proposed Action, the Applicants would redirect trains from the five CN subdivisions in Chicago to the EJ&E rail line, increasing the volume of freight rail traffic along the EJ&E rail line, which would result in a corresponding decrease in the volume of freight rail traffic that now moves along the CN subdivisions. Figure 1.6-1 shows the proposed changes in rail traffic volume.

The Proposed Action also would result in:

- Construction of six new rail connecting tracks between existing rail lines at Munger (near Wayne, Illinois); Joliet, Illinois; and Matteson, Illinois, and at Griffith, Indiana; Ivanhoe (in Gary, Indiana); and Kirk Yard in Gary, Indiana;

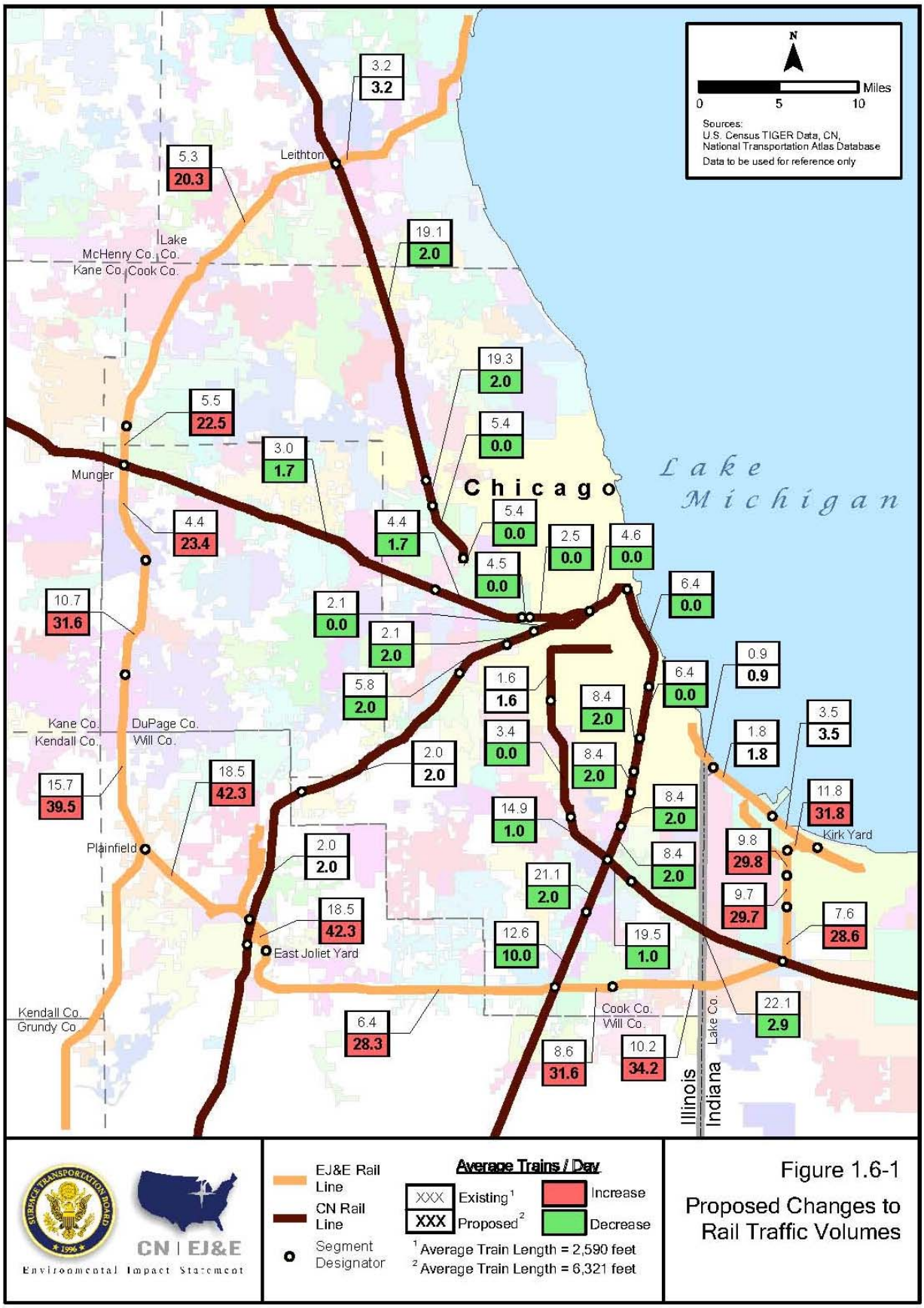


Figure 1.6-1
Proposed Changes to Rail Traffic Volumes

- Construction of five segments totaling 19 miles of double track (parallel track) to augment the existing single track, at or near Leithton (near Mundelein, Illinois); Diamond Lake Road to Gilmer Road near Mundelein, Illinois; East Siding to Walker (two segments) near Aurora, Naperville, Illinois, and Plainfield (all in Illinois) and East Joliet to Frankfort, Illinois; and,
- Increased use of Kirk Yard and East Joliet Yard for rail car classification and train assembly and disassembly.

Although the proposed construction activities and changes in yard operations do not require prior Board approval, SEA analyzed the potential environmental impacts of these related actions because they would not occur without approval of the Proposed Action. Figure 1.6-2 shows locations of the proposed new double track construction, connecting tracks between existing rail lines, and the location of Kirk Yard and East Joliet Yard. Figure 1.6-3 shows a typical cross section for areas that would have new connections.

1.6.2 Connecting Tracks between Existing Railroad Lines and Double Track

SEA conducted an independent examination of the Applicants' six proposed connecting tracks between existing railroad lines to determine if alternative locations or configurations would meet the purpose of and need for the Proposed Action while minimizing potential environmental effects. For each connection, SEA considered the Applicants' proposed connection, a No-Build Alternative, and alternative configurations developed by SEA, where appropriate. After publication of the Draft EIS, Applicants submitted to SEA a revised alternative for the Matteson Connection (Revised Matteson Connection) whichis evaluated in full in Section 2.1 of this Final EIS. Including the No-Build Alternative, SEA considered five alternatives for the proposed connection at Munger (near Wayne, Illinois), three alternatives at Joliet, four alternatives for the proposed connection at Matteson, and two alternatives at Griffith, Indiana, and Ivanhoe and Kirk Yard (both near Gary, Indiana). SEA also developed tailored environmental mitigation for the six connections.

Railroads may add trackage and change operations within their existing rights-of-way at any time without Board approval. Under the Proposed Action, the Applicants propose construction of 19 miles of double track and changes in yard operations within the existing EJ&E rail line ROW. After the publication of the Draft EIS, Applicants submitted to SEA a revised configuration for the double track connection at Leithton (near Mundelein, Illinois), which is evaluated in full in Section 2.2 of this Final EIS. With the exception of the revised Leithton Connection, SEA did not identify or analyze any feasible alternatives to the double track or yard operations.

1.6.3 No-Action Alternative

CEQ's regulations implementing NEPA (40 CFR 1502.14(d)) require consideration of a No-Action Alternative. The No-Action Alternative provides a basis for understanding the impacts of the Proposed Action. Under the No-Action Alternative, the Applicants would not acquire control of the EJ&E land, rail line, and related assets; SEA assessed rail operations on the EJ&E rail line at existing levels. The Applicants would continue to make connecting train movements through the Chicago Terminal District in the same way as these movements now occur, would not construct the six connections or the double track, and would not make changes to existing yard operations.



Figure 1.6-2
Proposed Connections and Double Track Locations

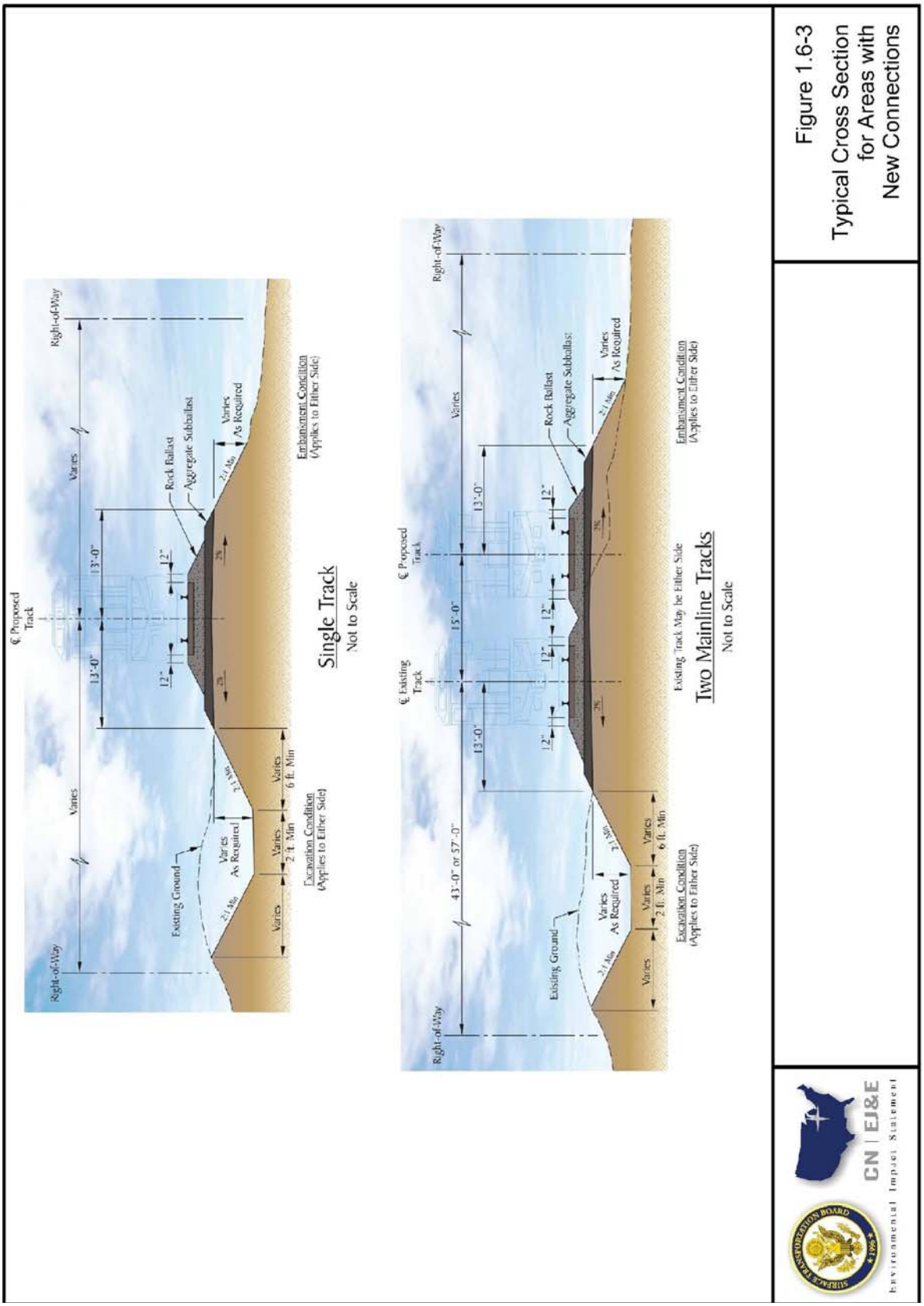


Figure 1.6-3
Typical Cross Section for Areas with New Connections

CN | EJ&E

Environmental Impact Statement

1.6.4 Alternatives Eliminated from Detailed Analysis

SEA considered four additional alternatives, but found them to be unreasonable and infeasible because they would not meet the Applicants' purpose of and need for the Proposed Action. These alternatives were:

- Expanded trackage rights to CN;
- Implementation of the Chicago Region Environmental and Transportation Efficiency (CREATE) Program in lieu of CN's acquisition of the EJ&E rail line;
- Acquisition of a different rail line within the Chicago metropolitan area; and,
- Construction of a bypass outside the EJ&E rail line in Northern Illinois.

As discussed in Chapter 2.5 of the Draft EIS, in general, SEA found these alternatives to be unreasonable because they would not give CN full ownership and use of a continuous rail route around Chicago, or the Applicants could not gain access to EJ&E rail yards.

1.7 Public Involvement and Stakeholder Outreach

SEA conducted an extensive, proactive public outreach effort to engage stakeholders and solicit and facilitate public comments on all aspects of the Draft EIS and throughout the EIS process. As discussed in more detail in Chapter 5 and in the Draft EIS, SEA's efforts included notification through the media, postcards to individuals in SEA's environmental database, information on the toll-free hotline, and updates to the Board's website.

1.7.1 Public and Stakeholder Outreach

In addition to soliciting written comments on the Draft EIS, SEA held open house/public meetings throughout the Chicago metropolitan area during the scoping and Draft EIS comment period. Meetings included an open house session and a more formal public meeting. A schedule and outline of these meetings is presented in Chapter 5, Public Information and Community Outreach. SEA's outreach included:

- May 28, 2008—SEA mailed a postcard to each of the more than 4,700 contacts on its environmental distribution list offering the recipients options to receive the Draft EIS.
- July 25, 2008—the Board served the Draft EIS to all Parties of Record and the EPA; SEA mailed copies of the Draft EIS to over 5,100 parties on its updated environmental distribution list; SEA delivered the Draft EIS to 51 public libraries and one town hall for public review; SEA updated the toll-free telephone number to provide information, allow for advanced speaker registration for open-house/public meetings, and to accept comments on the Draft EIS.
- August 1, 2008—EPA published a Notice of Availability in the *Federal Register* announcing the availability of the Draft EIS and the start of a 60-day public comment period, which ended September 30, 2008.
- August 8, 2008—SEA sent a postcard to all parties on the environmental distribution list providing the dates and locations of eight open house/public meetings and encouraging the public to speak before the Board at these meetings.
- August 2008—SEA made available on the project website a copy of the entire Draft EIS and provided notices and advertisements to local media outlets announcing the Draft EIS and the date and locations of open house/public meetings.

- August/September 2008—SEA held eight Public Meetings in the Chicago metropolitan area to obtain oral comments on the Draft EIS.

Attendance at the meetings on the Draft EIS ranged from 75 people in Chicago to 3,000 people in Barrington and totaled 4,645 attendees at all meetings. A total of 305 individuals presented oral comments during the meetings. Participants both supported and opposed the Proposed Action. Transcriptions of each meeting are contained in Appendix D, Meeting Transcripts. Participants who preferred to speak directly to a court reporter, rather than before the audience, were invited to comment on the Draft EIS in that manner.

The majority of the participants expressed concerns related to vehicular delay, delay in emergency response, rail safety, effects on property values, noise, vibration from the proposed increase in freight rail traffic, effects on STAR Line, impacts to existing and potential quiet zones, and responsibility for the costs of any mitigation measures.

Others supported the Proposed Action, noting that decreased train traffic inside the EJ&E arc would bring environmental benefits to these communities, and that some concerns raised by opponents from communities along the EJ&E rail lines relate to existing conditions and the location of existing schools, homes, fire stations, and hospitals.

SEA conducted numerous outreach meetings in minority and low-income communities (also known as environmental justice populations) in Indiana and Illinois to ensure that all population groups had an equitable opportunity to access information and participate in the Board's public involvement and decision-making process. Meetings were held in one-on-one situations with community and church leaders as well as elected officials. These meetings provided environmental justice communities with an additional forum for commentary on the Proposed Action. SEA ensured that the interests of the affected and minority and low-income communities were recognized throughout the planning process. SEA provided project information such as the toll-free number, advertisements, and meeting materials in Spanish. These environmental justice meetings began in May and concluded in July 2008. All meeting locations were accessible to all population groups. Meetings are detailed in Chapter 5, Public Information and Community Outreach.

The Board held a public meeting on November 18, 2008, at its Washington, D.C. headquarters, to discuss the analysis and preliminary conclusions and recommendations in the Final EIS. SEA briefed the Board on the major issues raised in comments on the Draft EIS and how SEA proposed to address them in the Final EIS. Topics discussed including rail operations, rail safety, hazardous materials, transportation, noise and vibration, biological resources, water resources, mitigation and how it should be funded, and quality of life issues. SEA also briefed the Board on the extensive public outreach that was conducted for the Proposed Action. Following SEA's presentations, the Board questioned SEA staff on various issues. The meeting was open for public observation, but not public participation. The public meeting was at the Board's headquarters at Patriots Plaza, 395 E Street, S.W., Washington, D.C. A video broadcast of the hearing was accessible to all interested parties, including those in the Chicago area, via the website at http://www.stb.dot.gov, under "Information Center"/"Webcast"/"Live Video" on the home page.

1.7.2 Meetings

Before SEA served the Draft EIS it met with Federal, state, and local agencies on April 29 and 30, and May 1, 2008, to discuss the Proposed Action. Participants with similar concerns were combined into Stakeholder Groups to facilitate discussion. In addition, SEA conducted targeted outreach activities to environmental justice populations to engage them in the environmental review process. During the week of September 1, 2008, these groups were invited again to discuss their comments on the Draft EIS. SEA invited 74 agencies to attend meetings held in Chicago, Illinois, and Hammond and Indianapolis, Indiana, and provide feedback on their areas of expertise.

SEA met with the USFWS Chicago, Illinois, Field Office (CIFO) and USFWS Northern Indiana Ecological Services Sub-Office (NIESS) on October 23, 2008, to discuss concerns raised in the Department of Interior comment letter dated September 29, 2008. Specifically, the discussion focused on the Hine's emerald dragonfly, Karner blue butterfly, Indiana bat, Eastern prairie fringed orchid, turtle crossings, and noise effects on migratory birds. SEA conducted follow-up meetings, conference calls, and site visits with the USFWS on October 29th, November 4th, and November 6-7, 2008. Based on discussions and site visits with the USFWS, and on the Biological Report submitted to the USFWS on November 21, 2008, SEA determined the Proposed Action "may affect, but is not likely to adversely affect" the Eastern prairie fringed orchid, leafy prairie clover, Hine's emerald dragonfly, Karner blue butterfly, and Indiana bat.

Chapter 2
Revised Information

This chapter is composed of two parts: (a) the reporting of results from additional evaluations; and (b) the documenting of updated information and corrections to the Draft EIS. Sections 2.1 to 2.13 contain additional evaluations that were conducted in specific resource areas such as noise, air quality, and biological resources in response to comments on the Draft EIS. These sections also include expanded discussions in areas such as school safety and property values. Section 2.14 contains corrections, errata and supporting information that updates the Draft EIS.

Specific discussions in Chapter 2 and the sections in which they can be found are:

- Section 2.1, Revised Matteson Connection, discusses the additional evaluation and potential environmental effects resulting from CN's revised design to increase the main track operating speeds for through trains and reduce traffic delays at several at-grade crossings in the Matteson area. The additional evaluations resulted in SEA modifying construction-related effects and reducing potential traffic delay projections at several highway/rail at-grade crossings in the Matteson area.
- Section 2.2, Revised Double Track–Leithton Connection, discusses the Applicants' modifications to the proposed double track connection between the EJ&E and the CN rail lines that would allow for higher train speeds at this connection and reduce the effect on vehicle traffic delay at several highway/rail at-grade crossings in the Mundelein area. SEA concluded that the modifications would accomplish their intended objectives but would result in a slightly larger land disturbance than the area evaluated in the Draft EIS.
- Section 2.3, Commuter Rail Service, describes the additional analysis conducted for the Proposed Action to assess effects on the Metra STAR Line service and the NICTD commuter service. SEA concluded that the Proposed Action would not adversely affect the potential implementation of STAR Line service on the EJ&E rail line.
- Section 2.4, School Related Issues, presents additional evaluation on the proximity of schools to the rail lines affected by the Proposed Action. SEA determined that mitigation beyond that voluntarily offered by the Applicants is not warranted.
- Section 2.5, Updated Transportation Information and Analysis, presents the revised analysis of the transportation systems based on new and revised information on average daily traffic counts and effects resulting from transaction-related changes to highway/rail at-grade crossings due to increased vehicle delays and regional mobility. In addition to the Applicants' voluntary mitigation measures, SEA has proposed mitigation to address grade separations, traffic advisory signs, train operational changes at connections, and signalized intersections in close proximity to highway/rail at-grade crossings.
- Section 2.6, Emergency Services, discusses the revised analysis of delays affecting emergency service providers that could result from increased train operations at specific at-grade crossings. Of the eleven facilities identified in the Draft EIS as being potentially substantially affected, SEA has proposed mitigation for all but one. In addition, of the 10 facilities reevaluated in this Final EIS, SEA proposes mitigation for three.
- Section 2.7, Hazardous Materials Transportation and Safety, presents the revised analysis of hazardous materials transport and the potential effects of spillage on water resources

and wetlands. The types of hazardous materials hauled by the Applicants and spill prevention measures are also presented in greater detail than in the Draft EIS. SEA concludes that plant communities, wildlife, and natural areas along the EJ&E rail line would experience a higher probability of exposure to hazardous material spills as compared to current conditions, but that attempting to predict the specific location of a release, the type of release, and the fate and transport of the release is too speculative. SEA concluded that hazardous material releases have historically been, and are expected to continue to be, extremely rare.

- Section 2.8, Property Values, describes additional analysis conducted to assess potential effects on property values and on residential property taxes. SEA concludes that the existence of a rail line in the community has been appropriately accounted for in the value of property near both the EJ&E and CN rail lines.
- Section 2.9, Environmental Justice, discusses the potential effects on Environmental Justice in communities based on new and revised information. SEA determined that minority and low-income populations along the EJ&E rail line would not experience disproportionate negative effects on safety, train noise or delays at highway/rail at-grade crossings.
- Section 2.10, Air Quality and Climate, discusses the additional air quality analysis and the resulting assessment of potential effects. SEA's additional analysis shows that the local air quality degradation due to moving and idling trains is minimal in comparison to National Ambient Air Quality Standards (NAAQS), which have been established by EPA to protect public health and welfare. The additional analysis also showed that there would be minimal effects due to emissions of mobile source air toxics (MSATs) from locomotives.
- Section 2.11, Noise and Vibration, discusses additional analysis of the potential effects of noise on sensitive receptors and the potential effects of ground-borne vibration due to train traffic and project construction. SEA concluded that fleet maintenance and other mitigation requirements will minimize the effects of noise and vibration on sensitive land uses adjacent to the EJ&E rail line.
- Section 2.12, Biological Resources, presents the additional evaluation of the Hine's emerald dragonfly, Indiana bat, Karner blue butterfly, and other threatened and endangered species. SEA determined that the Proposed Action and transaction-related construction activities are not likely to adversely affect these species.
- Section 2.13, Cumulative Effects of Rail/Rail At-Grade Crossings on Hiway/Rail At-Grade Crossings, presents additional analysis that was conducted for other intersecting railroads, programmed highway projects, actions of the Illinois Commerce Commission, and the DP Partners LogistiCenter. SEA determined that there may be cumulative effects on vehicle delay and increased noise and vibration from the other intersecting railroads. SEA expects no cumulative effects from highway projects or actions of the Illinois Commerce Commission.
- Section 2.14, Corrections to the Draft EIS, updates the information that was presented in the Draft EIS.

2.1 Revised Matteson Connection

In their Application, CN proposed improving capacity along the EJ&E rail line by constructing six new connections for operational efficiency and approximately 19 miles of double track within existing ROW along certain rail segments. CN included conceptual engineering sketches of proposed capacity improvements and connections in the Application, and SEA used this information to estimate potential environmental effects in the Draft EIS. After the issuance of the Draft EIS, CN revised the proposed connection at Matteson, Illinois. According to CN, the revised connection would increase the maximum operating train speed along the EJ&E main line thus reducing traffic delay at several highway/rail at-grade crossings in the Matteson area.

Section 2.4 of the Draft EIS discusses the Proposed Matteson Connection as presented in CN's Application. SEA's evaluation of the Revised Matteson Connection in this Final EIS assessed potential adverse environmental effects for each of the 13 resource categories described in Chapter 4 of the Draft EIS. In the evaluation of the revised connection for Matteson, SEA determined that there would be no additional effects on Rail Safety, Hazardous Waste Sites, and Vibration. Resource categories affected by CN's Revised Matteson Connection are discussed below.

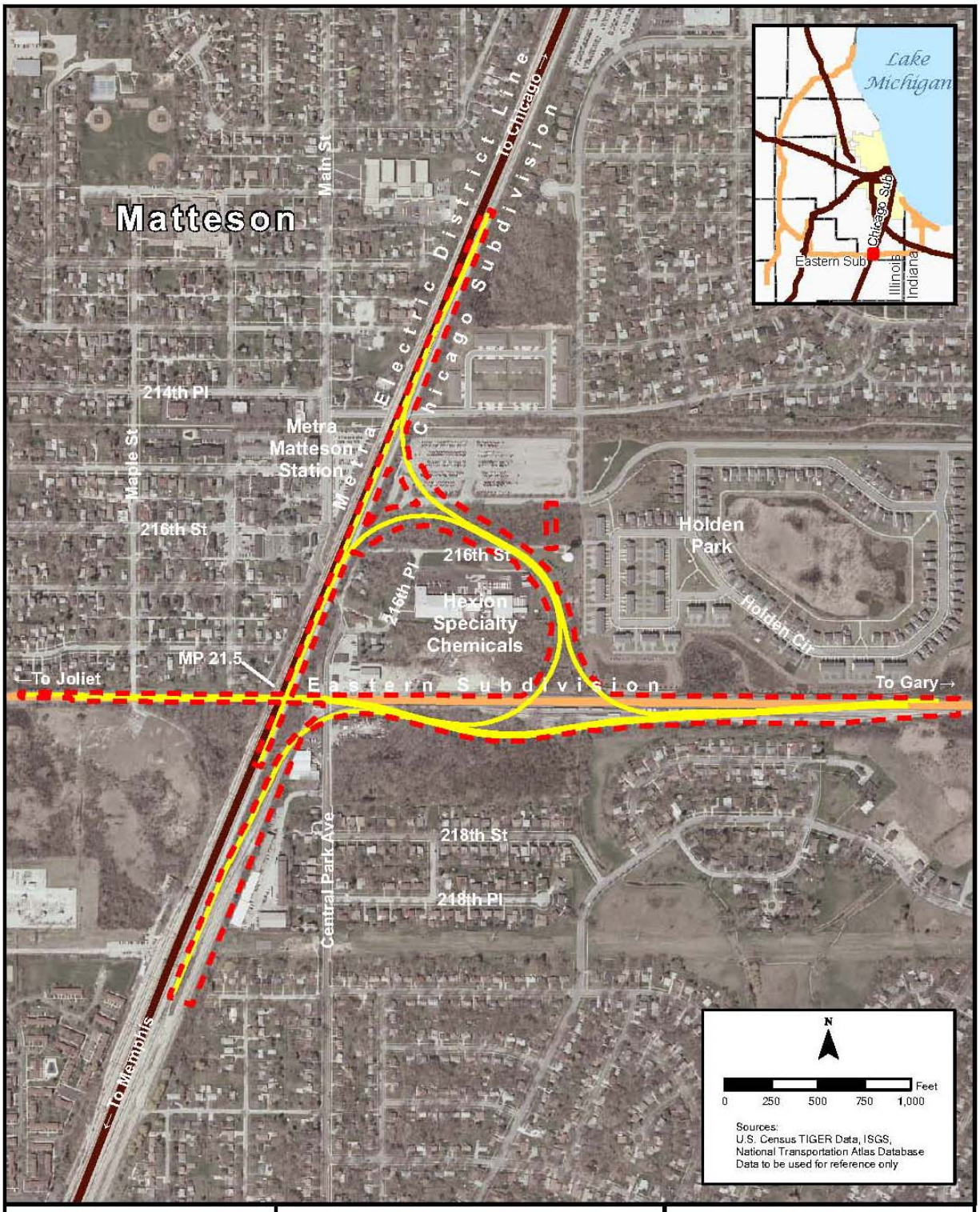
Based on its analysis, SEA concludes that the Revised Matteson Connection, with the mitigation recommended in Chapter 4 of this Final EIS, would not result in any significant environmental effects. Moreover, effects on Land Use, Socioeconomics, Environmental Justice, Energy, Air Quality, and Water Resources, would be less than the Proposed Matteson Connection presented in the Draft EIS.

2.1.1 Rail Operations

The proposed connection at Matteson, as presented by CN in their October 2007 Application, would have reduced the maximum operating speed along the EJ&E rail line from 45 mph to 25 mph. Consequently, after the Draft EIS was issued, CN revised the Matteson connection to permit a maximum operating speed of 40 mph on the EJ&E rail line. See Figure 2.1-1, Revised Matteson Connection, for more details. This modification would reduce vehicle delay at nearby highway/rail at-grade crossings, such as Cicero Avenue, Main Street, and Western Avenue.

2.1.2 Transportation

The potential effects of the Revised Matteson Connection on traffic delay for Cicero Road, Main Street, and Western Avenue are discussed in this Final EIS in Section 2.5, Updated Transportation Information.


Matteson
Main St
Metra Electric District Line
to Chicago
Chicago Subdivision
214th Pl
Maple St
Metra Matteson Station
216th St
216th Pl
Hexion Specialty Chemicals
Holden Park
Holden Cir
MP 21.5
To Joliet
Eastern Subdivision
To Gary
218th St
218th Pl
Central Park Ave
to Memphis
Lake Michigan
Chicago Sub
Eastern Sub
Illinois
Indiana
N
Feet
0 250 500 750 1,000
Sources:
U.S. Census TIGER Data, ISGS,
National Transportation Atlas Database
Data to be used for reference only
CN | EJ&E
Environmental Impact Statement
EJ&E Rail Line
CN Rail Line
Construction Limits
Proposed Track
Figure 2.1-1
Revised
Matteson Connection

2.1.3 Land Use, Socioeconomics, Environmental Justice

SEA evaluated the potential for adverse effects resulting from the Revised Matteson Connection, as described in the sections below.

2.1.3.1 Land Use Conversions

The Revised Matteson Connection would require approximately 1.75 acres less than the proposed connection evaluated in the Draft EIS. Converted acreage is listed in Table 2.1-1.

Table 2.1-1. Revised Matteson Connection – Land Use Conversion Summary

Construction Site / Location	Existing Land Use	Acres to be Converted to Railroad Use	
		Proposed Matteson Connection* (acres)	Revised Matteson Connection (acres)
Matteson Connection / Matteson, Illinois	Industrial Open Space Vacant Residential	0.474 0.443 8.198 0.126	0.277 0.000 7.179 0.035
Total		9.241 acres	7.492 acres

* As recorded in the Draft EIS

2.1.3.2 Consistency with Existing Land Use Plans and Zoning

The Revised Matteson Connection would be consistent with future Matteson land use plans and zoning, and falls within a Service and Light Industrial District according to the Matteson Land Use Intensity Plan and current zoning map. In addition, CN has purchased a substantial portion of the Light Industrial District property where the revised rail connection would be located, east of the CN Chicago subdivision and north of EJ&E western subdivision. The Service and Light Industrial District land use designation would allow railroad/transportation land uses as they are already accommodated in this area of Matteson.

2.1.3.3 Socioeconomics

SEA evaluated the potential affects on the socioeconomic conditions surrounding the Revised Matteson Connection compared to the Proposed Matteson Connection. Table 2.1-2, below, outlines full and partial acquisitions by property type, and the total acquisition required for both the Revised and the Proposed Matteson Connections.

Table 2.1-2. Comparison of Property Acquisition

	Residential		Commercial		Industrial		Vacant		Acreage
	Full	Partial	Full	Partial	Full	Partial	Full	Partial	
Proposed Matteson Alternative	0	1	0	1	1	0	2	7	16.8
Revised Matteson Connection	0	0	0	1	1	0	1	8	13.3

SEA evaluated the potential effects on the socioeconomic conditions surrounding the Revised Matteson Connection. Changes in socioeconomic conditions from the Draft EIS are very minor and would not affect conclusions stated in the Draft EIS.

2.1.3.4 Environmental Justice

SEA evaluated the Revised Matteson Connection and determined it would not have a disproportionately high and adverse effect on minority and low-income populations regarding train noise and highway/rail at-grade crossing safety and delay.

2.1.4 Energy and Air Quality

2.1.4.1 Energy

The Revised Matteson Connection would allow rail traffic to move more efficiently than the Proposed Matteson Connection. However, energy savings would be slight, if any, on a system-wide basis in the Chicago metropolitan area and would have a negligible effect on rail system fuel use.

2.1.4.2 Air Quality

Because energy savings between the Revised and the Proposed Matteson Connections would be slight, air emissions changes would also be slight. Construction of the Revised Matteson Connection would result in a temporary and relatively small increase in construction-related emissions, compared to estimated construction emissions presented in the Draft EIS for the Proposed Matteson Connection. Those emissions were found to be clearly *de minimis*, or negligible, and the slight change in emissions resulting from the Revised Matteson Connection would also be *de minimis*.

2.1.5 Noise and Vibration

SEA assessed potential noise emissions from the Revised Matteson Connection to evaluate wayside noise (wheel/rail noise), noise from wheel flange squeal on sections of curved track (wheel squeal), and noise from train wheels rolling through crossovers (special track work). Noise from these three sources was combined to calculate an overall noise level. SEA used that information to determine the distance to the 65 dBA Ldn contour. Using GIS technology, SEA plotted noise contour lines around the connection and counted the number of noise-sensitive receptors predicted to experience noise levels of 65 dBA or greater on an Ldn basis. SEA also determined the number of noise-sensitive receptors predicted to experience noise levels of 70 dBA or greater. Table 2.1-3, below, illustrates the results.

Similarly, SEA assessed potential vibration associated with the revised connection, using Federal Transit Administration (FTA) methods and GIS technology. Table 2.1-3, below, illustrates results of the additional noise analysis and the number of vibration-sensitive receptors predicted to experience threshold levels of train-induced, ground-borne vibration associated with the Revised Matteson Connection. Receptor counts shown in Table2.1-3 do not include any receptors that are inside any other contour; the table presents receptors inside contours that are unique to these analyses.

Following the analysis, SEA determined that the Applicants' voluntary noise mitigation would be adequate to address the potential noise effects.

Table 2.1-3. Noise and Vibration Associated with the Revised Matteson Connection				
Revised Connection	Number of Receptors Predicted to Experience Threshold Levels			
	Noise Level			Vibration
	Existing 65 dBA Ldn	Future 65 dBA Ldn	Future 70 dBA Ldn	
Matteson	47	26	12	0

2.1.6 Biological Resources

The Proposed Matteson Connection would affect a total of 22.5 acres. The Revised Matteson Connection would result in an increase of 7.1 affected acres. The 29.6 acres of affected acres includes 20.2 acres currently in road, pavement, building, or railroad. The remaining 9.4 acres are dominated by a mix of immature forest and wet forest as well as other cultural land cover types. Forested areas comprise 3.3 acres of immature upland forest and 4.4 acres of wet forest. Other land cover types include: 1.0 acres of turf grass; 0.2 acres of ditched stream and associated bank, 0.3 acres of Reed Canary Grass and 0.2 acre of upland.

Section 4.11.3.2 in the Draft EIS details the construction effects for the Proposed Matteson Connection. The effects of the Revised Matteson Connection on plant communities and wildlife would be slightly greater than effects from the Proposed Matteson Connection. However, effects to wildlife would be minimal since the site is highly urbanized and habitat is currently fragmented.

2.1.7 Water Resources

The Proposed Matteson Connection could directly affect 3.62 acres of wetland. There would be a decrease of 0.68 acre of potential wetland effects with the Revised Matteson Connection (see Figure 2.1-3).

2.1.8 Cultural Resources

The Illinois State Historic Preservation Agency (IHPA) issued a concurrence letter stating there will be no adverse effects on cultural or historic resources as a result of the Proposed Action (see Appendix A).

If the Proposed Action is approved and if cultural resources are discovered during construction, the Applicants would coordinate with the State Historic Preservation Office (SHPO) and/or Tribal Historic Preservation Office (THPO), and other relevant consulting parties (under the Section 106 process) to develop and evaluate alternatives or modifications that would avoid, minimize, or mitigate any adverse effects on significant cultural resources.

Table 2.1-4, below, compares potential effects of both the Proposed and Revised Matteson Connection.

Table 2.1-4. Comparison of Effects – Proposed Matteson Connection and Revised Matteson Connection		
Resource Category	**Proposed Matteson Connection**	**Revised Matteson Connection**
Rail Operations	Curvature of rail connection limited the maximum operating speed along the EJ&E double track main line to 25 mph	Curvature of revised rail connection was modified to accommodate a maximum operating speed along the EJ&E double track main line to 40 mph
Rail Safety	There were no rail safety effects due to the Proposed Matteson Connection, as presented in the Draft EIS	No change from Proposed Matteson Connection
Transportation	Increase in traffic delay at Cicero Avenue, Main Street, and Western Avenue	Decrease in traffic delay from the Proposed Matteson Connection for Cicero Avenue, Main Street, and Western Avenue
Hazardous Waste Sites	High site ranking	No change from Proposed Matteson Connection
Land Use	9.24 acres to be converted to railroad use	7.49 acres to be converted to railroad use
Socioeconomics	16.8 acres of property to be acquired	13.3 acres of property to be acquired
Environmental Justice	No high or adverse effects and no disproportionate effects on minority and low-income populations	No change from Proposed Matteson Connection
Energy	Negligible effect on rail system fuel use	No change from Proposed Matteson Connection
Air Quality	Construction-related emissions would be minimal	Temporary and relatively small increase in construction-related emissions
Noise	Existing 65 dBA Ldn – 0 receptors Future 65 dBA Ldn – 0 receptors Future 70 dBA Ldn – 0 receptors	Existing 65 dBA Ldn – 47 receptors Future 65 dBA Ldn – 26 receptors Future 70 dBA Ldn -12 receptors
Vibration	3 receptors	0 receptors
Biological Resources	22.5 acres of ground disturbance No effect on wildlife	29.6 acres of ground disturbance and slightly greater effect on wildlife than Proposed Matteson Connection; however, effects to wildlife would be minimal since the site is highly urbanized and habitat is currently fragmented
Water Resources	Directly affecting 3.62 acres of wetland	Directly affecting of 2.94 acres of wetland
Cultural Resources	No adverse effects on cultural or historic resources	No adverse effects on cultural or historic resources

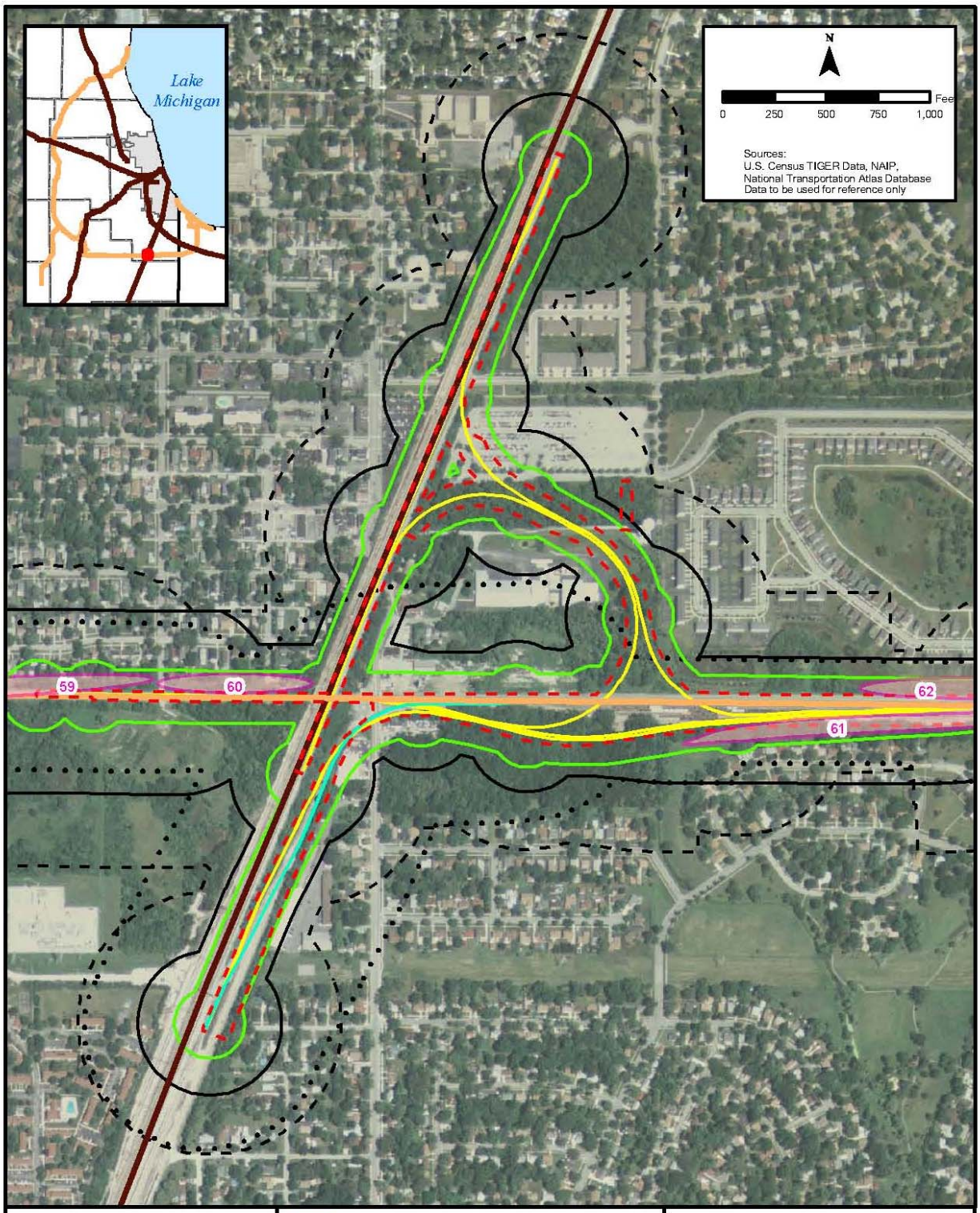
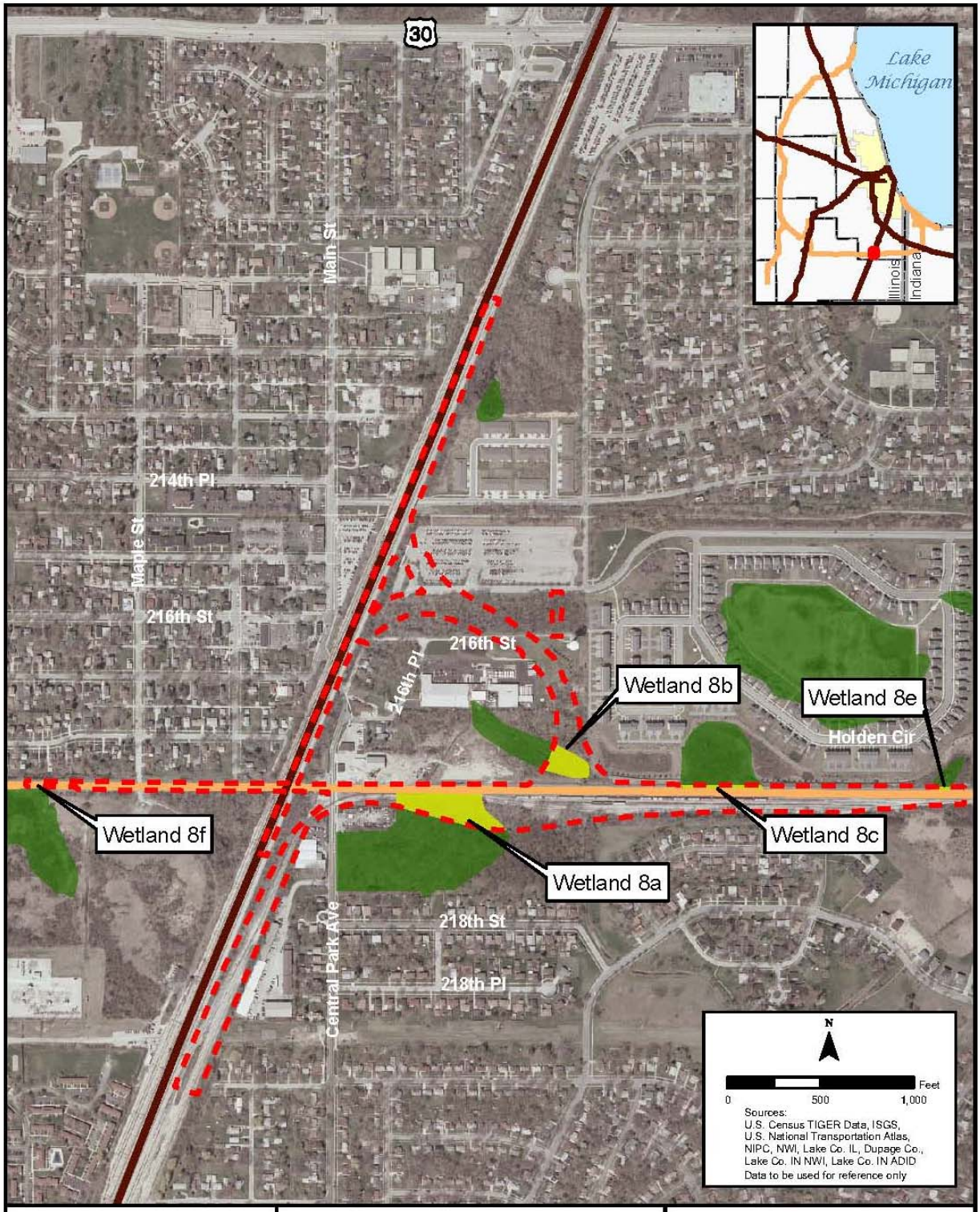


Figure 2.1-2

Noise and Vibration Contours at Revised Matteson Connection


30
Lake Michigan
Illinois
Indiana
Main St
214th Pl
Maple St
216th St
216th St
216th Pl
Wetland 8b
Wetland 8e
Holden Cir
Wetland 8f
Wetland 8c
Wetland 8a
218th St
218th Pl
Central Park Ave
N
Feet
0
500
1,000
Sources:
U.S. Census TIGER Data, ISGS,
U.S. National Transportation Atlas,
NIPC, NWI, Lake Co. IL, Dupage Co.,
Lake Co. IN NWI, Lake Co. IN ADID
Data to be used for reference only
CN | EJ&E
Environmental Impact Statement
EJ&E Rail Line
CN Rail Line
Construction Limits
Wetland
Affected Wetland
Figure 2.1-3
Revised
Matteson Connection
Potential Wetland Effects

2.2 Revised Double Track – Leithton Connection

In their operating plan the Applicants proposed to improve capacity on the EJ&E rail line by adding a second main line or double track in certain locations. One of the locations proposed by the Applicants was at the existing connection between the EJ&E rail line and the CN Waukesha Subdivision at Leithton, near Mundelein, Illinois. Conceptual engineering drawings of the Proposed Double Track – Leithton Connection to improve freight capacity were included in CN's October 2007 Application, and were used in the Draft EIS to estimate potential environmental effects. After the issuance of the Draft EIS, CN revised the proposed double track connection at Leithton (Revised Double Track – Leithton Connection) to improve the maximum operating train speed along the EJ&E main track and reduce the effect on vehicle traffic delay at several highway/rail at-grade crossings in the Mundelein area.

Section 2.2.2 of the Draft EIS discussed the Proposed Double Track – Leithton Connection as presented in CN's Application. As discussed below, in the evaluation of the Revised Double Track – Leithton Connection for this Final EIS, SEA has determined that there would be potential adverse environmental effects for each of the 13 resource categories in Chapter 4 of the Draft EIS. In the evaluation of the Revised Double Track – Leithton Connection, SEA determined that there would be some beneficial environmental effects and that there would be no additional adverse effects on Rail Safety, Hazardous Waste Sites, and Vibration.

2.2.1 Rail Operations

The plan for the Revised Double Track – Leithton Connection involves the construction of a new double track connection and the removal of an existing single track connection between the EJ&E rail line and the CN Waukesha Subdivision lines. The Applicants revised the initial design to create a turning curve radius that would allow higher train speeds at this connection. To accommodate the new double track connections, the Applicants have proposed a footprint up to 100 feet wide.

The Draft EIS discussed how the Proposed Double Track – Leithton Connection would improve the capacity of the existing connection by installing a second main track adjacent to the existing track, where the existing curvature of 11.5 degrees allows a maximum operating speed of 15 mph. Because most CN trains would use the Leithton connection to link its Waukesha Subdivision with EJ&E's Western Subdivision, the proposed design speed would result in slower maximum speeds for trains being routed to the EJ&E rail line.

The Revised Double Track – Leithton Connection relocates the existing connecting track and the proposed second main track to the west to create a maximum curvature of 7.25 degrees. This would allow a maximum train speed of 25 mph (see Figure 2.2-1, Revised Double Track – Leithton). Given the location of the 25 mph connecting track, train speeds over nearby highway/rail at-grade crossings (including Allanson Road, Diamond Lake Road, and IL 60/83) would be greatly improved.

2.2.2 Transportation

The potential effects that the Revised Double Track – Leithton Connection would have on traffic delay for Allanson Road, Diamond Lake Road, and IL 60/83 are discussed in Section 2.5, Updated Transportation Information.

2.2.3 Land Use, Socioeconomics, Environmental Justice

SEA evaluated the potential for adverse effects resulting from the Revised Double Track–Leithton Connection.

2.2.3.1 Land Use Conversions

The Revised Double Track–Leithton Connection would require approximately 1.8 more acres of industrial and open space land than the connection proposed in the Draft EIS. The converted land use is shown on Table 2.2-1.

Table 2.2-1. Revised Double Track – Leithton Connection – Land Use Conversion Summary

Construction Site / Location	Existing Land Use	Acres to be Converted to Railroad Use	
		Proposed Leithton Connection (acres)	Revised Leithton Connection (acres)
Leithton Connection / Near Mundelein, Illinois	Industrial Vacant Open Space	0.219 0.998 0.000	0.351 0.738 1.969
Total		**1.217 acres**	**3.058 acres**

2.2.3.2 Consistency with Land Use and Zoning

The Revised Double Track – Leithton Connection would be consistent with future Mundelein land use plans and zoning. The Mundelein, Illinois Southside Commercial Corridor Plan and Framework Plan, includes the area of the rail connection on Leithton. In the Southside Commercial Corridor Plan, both future land use and zoning in the area adjacent to the rail connection are shown as M-1 or Medium Industrial District. This industrial land use and zoning designation would allow a railroad/transportation use as proposed in the Revised Double Track – Leithton Connection.

2.2.3.3 Socioeconomics

SEA evaluated the potential effects on the socioeconomic conditions surrounding the Revised Double Track – Leithton Connection compared to the Proposed Double Track – Leithton Connection. Table 2.2-2, below, outlines full and partial acquisitions by property type and the total acquisition required for the Revised Double Track – Leithton Connection, under which, one property would change from partial acquisition to full acquisition. The property is vacant industrial land and acquiring it is not expected to cause any adverse effect to the economy. The partial-take of the trucking company parking area would not have an adverse effect on the company's daily operations or revenue.

No additional structures would need to be acquired for the Revised Double Track – Leithton Connection and the change in cost would be minimal.

SEA evaluated the potential effects on the socioeconomic conditions surrounding the Revised Double Track – Leithton Connection. Changes in socioeconomic conditions from the Draft EIS are very minor and would not affect conclusions stated in the Draft EIS.

Table 2.2-2. Comparison of Proposed and Revised Double Track – Leithton Connection Property Acquisition

	Residential		Commercial		Industrial		Vacant		Acreage
	Full	Partial	Full	Partial	Full	Partial	Full	Partial	
Proposed Leithton Connection	0	0	0	0	0	3	0	8	3.8
Revised Leithton Connection	0	0	0	0	0	4	1	7	5.4

2.2.3.4 Environmental Justice

SEA evaluated the potential for adverse effects on minority and low-income populations resulting from the Revised Double Track – Leithton Connection and determined there would not be disproportionately high effects from train noise or highway/rail at-grade crossing safety and delay.

2.2.4 Energy and Air Quality

2.2.4.1 Energy

The Revised Double Track – Leithton Connection would allow rail traffic on affected segments to move more efficiently. Energy savings would be slight, if any, on a system-wide basis in the Chicago metropolitan area, and would have a negligible effect on rail system fuel use.

2.2.4.2 Air Quality

Construction of the Revised Double Track – Leithton Connection would result in a temporary and relatively small increase in construction-related emissions, compared to the estimated construction emissions presented in the Draft EIS for the Proposed Double Track – Leithton Connection. The emissions were found to be clearly *de minimis*, or negligible, and the slight change in emissions resulting from the Revised Leithton Connection would also be *de minimis*.

2.2.5 Noise and Vibration

SEA assessed potential noise emissions from the Applicant's Revised Double Track - Leithton Connection to evaluate wayside noise (wheel/rail noise), noise from wheel flange squeal on sections of curved track (wheel squeal), and noise from train wheels rolling through crossovers (special track work). Noise from these three sources was combined to calculate an overall noise level. SEA used that information to determine the distance to the 65 dBA Ldn contour. Using GIS technology, SEA plotted noise contour lines around the connection and counted the number of noise-sensitive receptors predicted to experience noise levels of 65 dBA or greater on an Ldn basis. SEA also determined the number of noise-sensitive receptors predicted to experience noise levels of 70 dBA or greater. Table 2.2-3, below, illustrates the results.

Similarly, SEA assessed potential vibration associated with the revised connection, using FTA methods and GIS technology. Table 2.2-3, below, illustrates results of the additional noise analysis and the number of vibration-sensitive receptors predicted to experience threshold levels of train-induced, ground-borne vibration associated with the Revised Leithton Connection. Receptor counts shown in Table 2.2-3 do not include any receptors that are inside any other contour; the table presents receptors inside contours that are unique to these analyses. Figure 2.2-2 documents the noise contours associated with this analysis.

The Revised Double Track – Leithton Connection does not have an effect on the number of noise-sensitive receptors or vibration.

Table 2.2-3. Noise and Vibration Associated with the Revised Double Track - Leithton Connection				
Revised Connection	Number of Recptors Predicted to Experience Threshold Levels			
	Noise Level			Vibration
	Existing 65 dBA Ldn	Future 65 dBA Ldn	Future 70 dBA Ldn	
Leithton	0	0	0	0

2.2.6 Biological Resources

The Revised Double Track – Leithton Connection shifts the alignment from the existing rail bed to the north and west to provide a wider turning radius. The Proposed Double Track – Leithton Connection would create ground disturbance on a total of 4.9 acres. The Revised Double Track – Leithton Connection would create an additional 2.1 acres of ground disturbance compared with the Proposed Double Track - Leithton Connection. There would be a direct alteration of less than 0.1 acre of ditched area, 1.7 acres of disturbed landscape dominated by young woody growth, 0.2 acre of disturbed shrub swamp, 1.9 acre of *Phragmites*/cattail monotype wetlands and 0.7 acre of open water – or 4.6 acres of direct effects. Section 4.11.3.2 in the Draft EIS details the construction effects for the Proposed Double Track – Leithton connection.

The effects of the Revised Double Track – Leithton Connection on plant communities and wildlife would be slightly greater than effects from the Proposed Double Track – Leithton Connection. However, effects to wildlife would be minimal since the site is surrounded by existing development that has isolated it from nearby habitats.

2.2.7 Water Resources

The Proposed Double Track – Leithton Connection would directly affect 2.44 acres of wetland, as presented in the Draft EIS. The Revised Double Track – Leithton Connection would increase the amount of wetland effects by 0.64 acres to a total of 3.08 acres (see Figure 2.2.3).

2.2.8 Cultural Resources

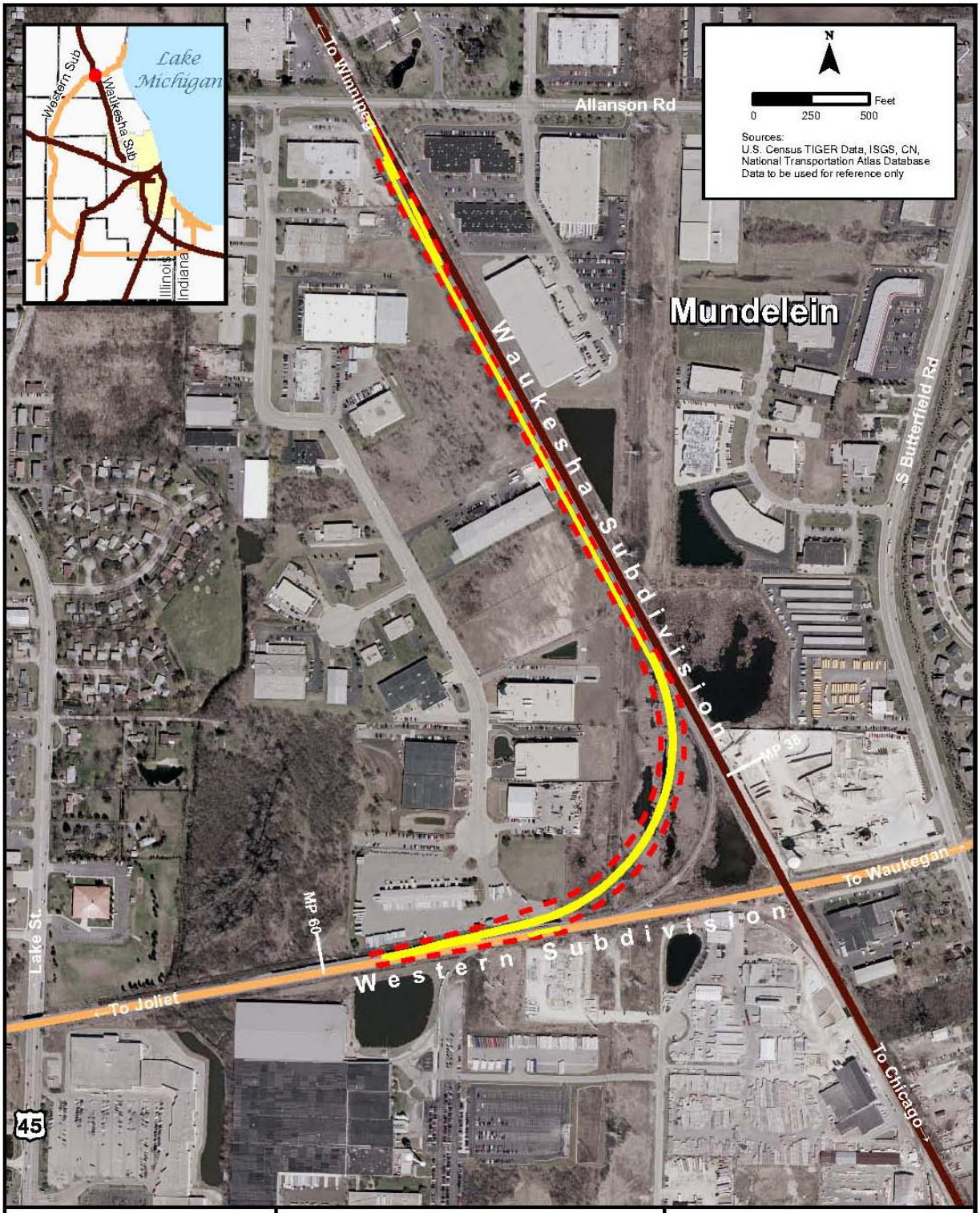
SEA completed cultural resource surveys for the area of potential effect (APE) associated with the Proposed Double Track - Leithton Connection and the Revised Double Track – Leithton Connection. The Indiana Division of Historic Preservation and Archaeology issued a letter of concurrence stating there would be no adverse effects on cultural or historic resources as a result of the Proposed Action (see Appendix A). If cultural resources are discovered during construction, the Applicants would coordinate with SHPO and/or THPO, and other relevant consulting parties (under the Section 106 process) to develop and evaluate alternatives or modifications that would avoid, minimize, or mitigate any adverse effects on significant cultural resources.

2.2.9 Other Connections

The proposed connections at Munger, Illinois; Joliet, Illinois; Griffith, Indiana; Ivanhoe and Kirk Yard, near Gary, Indiana, remain as presented in the Draft EIS. Therefore, SEA has determined that for these connections no additional analysis is required. The results of the environmental analysis for the 13 resource categories for these connections, and the alternatives, are presented in Chapter 4 of the Draft EIS. Table 2.2-4, below, compares potential effects of both the Proposed and Revised Double Track – Leithton Connections.

Table 2.2-4. Comparison of Effects–Proposed Double Track – Leithton Connection and Revised Double Track – Leithton Connection

Resource Category	Proposed Double Track – Leithton Connection	Revised Double Track – Leithton Connection
Rail Operations	Curvature of the rail connection limited the train speed along the connection to 15 mph	Revised curvature of the rail connection would allow a maximum train speed of 25 mph; therefore increasing train speeds along the main track as well
Rail Safety	There were no rail safety effects due to the Proposed Double Track – Leithton Connection, as presented in the Draft EIS	No change from the Proposed Double Track – Leithton Connection
Transportation	Increase in traffic delay at Allanson Road, Diamond Lake Road, and IL 60/83	Decrease in traffic delay at Allanson Road, Diamond Lake Road, and IL 60/83
Hazardous Waste Sites	High site ranking for most properties	No change from the Proposed Double Track – Leithton Connection
Land Use	1.22 acres to be converted to railroad use	3.06 acres to be converted to railroad use
Socioeconomics	3.8 acres of property to be acquired	5.4 acres of property to be acquired
Environmental Justice	No high or adverse effects or disproportionate effects on minority or low-income populations	No change from Proposed Double Track – Leithton Connection
Energy	Negligible effect on rail system fuel use	No change from Proposed Double Track – Leithton Connection
Air Quality	Construction-related emissions would be minimal	Temporary and relatively small increase in construction-related emissions
Noise	Existing 65 dBA Ldn – 0 receptors Future 65 dBA Ldn – 0 receptors Future 70 dBA Ldn – 0 receptors	Existing 65 dBA Ldn – 0 receptors Future 65 dBA Ldn – 34 receptors Future 70 dBA Ldn -0 receptors
Vibration	0 receptors	No change from Proposed Double Track – Leithton Connection
Biological Resources	4.9 acres of ground disturbance No effect on wildlife	7.0 acres of ground disturbance and slightly greater effect on wildlife than Proposed Double Track – Leithton Connection; however, effects to wildlife would be minimal since the site is surrounded by existing development that has isolated it from nearby habitats
Water Resources	Directly affecting 2.44 acres of wetland	Directly affecting of 3.08 acres of wetland
Cultural Resources	No adverse effects on cultural or historic resources	No change from Proposed Double Track – Leithton Connection


Lake Michigan
Western Sub
Waukesha Sub
Illinois
Indiana
To Wilmington
Allanson Rd
N
Feet
0
250
500
Sources:
U.S. Census TIGER Data, ISGS, CN,
National Transportation Atlas Database
Data to be used for reference only
Mundelein
Waukesha Subdivision
S Butterfield Rd
MP 38
To Waukegan
Western Subdivision
MP 60
Lake St
To Joliet
To Chicago
45
EJ&E Rail Line
CN Rail Line
Construction Limits
Proposed Track
CN | EJ&E
Environmental Impact Statement
Figure 2.2-1
Revised
Double Track
- Leithton

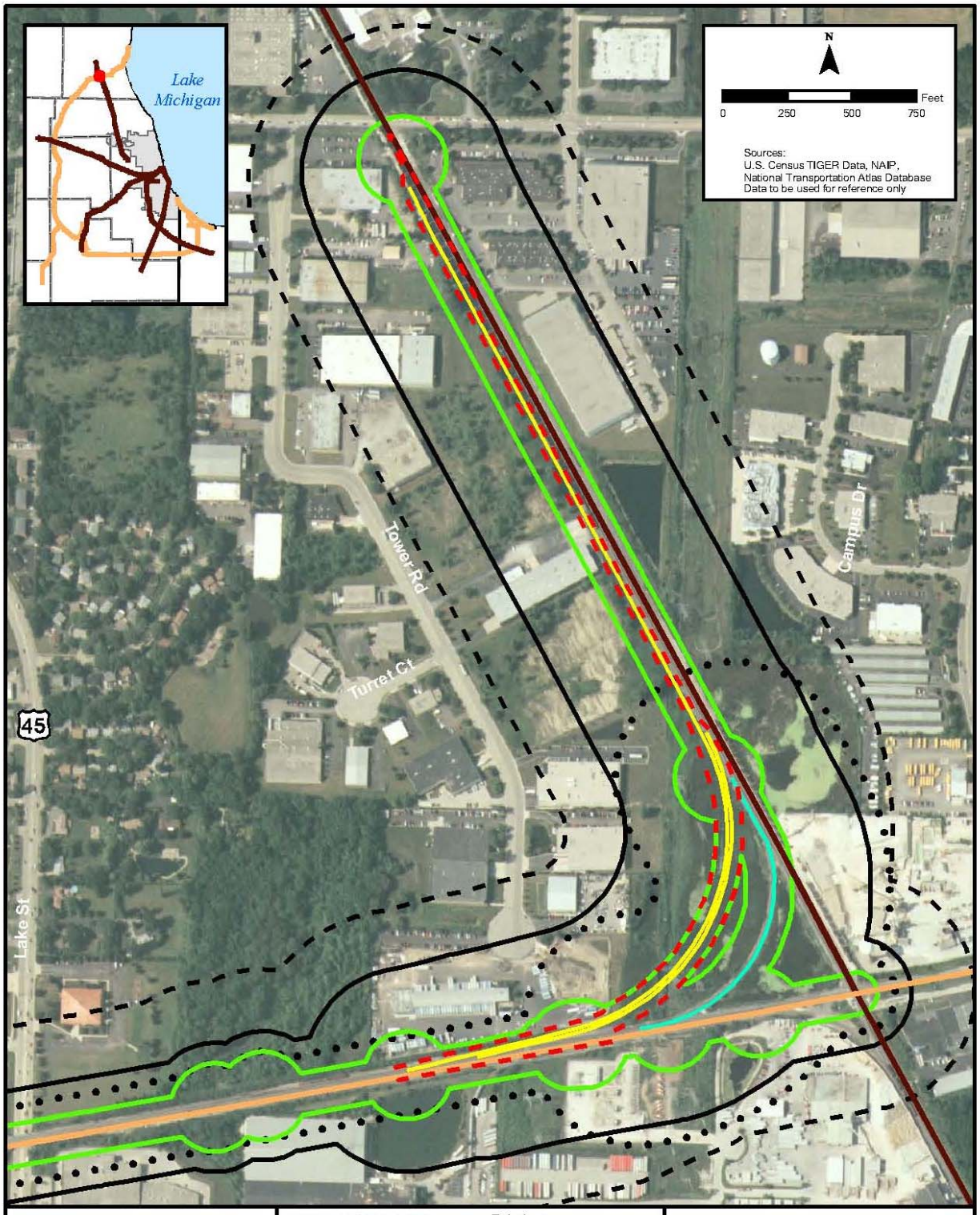


Figure 2.2-2

Noise and Vibration Contours at Revised Leithton Connection

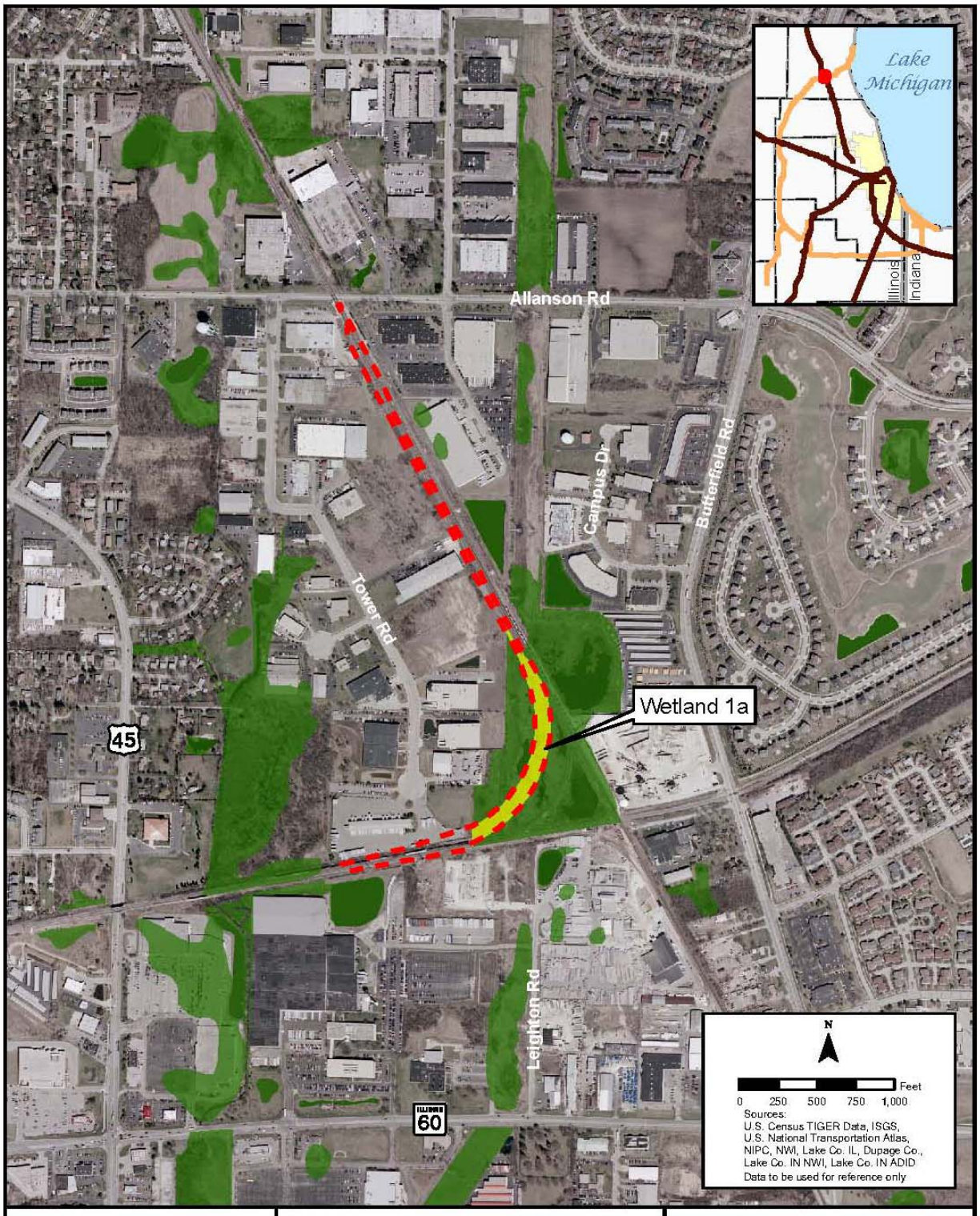


Figure 2.2-3
Revised Double Track
-Leithton
Potential Wetland Effects

2.3 Commuter Rail Service

2.3.1 Proposed Metra STAR Line Service

In the Draft EIS, Sections 3.1.3.1 and 4.1.7.3, SEA discussed and evaluated the potential effect of the Proposed Action on the proposed Metra commuter rail system known as the STAR Line (Suburban Transit Access Route). Metra is currently evaluating the feasibility of the STAR Line under a grant from the Federal Transit Administration (FTA). In the Draft EIS, SEA concluded that the Proposed Action would not adversely affect potential implementation of the STAR Line concept as described by Metra. SEA received numerous comments on its conclusions with respect to the STAR Line. Metra, in its comment letter dated September 29, 2008, stated that SEA's "statement is not entirely correct." Metra based this conclusion on the potential cost of the additional capacity improvements that would be required to implement the proposed Metra STAR Line and on the nature and history of Metra's working relationship with CN. Other comments on the conclusions in the Draft EIS were based on the impression that Metra would not need to add any additional rail infrastructure in order to implement the STAR Line service. Many commenters took the position that the Proposed Action would render the STAR Line infeasible. Several commenters pointed out that Metra's proposed STAR Line has a number of serious technical and financial obstacles to overcome before it becomes a reality and, for those reasons, argued that SEA should not have considered it reasonably foreseeable.

Based on these comments, SEA undertook additional analysis of the possible effect of the Proposed Action on Metra's ability to implement the proposed STAR Line service. The additional analysis allowed SEA to compare the likely cost of the infrastructure that would be required for the STAR Line under the No-Action Alternative (existing EJ&E freight train activity only) to the likely cost of the infrastructure that would be required for STAR Line if the Board approves the Proposed Action. While SEA has undertaken this additional analysis, SEA notes that implementation of the STAR Line is contingent on numerous issues that are totally unrelated to the Proposed Action (for example technical issues associated with the Northwest Corridor Segment). Moreover, SEA understands that a formal agreement, or Memorandum of Understanding, has not been executed between Metra and EJ&E. SEA's analysis first determined all of the additional infrastructure that the various Metra studies indicated would be required for the STAR Line service. SEA then developed multiple scenarios of rail infrastructure improvements, and modeled the response of the EJ&E rail line and the Metra STAR Line service to determine what type of additional infrastructure would be required under the Proposed Action in order to operate the STAR Line. Appendix A provides more detail on SEA's STAR Line analysis.

2.3.1.1 Metra STAR Line Background

Metra is currently preparing an Alternatives Analysis under the FTA process. Metra, in a letter dated January 14, 2008, provided SEA with preliminary draft portions of the Metra STAR Line Alternatives Analysis; "Feasible Alternatives: Detailed Descriptions" dated November 13, 2007. Metra also provided SEA with a preliminary weekday passenger train schedule that includes 52 total passenger trains on the EJ&E segment. These trains are proposed to operate on 30-minute peak hour and 60-minute non-peak hour schedules. Metra previously completed the Outer Circumferential Commuter Rail Feasibility Study (T.Y. Lin International 1999) and the STAR Line (Suburban Transit Access Route) Feasibility Study for a Metra Commuter Rail Service System (Metra 2003). Key points provided in these documents have formed the basic framework for SEA's additional analysis.

The Metra studies conducted to date identified the capital improvements that would be necessary in order to implement the STAR Line service on the EJ&E rail line under existing conditions. SEA views these improvements as Scenario No. 1, or the No-Action alternative. To date, none of the Metra studies include a detailed capacity study (a computer-based dispatch study which models the

existing rail corridor with expected freight trains and proposed passenger trains). This capacity study would identify the locations of potential freight and passenger train conflicts. It would also help to confirm the extent of capital improvements that would be needed to safely, efficiently, and reliably handle both freight and passenger trains. Typically, a capacity study would be performed by the sponsoring agency (Metra) with the aid of the host railroad at a later stage in the feasibility studies. The results of a capacity study are usually described in terms of average operating speed or delay ratio and, once acceptable levels of these results are agreed upon, form the basis of an agreement between the freight owner and passenger train operator. Should the Board approve the Proposed Action and Metra proceed with the STAR Line development, then Metra and CN would ultimately have to agree on a number of operating issues, including a program of capital improvements.

2.3.1.2 Metra STAR Line Analysis

Using information provided in the Metra documents referenced above, SEA identified four possible capital improvement and operating scenarios under which Metra could implement STAR Line service. SEA developed Scenarios No. 1, 2, and 3, assuming that freight and passenger trains would or could use the same trackage. The only exception to this assumption is the proposed flyover at West Chicago over the Union Pacific/Metra Line. Metra has indicated that the flyover could potentially be required, and SEA assumed that the flyover would be designed with steep gradients to minimize costs, and therefore, would be a passenger-train only structure. SEA developed Scenario No. 4 as a "stand-alone" commuter network which SEA determined could be constructed within the EJ&E ROW. Because none of the Metra studies include a detailed capacity study, SEA used the Rail Traffic Controller (RTC) Dispatch Model that SEA developed as part of the verification of the Applicants' Operating Plan (see Appendix B of the Draft EIS). SEA evaluated the operations of each of the scenarios to determine if the scenario would provide an acceptable level of passenger rail and freight rail service. Appendix A of this Final EIS contains the details on SEA's additional analysis. SEA evaluated the following scenarios for the operation of the STAR Line service.

- Scenario No. 1 – STAR Line base line infrastructure was evaluated with two different train operating schedules:
    - Scenario No. 1A – STAR Line trains and existing EJ&E trains (no acquisition)
    - Scenario No. 1B – STAR Line trains and Proposed Action freight trains (both CN and EJ&E freight trains)
- Scenario No. 2 – Infrastructure includes the addition of a third main track between Eola and Walker (near Plainfield, Illinois) to the trains under Scenario 1B, above
- Scenario No. 3 – Infrastructure includes the addition of a third main track between Walker and Renwick Road to the trains under Scenario 1B, above
- Scenario No. 4 – Stand-alone commuter rail option was created to analyze an option that avoids, to the extent possible, the interference between freight and passenger trains

For this analysis, SEA assumed that the outstanding/existing agreements that govern the movement of EJ&E freight trains during the morning and evening peak periods would be honored, consistent with the Applicants' voluntary mitigation measure VM 41. These agreements would help to minimize the possibility that existing Metra commuter trains (not the future STAR Line trains) that cross at the four rail/rail at-grade crossings (interlockings) would be delayed if the Board approves the Proposed Action. SEA recognizes that only two interlockings are located within the STAR Line corridor; however, two interlockings located just outside the corridor (Barrington to the north and East Joliet-Rock Island Tower to the south) effect the operation of freight trains and thus SEA included these additional interlockings in the operational analysis.

RTC Dispatch Modeling Results

Table 2.3-1 displays the results of the analysis of the four Alternatives described above and compares these results with those presented in the Draft EIS (Proposed Action).

Table 2.3-1 Delay Ratios by Scenario

Scenario	Delay Ratio	
	CN+EJ&E	STAR Line
Proposed Action	69.7[a]	N/A
Scenario No. 1A	13.0	12.6
Scenario No. 1B	Unacceptable	Unacceptable
Scenario No. 2	40.5	10.5
Scenario No. 3	38.5	8.0
Scenario No. 4	N/A[b]	2.6

Notes:

[a] The Draft EIS, Table B4-4, shows this value as 58 percent, SEA recalculated the delay ratio to include the commitment made by the Applicants in voluntary mitigation measure VM 41 related to the operating restrictions imposed by the agreements with Metra.

[b] Scenario No. 4 is the stand-alone alternative under which all Metra trains would be operated independent of CN's trackage and vice versa. Therefore, no operations data was generated for CN's traffic under this scenario.

Scenario No. 2 produced performance results for STAR Line trains roughly comparable to Scenario No. 1A and freight train performance results were better than the Proposed Action. This indicates that the infrastructure improvements contemplated under Scenario No. 2 would provide an acceptable level of service (LOS) for both passenger and freight trains. Scenario No. 3 also produced an acceptable LOS, however, the overall service level is comparable to Scenario No. 2. The stand-alone option, Scenario No. 4, contemplates no freight train interference and shows the best results for the STAR Line trains.

Cost Estimates for Each Scenario

For each of the STAR Line scenarios studied, SEA generated a conceptual cost estimate shown in Appendix A3 (Table 3) of this Final EIS (see Table 2.3-2, below). As part of the Proposed Action, the Applicants plan to construct a new second main line track, which when combined with the existing sidings at East Siding, Normantown, and Walker, would give CN approximately 10 miles of double track in the area. This cost estimate assumed that, should the Board approve the Proposed Action, CN would be responsible for the cost of this portion of new second main line, since it would be built regardless of whether STAR Line service is implemented. In addition, because Metra has indicated that the STAR Line route would need to be grade-separated from the Union Pacific/Metra line at West Chicago, SEA included the cost of a flyover at West Chicago in each scenario. Also, the cost to install level boarding as desired by the FTA was included in all scenarios. Appendix A of this Final EIS provides more details on the assumptions that SEA used for each scenario.

SEA estimated that the cost of Scenario 1A (no acquisition) would be approximately $419 million (this is based on Metra's 2003 cost as adjusted for inflation). This estimate represents the cost for the additional infrastructure that Metra has indicated would be required to implement the STAR Line on only the EJ&E portion of the STAR Line route. It also assumes that the Board does not approve the Proposed Action and that no additional EJ&E traffic (as described in the Applicants' 2007 submittal)

would occupy the existing infrastructure. Cost estimates include additional infrastructure required (capacity improvements) to implement the STAR Line should the Board approve the Proposed Action, and the projected changes in rail freight traffic are implemented. SEA concluded that under the Proposed Action, the cost of additional infrastructure would increase by approximately $9.5 million (about 2.3 percent) of EJ&E's portion of the overall STAR Line cost. It should be noted that SEA's analysis does not include the potential cost of purchasing additional operating ROW for any of the scenarios.

Table 2.3-2. SEA's Cost Estimates for the STAR Line Implementing Scenarios

	Cost in thousands of dollars (2008)				
	CN	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Total Project Cost	$43,872	$419,004	$472,397	$500,254	$499,711
Less Work Completed by CN			$43,872	$43,872	[a]
Net Project Cost (to Metra)			$428,526	$456,383	$499,711
Incremental Cost Above Scenario No,1 ($)			$9,522	$37,379	$80,708
Incremental Cost Above Scenario No.1 (percent)			2.3%	8.9%	19.3%

Notes:

- Possible Metra Costs
- CN costs per Application

[a] Not applicable under Scenario 4 because track costs assigned to CN for freight service would not benefit Metra's Stand-alone Alternative for commuter service.

2.3.1.3 STAR Line Direct Effects Conclusions

SEA evaluated the possible implementation of Metra's proposed STAR Line in Section 4.1.7.3 of the Draft EIS, and concluded that the STAR Line was a reasonably foreseeable future action, but that the Proposed Action would not adversely affect the potential implementation of the STAR Line service on the EJ&E rail line. In response to comments on the Draft EIS, SEA undertook additional analysis and confirmed that with some additional track infrastructure, it would be feasible for Metra and CN to jointly operate freight and commuter passenger service on the EJ&E rail line, similar to the way that Metra coexists with several other freight railroads in the Chicago region. SEA estimates that the added infrastructure to allow for the STAR Line service would potentially add only a nominal amount (between 2 and 9 percent) to the capital cost of the EJ&E segment of the proposed STAR Line. For these reasons SEA concludes that the Proposed Action would not have a substantial adverse affect on the potential implementation of the STAR Line service on the EJ&E rail line.

2.3.1.4 STAR Line Cumulative Effects Conclusions

In Sections 5.5.1 and 5.5.2 of the Draft EIS, SEA assessed the cumulative effects of the portion of the STAR Line proposed to operate along the EJ&E rail line. SEA's assessment included the cumulative effects of the proposed commuter stations along the EJ&E rail line. SEA concluded that operation of the STAR Line could cause cumulative effects on safety, vehicle delay, public lands, trails, emergency response, noise and vibration, socioeconomics, biological resources and water resources. SEA concluded that the cumulative effects of construction of the STAR Line would vary based on whether a separate track would be needed to accommodate STAR Line trains. However, SEA noted it could not be more specific regarding the potential severity of cumulative effects because specific Metra plans were not available.

SEA received many comments on the Draft EIS concerning the potential effects the Proposed Action could have on Metra's plans for the STAR Line. Therefore, as previously outlined in Section 2.3.1, SEA analyzed different scenarios related to construction and operation of the STAR Line along the EJ&E rail line to identify potential positive and negative aspects, including the costs, of each. Based on that analysis, SEA reviewed its earlier assessment of the potential cumulative effects related to construction and operation of the STAR Line. This review of the assessment did not include cumulative effects from construction and operation of commuter stations and related facilities because no new information on the facilities was available. With the caveat that Metra could change its plans for the STAR Line at any time, and would have to conduct its own environmental review before construction could begin, SEA's additional analyses of potential cumulative effects related to the STAR Line are described below.

Highway/Rail At-Grade Crossing Safety

If the Proposed Action were approved and the STAR Line became operational, approximately 40 EJ&E highway/rail at-grade crossings would see up to 25 additional CN and approximately 52 STAR Line trains. Many of these highway/rail intersections would be crossed by additional trackage, depending on Metra's choice of construction scenarios. The addition of new trackage through at-grade crossings would increase the risk of vehicle/train collisions. The Illinois Commerce Commission presumably would address such risks by requiring appropriate warning device upgrades and other modifications. Construction of a STAR Line flyover at West Chicago, which could potentially be a part of Metra's plan, should eliminate cumulative effects on safety at that highway/rail at-grade crossing.

Rail/Rail At-Grade Crossing Safety

Assuming construction of a STAR Line flyover at West Chicago, the only rail/rail at-grade crossing that would experience additional trains as a result of the Proposed Action and the STAR Line would be at Spaulding. Compliance with signals and other controls would be expected to minimize any increased risk of vehicle/train collisions there.

Vehicle Delays at Highway/Rail At-Grade Crossings

The addition of both CN and STAR Line trains to the EJ&E rail line would increase vehicle delay, including emergency vehicles and school busses, at approximately 40 at-grade crossings. The length of some delay events could be increased by trains passing in opposite directions. The number of delay events would also increase because of the addition of CN and STAR Line trains. Metra's choice of construction plans would influence train speeds which, in turn, would influence the extent of additional vehicle delay.

Pedestrian Safety at Trails

Four pedestrian at-grade trail crossings would see additional CN and STAR Line trains and could be crossed by additional track depending on Metra's choice of construction scenarios. The four trails include the Army Trail Bike Path in Wayne, the Illinois Prairie Path near West Chicago, the Illinois Prairie Path near Aurora, and the Ogden Bike Path near Aurora. The additional trains and tracks would increase the risk of accidents, but presumably this increased risk would be addressed by an agreement between the parties as to the appropriate warning device upgrades and other modifications.

Socioeconomic Effects

SEA's review of Metra's alternative choices for construction of the STAR Line in Section 2.3.1, above, includes the construction of a separate track for STAR Line operations. If this alternative is selected, there may be a need for acquisition of additional ROW at some locations. If there were a

need for additional ROW, there could be cumulative socioeconomic effects. These effects would vary based on the amount of land acquired and whether it was occupied by homes or businesses. In addition, Metra's construction plans could require relocation of water, electric, telecommunications and/or other utilities that occupy parts of the EJ&E ROW. Utility relocations would require coordination with municipalities and private utilities but would cause only short-term effects. The implementation of commuter service along the STAR Line corridor could augment Transit-Oriented-Development at, or near, the proposed station locations. Once up and running, the STAR Line could transport approximately six million passengers annually with a corresponding reduction of vehicles from regional highways.

Biological Resources

SEA identified three publicly owned forest preserves, which are currently bisected by the EJ&E rail line and therefore, could eventually accommodate additional track for the STAR Line. The three preserves are Pratt's Wayne Woods Forest Preserve in DuPage County near Wayne, Illinois, West Chicago Prairie Forest Preserve in DuPage County, and Lake Renwick Heron Rookery Forest Preserve in Will County near Plainfield, Illinois. Although Metra has not selected a specific alignment to connect the STAR Line along the EJ&E with the STAR Line Northwest Corridor Segment along I-90, one or more of the connection alignments could occur inside Shoe Factory Woods Forest Preserve in Cook County, Illinois, near Hoffman Estates. SEA has identified one location where Metra may need to construct additional track for the STAR Line and CN has proposed to construct a connection as part of the Proposed Action. That location is the proposed Munger connection in Pratt's Wayne Woods in DuPage County near Wayne.

At the proposed Munger connection, the effects of Metra's and CN's construction projects on noise, air quality, wildlife movement, and public uses could result in construction-related cumulative effects if the construction projects occur at approximately the same time. However, these construction-related effects would be short-term. At all four forest preserves, the effects of the operation of additional CN and STAR Line trains would result in cumulative effects on noise and wildlife movements and could work together to reduce public use of the forest preserves.

SEA identified six publicly owned parks and forest preserves that are adjacent to the EJ&E where cumulative effects on noise, wildlife movements, and public uses could occur due to the combined operation of CN and STAR Line trains. The six are Pioneer Park and Manville Oaks Park in West Chicago, Illinois, Fermilab Prairie in Batavia, Illinois, Night Heron Marsh Forest Preserve (with the recent expansion) in DuPage County near Aurora, Illinois, the Vermont Cemetery Nature Preserve in Plainfield, Illinois, and the Weisbrook Access in Plainfield, Illinois.

Water Resources

Additional potential cumulative effects on water resources and wetlands from the construction of the STAR Line along the EJ&E rail line could occur at its connection with the STAR Line Northwest Corridor Segment through Shoe Factory Woods, the construction of a second track through Pratt's Wayne Woods, and the construction of a second track through Lake Renwick Heron Rookery Forest Preserve. Illinois' Shoe Factory Woods contains wetlands, Pratt's Wayne Woods contains wetlands and streams, and Lake Renwick is open water. Whether there would be any such effects, or their extent, cannot be determined until Metra chooses a preferred alignment for the connection and decides whether to build a second track. Based on Metra's determinations, there may need to be permits from the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (33 USC 1344) and water quality certification from the Illinois Environmental Protection Agency under Section 401 of the Clean Water Act (33 USC 1341). These processes would provide the opportunity to develop any appropriate mitigation.

2.3.2 Proposed Northern Indiana Commuter Transportation District Service that Potentially Affects the EJ&E Rail Line

During the public comment period for the Draft EIS, several commenters objected to SEA's decision not to analyze the effect of the Proposed Action on the Northern Indiana Commuter Transportation District's (NICTD) proposed West Lake Corridor service, and provided arguments for why SEA should have determined that the service is "reasonably foreseeable." Further, these commenters asked for a level of analysis sufficient to determine whether the Proposed Action would have an effect on the proposed NICTD service.

SEA used the term "reasonably foreseeable" in the Draft EIS because this term is used in the regulations of the Council on Environmental Quality (CEQ) that relate to the preparation of environmental impact statements. These regulations can be found at 40 CFR Part 1500. The term "reasonably foreseeable" is found in two places in these regulations. One place is in the definition of "indirect effect" (40 CFR 1508.8(b), which is an effect that occurs later in time or farther removed in distance but is still reasonably foreseeable. Another place is in the definition of "cumulative impact" (40 CFR 1508.7), which is an effect attributable to the incremental effect of the action when added to other past, present and reasonably foreseeable future actions. Section 5.2 of the Draft EIS explains how SEA assessed indirect and cumulative effects. In Section 3.C of the final scope of study, STB used the same term when it stated "The EIS will…discuss proposed transaction-related effects on…proposed commuter…rail service…as appropriate…[and] evaluate the capability of the EJ&E rail line segments or crossings to accommodate the reasonably foreseeable addition of commuter trains."

2.3.2.1 Northern Indiana Commuter Transportation District Service Background

When SEA determined in the Draft EIS that NICTD's proposed commuter service expansions, including the West Lake Corridor to Lowell and to Valparaiso, Indiana, was not reasonably foreseeable, it was not concluding that this service was never going to be implemented. SEA was simply concluding that not enough information on the NICTD service is available to warrant that sort of evaluation. SEA also properly noted that the Draft EIS did not need to include a detailed analysis of effects on or attributable to these projects because the key decisions on whether to implement the West Lake Corridor commuter service will be made by the appropriate levels of government in Indiana and the Federal Transit Administration under the rules governing Major Capital Investment Projects (49 CFR Part 611); those processes would ensure that there is adequate study of the NICTD service before that service could be implemented.

In order to address commenters' concerns about this issue, SEA has analyzed the West Lake Corridor commuter service rail alternatives as if they were reasonably foreseeable. That analysis, associated revisions, and recalculations are provided in the following sections.

2.3.2.2 Northern Indiana Commuter Transportation District Service Analysis

NICTD is considering two new West Lake Corridor commuter rail services between Chicago and communities in northwest Indiana. Trains for both services would use existing Metra and NICTD trackage to Kensington, Illinois, and NICTD trackage to Hammond, Indiana. Trains at Hammond would use an inactive rail corridor controlled by NICTD. This corridor would be restored to active service for NICTD service south to Maynard, near Munster, Indiana. At Maynard, NICTD trains operating between Chicago and Valparaiso would use the CN South Bend Subdivision between Munster and Valparaiso; this service would cross the EJ&E rail line at Griffith, Indiana. See Figure 2.3-1, NICTD Proposed Service Expansion, below.


N
Miles
0 1 2 3 4 5
Sources:
U.S. Census TIGER Data, CN,
National Transportation Atlas Database
Data to be used for reference only
Chicago
Kensington
Harvey
Hammond
Gary
Munster
Griffith
Dyer
Valparaiso
To Michigan City
Lake Michigan
Cook Co.
Lake Co.
Cook Co.
Will Co.
Illinois
Indiana
Lake Co.
Porter Co.
Lowell
Western Sub
Waukesha Sub
Illinois
Indiana
CN | EJ&E
Environmental Impact Statement
EJ&E Rail Line
CN Rail Line
NICTD
Proposed NICTD
Other Rail Line
At-Grade Crossing
Grade-Separated Crossing
Figure 2.3-1
NICTD - Proposed Service Expansion Corridors

A second service connecting Chicago to Lowell, Indiana, would diverge from the Valparaiso service at Maynard, where it would proceed south on the CSX rail line between Munster and Lowell. This service would cross the CN South Bend Subdivision at Maynard and EJ&E rail line at Dyer, Indiana (STV Incorporated 2006a; 2006b).

2.3.2.3 Chicago to Lowell, Indiana Route Direct Effects Conclusion

Kensington Interlocking

Under the Proposed Action, CN trains at Kensington, Illinois, would be reduced from 8.4 to 2.0 trains per day (TPD), thereby influencing operations and on-time service. The Proposed Action would also benefit NICTD's plan to construct a by-pass track around Kensington Station.

Maynard Interlocking

The Proposed Action would reduce trains at Maynard, so there would be no effects to this rail/rail at-grade crossing (interlocking).

Dyer Interlocking

The Dyer, Indiana, rail/rail at-grade crossing is an automatic interlocking, which generally operates on a first-come, first-served basis. If it were determined that NICTD required priority to facilitate efficient commuter service, NICTD would need to negotiate an agreement with CSX and EJ&E, or, if the Proposed Action is approved, with CN.

If approved, the Proposed Action would have a minor effect on all trains as they cross the Dyer interlocking. CN would operate 17 trains per day in each direction for a total of 34 trains. NICTD would potentially operate eight trains per day in each direction during peak commuter service and one train in each direction mid-day. SEA calculated the amount of time that the Dyer interlocking would be occupied by the freight and passenger trains expected to use the interlocking under the Proposed Action as well as with NICTD commuter service. The calculations are provided in Appendix A of this Final EIS. SEA calculated 6.7 hours out of a 24-hour period as the total time the Dyer interlocking would be occupied as a result of the Proposed Action (which includes Amtrak, CSX, and CN operations). With NICTD commuter service, the interlocking would be occupied an additional 1.8 hours out of a 24-hour period. As a result, the Proposed Action is not expected to have an adverse effect on NICTD's commuter rail service to Lowell.

2.3.2.4 Chicago to Valparaiso, Indiana, Route Direct Effects Conclusion

Maynard to Griffith

Under the Proposed Action, CN trains would not use the Waukesha, Chicago, and/or the Elsdon Subdivisions to gain access to the BRC Clearing Yard. However, an increase in train movements by up to 20 trains per day resulting in a proposed volume of an average of 34 trains per day would occur on the EJ&E rail line between Griffith and Kirk Yard, Indiana.

If the Proposed Action were approved, CN would still own and operate on the South Bend Subdivision. However, the Proposed Action offers the possibility of a substantial benefit to NICTD's West Lake Corridor plan as an average of 19.2 trains per day would be removed from this corridor and diverted onto the EJ&E alignment. Surplus capacity on the existing CN rail line from Maynard to Griffith (known as the Elsdon Subdivision) could potentially be available to NICTD. NICTD currently operates its passenger service on the South Shore Line (Chicago South Shore & South Bend Railroad). Electric train operations are required on the South Shore Line in locations where diesel locomotives are prohibited. This means that if NICTD commingles service by operating on both passenger and freight rail lines, it would likely operate dual-mode locomotives (electric

catenary/diesel), using diesel power to avoid clearance issues on freight lines it might use, and switch to electric power on passenger rail segments with overhead electric lines. The potential surplus capacity for NICTD is considered a beneficial effect.

Griffith Interlocking

The Proposed Action would allow CN to assemble longer trains, so fewer train starts would be required. This potential benefit to CN, would also free up capacity, could afford NICTD the opportunity to re-engage CN in its effort to obtain CN's permission either to 1) commingle service on the South Bend Subdivision or 2) acquire permission to build a separate line within CN's ROW.

At Griffith, Indiana, a flyover of the West Lake Corridor, with an underpass at Broad Street would likely be optimal, with the CN and EJ&E freight lines remaining at grade.

2.4 School Related Issues

SEA received numerous comments on the Draft EIS expressing concern over the effects that the Proposed Action would have on school safety and school bus and student delays. Residents were concerned about the safety of school age children crossing the tracks on foot, on bicycle, or in the case of older high school age students, driving their own vehicles to and from school. Communities were concerned with issues regarding school buses; namely the concern for potential school bus collisions with trains. A number of comments expressed concern for safe access to school grounds near the tracks. Finally, commenters expressed concern that increased rail traffic would cause the following conditions: 1) delay school buses and pedestrian school children, 2) require developing new bus routes, 3) increase the need to coordinate school bus routes with train schedules, and 4) require more school buses or more schools. School safety issues are discussed in Section 2.4.1 and school bus delay issues are discussed in Section 2.4.3.

2.4.1 School Safety

The Draft EIS addressed school safety issues generally (see Chapters 3 and 4 of the Draft EIS) but did not specifically address the relationship between various school age populations and travel safety. In response to Draft EIS comments, SEA is providing additional analysis and discussion of these issues. For purposes of this analysis, schools included are public and private kindergartens through elementary, middle, and high schools that are located within 2 miles of the tracks. As discussed in Section 2.4.1.4 of this Final EIS, it is important to note that far more schools are located near the CN rail line that would have a reduction of train traffic under the Proposed Action than schools located near the EJ&E rail line segments that would experience an increase in train traffic. In addition, many of the concerns related to school safety are existing conditions. School safety issues are summarized in the following sections.

2.4.1.1 Students Walking or Cycling

SEA's analysis of pedestrian and bicycle safety for this Final EIS included all age groups. The analysis considered pedestrians crossing either the EJ&E or CN rail line at highway/rail at-grade crossings that provide pedestrian access. Typically, this is a sidewalk or pathway that shares the same right-of-way and crossing warning devices as the adjacent street.

Students who cross the tracks at grade-separated structures, either overpasses or underpasses, are not currently considered to be at risk, nor would they be under the Proposed Action, and concerns for pedestrian safety are not age-specific. However, the primary concern of the commenters is that school age children by their nature can exhibit risky or inappropriate behavior due primarily to lack of experience, poor judgment, and a misunderstanding of the risks. However, communities have resources to take action to make these crossings for pedestrian traffic (including students) near

schools as safe as possible. Examples of safety recommendations at crossings that communities can consider include the following:

1) At locations where it is intended that students cross the tracks, there should be a sufficient walking or cycling surface that is sufficiently wide and is free of tripping or slipping hazards. This allows students to approach the crossing with their attention focused on looking for trains instead of navigating the surface. Students and other pedestrians should also be provided with a combination of audio and visual warning devices such as bells and lights at the crossing, signs, and automatic gates. Clear sight lines also allow students and other pedestrians to view approaching trains.

2) Where students are required to wait for a train, there should be a safe area where they can stand that is free from hazards such as the passing train itself, highway traffic, driveway approaches, and adjacent tracks. The dimensions of a "safe waiting area" are dependent upon the estimated number of students that are expected to occupy the area. Stopped or very slow-moving trains are of special concern where students are waiting as there can be a tendency for students to crawl under or on and then between rail cars. This is a particular concern in West Chicago, and specific mitigation is recommended for that location to prohibit trains from stopping and blocking the crossing.

3) Students need to have a clear understanding of when a train has passed and when it is safe to cross railroad tracks. Where trains run on two or more tracks through the crossing, communities should consider ensuring that there are sufficient visual sight lines and/or audible warning devices for students to make the appropriate decision that a second train is not following the first train.

4) Once adequate warning and a sufficient safe waiting zone is provided, the primary concern becomes students making the appropriate decision to wait for the train(s). This issue can typically be addressed by communities through education and enforcement. Students should understand the risks and appropriate responses. This should be followed with a suitable level of enforcement and/or monitoring to reinforce appropriate behavior.

The Applicants have presented voluntary mitigation measures (VM 10, 11, and 12) to improve pedestrian safety near schools, such as providing fencing. These are separate from the recommendations mentioned above, and address safety at crossing locations.

2.4.1.2 Student Drivers

Frequently, students of driving age travel to and from school in personal vehicles. SEA evaluated the predicted risks associated with drivers as part of earlier analysis in Chapter 4 and Appendix C of the Draft EIS. Though the analysis did not include age-specific criteria, concerns were expressed for less experienced and less attentive drivers who may be distracted or ignore the warning devices, or take an inappropriate risk by attempting to beat the train through the crossing, and/or drive around lowered crossing gate arms. The primary focus for improving safety among student drivers is through education and enforcement. Communities can adopt measures to educate student drivers regarding the risks and the appropriate responses followed by a suitable level of enforcement and/or monitoring to reinforce appropriate student driver behavior.

2.4.1.3 School Bus Safety

Community residents also raised concerns related to the safety of children being bused to and from school and were concerned that the additional train traffic would have an adverse effect on safety.

SEA's analysis predicted the number of expected highway/rail at-grade crossing accidents using the FRA's accident prediction model (see Chapters 3.2 and 4.2 in the Draft EIS). The accident prediction

formula includes anticipated train traffic as well as average daily vehicular traffic. This vehicular traffic includes all types of motorized vehicles that routinely cross railroad tracks, including cars, trucks, buses (including school buses), motorcycles, and any other motorized roadway users. The prediction formula does not provide analysis for a specific vehicle type.

In addressing school bus safety more specifically in this Final EIS, SEA noted that since trains are unable to stop or take evasive action to avoid highway/vehicle collisions, safety is primarily a function of providing drivers with adequate warning of a train approach and sufficient distance to bring their vehicles to a controlled stop once the warning is recognized. Illinois law requires school bus drivers to respond appropriately at railroad crossings and associated warnings. Moreover, proper training of school bus drivers requires that they understand the size, weight, and operational characteristics of their vehicle to allow them to be able to safely control and stop their vehicle prior to entering the track zone or an adjacent roadway intersection. School bus drivers are not considered typical drivers in that that they are screened, hired, and trained by the schools that they serve and have obtained special licensing from the state which qualifies them to operate the school bus.

2.4.2 Proximity of Schools to the Tracks

In addition to concerns related to students traveling to and from school, commenters expressed concerns ranging from exposing children (and others) who may cross tracks at locations other than designated crosswalks, to train accidents/derailments. Such incidents may include exposure to hazardous materials, and emergency response in the event crossings are blocked by a train. These concerns were adequately addressed in Chapters 3 and 4 of the Draft EIS.

In preparing the Final EIS, SEA identified the number of schools located along the rail lines that would see a change in train traffic as a result of the Proposed Action. The analysis included obtaining U.S. Census Bureau and local GIS data containing the names and locations of schools within the study area. Additional research was conducted to obtain school names and location information from local school districts, county regional offices of education, National Catholic Education Association, and the Illinois and Indiana State Boards of Education. This information was integrated into a database, and screened using GIS analysis to identify schools located within 2 miles of EJ&E or CN mainlines. SEA further refined the list of schools by removing non-traditional K-12 schools as well as schools that have been closed.

The list of schools within ¼-mile of the tracks was further checked and verified through aerial photography. SEA identified the locations of schools whose property abutted the railroad ROW using aerial photography. Table 2.4-1 summarizes the results of this analysis.

Table 2.4-1. Number of Schools Near the EJ&E and CN Lines

	Schools Immediately Adjacent to Tracks	Schools within 0.25 Mile of the Tracks	Schools within 2.0 Miles of the Tracks
EJ&E Line	12	44	344
CN Lines	14	118	983

Based on analysis, SEA concludes that the concern for, and risks associated with, student populations crossing the tracks exists today because the proximity of these schools to tracks on which there is rail traffic is an existing condition. The Proposed Action would exacerbate these issues along those line segments that would see additional trains, but it is unlikely that the Proposed Action would create conditions that do not currently exist.

2.4.3 School Bus Delays

Many commenters on the Draft EIS expressed concern that increases in train volumes and train length would cause school buses to be significantly delayed as they cross the EJ&E rail line. School buses run in mixed flow with other private and commercial vehicles and do not receive preferential treatment at traffic signals or other traffic control devices. Therefore, the potential for delayed operations of the school bus fleet is the same as that for all other vehicles. In other words, existing congestion occurring near schools would continue to delay all traffic, including school buses.

Vehicle delay calculations for the No-Action and Proposed Action alternatives were prepared for EJ&E and CN segments of the project. Results were summarized in Chapter 3 and Appendix E of the Draft EIS. After publication of the Draft EIS, new train data and traffic counts were supplied to SEA by the Applicants, the Illinois Department of Transportation, and the City of Plainfield, Illinois. SEA reviewed and verified the updated data. Delay calculations were re-compiled for the Final EIS using the updated data and are provided in Chapter 2.5 of this Final EIS.

SEA's final vehicle delay analyses shows that vehicles in the study area would experience an average increase of 0.6 minutes of delay per delayed vehicle at intersections along the EJ&E rail line, and a decrease of 0.9 minutes of delay per delayed vehicle at intersections along the CN study segments projected to take place under the Proposed Action. These times reflect the average change in motorist delay as a result of the increase or decrease in train traffic, and would vary for each crossing. Specific delay values between the No-Action and the Proposed Action for each EJ&E highway/rail at-grade roadway crossing in the study area are included Section 2.5 of this Final EIS. Delay values for CN crossings are in Table 4.3-6 in Section 4.3.1.3 of the Draft EIS.

For example, on the EJ&E rail line the average time that each vehicle would be stopped by a train on Hough Street in Barrington for the No-Action Alternative is estimated at 0.9 minutes. Following the Proposed Action, the delay estimate would rise to 1.6 minutes, an increase of 0.7 minutes of delay to motorists. (This delay is slightly higher than the average increase.) On average, school buses would have to adjust scheduling by less than one minute. Thus, SEA has concluded that this is unlikely to affect arrival times at schools.

Crossings on the CN rail lines would experience a reduction in delay under the Proposed Action. For example, motorists at the York Road crossing in the Freeport Subdivision of Elmhurst, Illinois, currently experience an average wait of 1.7 minutes while trains pass. Under the Proposed Action the average delay for a train to pass would be reduced to 0.9 minutes, or a decrease of delay of 0.8 minutes.

SEA concludes that school buses would not experience significantly increased delay as a result of the Proposed Action. While delays at at-grade crossings along the EJ&E would increase, delays along the CN rail lines would decrease, improving school bus access in those areas.

2.4.4 Conclusions

As described in Chapter 4 of this Final EIS, the Applicants have offered voluntary mitigation that would provide fencing along the ROW where schools are adjacent to EJ&E rail line. The Applicants' voluntary mitigation also includes identifying elementary, middle and high schools within 0.50 mile of the EJ&E rail line and making available Operation Lifesaver programs. CN has also stated that upon request the Applicants would provide railroad safety materials to schools, and cooperate with school and park districts to identify at-grade crossings where additional pedestrian warning devices may be warranted. SEA recommends that the Board impose the Applicants' voluntary mitigation in any decision approving the Proposed Action. However, SEA has determined that mitigation beyond that voluntarily offered by the Applicants is not warranted.

2.5 Updated Transportation Information and Analysis

In the Draft EIS, SEA reviewed all highway/rail at-grade crossings on the EJ&E rail line and affected CN rail line segments to identify those that met its thresholds for detailed analysis (See Section 4.3, Transportation Systems). The Proposed Action would increase train operations and associated adverse effects in many communities along the EJ&E rail line, and would also remove trains from affected CN rail line segments within the EJ&E arc. This would reduce vehicle delays and increase safety at CN highway/rail at-grade crossings inside the EJ&E arc.

SEA's analyses for the Draft EIS identified 16 highway/rail at-grade crossings as "substantially affected" by the Proposed Action and considered 15 of those crossings for possible mitigation. Substantially affected means the crossing would be affected by the Proposed Action in one or more of three ways:

1) The crossing's Level of Service (LOS)[1] would be at or over-capacity by being rated E-F, meaning it would be seriously to extremely congested, or the crossing's LOS changed from LOS D or better to worse than LOS D

2) The crossing would experience more than 40 hours of total combined vehicle delay in a 24 hour period (2,400 minutes per day)[2] [based on available Average Daily Traffic (ADT)[3] volumes

3) The queue length of waiting vehicles at the crossing would block a major thoroughfare that is not blocked under the No-Action Alternative

Several commenters on the Draft EIS took the position that SEA should only use the LOS threshold in its analysis of traffic delay. Although SEA traditionally relies on LOS to identify substantially affected crossings, in appropriate cases SEA has also used total vehicle delay and calculated queue lengths at affected crossings to better determine the effects of an action on traffic mobility. In the Bayport Loop Draft EIS, SEA's analysis of effects on vehicle delay included the 40-hour total vehicle delay per day and crossing LOS thresholds. In the Conrail Draft EIS, SEA used queue lengths in its calculations. As discussed in more detail below, SEA decided that in this case, using all three thresholds to determine substantially affected crossings would more precisely identify the Proposed Action's overall mobility effects on the area's roadway systems. Crossing LOS determines the effects of the Proposed Action at a single point along a roadway at the affected highway/rail at-grade crossing. Crossing LOS, however, does not take into account the effects of the Proposed Action on mobility in a community or region. Proposed Action queue lengths blocking a major thoroughfare could potentially block through movements on the blocked major thoroughfare. Total vehicle delay reflects delays to the community as a result of the Proposed Action. Therefore, queue length and total vehicle delay are measurements of the Proposed Action mobility effects on a community.

While SEA considered all of the substantially affected crossings for mitigation, its final recommendations to the Board would also take into account pre-existing traffic congestion. SEA's original and updated analyses indicate that many of the traffic problems experienced at crossings that would be affected by the Proposed Action are pre-existing. Pre-existing conditions are beyond the Board's authority to mitigate. Furthermore, it would be inappropriate to hold the Applicants

[1] LOS refers to the efficiency at which a roadway, intersection, or highway/rail at-grade crossing operates and is a reflection of vehicle delay and congestion. Letters from A to F are assigned to the LOS, with LOS A indicating relatively free flowing traffic and LOS F indicating extreme congestion.

[2] As discussed in the Draft EIS, the total delay per day at a crossing is the sum total of the delay for each driver that was delayed at the particular highway/rail at-grade crossing. In other words, if in one day 60 vehicles are delayed at a particular highway/rail at-grade crossing and each vehicle is delayed 1 minute then that would be a total of 60 minutes of delay or one hour of delay per day. If there were 1,200 vehicles delayed and each vehicle was delayed by 2 minutes, then that would equal 2,400 minutes of delay or 40 hours of delay in one day.

[3] ADT is the average number of vehicles per day traveling on the roadway.

responsible for the presence of the many at-grade crossings in the communities along the EJ&E rail where there are now few existing grade separations. SEA's final recommendations regarding the crossings that warrant mitigation and the type of mitigation that is appropriate to address vehicle delays at selected substantially affected crossings are described in detail in Chapter 4 of this Final EIS.

Specifically, following publication of the Draft EIS, SEA received many comments concerning the basis for its conclusions, as well as the status of particular crossings. An example of a comment is, "Overall, we believe that the Draft EIS is deficient in the area of current as well as projected traffic volumes." In responding to the comments, SEA worked with IDOT, local agencies, and communities to obtain updated ADTs. SEA also consulted with the Applicants about the potential traffic delay effects that would be associated with the Applicants' original proposed connection at Matteson, and the existing connection at Leithton. Because of the anticipated slower train movements through the connections, nearby highway/rail at-grade crossings would have increased traffic delays. See the Draft EIS. As a result of this and other potential effects, the Applicants revised the proposed Matteson and Leithton connections, to allow increased allowable train speeds and thereby reduce projected vehicle delays at the nearby crossings. See Section 2.1 and 2.2 above for descriptions of the two revised connections.

Using all of the updated data and information obtained, SEA conducted new analyses on 88 affected EJ&E highway/rail at-grade crossings as part of this Final EIS (see Appendix A). Of the original 16 substantially affected crossings identified in the Draft EIS, based on the revised analysis SEA determined that five crossings would not exceed the thresholds. In addition, SEA determined that two crossings not identified in the Draft EIS would exceed the thresholds. SEA's new analyses resulted in 13 crossings being designated as substantially affected by the Proposed Action. See Figure 2.5-1, below.

The additional data SEA used in its new analyses include updated ADTs and updated train operating data, which are discussed in Sections 2.5.1, 2.5.2, and 2.5.3, respectively. SEA's final list of substantially affected crossings is shown in Section 2.5.4; those crossings that are no longer considered to be substantially affected are shown in Section 2.5.5. Section 2.5.6 contains SEA's discussion of the five substantially affected crossings that are not recommended for mitigation. Section 2.5.7 describes the updated Total Vehicle Delay related to the Proposed Action. Section 2.5.8 discusses potential changes in regional mobility that SEA identified in its updated analyses; potentially affected signalized intersections are described in Section 2.5.9.

2.5.1 Additional Average Daily Traffic Counts

The IDOT and Lake County, Illinois, updated ADTs for many affected highways after SEA conducted its vehicle delay analyses for the Draft EIS. SEA used these updated ADT counts to identify 32 crossings along the EJ&E rail line and 26 crossings along CN rail lines that required new analyses. The crossings along the EJ&E rail line include 11 crossings in Lake County, four crossings in DuPage County, 14 crossings in Will County, and three crossings in southeastern Cook County.

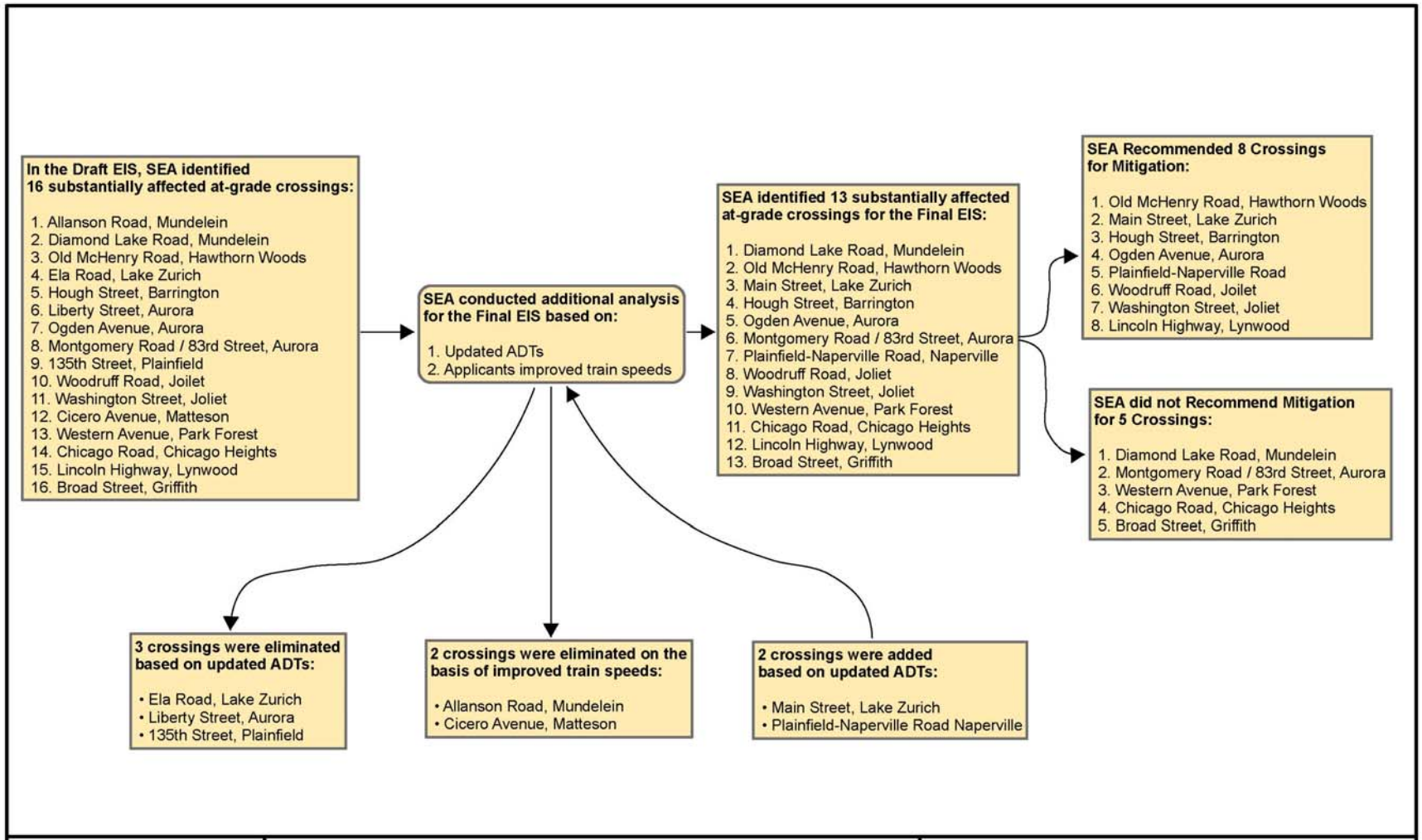


Figure 2.5-1
Analysis and Review Process for Updating the Substantially Affected At-Grade Crossings

The CN crossings SEA re-analyzed included 18 crossings on CN's Waukesha Subdivision, four on its Freeport Subdivision, one on the Joliet Subdivision, and three on the Elsdon/Southbend Subdivision.

2.5.1.1 EJ&E Rail Line

By using the updated ADTs, SEA increased the number of EJ&E crossings it analyzed from 87 in the Draft EIS to 88 in this Final EIS. Keating Drive/87th Street near Aurora, Illinois, was added because the updated ADTs suggest that Keating Drive would exceed the 2,500 ADT threshold SEA applied to at-grade crossings for inclusion in the 2015 analysis for the No-Action and Proposed Action Alternatives. In addition, SEA found changes in ADT data at some of the original crossing locations. For example, along the EJ&E rail line, the ADTs used at the Main Street and Old Rand Road crossings in Lake Zurich, Illinois have declined because of the new IL 22 bypass constructed east of the highway/rail at-grade crossings. Most of the traffic that would use Main Street and Old Rand Road has shifted to the IL 22 bypass, which reduced traffic volume on Main Street and Old Rand Road in Lake Zurich.

At Keating Drive/87th Street, near Aurora, Illinois, and 127th Street near Plainfield, Illinois, the increase in ADT volume more than doubled. As a result of SEA's updated analysis, seven crossings (six in Lake County, Illinois and one in DuPage County, Illinois) showed very little change in ADTs. Five crossings (all in Will County) showed an increase when comparing ADT data used in the Draft EIS with updated ADTs used in this Final EIS. The ADTs at 19 crossings are lower ranging from a reduction of six percent at Hough Street/IL 59&63 in Barrington, Illinois, to 57 percent decrease on Main Street in Lake Zurich.

A new ADT estimate SEA obtained for Stearns Road near Bartlett, Illinois shows the vicinity of the highway/rail at-grade crossing on Stearns Road will be 32,000 ADT for the year 2020. Stearns Road use will increase as a result of the planned Fox River Bridge in nearby Kane County, Illinois (IDOT 2008). To develop the 2015 ADT estimate for the Stearns Road crossing in Bartlett, SEA applied a three percent annual reduction to be consistent with previously applied growth rates in DuPage County.

Section 2.5.2 below, contains SEA's discussion of projected traffic growth rates and their use in identifying substantially affected crossings for this Final EIS. Updated ADTs related to these crossings and communities in which they are located are in Appendix A-11 of this Final EIS. These tables also include updated train operations as discussed in Section 2.5.3 below.

2.5.1.2 CN Rail Line

Changes in ADTs on affected CN rail lines also affected data related to vehicle queues, queue length, and Total Vehicle Traffic Delay at affected CN crossings used in the Draft EIS. Updated data related to ADTs related to these crossings and communities in which they are located is included in the Final EIS as Tables 3.3-5, 3.3-9, 4.3-6, 4.3-7, E1.2-10, and E1.2-11 of Appendix A. These tables also include updated train operations as discussed in Section 2.5.3 below.

2.5.2 Growth Rate Factors

ADT counts are not collected by transportation agencies every year so it is not possible to compare actual traffic growth among the counties and cities in the study area without using some estimated ADTs. To obtain a realistic estimate of future ADTs at potentially affected crossings, SEA multiplied available ADTs by a percentage representing previous traffic growth, or an annual "growth factor." See Section 3.3.1.2 of the Draft EIS for a discussion of the growth factors.

After the Draft EIS was published, SEA received many comments questioning the methodology it used to forecast future traffic growth and resulting growth rate projections. Some comments suggested the growth factors used were too low while others stated that they were too high. Others

objected to county-based growth factors being used to project ADT growth at all affected crossings within the same county. In order to address these concerns, SEA reviewed its methodology and traffic growth forecasts.

Growth in most affected counties was estimated using adjacent roadway ADTs, historical ADTs measured prior to 2006, updated ADTs, and regional growth. County engineering staff in Lake and Cook counties, Illinois, provided their projected growth rates. To validate the growth rates used in the Draft EIS, SEA considered census population data for the individual counties. Census data revealed annual population growth similar to the growth rates SEA used to calculate future ADTs. For these reasons, SEA concluded that the growth rates it used in the Draft EIS remain reasonable and justifiable for use in its updated analyses and therefore applied them in its updated analyses for this Final EIS.

In its new analyses, SEA used its growth rate projections for the years 2015 and 2020 based on 2007 and 2008 ADTs to compare at-grade crossing traffic delays that could occur under the No-Action and the Proposed Action alternatives. Source data were compiled from:

- FRA location and inventory databases for highway/rail at-grade crossings ADTs
- IDOT and Lake County, Illinois, databases for roadway ADTs
- ICC database for existing traffic and train delay
- The Applicants' Operating Plan and company databases for train length and speed
- Traffic studies

SEA determined that ADT volume data from IDOT reflected the most recent counts reported by local agencies. Therefore, for roadways without 2007 counts, SEA first applied specific county growth rates to the most recent counts available to obtain 2007 ADTs. SEA then used IDOT 2007 and 2008 ADTs to calculate existing traffic delays and county-specific growth factors to project ADTs for the years 2015 and 2020.[4] See Appendix A of this Final EIS. Because the ADTs SEA obtained from the various sources differed from year to year, SEA determined that a traffic growth factor for each affected county would be applied to traffic counts in each county for the years 2007, 2015, and 2020 as shown in Appendix A of this Final EIS.

SEA applied the applicable traffic growth rates to each affected county on both the EJ&E rail line and affected CN rail lines to forecast the future ADTs. SEA performed additional growth rate analysis for Lake County, Indiana, because of the limited availability of historic and updated ADT data for many of its grade crossings. To adjust these counts through the year 2007, growth factors based on adjacent crossing locations were applied to the outdated ADT numbers.

2.5.3 Updated Train Operations

SEA also made appropriate adjustments to the train operations data for this Final EIS. Train operations data were adjusted for three primary reasons:

- First, as discussed in Section 2.1, above, the Applicants revised the proposed new connection at Matteson, Illinois to reduce the effect that the connection would have on the EJ&E rail line track speeds.
- Second, as discussed in Section 2.2, above, the Applicants propose to modify the existing connection at Leithton (near Mundelein, Illinois) to allow trains to move at a higher speed through the connection. The changes at Matteson and Leithton would increase

[4] SEA calculated the delay for the year 2020 using 2015 proposed train data (number of trains, lengths, and speeds) and 2020 ADT data for the purpose of potential future regional planning by local, regional and state government agencies.

train speeds at nearby highway/rail at-grade crossings, thereby reducing some potential environmental effects.

- Finally, as discussed in Section 2.14, below, the Applicants corrected the train numbers at several highway/rail at-grade crossings near locations where rail traffic moves on or off the EJ&E rail line.

2.5.3.1 EJ&E Rail Line

The Applicants provided SEA with updated train data related to the revised connection plans at Matteson and Leithton that were incorporated into SEA's new vehicle delay analyses in this Final EIS. The new data included increases in average train speeds on the EJ&E rail line at the highway/rail at-grade crossing of Diamond Lake Road and IL 60/83 near Mundelein, Illinois, Cicero Avenue near Matteson, Main Street in Matteson, and Western Avenue near Park Forest. The Applicants also corrected the number of trains per day at Van Dyke Road and 143rd Street near Plainfield, Main Street in Matteson, East End Avenue in Chicago Heights, and Broad Street in Griffith, Indiana.

With the Revised Matteson Connection (see Revised Matteson Connection, Section 2.1) and the clarification on the number of trains that would move through the connection, SEA revised the related train data, including average length, average speed, and number of trains affecting the three crossings. For example, based on the Applicants' updated train operations, the total projected vehicle traffic delay for the Main Street at-grade crossing would be 236.8 minutes (mainline delay) plus 486.0 minutes (north connection delay) plus 381.6 minutes (south connection delay) for a total of 1,104.4 minutes in a 24-hour period. In the Draft EIS, prior to incorporating the updated train speed data, Main Street's total vehicle delay was 1,036 minutes.

Main Street did not exceed SEA's thresholds in either the analysis in the Draft EIS or this Final EIS. However, Cicero Avenue near Matteson, and Western Avenue, in Park Forest, Illinois, were both identified in the Draft EIS as substantially affected. The Applicants revised the Matteson connection and increased train speeds that reduced the total vehicle delay at Cicero Avenue, which allowed SEA to remove it from the list of substantially affected crossings in this Final EIS. Western Avenue is discussed in section 2.5.4, below. Updated train information related to these crossings and communities in which they are located is included in the Final EIS as Tables 3.3-3, 3.3-8, 4.3-4, 4.3-5, E1.2-1, and E1.2-2 of Appendix A of this Final EIS. These tables also include updated ADT's discussed in section 2.5.1 above.

2.5.3.2 CN Rail Line

Following issuance of the Draft EIS, the Applicants proposed a modification to the original Leithton Connection, discussed in Section 2.2, above, which allowed for changes to the connection at Leithton that would increase the train speed through the connection and would reduce the total vehicle delay previously projected at Allanson Road under the Proposed Action. In addition, as discussed in Section 2.14, the Applicants updated train operation information for the CN rail line segments that adjusted train length and number of trains per day. SEA concluded that the updated train data would affect 43 crossings on CN's Waukesha Subdivision, six crossings on its Freeport Subdivision and one crossing on its Elsdon/Southbend Subdivision. Updated train information related to these crossings and communities in which they are located is included in the Final EIS as Tables 3.3-5, 3.3-9, 4.3-6, 4.3-7, E1.2-10, and E1.2-11 of Appendix A of this Final EIS. These tables also include updated ADT's, as discussed in section 2.5.1 above.

2.5.4 Substantially Affected Crossings

As stated previously, SEA used three thresholds to determine if a highway/rail at-grade crossing would be substantially affected by the Proposed Action. If a crossing exceeded one or more of the

thresholds, SEA evaluated the crossing for appropriate mitigation. As a result of its new analyses described above, SEA presents its final conclusions on the crossings that would be "substantially affected." SEA's discussion of mitigation is in Chapter 4 of this Final EIS. Figure 2.5-1, above, shows the process followed to update information about the substantially affected crossings.

Diamond Lake Road, Mundelein, Illinois

Diamond Lake Road is a two-lane collector running north/south and crossing the EJ&E rail line east of the IL 60/83 crossing. Diamond Lake connects to US 45 approximately 4,400 feet north of the highway/rail crossing. The intersection of Diamond Lake and IL 60/83 is located approximately 450 feet south of the EJ&E crossing.

Diamond Lake Road continues to be classified as a substantially affected crossing because the queue length on Diamond Lake would be 466 feet and would exceed 450 feet, which is the distance between the crossing at EJ&E and the intersection with IL 60/83. As vehicles on Diamond Lake approach the EJ&E rail line crossing, the queue begins to build and eventually could block traffic that would be waiting to turn left from IL 60/83 NW to head southbound on Diamond Lake Road. Through traffic would not be blocked because traffic would have already stopped at the IL 60/83 crossing when trains pass through the EJ&E crossing. The distance between highway/rail crossings for both roadways is approximately 550 feet. SEA assumed that when a train passed one of the roadways, it would have an immediate effect on the other roadway and crossing.

Old McHenry Road, Lake Zurich, Illinois

Old McHenry Road is a four-lane arterial that runs east/west and crosses the EJ&E rail line to the east of the Old McHenry Road/Midlothian Road intersection. Approximately 1,015 feet west of the highway/rail crossing, Old McHenry Road intersects Midlothian Road. Old McHenry Road is a substantially affected roadway because the queue length of approximately 1,186 feet could potentially block Midlothian Road for the Proposed Action scenario and the total vehicle delay for a 24-hour period would be 2,540 minutes, or in excess of the 2,400-minute threshold established by SEA.

Main Street, Lake Zurich, Illinois

The Main Street crossing in Lake Zurich was originally part of IL 22. In 2007, a new bypass was constructed on the east side of the EJ&E track that crosses under the railroad via a grade-separated crossing. The IL 22 bypass is a four-lane arterial that runs for about 0.5 miles parallel to the EJ&E track before it reaches the grade-separation. Main Street 'T's at IL 22, just east of the highway/rail at-grade crossing. The T-intersection is signalized. The 2015 ADT cited in the Draft EIS for Main Street was estimated to be 17,471 vehicles per day. However, SEA reanalyzed projected traffic delays using updated ADTs and found that most of the traffic on Main has shifted to the new IL 22 bypass, thereby reducing Main Street's estimated 2015 ADT to 7,474 vehicles per day.

Despite this change in the projected ADT, Main Street would experience a queue length at IL 22 of 575 feet under the Proposed Action. The distance between Main Street's "T"- intersection at IL 22 and the highway/rail crossing is 425 feet. The right- and left-turn storage lanes on IL 22 at Main Street are each approximately 175 feet long. Therefore, as motorists wait in these turn lanes, the queue on Main Street could extend beyond the turning lanes from Il 22, and affect the non-turn through lanes.

The potential also exists for left-turning traffic traveling northbound on the IL 22 bypass to block the southbound IL 22 traffic. Therefore, SEA has determined that Main Street is a substantially affected roadway because the queue length could potentially block IL 22. The proximity of the grade-separation on the south side of the two highway/rail crossings (Main Street and Old Rand Road) provide motorists a quick alternate route to their destinations from east to west or vise versa. For

example, traffic traveling westbound on IL 22 to go north on Lions Drive or northwest on Old Rand on the west side of the railroad track can take IL 22, or take the underpass to West Main Street, both within less than a mile of the crossing.

Hough Street (IL 59), Barrington, Illinois

Hough Street is a two lane arterial that runs north/south and crosses the EJ&E rail line north of the Barrington Village Center in Barrington, Illinois. Effects to traffic in Barrington related to the Proposed Action, particularly on Hough Street, would be affected by the unique layout of Barrington's streets and two railroads. The EJ&E rail line crosses four streets in Barrington within one mile, including Lake Zurich Road, Northwest Highway (US 14), Hough Street, and Lake-Cook Road. The EJ&E rail line runs in a northeast/southwest direction through Barrington before shifting south at the Lake-Cook Road crossing. The Metra/UP line runs in a northwest/southeast direction through Barrington. The Metra and EJ&E interlocking (rail/rail at-grade crossing) between Hough Street and Lake-Cook Road currently adds to vehicle delays at crossings in Barrington. The Metra/UP rail line crosses Hough Street and Lake-Cook Road very close to where those two roadways intersect. Based on its additional analysis, SEA determines that Hough Street would be substantially affected because the queue length (approximately 1,500 feet) would block Northwest Highway. Hough Street is a substantially affected roadway because the queue length could potentially block Northwest Highway. As part of the evaluation of mitigation, SEA conducted detailed traffic analysis of the Barrington area as discussed in Section 2.5.10 below.

Ogden Avenue (US 34), Aurora, Illinois

Ogden Avenue, located east of Aurora and west of Naperville, Illinois, is a four-lane divided arterial that runs east/west. It primarily serves residential areas on both sides of its EJ&E at-grade crossing. SEA forecasted the 2015 ADT for Ogden Avenue to be 46,110 vehicles per day. As noted by CMAP, Ogden Avenue (US 34) is a Strategic Regional Arterial (CMAP 2008). This designation reflects the importance of Ogden Avenue (US 34) to the region's mobility. The crossing is designated as substantially affected because it would experience a total vehicle delay of 4,377 minutes per day, exceeding the 2,400-minute threshold SEA applied in its updated analyses.

Montgomery Road/83rd Street, Aurora, Illinois

Montgomery Road is a two-lane collector road that runs east/west at the EJ&E rail line crossing, which is located approximately 4,600 feet south of the EJ&E crossing with Ogden Avenue. The intersection of Montgomery Road and Ogden Avenue is just over one mile to the west of the highway/rail crossing. To the east, Montgomery Road crosses IL 59, and further east shares a T-intersection with Book Road. Montgomery Road primarily serves residential areas in the vicinity of the EJ&E crossing. SEA determined the Montgomery Road/83rd Street crossing to be substantially affected because the total delay related to the Proposed Action would be 2,629 minutes, which would exceed the 2,400 minutes per day total vehicle delay threshold.

Plainfield/Naperville Road, Plainfield, Illinois

This two-lane arterial runs northeast/southwest at the EJ&E rail line highway/rail at-grade crossing. The intersection of IL 59 and Plainfield/Naperville Road is located 380 feet southwest of the crossing. The queue length on Plainfield/Naperville Road would be approximately 440 feet, which under the Proposed Action would block Il 59.

Plainfield-Naperville Road forms a 'T' intersection into IL 59. In a typical scenario during a train pass, vehicles would be stopped in the eastbound lane on Plainfield-Naperville Road and in the northbound lane on IL 59 waiting to make a right turn. Since the northbound IL 59 does not have a right turn lane, vehicles waiting to turn right could block the through traffic. In the same way, the

southbound left turn from IL 59 could potentially block the northbound through traffic as the queue is spilled into the intersection. Plainfield-Naperville Road is a substantially affected roadway because the queue length could potentially block IL 59.

Woodruff Road, Joliet, Illinois

Woodruff Road is a two-lane collector that runs east/west and crosses the EJ&E rail line north of the Joliet City Center. SEA has designated Woodruff Road as substantially affected because, under the Proposed Action, it would experience a total vehicle delay in 2015 significantly greater than SEA's threshold and a reduction in Level of Service (LOS) from B to F. Currently, the vehicle queue length of 1,056 feet does not block any intersections for eastbound traffic. Under the Proposed Action, the queue length would increase to 1,814 feet and vehicle delay would increase to 9,381 minutes of delay per day (156 hours of delay per day). Westbound traffic would queue past two minor roads, Charlesworth Avenue and Fairview Avenue, restricting, at times, access to residential streets south of Woodruff Road. Traffic traveling eastbound would be queued to Collins Road (IL 171), preventing left turns onto Woodruff Road. As discussed in more detail in this Final EIS, the Applicants reached a negotiated agreement with Joliet. Therefore, SEA has not considered mitigation for Woodruff Road.

Washington Street, Joliet, Illinois

This two-lane undivided arterial runs east/west and crosses the EJ&E rail line east of the city center. SEA has designated the Washington Street crossing as substantially affected because it would exceed the 2015 total vehicle delay threshold, and its LOS would be reduced from A to F. Currently, the vehicle queue length of 1,550 feet affects westbound traffic to Elmhurst Cemetery, and blocks access to several residential streets and business' driveways. Eastbound traffic is queued to Akin Avenue, a residential road, and blocks access to both residential streets and driveways north and south of Washington Street. Under the Proposed Action, the queue length would increase to 2,371 feet and the total vehicle delay would grow to 9,879 minutes of delay per day (164 hours of delay per day). Traffic traveling eastbound would continue to be queued past Akin Avenue, blocking access to residents and businesses adjacent to it. Westbound traffic would continue to be queued to Elmhurst Cemetery. Commuters in Joliet have no reasonable alternative routes during a train pass. The nearest grade-separated crossings at Interstate 80 and Cass Street are 0.5 miles north and south on the EJ&E rail line. These crossings are and would remain difficult to access because there are minimal through and connecting streets in the surrounding area. The Applicants have reached a negotiated agreement with Joliet. Therefore, SEA has not considered mitigation for Washington Street.

Western Avenue, Park Forest, Illinois

Western Avenue is a five-lane arterial running north/south. Currently, the vehicle queue length of 528 feet holds southbound traffic past South Street, a minor road, and also blocks access to several business' driveways. Under the Proposed Action, the queue length would increase to 863 feet and total vehicle delay would exceed the threshold. Under the Proposed Action, southbound traffic would continue to be queued past South Street to North Street, and would block access to South Street and adjacent businesses. Commuters in Park Forest would be able to use North Street and Westwood Drive to access Orchard Drive as an alternative route. Western Avenue would be a substantially affected crossing because forecasted delay would be 2,727 minutes, thus exceeding the 40 vehicle hours (2,400 minutes) per day in 2015.

Chicago Road, Chicago Heights, Illinois

Chicago Road Chicago Road/IL 1, a four-lane divided arterial that runs north/south crossing the EJ&E rail line, connects two arterials, 26th Street and 14th Street/US 30. Currently the vehicle queue

length of 718 feet holds northbound traffic through 24th Street and, at times, blocks this intersection. Southbound traffic queues through 21st Street and Main Street, at times blocking these intersections. Under the Proposed Action, the queue length increases to 1,091 feet and delay increases to 4,596 minutes delay/day (77 hours delay/day). Northbound traffic traveling would continue to be queued past through 24th Street and now 25th Street, at times blocking access to those streets from adjacent neighborhoods. Commuters in Chicago Heights can use Butler Avenue as an alternate route during a train pass. Butler Avenue is a grade-separated crossing 0.5 miles east of Chicago Road. Chicago Road is a substantially affected crossing because total vehicle delay in 2015 would be 4,596 minutes, which would exceed the 40 vehicle hours (2,400 minutes) per day threshold.

Lincoln Highway (US 30), Lynwood, Illinois

Lincoln Highway is a 4-lane divided arterial that runs north/south at the EJ&E highway/rail crossing located near the state line of Illinois and Indiana. As noted by CMAP, Lincoln Highway (US 30) is a Strategic Regional Arterial (CMAP 2008). This designation reflects the importance of Lincoln Highway (US 30) to the region's mobility. The intersection of Lincoln Highway (US 30) and Sauk Trail is located 850 feet south of the highway/rail crossing. Under the Proposed Action, the queue length would be approximately 940 feet. Sauk Trail forms a 'T' intersection into Lincoln Highway. The queue length would block traffic movement at the left turn from northbound Lincoln Highway to westbound Sauk Trail, and from eastbound Sauk Trail to northbound Lincoln Highway. Under the Proposed Action, this crossing would be substantially affected because the queue length would block Sauk Trail, a major thoroughfare, and the projected total vehicle traffic delay of 3,034 minutes, would exceed the 2,400 minute per day threshold.

Broad Street, Griffith, Indiana

Broad Street is a two-lane undivided arterial road that runs north/south and serves residential areas on both sides of the affected crossing. It is crossed by several rail lines, including EJ&E, CN, connectors, and leads. Broad Street forms a 'T' intersection at 73rd Avenue, about two miles south of the EJ&E highway/rail crossing. SEA projects that by 2015, the crossing would experience a total vehicle delay of 6,090 minutes per day, exceeding the 2,400-minute threshold.

2.5.5 Crossings No Longer Designated as Substantially Affected

The Draft EIS listed 16 crossings that would be substantially affected by the Proposed Action (See Table 4.3-10 in the Draft EIS). SEA reanalyzed these crossings using updated ADTs and train data and found that five of the crossings would either no longer be expected to exceed the total vehicle delay threshold of 2,400 minutes per day, or would not exceed SEA's queue length threshold. Therefore, SEA concluded that it would not consider mitigation for these crossings. These five crossings are discussed below. IL 60/83 was also reanalyzed.

Allanson Road, Mundelein, Illinois

The Draft EIS stated that Allanson Road would experience at least 40 hours of total vehicle delay in a 24-hour period under the Proposed Action. As a result, the Applicants modified the proposed connection at Leithton to increase train speeds through the connection and reduce delays at Allanson Road and IL 60/83 in Mundelein. See a description of the Revised Double Track – Leithton Connection in 2.2 above. SEA used the updated train speed data provided by the Applicants to reanalyze this crossing and determined that the increased train speeds would reduce the traffic delay effects at Allanson Road to below the 40-hour total delay threshold. Therefore, SEA concludes that Allanson Road would not be substantially affected by the Proposed Action and does not recommend any mitigation for this crossing in this Final EIS.

IL 60/83, Mundelein, IL

SEA received comments indicating that total vehicle delay at IL 60/83 exceeded the 40 hours per day and that it should have been included as a substantially affected crossing in the Draft EIS. Using the traffic volumes and train operation information available in the Draft EIS, SEA reanalyzed the IL 60/83 data, and determined that it would be considered a substantially affected crossing. However, since publication of the Draft EIS, the Applicants have revised the connection at Leithton to increase projected train speeds at the IL 60/83 crossing and thereby reduce potential vehicle delays. The increased train speed at IL 60/83 would decrease total vehicle delays below the 40 hour (2,400 minutes) per day threshold. Therefore, SEA concludes that IL 60/83 is not a significantly affected crossing.

Ela Road, Lake Zurich, Illinois

The Draft EIS concluded the crossing at Ela Road would have a queue length long enough to block Old Rand Road when a train under the Proposed Action blocked the crossing. Old Rand Road is a major thoroughfare within Lake Zurich. SEA reanalyzed this crossing using updated ADTs, which revealed that vehicles currently queue through Old Rand Road when a train blocks the crossing. Although Ela Road meets the threshold for queue length, it is the result of a pre-existing condition and therefore, would not be caused by the Proposed Action. Therefore, SEA determined that Ela Road would not be substantially affected by the Proposed Action and does not recommend any mitigation for this crossing in this Final EIS.

Liberty Street, near Aurora, Illinois

The Draft EIS stated that Liberty Street would experience at least 40 hours of total vehicle traffic delay in a 24-hour period under the Proposed Action. SEA used an updated ADT to reanalyze this crossing and found that the reduction in the ADT moved Liberty Street below the 40-hour total vehicle delay threshold. Therefore, SEA determined that Liberty Street would not be substantially affected by the Proposed Action and does not recommend any mitigation for this crossing in this Final EIS.

135th Street, near Plainfield, Illinois

The Draft EIS concluded that a train occupying the 135th Street crossing would result in a total queue length that would block Lincoln Highway, a major thoroughfare in Plainfield. For this Final EIS, SEA reanalyzed this crossing using updated ADTs and found that vehicles currently queue through Lincoln Highway during a train pass. Although 135th Street meets the threshold for queue length, it is the result of an existing condition and not the result of the Proposed Action. Therefore, SEA determines that 135th Street would not be substantially affected by the Proposed Action and does not recommend any mitigation for this crossing in this Final EIS.

Cicero Avenue, near Matteson, Illinois

The Draft EIS indicated that Cicero Avenue would exceed the 40-hour threshold for total vehicle traffic delay as a result of the Proposed Action. The Applicants modified the proposed connection at Matteson which would increase train speeds through the connection and reduce delays at Cicero Avenue, Western Avenue, and Main Street. See discussion of the Revised Matteson Connection in Section 2.1, above. SEA reanalyzed this crossing using the updated train speeds and found the increased speeds place Cicero Avenue below the threshold. Therefore, SEA determines that Cicero Avenue would not be substantially affected by the Proposed Action and does not recommend any mitigation for this crossing in this Final EIS.

2.5.6 Substantially Affected Crossings that Require No Mitigation

SEA analyzed 88 highway/rail at-grade crossings along the EJ&E and 134 highway/rail at-grade crossings along the affected CN rail lines for the Final EIS to identify any that could be substantially affected by the Proposed Action. Of the original 16 substantially affected crossings presented in the Draft EIS, SEA's additional analyses for this Final EIS showed that five crossings from the Draft EIS list should be removed and that two crossings should be added. This resulted in 13 crossings being designated as substantially affected by the Proposed Action in this Final EIS. Using updated information, including the recently obtained updated ADTs and train data, SEA concludes that five of the 13 crossings designated as substantially affected do not warrant mitigation. These five crossings are discussed below.

Diamond Lake Road, Mundelein, Illinois

While SEA identified Diamond Lake Road as a substantially affected crossing due to Proposed Action queue lengths, SEA concluded that during a train pass, vehicles would be able to turn from Diamond Lake Road onto eastbound IL 60/83 under the Proposed Action. When a train passes through the Diamond Lake Road at-grade crossing, the IL 60/83 at-grade crossing is also blocked by the same train because of the proximity of the two at-grade crossings. All vehicle movements, with the exception of the northbound Diamond Lake Road right turn, would be blocked as a result of a train crossing through the Diamond Lake Road and IL 60/83 at-grade crossings. As mentioned above, when a train passes and vehicles on Diamond Lake approach the EJ&E crossing, the queue would build and eventually block traffic waiting to turn left from IL 60/83 NW to drive south on Diamond Lake Road. The Diamond Lake approach south of the intersection with IL 60/83 has a dedicated right-turn lane that is approximately 500 feet in length, 200 feet longer than the Proposed Action queue length beyond IL 60/83. The dedicated right turn lane allows the only turning movement that would be possible during a train pass to remain open regardless of queue length due to the configuration of IL 60/83 and Diamond Lake Road. For this reason, SEA did not propose mitigation for Diamond Lake Road.

Montgomery Road/83rd Street, Aurora, Illinois

Montgomery Road is a substantially affected crossing under the Proposed Action because total traffic delay would exceed SEA's designated threshold of 40 vehicle hours per day. However, the Proposed Action would not affect Montgomery Road's queue length or its crossing LOS, which would be rated B. In addition, vehicles using Montgomery Road would have an alternate route created by mitigation SEA is recommending in Chapter 4 for Ogden Avenue. Montgomery Road also is less than a mile south of the Ogden Avenue at-grade crossing. For these reasons, SEA has not proposed mitigation for Montgomery Road.

Western Avenue, Park Forest, Illinois

Western Avenue is a substantially affected crossing under the Proposed Action because total traffic delay would exceed 40 vehicle hours per day. While SEA used total vehicle delay as a major consideration in considering whether its mitigation is warranted, it was not the only factor. In this case, the Applicants revised the proposed Matteson connection to increase train speeds and reduce potential effects at Western Avenue. The Proposed Action would not affect Western Avenue's queue length or its crossing LOS, which would be rated B. For these reasons, SEA has not proposed mitigation for Western Avenue.

Chicago Road, Chicago Heights, Illinois

Chicago Road is a substantially affected crossing under the Proposed Action because total delay would exceed SEA's designated threshold of 40 vehicle hours per day. While SEA used total vehicle

delay as a major consideration in making its mitigation recommendations, it was not the only factor. The Proposed Action would not affect Chicago Road's queue length or its crossing LOS, which would be rated C. For these reasons, SEA did not propose mitigation for Chicago Road.

Broad Street, Griffith, Indiana

Broad Street is a substantially affected crossing under the Proposed Action because total traffic delay would exceed SEA's designated threshold of 40 vehicle hours per day. While SEA used total vehicle delay as a major consideration in making its mitigation recommendations, it was not the only factor. Broad Street would not experience queue length affects and the crossing LOS would be B under the Proposed Action. There are currently seven railroad tracks at this crossing, reflecting existing crossing delays that are not caused solely by the EJ&E trains. Therefore, SEA does not believe mitigation for Broad Street is warranted.

Although the crossings described above would be affected by the Proposed Action, they are in communities that currently experience traffic congestion that is not solely caused by EJ&E trains. Rather, much of the congestion is caused by increasing development, other freight rail lines, and commuter trains that operate in the affected communities. It is the Board's practice not to require applicants to mitigate pre-existing conditions.

2.5.7 Substantially Affected Crossings Recommended for Mitigation

Based on the information above, the following substantially affected crossings warrant consideration for mitigation:

- Old McHenry Road, Lake Zurich, Illinois
- Main Street, Lake Zurich, Illinois
- Hough Street (IL 59), Barrington, Illinois
- Ogden Avenue (US 34), Aurora, Illinois
- Plainfield – Naperville Road, Plainfield, Illinois
- Woodruff Road, Joliet, Illinois
- Washington Street, Joliet, Illinois
- Lincoln Highway (US 30), Lynwood, Illinois

Chapter 4 of this Final EIS discusses recommended mitigation in detail. SEA listed a menu of mitigation options in the Draft EIS that have been narrowed down to specific mitigation measures for specific crossings. As discussed in Section 4.2.3, recommended mitigation includes traffic advisory signs, voluntary mitigation under the Joliet agreement, and grade separations.

2.5.8 Updated Vehicle Delays

SEA's updated analyses of the 88 affected EJ&E and 134 affected CN crossings resulted in changes to Total Vehicle Traffic Delay as shown in the Table 2.5-1, below, in which revised information is shown in red.

SEA used these changes to evaluate the potential effects of the Proposed Action and the associated new construction on roadway traffic and transportation systems.

Table 2.5-1. Total Vehicle Delays				
	No-Action (hours/day)[a]	Proposed Action (hours/day)[a]	No-Action (hours/year)[b]	Proposed Action (hours/year)[b]
EJ&E	274	1,953	99,967	712,878
CN	1,620	297	591,462	108,335
Total	1,894	2,250	691,429	821,213
Difference	**356 hours**		**129,784 hours**	

Notes:
[a] Values for hours/day are rounded to the nearest whole number.
[b] Values for hours/year = non-rounded hours/day x 365 days/year.

2.5.9 Potential Effects on Regional Mobility

In this Final EIS, SEA assessed the potential effects of the Proposed Action on regional mobility by considering the combined effects of roadway LOS and queue lengths. SEA compared the results of its original analyses of the 13 substantially affected crossings with its updated analyses for both LOS and queue length under the No-Action and the Proposed Action Alternatives to measure regional mobility in 2015. The results of SEA's analyses are presented in Table 2.5-2 and Table 2.5-3, below, in which revised information is shown in red.

Table 2.5-2. Substantially Affected Highway/Rail At-Grade Crossing LOS under No-Action and Proposed Action Alternatives (Year 2015)					
Illinois County	Street	2015 ADT	Level of Service		
			Roadway	Crossing, No-Action (2015)	Crossing, Proposed Action (2015)
Lake	Diamond Lake Road	6,207	C	A	A
Lake	Old McHenry Road	32,429	F	A	A
Lake	Main Street	7,474	B	A	B
Lake	Hough Street (IL 59)	22,549	F	A	A
Du Page	Ogden Avenue (US 34)	46,110	F	A	B
DuPage	Montgomery Road/ 83rd Street	27,131	F	A	B
Will	Plainfield/Naperville Road	8,117	B	A	B
Will	Woodruff Road	10,659	E	B	F
Will	Washington Street	11,714	C	A	F
Cook	Western Avenue	24,717	D	A	B
Cook	Chicago Road	23,390	D	A	C
Cook	Lincoln Highway (US 30)	29,237	E	A	B
Lake, IN	Broad Street	19,572	F	A	B

Table 2.5-3. Substantially Affected Highway/Rail At-Grade Crossing Queue Length under No-Action and Proposed Action Alternatives (Year 2015)

Illinois County	Street	2015 ADT	Queue Length (feet)		Major Thoroughfare Blocked due to Proposed Action	Does Total Vehicle Traffic Delay (24-hr) Exceed 40 Hours?
			No-Action	Proposed Action		
Lake	Diamond Lake Road	6,207	265	466	IL 60 & 83	No
Lake	Old McHenry Road	32,429	641	1,186	Midlothian Street	Yes
Lake	Main Street	7,474	310	577	Church Street and IL 22	No
Lake	Hough Street (IL 59 & 63)	22,549	760	1,404	Northwest Highway	No
DuPage	Ogden Avenue (US 34)	46,110	1,083	1,330	None[b]	Yes
DuPage	Montgomery Road/83rd Street	27,131	1,274	1,597	None[b]	Yes
Will	Plainfield/Naperville Road	8,117	332	438	Division Street (IL 59)	No
Will	Woodruff Road	10,659	1,056	1,814	None[a]	Yes
Will	Washington Street	11,714	1,550	2,371	None[a]	Yes
Cook	Western Avenue	24,717	528	863	None[b]	Yes
Cook	Chicago Road	23,390	718	1,091	None[b]	Yes
Cook	Lincoln Highway (US 30)	29,237	634	939	Sauk Trail	Yes
Lake, IN	Broad Street	19,572	1,311	1,916	None[b]	Yes

Notes:

a Queues on Woodruff Road and Washington Street would increase as a result of the Proposed Action and block local streets, but are not expected to block any major thoroughfares. SEA determined that Woodruff Road and Washington Street would be substantially affected by the increased vehicle delay and the related decreased LOS at the crossing.

b Queues on these roadways would increase as a result of the Proposed Action and block local streets, but not expected to block any major thoroughfares. SEA determined that these roadways would be substantially affected by vehicle delay exceeding 40 hours per day.

2.5.10 Signalized Intersections

During the comment period following publication of the Draft EIS, SEA received comments from the Illinois Commerce Commission (ICC) concerning the proximity of signalized intersections (that is, the location of traffic lights in relation to the tracks) to the EJ&E rail line. The ICC was concerned about highway/rail crossings where the distance from a signalized intersection to the railroad line is less than that of the queue length that would be caused by a passing train under the Proposed Action.

There are two vehicle queue length conditions that can affect a roadway: railroad crossing queuing and signalized intersection queuing. Vehicle queuing at a railroad crossing takes place when a train passes. Where a crossing has automatic gates, railroad queuing is a direct result of the gates being down at the crossing and vehicles lining up behind them on either side of the roadway. Vehicle queuing takes place at a signalized intersection when a traffic signal is red. The ICC is concerned that the distance from the signalized intersection to the railroad at-grade crossing is less than the signalized intersection's queue length.

Railroad crossing queuing becomes signalized intersection queuing when vehicles in line waiting for a train to pass are released and proceed to the signalized intersection in a long platoon all at once. This platoon of vehicles that had been waiting for the train, must now move up to the signalized intersection and wait for the traffic signal to change. The platoon of vehicles may be longer than the distance from the signalized intersection to the railroad tracks causing some vehicles to stop on or near the tracks. When a track is heavily used or double tracked, this would be dangerous.

To quantify the potential queuing problems that could arise at such crossings under the Proposed Action, SEA reviewed all of the grade crossings on the EJ&E and CN affected rail lines. In preparing this Final EIS, SEA identified 17 roadways along the EJ&E rail line where the distance from the tracks to the signalized intersection is less than 1,000 feet. Main Street and Old Rand Road in Lake Zurich, Illinois as well as Western Avenue in Park Forest, Illinois currently experience signalized intersection affects on both sides of the EJ&E rail line that would increase under the Proposed Action.

Of the 17 roadways SEA identified:

- Five roadways have pre-existing conditions where queuing from the traffic signal is currently longer than the distance from the traffic signal to the tracks. The five locations with this pre-existing spill-over queuing are:
  - Diamond Lake Road, Mundelein, Illinois
  - Lake Cook Road/Main Street, Barrington, Illinois
  - Penny Road, Near Barrington, Illinois
  - Ogden Avenue (US 34), Aurora, Illinois
  - 127th Street, Plainfield, Illinois
- Two of these five locations have traffic signals that are tied to the automatic crossing gates and therefore, protect against vehicles queuing onto the track. These locations are Penny Road and 127th Street.
- Two of the 17 roadways would experience a 2015 queue length greater than the distance from the tracks to the signalized intersection under the No-Action alternative. These two roadways would also have a 2015 peak hour queue length longer than the distance from the tracks to the signalized intersection under the Proposed Action. These two locations are:
  - IL 60/83, Mundelein, Illinois
  - Broad Street, Griffith, Indiana
- Ten of the 17 roadways would have 2015 peak-hour queue lengths less than the distance from the tracks to the signalized intersection under the No-Action Alternative. These 10 locations would have a peak hour 2015 queue length greater than the distance from the tracks to the signalized intersection under the Proposed Action. Thus, these 10 intersections would only be potentially affected by the Proposed Action. These 10 roadways are:
  - Old McHenry Road, Lake Zurich, Illinois
  - Main Street, Lake Zurich, Illinois
  - Old Rand Road, Lake Zurich, Illinois
  - Ela Road, Lake Zurich, Illinois
  - Hough Street (IL 59), Barrington, Illinois
  - 135th Street, Plainfield, Illinois
  - Plainfield-Naperville Road, Plainfield, Illinois
  - Main Street, Plainfield, Illinois
  - Western Avenue, Park Forest, Illinois

- Lincoln Highway, Lynwood, Illinois

SEA found 62 roadways along the affected CN subdivisions where the distance from the at-grade crossing to the signalized intersection is less than 1,000 feet. The Proposed Action would remove trains from the CN subdivisions and reduce the Proposed Action queue lengths. Of the 62 roadways, 22 would have Proposed Action queue lengths that are shorter than the distance from the signalized intersection to the crossing in 2015.

While the Proposed Action would result in a higher frequency of trains on the EJ&E, on average, less than two trains per hour would pass through most affected crossings, with some crossings experiencing less than one train per hour. SEA concluded that a typical signalized intersection cycle length of 90 seconds would allow a group of vehicles queued at a signalized intersection to dissipate before another train passed through the crossing. Therefore, SEA did not propose mitigation for the signalized intersections that would experience increased queuing during a train pass at an affected crossing.

Chapter 4 of the Final EIS includes SEA's recommended mitigation for affected EJ&E crossings that are less than 1,000 feet from one or more signalized intersections.

2.5.11 Barrington Area Traffic Study

During the public meetings and public comment process, SEA received numerous comments about the Barrington area congestion issue. These comments indicated frustration with existing traffic congestion and the additional congestion anticipated as a result of the Proposed Action.

Because of high levels of interest, the volume of comments, and the fact that, as described in the Draft EIS, Barrington has unique traffic issues, SEA decided to perform additional traffic analysis of the Barrington area. The traffic analysis was performed to:

1) Validate the analysis in the Draft EIS.
2) Better understand the infrastructure of the local roadways and the effects of the existing railroad crossings.
3) Evaluate possible mitigation strategies for Hough Street.

The traffic analysis, provided in Appendix A, documents the study methodology and evaluation of existing and future traffic operations in the Village of Barrington, Illinois. Three corridors have been identified for analysis to assess area mobility: Northwest Highway, Main Street/Lake Cook Road, and Hough Street. These three corridors serve a majority of traffic in the Barrington area and have at-grade crossings with the EJ&E rail line.

The purpose of this study was to use a high-level, traffic simulation model to evaluate existing and future traffic conditions on Northwest Highway, Main Street/Lake Cook Road, and Hough Street corridors.

Two rail lines, the EJ&E and the Union Pacific/Northwest Line, intersect in downtown Barrington. Vehicles in the study corridors experience delays because of train movements at the highway/rail at-grade crossings with these two rail lines. The Proposed Action by CN would result in an increase in the number of freight trains traveling through Barrington by the year 2015. SEA developed three models to quantify the effects of the Proposed Action on automobile traffic in the Barrington area:

- 2008 Existing Conditions
- 2015 No-Action
- 2015 Proposed Action

These models evaluate intersection operations under the above scenarios and provide several measures to document traffic operations in the corridors, as presented in Appendix A of this Final EIS.

A traffic simulation model allows the prediction of the effects of modified lane configurations, traffic control and any changes made in the transportation system on the system's operational performance. Operational performance is measured in terms of Measures of Effectiveness (MOEs), which include average vehicle speed, vehicle stops, delays, vehicle hours of travel, vehicle miles of travel, fuel consumption, and several other measures. The MOEs provide useful input in the selection of future alternative improvements to handle issues related to traffic such as traffic congestion, delay, queues, etc.

The No-Action Alternative assumed no modifications to the train patterns on the EJ&E rail line while the Proposed Action alternative assumed one of the additional trains would be added on the EJ&E rail line during both the AM and PM peak hours. The peak hour was simulated to represent a time period with higher expected traffic volumes and resulting congestion. SEA believes that this a conservative assumption because the Applicants have proposed two volunteer mitigation measures (VM 38 and VM 41), which would serve to give priority to passenger trains and would likely limit the ability of the Applicants to operate freight trains through Barrington during the peak commuter train AM and PM operating periods.

The results of the Village of Barrington Traffic Operational Analysis show that the increase in train traffic on the EJ&E rail line will likely have some effects on traffic congestion in Barrington. Under the Proposed Action scenario, Barrington area total delay time increased by four percent and five percent during the AM and PM peak periods, respectively, over the No-Action scenario. Individual intersection levels of service, however, did not degrade under the Proposed Action scenario.

The results of the traffic analysis are discussed in Chapter 4 and further details of the traffic analysis are presented in Appendix A of this Final EIS.

The traffic analysis also validated SEA's methodology for evaluating traffic delay and mobility effects. In general, the results of the traffic analysis confirmed the conclusions that SEA reached in the Draft EIS.

2.6 Emergency Services

Section 4.3.3 of the Draft EIS describes the potential effects of the Proposed Action on emergency service providers. SEA determined that the Proposed Action could potentially affect emergency service providers by increasing the potential delay at highway/rail at-grade crossings due to a change in train operations. As explained in the Draft EIS, SEA established screening criteria to determine whether or not the Proposed Action would potentially substantially affect emergency service facilities. Criteria for this examination included whether the emergency service facility:

- Was located within two miles of the EJ&E rail line
- Was located within two miles of at least one public highway/rail at-grade crossing and more than one mile from a public grade-separated crossing
- Was situated outside a reasonable distance of a similar facility on the opposite side of the EJ&E rail line

Emergency service facilities meeting these criteria were evaluated to determine if, because of the Proposed Action, the emergency service provider would either:

- Incur an increased average delay per delayed vehicle of 30 seconds (or more) at a highway/rail at-grade crossing

- Incur an increase of 30 minutes (or more) in the total time that a highway/rail at-grade crossing used by the provider would be blocked in a 24-hour period

SEA considered both of these scenarios as a substantial effect. As discussed in Section 4.3.3.5 of the Draft EIS, SEA identified 11 facilities (nine fire protection facilities and two hospitals) that were considered to be potentially substantially affected by the Proposed Action. See Table 2.6-1, below. In the Draft EIS (Chapter 6), SEA listed potential mitigation options for these 11 facilities.

During the comment period of the Draft EIS, SEA received comments from the public identifying several other emergency service facilities as having the potential to be substantially affected. In response to the comments, SEA screened all of the facilities suggested in the comments and identified 10 other emergency service facilities that warranted additional analysis (Figures 2.6-1 through 2.6-7, below). In this Final EIS, SEA conducted additional analysis to determine if these facilities would be potentially substantially affected by the Proposed Action. SEA determined that three of these 10 facilities would be potentially substantially affected.

Table 2.6-1. Substantially Affected Emergency Service Providers Identified in Draft EIS

Community	Facility	Draft EIS Figure No.
Mundelein, Illinois	Countryside Fire Protection District - Station No. 1	Figure 4.3-13
Lake Zurich, Illinois	Lake Zurich Rural Fire Protection District - Station No. 3	Figure 4.3-14
Barrington, Illinois	Barrington Fire Department - Station No. 1	Figure 4.3-15
Bartlett, Illinois	Bartlett Fire Protection District - Future Station No. 3	Figure 4.3-16
Plainfield, Illinois	Plainfield Fire Protection District - Station No. 3	Figure 4.3-17
Joliet, Illinois	Joliet Fire Department - Station No. 8	Figure 4.3-18
Olympia Fields, Illinois	Saint James Hospital and Health Centers - Olympia Fields	Figure 4.3-19
Chicago Heights, Illinois	Saint James Hospital and Health Centers - Chicago Heights	Figure 4.3-20
Schererville, Indiana	Schererville Fire Department Headquarters	Figure 4.3-21
Griffith, Indiana	Griffith Volunteer Fire Department Headquarters/Station No. 1	Figure 4.3-22
Griffith, Indiana	Griffith Volunteer Fire Department - Station No. 2	Figure 4.3-22

Table 2.6-2. Additional Potentially Affected Emergency Service Providers Identified during the Draft EIS Comment Period

Community	Facility	Final EIS Figure No.
Barrington, Illinois	Advocate Good Shepherd Hospital	Figure 2.6-1

West Chicago, Illinois	West Chicago Fire Protection District Headquarters/Station No. 1	Figure 2.6-2
West Chicago, Illinois	West Chicago Fire Protection District - Station No. 3	Figure 2.6-2
Naperville, Illinois	Edward Hospital	Figure 2.6-3
Aurora, Illinois	Rush-Copley Medical Center	Figure 2.6-4
Plainfield, Illinois	Edward Plainfield Outpatient Center & Immediate Care	Figure 2.6-5
Joliet, Illinois	Silver Cross Hospital	Figure 2.6-6
New Lenox, Illinois	New Lenox Fire District Headquarters/Station No. 1	Figure 2.6-7
New Lenox, Illinois	New Lenox Fire District - Station No. 3	Figure 2.6-7
New Lenox, Illinois	Silver Cross Replacement Hospital	Figure 2.6-7

2.6.1 Emergency Service Provider Evaluations

In response to the Draft EIS comments, SEA performed additional evaluations related to each of the eleven facilities originally identified in the Draft EIS and discussed the ten new facilities identified during the Draft EIS comment period. Once all potentially substantially affected facilities were identified, SEA contacted the service providers by phone, and meetings were arranged to discuss operational issues with those service providers expressing interest in discussing the Proposed Action. Meeting discussion topics included: service area covered; emergency service routes; existing communication technologies and existing procedures for emergency service vehicles at blocked highway/rail at-grade crossings. Current procedures for emergency service responders arriving at a blocked highway/rail at-grade crossing include waiting for the train to pass, notifying the emergency dispatch center to send another emergency vehicle to respond, notifying a neighboring community's emergency service responder and asking for assistance, and utilizing alternative or detour routes. During these meetings SEA answered questions about the Draft EIS and the Proposed Action and mitigation strategies were discussed. Field inspections were conducted by SEA and emergency services routes from the potentially affected facility locations to the EJ&E rail line were examined.

GIS technology was utilized to review maps, service areas, and possible alternative routes. A discussion of facilities, their location, and the results of SEA's additional analysis follows. Mitigation is discussed in Chapter 4 of this Final EIS.

2.6.1.1 Countryside Fire Protection District - Station No. 1, Mundelein, Illinois

Countryside Fire Protection District – Station No. 1 is located within two miles of three highway/rail at-grade crossings along the EJ&E rail line (Diamond Lake Road, IL 60/83, and Gilmer Road) and four highway/rail at-grade crossings along the CN Waukesha Subdivision (Allanson Road, Hawley Street, Park Street, and Maple Avenue). The nearest grade-separated crossing along the EJ&E rail line is Lake Street (US 45), located approximately 1.5 miles southeast. The nearest grade-separated crossing along the CN Waukesha Subdivision is Countryside Highway/Courtland Street, located approximately 1.5 miles northeast. There are no grade-separated crossings along the EJ&E rail line to the south or southwest, and no fire stations are located south of the EJ&E rail line and west of the CN Waukesha Subdivision. This emergency service provider has no station to cover the area south of the

EJ&E rail line and west of the CN Waukesha Subdivision, there are limited crossing opportunities in the area, and it meets the criteria established by SEA to be considered substantially affected based on average delay per delayed vehicle and total time that a crossing would be blocked in a 24-hour period. Therefore, SEA has recommended mitigation for this facility, as discussed in Chapter 4 of this Final EIS.

2.6.1.2 Lake Zurich Rural Fire Protection District - Station No. 3, Lake Zurich, Illinois

Lake Zurich Rural Fire Protection District – Station No. 3 is located within two miles of four highway/rail at-grade crossings along the EJ&E rail line (Gilmer Road, Old McHenry Road, Oakwood Road, and Main Street). The nearest grade-separated crossing along the EJ&E rail line is IL 22, located approximately 2.5 miles southwest. There are no grade-separated crossings along the EJ&E rail line to the east or northeast, and no fire stations are located east of the EJ&E rail line. This service provider has no station to cover the area east of the EJ&E rail line, there are no highway/rail grade-separated crossings in the area, and it meets SEA's criteria to be considered substantially affected based on average delay per delayed vehicle and total time that a crossing would be blocked in a 24-hour period. Accordingly, SEA has recommended mitigation for this facility, as discussed in Chapter 4 of this Final EIS.

2.6.1.3 Barrington Fire Department - Station No. 1, Barrington, Illinois

The Barrington Public Safety Building, which houses the Barrington Fire Department – Station No. 1 and the Barrington Police Department, is located within two miles of six highway/rail at-grade crossings along the EJ&E rail line (Cuba Road, Lake Zurich Road, Northwest Highway (US 14), Hough Street (IL 59), Lake Cook Road/Main Street, and Otis Road). The nearest grade-separated crossing along the EJ&E rail line is Rand Road (US 12), located approximately 2.5 miles northeast. There are no grade-separated crossings along the EJ&E rail line to the west or southwest, and no fire stations are located west of the EJ&E rail line. This service provider has no station to cover the area west of the EJ&E rail line, and there are no highway/rail grade separated crossings in the area. Accordingly, it meets SEA's criteria to be considered substantially affected based on average delay per delayed vehicle and total time that a crossing would be blocked in a 24-hour period, SEA has recommended mitigation for this facility, as discussed in Chapter 4 of this Final EIS.

2.6.1.4 Bartlett Fire Protection District - Future Station No. 3, Bartlett, Illinois

Bartlett Fire Protection District – Future Station No. 3 will be located within two miles of three highway/rail at-grade crossings along the EJ&E rail line (Spaulding Road, West Bartlett Road, and Stearns Road) and one highway/rail at-grade crossings along the CN Freeport Subdivision (Powis Road). The nearest grade-separated crossing along the EJ&E rail line is Lake Street (US 20), located approximately 1.5 miles north. There are no grade-separated crossings along the EJ&E rail line to the west or southwest and no fire stations located west of the EJ&E rail line. Since this service provider has no station to cover the area west of the EJ&E rail line, and there are limited crossing opportunities in the area, it meets SEA's criteria to be considered substantially affected based on average delay per delayed vehicle and total time that a crossing would be blocked in a 24-hour period. As a result, SEA has recommended mitigation for this facility, as discussed in Chapter 4 of this Final EIS.

2.6.1.5 Plainfield Fire Protection District - Station No. 3, Plainfield, Illinois

Plainfield Fire Protection District – Station No. 3 is located within two miles of five highway/rail at-grade crossings along the EJ&E rail line (111th Street, Ferguson Road/119th Street, Normantown/252nd, 127th Street, and 135th Street). The nearest grade-separated crossing along the EJ&E rail line is IL 59, located approximately 3.5 miles southeast. There are no grade-separated

crossings along the EJ&E rail line to the north or west and no fire stations are located west of the EJ&E rail line. Since this service provider has no station to cover the area west of the EJ&E rail line, and there are no highway/rail grade separated crossings in the area, it meets SEA's criteria to be considered substantially affected based on total time that a crossing would be blocked in a 24-hour period. SEA has recommended mitigation for this facility, as discussed in Chapter 4 of this Final EIS.

2.6.1.6 Joliet Fire Department - Station No. 8, Joliet, Illinois

Joliet Fire Department – Station No. 8 is located within two miles of three highway/rail at-grade crossings along the EJ&E rail line (East Frontage Road/Essington Road, Division Street, and Gaylord Road). The nearest accessible grade-separated crossing along the EJ&E rail line is Caton Farm Road, located approximately 2 miles east. There are no grade-separated crossings along the EJ&E rail line to the north or northeast with the exception of I-55, which is inaccessible to the community northeast of the EJ&E rail line. Additionally there are no fire stations located northeast of the EJ&E rail line. Given the negotiated agreement Joliet and Applicants have executed, SEA has not recommended mitigation for this facility. SEA does, however, recommend that the Board impose mitigation requiring the Applicants to comply with the terms of the negotiated agreement (see Chapter 4).

2.6.1.7 Saint James Hospital and Health Centers - Olympia Fields, Olympia Fields, Illinois

Saint James Hospital and Health Centers – Olympia Fields is located within two miles of one highway/rail at-grade crossings along the EJ&E rail line (Main Street). The nearest grade-separated crossing along the EJ&E rail line is Governors Highway, located approximately 2 miles south. The nearest grade-separated crossing along the CN Chicago Subdivision is Lincoln Highway (US 30), located approximately 1.5 miles southeast. There are no emergency medical facilities located south of the EJ&E rail line. However, there are three grade-separated highway/rail crossings within a three mile radius of this facility that provide access from the south side of the EJ&E rail line to the north (Interstate 57, Governors Highway, and Orchard Drive). Accordingly, SEA has not recommended mitigation for this facility in this Final EIS.

2.6.1.8 Saint James Hospital and Health Centers - Chicago Heights, Chicago Heights, Illinois

Saint James Hospital and Health Centers – Chicago Heights is located within two miles of seven highway/rail at-grade crossings along the EJ&E rail line (Western Avenue, Euclid Avenue, Chicago Road, West End Avenue/Halsted Street, East End Avenue, Wentworth Avenue, and State Street). The closest accessible grade-separated crossing along the EJ&E rail line is Orchard Drive, located approximately 2.5 miles west. There are no other grade-separated crossings along the EJ&E rail line to the south, east, or west other than Butler Street. Butler Street has clearance restrictions that may not accommodate all emergency service apparatus. Therefore, SEA has assumed that this crossing could not be used by any emergency service responder. Additionally, there are no emergency medical facilities located south of the EJ&E rail line. Since there are no emergency medical facilities south of the EJ&E rail line, and there are no highway/rail grade separated crossings in the area, the facility meets SEA's criteria to be considered substantially affected based on average delay per delayed vehicle and total time that a crossing would be blocked in a 24-hour period. SEA has recommended mitigation for this facility, as discussed in Chapter 4 of this Final EIS.

2.6.1.9 Schererville Fire Department Headquarters, Schererville, Indiana

Schererville Fire Department Headquarters is located within two miles of two highway/rail at-grade crossings along the EJ&E rail line (Kennedy Avenue and Broad Street) and one highway/rail at-grade

crossings along the CN Elsdon/South Bend Subdivision (Colfax Street). The nearest grade-separated crossing along the EJ&E rail line is Indianapolis Boulevard (US 41), located approximately 2.5 miles northwest. There are no grade-separated crossings along the EJ&E rail line to the north and no fire stations located northwest of the EJ&E rail line. Since this service provider has no station to cover the area northwest of the EJ&E rail line, and there are limited crossing opportunities in the area, it meets SEA's criteria to be considered substantially affected based on average delay per delayed vehicle and total time that a crossing would be blocked in a 24-hour period. Accordingly, SEA has recommended mitigation for this facility, as discussed in Chapter 4 of this Final EIS.

2.6.1.10 Griffith Volunteer Fire Department Headquarters/Station No. 1, Griffith, Indiana

Griffith Volunteer Fire Department Headquarters/Station No. 1 is located within two miles of eight highway/rail at-grade crossings along the EJ&E rail line (Kennedy Avenue, Broad Street, East Main Street, East Lake Street, East Miller Street, East Elm Street, East 45th Avenue, and East 40th Place) and four highway/rail at-grade crossings along the CN Elsdon/South Bend Subdivision (Kennedy Avenue, Main Street, Broad Street, and Colfax Street). The closest grade-separated crossing along the EJ&E rail line is Ridge Road (US 6), located approximately 2 miles north. Additionally, there are no grade-separated crossings along the EJ&E rail line to the east or south. The Griffith Volunteer Fire Department is an all volunteer department, which is not fully staffed 24 hours a day. Some volunteer firefighters may need to cross the EJ&E rail line to report to the fire station or to respond to an emergency call. Though this service provider has stations north and south of the EJ&E rail line, there is not one east of the rail line to cover the eastern portion of Griffith. For these reasons, this service provider meets SEA's criteria to be considered substantially affected based on average delay per delayed vehicle and total time that a crossing would be blocked in a 24-hour period. SEA has recommended mitigation for this facility, as discussed in Chapter 4 of this Final EIS.

2.6.1.11 Griffith Volunteer Fire Department - Station No. 2, Griffith, Indiana

Griffith Volunteer Fire Department – Station No. 2 is located within two miles of seven highway/rail at-grade crossings along the EJ&E rail line (Kennedy Avenue, Broad Street, East Main Street, East Lake Street, East Miller Street, East Elm Street, and East 45th Avenue) and three highway/rail at-grade crossings along the CN Elsdon/South Bend Subdivision (Main Street, Broad Street, and Colfax Street). The nearest grade-separated crossing along the EJ&E rail line is Indianapolis Boulevard (US 41), located approximately 2.5 miles west. Additionally, there are no grade-separated crossings along the EJ&E rail line to the north. The Griffith Volunteer Fire Department is a volunteer fire department, which is not fully staffed 24 hours a day. Some volunteer firefighters may need to cross the EJ&E rail line to report to the fire station or to respond to an emergency call. Though this service provider has stations north and south of the EJ&E rail line, there is not one east of the rail line to cover the eastern portion of Griffith. Accordingly, this service provider meets SEA's criteria to be considered substantially affected based on average delay per delayed vehicle and total time that a crossing would be blocked in a 24-hour period, and SEA has recommended mitigation for this facility, as discussed in Chapter 4 of this Final EIS.

2.6.1.12 Advocate Good Shepherd Hospital, Barrington, Illinois

Advocate Good Shepherd Hospital is located within five miles of nine highway/rail at-grade crossings along the EJ&E rail line (Main Street, Old Rand Road, Ela Road, Cuba Road, Lake Zurich Road, Northwest Highway (US 14), Hough Street (IL 59), Lake Cook Road/Main Street, and Otis Road). See Figure 2.6-1. The nearest grade-separated crossing along the EJ&E rail line is Rand Road (US 12), located approximately 4 miles east. There are no grade-separated crossings along the EJ&E rail line to the south or southeast and no emergency medical facilities located southeast of the EJ&E rail line. Since there are no emergency medical facilities southeast of the EJ&E rail line and no

highway/rail grade separated crossings in the area, SEA believes mitigation for this facility is warranted; its proposed mitigation is discussed in Chapter 4 of this Final EIS.

2.6.1.13 West Chicago Fire Protection District Headquarters - Station No. 1, West Chicago, Illinois

West Chicago Fire Protection District Headquarters/Station No. 1 is located within two miles of five highway/rail at-grade crossings along the EJ&E rail line (Hawthorne Lane, Washington Street, Aurora Street, Church Street, and Ann Street). See Figure 2.6-2. The nearest grade-separated crossing along the EJ&E rail line is Roosevelt Road, located approximately 1.5 miles south. There are no grade-separated crossings along the EJ&E rail line to the west or northwest. While Station No. 3 is located on the west side of the EJ&E rail line, approximately 0.75 mile southwest, it is not staffed 24-hours per day and it may be necessary for staff from Headquarters/Station No. 1 to cross the tracks as a first responder. Due to this situation and the fact that there are limited east-west crossing opportunities, SEA has recommended mitigation for this facility, as discussed in Chapter 4 of this Final EIS.

2.6.1.14 West Chicago Fire Protection District - Station No. 3, West Chicago, Illinois

West Chicago Fire Protection District – Station No. 3 is located within two miles of five highway/rail at-grade crossings along the EJ&E rail line (Hawthorne Lane, Washington Street, Aurora Street, Church Street, and Ann Street). The nearest grade-separated crossing along the EJ&E rail line is Roosevelt Road, located approximately one mile southeast. There are no grade-separated crossings along the EJ&E rail line to the east or north. While Headquarters/Station No. 1 is located on the east side of the EJ&E rail line, approximately 0.75 mile northeast, Station No. 3 is not staffed 24-hours per day, and must rely on the Headquarters/Station No. 1 as a first responder in many instances. Due to this situation and the fact that there are limited east-west crossing opportunities, SEA has recommended mitigation for this facility, as discussed in Chapter 4 of this Final EIS.

2.6.1.15 Edward Hospital, Naperville, Illinois

Edward Hospital is located within five miles of four highway/rail at-grade crossings along the EJ&E rail line (Diehl Road, Liberty Street, Ogden Avenue (US 34), and Montgomery Road/83rd Street). See Figure 2.6-3. The nearest grade-separated crossing along the EJ&E rail line is New York Street/Naperville Road, located approximately 4.5 miles west. There are no grade-separated crossings along the EJ&E rail line to the southwest. However, Rush–Copley Medical Center is located approximately 2 miles due west of the rail line and 6.5 miles southwest of Edward Hospital, and could serve as an alternate emergency medical provider. For this reason, SEA does not recommend specific mitigation for this facility.

2.6.1.16 Rush-Copley Medical Center, Aurora, Illinois

Rush–Copley Medical Center is located within two miles of three highway/rail at-grade crossings along the EJ&E rail line (Montgomery Road/83rd Street, Keating Drive/87th Street, and Hafenrichter Road). See Figure 2.6-4. The nearest grade-separated crossing along the EJ&E rail line is McCoy Drive, located approximately 2.5 miles northeast. There are no grade-separated crossings along the EJ&E rail line to the east or southeast. However, Edward Hospital is located approximately 4.5 miles due east of the rail line and 6.5 miles northeast of Rush–Copley Medical Center, and could serve as an alternate emergency medical provider. For this reason, SEA does not recommend specific mitigation for this facility.

2.6.1.17 Edward Plainfield Outpatient Center & Immediate Care, Plainfield, Illinois

Edward Plainfield Outpatient Center & Immediate Care facility is located within two miles of five highway/rail at-grade crossings along the EJ&E rail line (Ferguson Road/119th Street, Normantown/252nd, 127th Street, 135th Street, and Van Dyke Road). See Figure 2.6-5. The nearest grade-separated crossing along the EJ&E rail line is State Route 59, located approximately 2.5 miles southeast. There are no grade-separated crossings along the EJ&E rail line to the north or west and no emergency medical facilities located west of the EJ&E rail line. However, this facility does not have an emergency room and so does not meet SEA's criteria to be considered as an emergency medical facility to be evaluated for the effects the Proposed Action would have on it. Furthermore, trauma patients are sent to Edward Hospital in Naperville, Illinois, for treatment. For this reason, SEA has not recommended specific mitigation for this facility.

2.6.1.18 Silver Cross Hospital, Joliet, Illinois

Silver Cross Hospital is located within two miles of three highway/rail at-grade crossings along the EJ&E rail line (Woodruff Road, Washington Street, and South Rowell Avenue) and two highway/rail at-grade crossings along the CN Joliet Subdivision (Ohio Street and Jackson Street). See Figure 2.6-6. The nearest grade-separated crossing along the EJ&E rail line is Jackson Street (US 6), located approximately 0.5 mile southwest. The nearest grade-separated crossing along the CN Joliet Subdivision is Cass Street (US 30 / US 6), located approximately 1.5 miles southwest. While there are other grade-separated crossings along the EJ&E rail line to the northwest and southwest, there are no emergency medical facilities west of the EJ&E rail line. Since there is a grade-separated highway/rail crossing approximately 0.5 mile southwest of this location, SEA has not recommended specific mitigation for this facility.

2.6.1.19 New Lenox Fire District Headquarters - Station No. 1, New Lenox, Illinois

New Lenox Fire District Headquarters/Station No. 1 is located within two miles of three highway/rail at-grade crossings along the EJ&E rail line (Nelson Road, Cedar Road, and Spencer Road). See Figure 2.6-7. The nearest grade-separated crossings along the EJ&E rail line are Interstate 80, located approximately 5 miles west, and South LaGrange Road (US 45), located approximately 5 miles southeast. Additionally, there are no grade-separated crossings along the EJ&E rail line to the south. Station No. 3 is, however, located approximately 500 feet south of the EJ&E rail line. The New Lenox Fire District operates out of four fire stations that are fully staffed, 24-hour facilities (Headquarters/Station No. 1, Station No. 2, and Station No. 4 are north of the EJ&E rail line; Station No. 3 is south of the EJ&E rail line). For this reason SEA does not recommend specific mitigation for this facility.

2.6.1.20 New Lenox Fire District - Station No. 3, New Lenox, Illinois

New Lenox Fire District – Station No. 3 is located within two miles of three highway/rail at-grade crossings along the EJ&E rail line (South Gougar Road, Nelson Road, and Cedar Road). See Figure 2.6-7. The nearest grade-separated crossings along the EJ&E rail line are Interstate 80, located approximately 4.5 miles northwest, and South LaGrange Road (US 45), located approximately 6 miles east. Additionally, there are no grade-separated crossings along the EJ&E rail line to the north. Headquarters/Station No. 1 is, however, located approximately 1.5 miles north of the EJ&E rail line. The New Lenox Fire District operates out of four fire stations that are fully staffed, 24-hour facilities (Headquarters/Station No. 1, Station No. 2, and Station No. 4 are north of the EJ&E rail line; Station No. 3 is south of the EJ&E rail line). For this reason SEA does not recommend specific mitigation for this facility.

2.6.1.21 Silver Cross Replacement Hospital, New Lenox, Illinois

Silver Cross Replacement Hospital, scheduled to open in mid-summer 2011, will be located near the intersection of US Route 6 and Interstate 355, and within five miles of six highway/rail at-grade crossings along the EJ&E rail line (Cherry Hill Road, South Gougar Road, Nelson Road, Cedar Road, Spencer Road, and Schoolhouse Road). See Figure 2.6-7. The nearest grade-separated crossings along the EJ&E rail line are Jackson Street (US 6), located approximately 5 miles west, and South LaGrange Road (US 45), located approximately 6.5 miles southeast. There are no grade-separated crossings along the EJ&E rail line to the south and no emergency medical facilities located south of the EJ&E rail line. Since this facility will be located approximately four miles north of the EJ&E rail line, outside the two-mile radius used for analysis, and is not scheduled to open for nearly three years, SEA does not recommend specific mitigation for this facility.

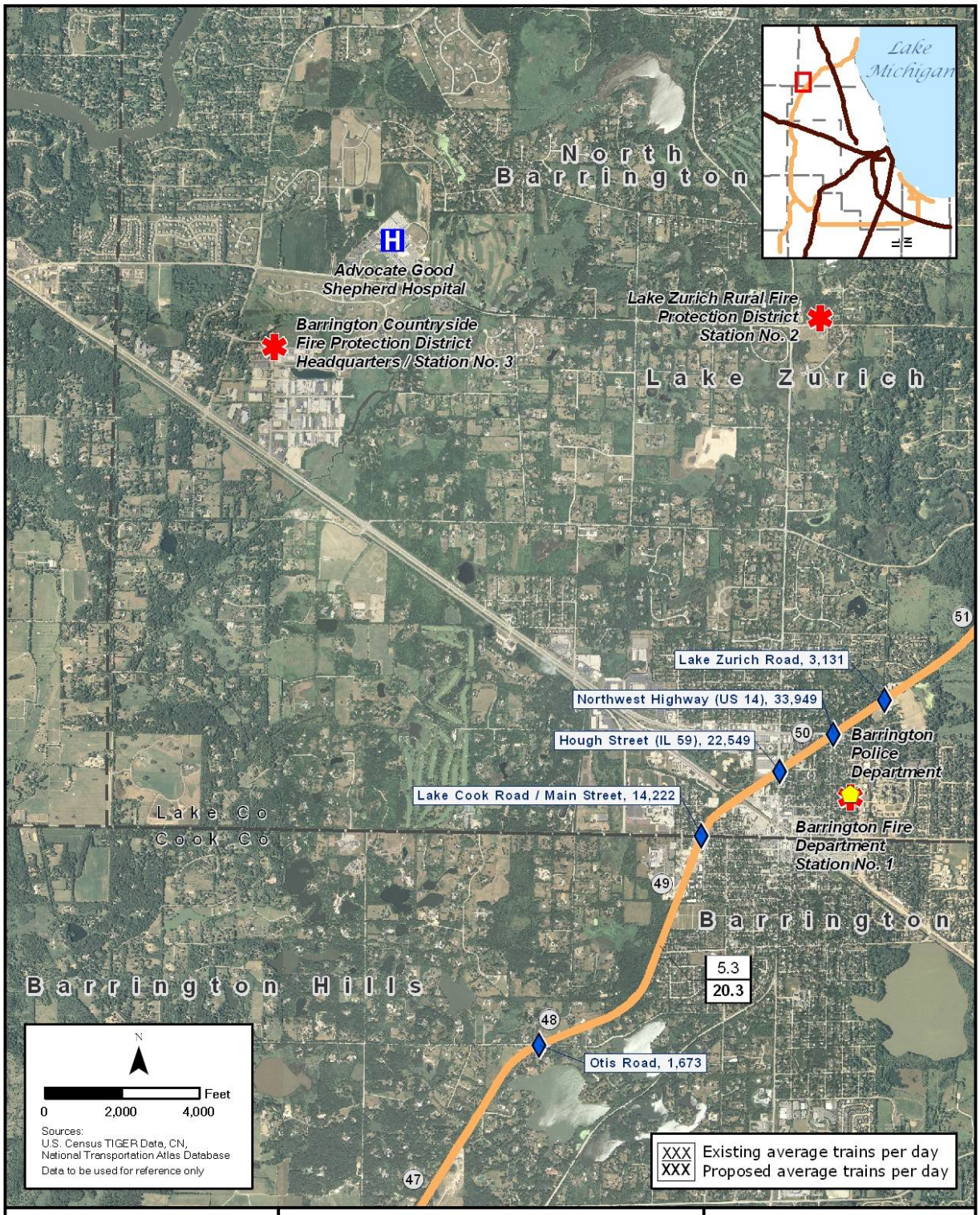
2.6.2 Conclusion

Of the initial 11 facilities identified in the Draft EIS as being potentially substantially affected, SEA proposes mitigation for ten. SEA does not propose mitigation for Saint James Hospital and Health Centers – Olympia Fields since there are three grade-separated highway/rail crossings within a three-mile radius of its location. The analysis performed on the additional ten facilities identified from comments received by SEA on the Draft EIS, resulted in three emergency service facilities that have been determined to be potentially substantially affected. Mitigation recommendations (VM 42-48, Condition 21, and a negotiated agreement with the City of Joliet) prepared by SEA for all 13 of these facilities can be found in Chapter 4 of the Final EIS. Table 2.6-3, below, lists the 13 facilities for which SEA has proposed mitigation.

Table 2.6-3. Substantially Affected Emergency Response Providers for which SEA will Propose Mitigation

Community	Facility	Proposed Mitigation
Mundelein, Illinois	Countryside Fire Protection District - Station No. 1	CCTV surveillance of highway/rail at-grade crossings
Lake Zurich, Illinois	Lake Zurich Rural Fire Protection District - Station No. 3	CCTV surveillance of highway/rail at-grade crossings
Barrington, Illinois	Barrington Fire Department - Station No. 1	CCTV surveillance of highway/rail at-grade crossings
Barrington, Illinois	Advocate Good Shepherd Hospital	CCTV surveillance of highway/rail at-grade crossings
Bartlett, Illinois	Bartlett Fire Protection District - Future Station No. 3	CCTV surveillance of highway/rail at-grade crossings
West Chicago, Illinois	West Chicago Fire Protection District Headquarters/Station - No. 1	CCTV surveillance of highway/rail at-grade crossings
West Chicago, Illinois	West Chicago Fire Protection District - Station No. 3	CCTV surveillance of highway/rail at-grade crossings
Plainfield, Illinois	Plainfield Fire Protection District - Station No. 3	CCTV surveillance of highway/rail at-grade crossings
Joliet, Illinois	Joliet Fire Department - Station No. 8	Negotiated agreement with City of Joliet
Chicago Heights, Illinois	Saint James Hospital and Health Centers - Chicago Heights	CCTV surveillance of highway/rail at-grade crossings

Schererville, Indiana	Schererville Fire Department Headquarters	CCTV surveillance of highway/rail at-grade crossings
Griffith, Indiana	Griffith Volunteer Fire Department Headquarters/Station No. 1	CCTV surveillance of highway/rail at-grade crossings
Griffith, Indiana	Griffith Volunteer Fire Department - Station No. 2	CCTV surveillance of highway/rail at-grade crossings



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Environmental Impact Statement

EJ&E Rail Line
CN Rail Line
Underpass
Overpass
At-Grade Rail Crossing
XXX Crossing Street Name, 2015 Average Daily Traffic
Hospital
Police Station
Fire Station
Rail Segment Boundary
55 Mile Post

Figure 2.6-1

Advocate Good Shepherd Hospital

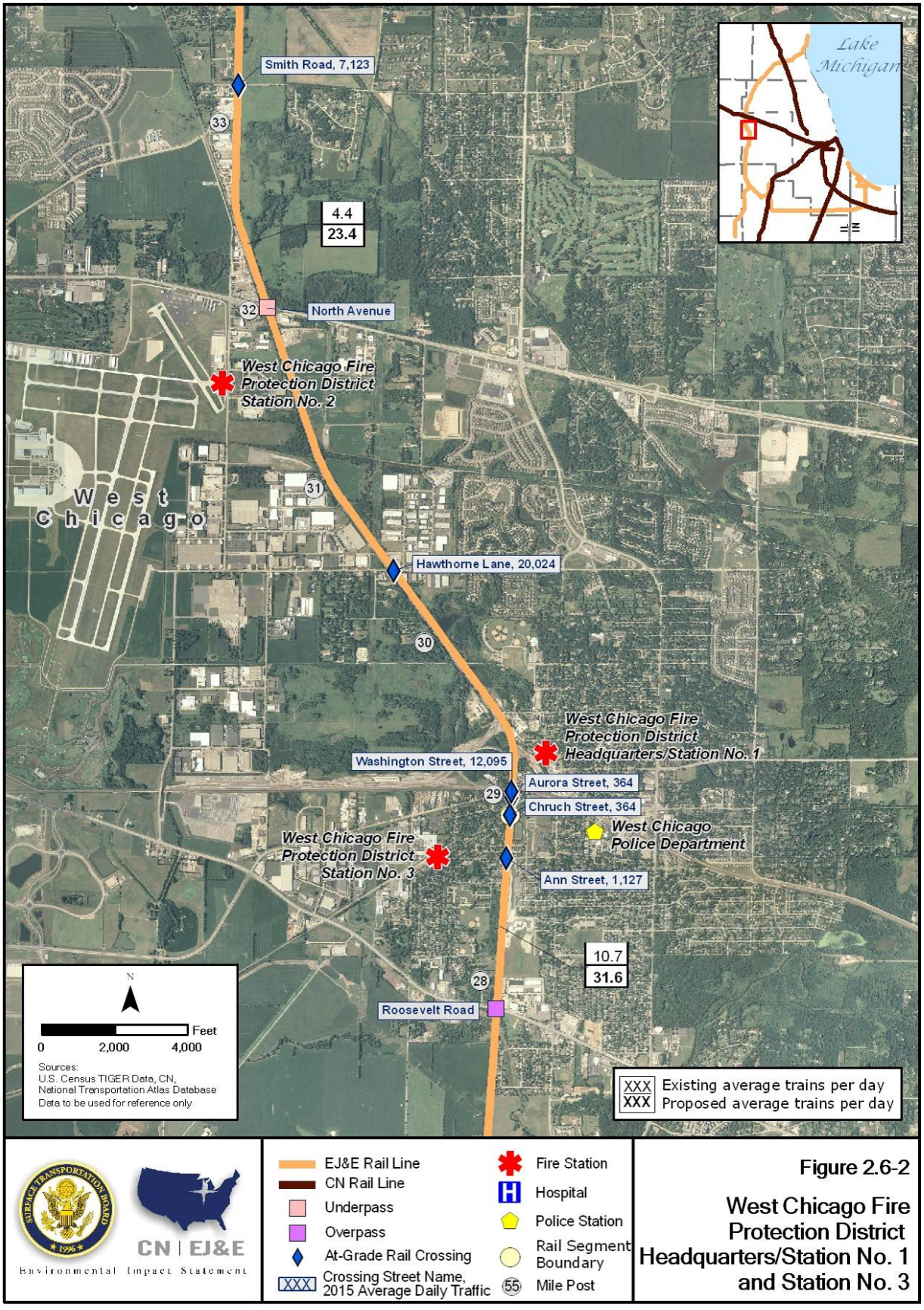


Figure 2.6-2

West Chicago Fire Protection District Headquarters/Station No. 1 and Station No. 3

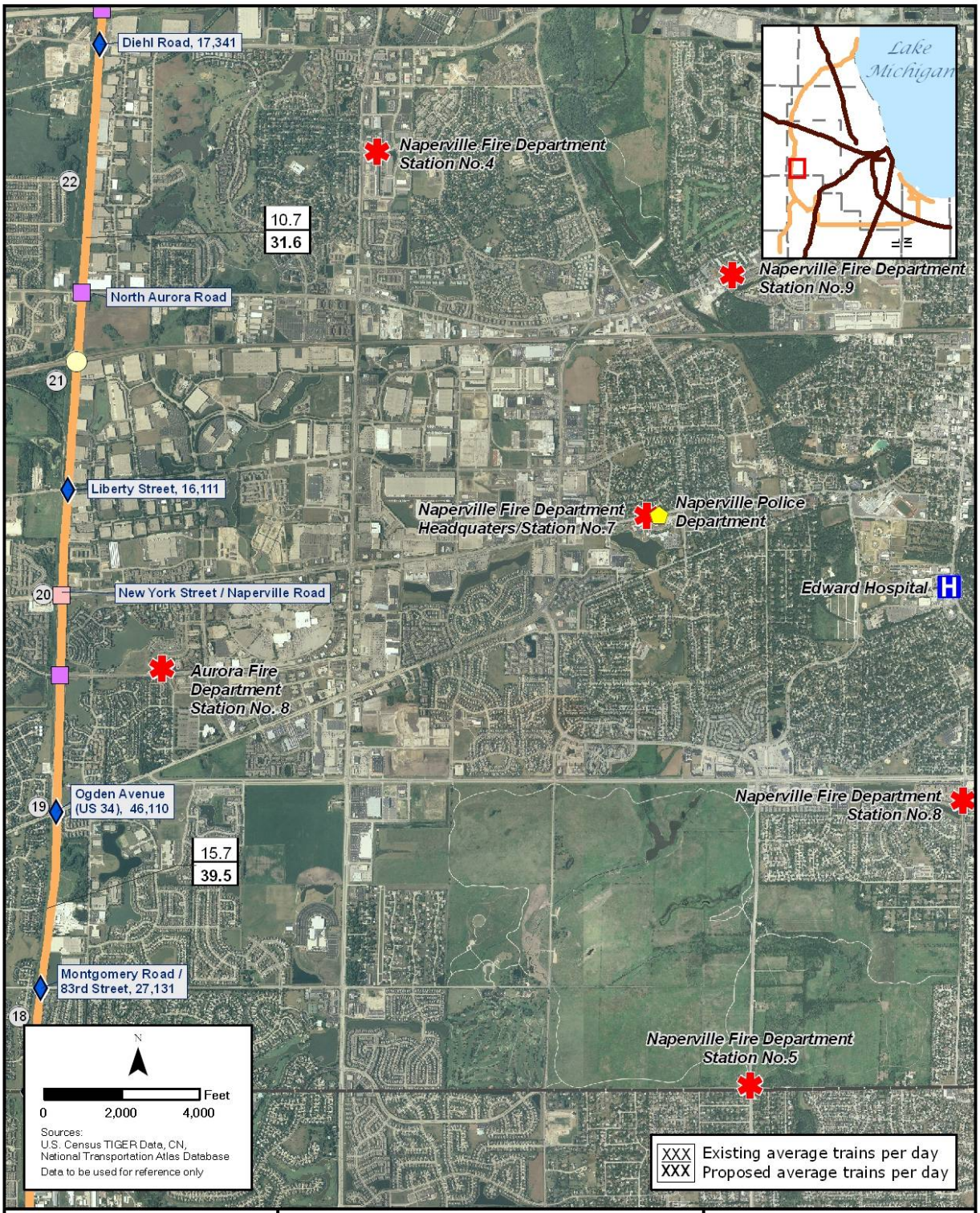


Figure 2.6-3

Edward Hospital

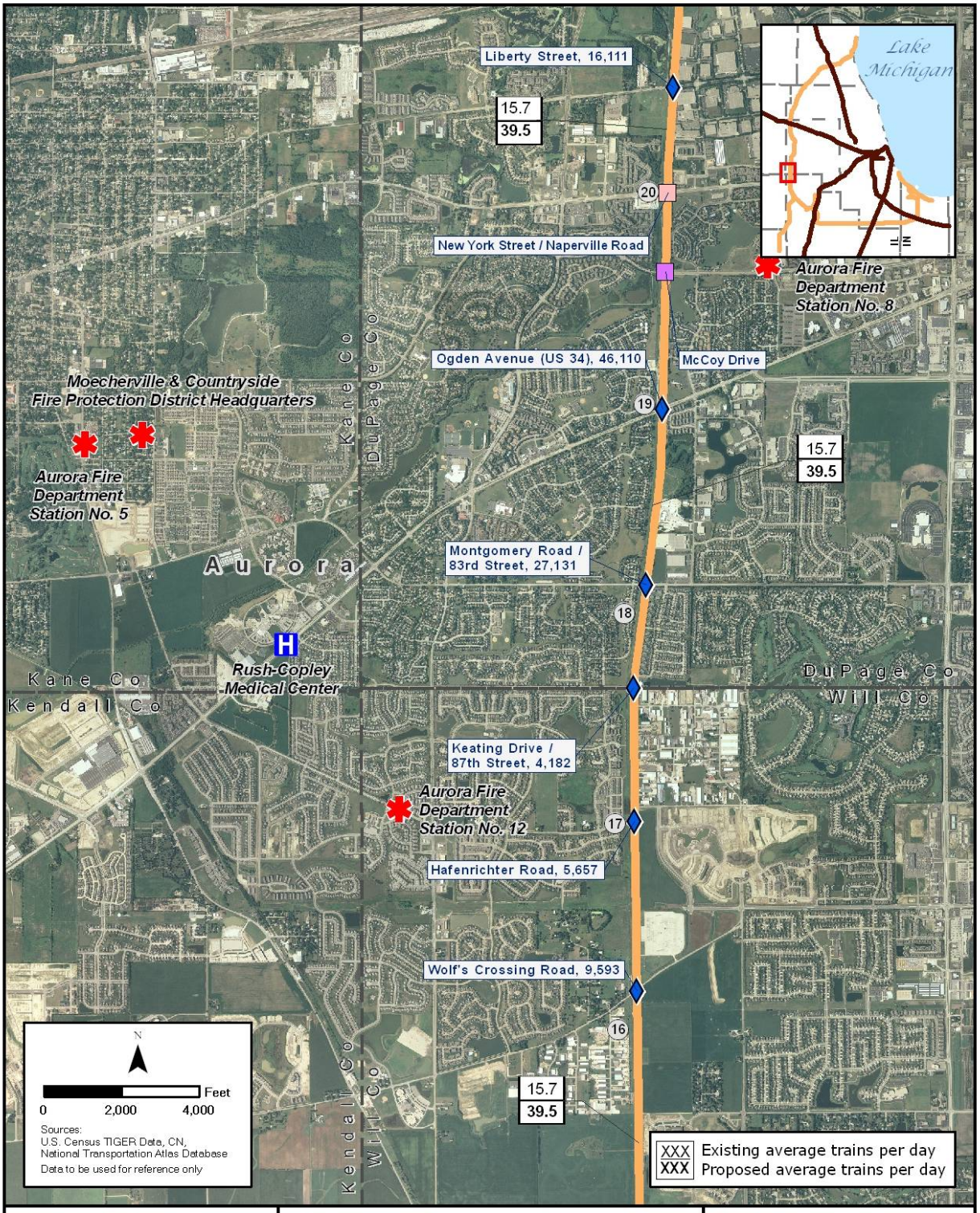


Figure 2.6-4

Rush-Copley Medical Center

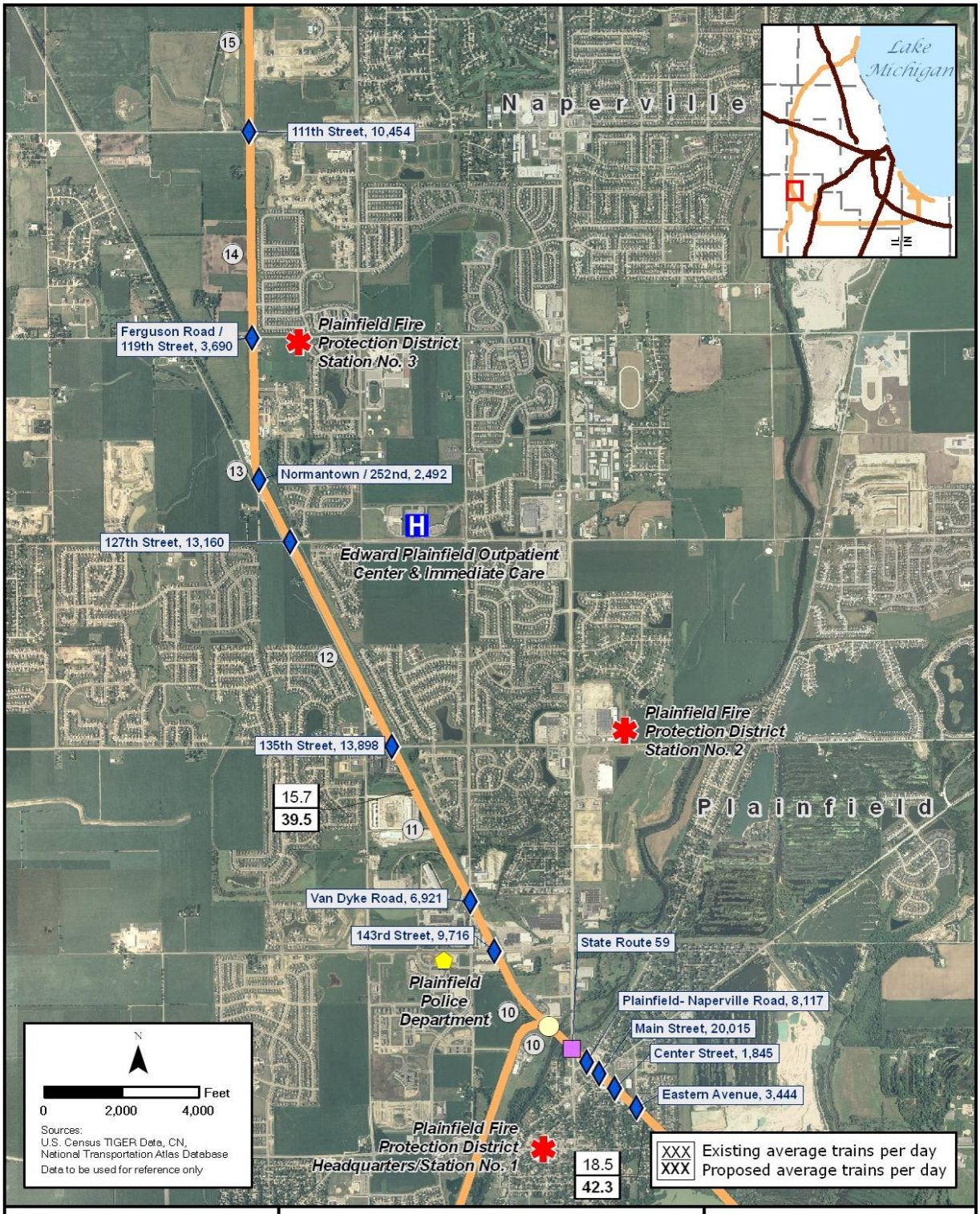


Figure 2.6-5

Edward Plainfield Outpatient Center & Immediate Care

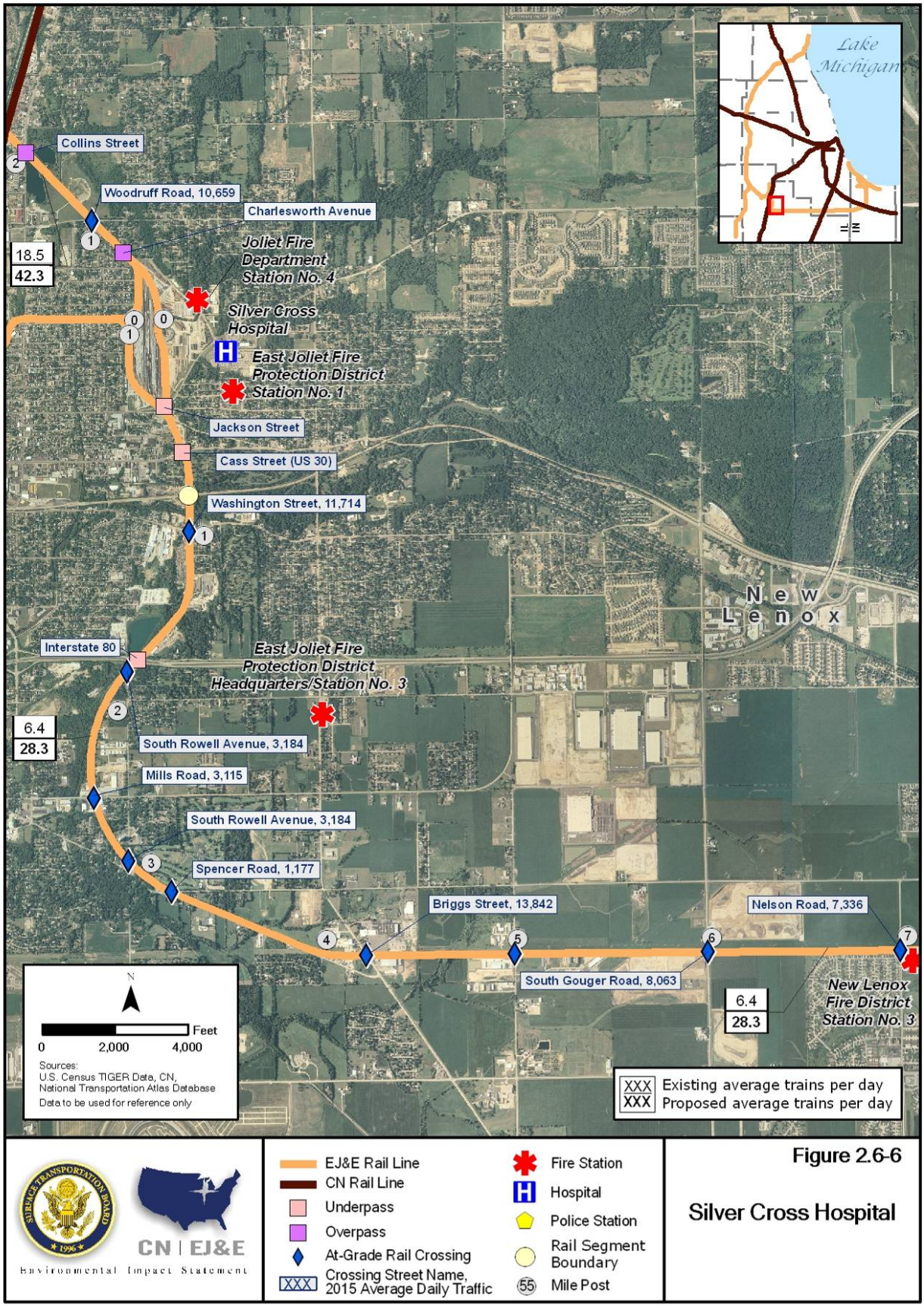


Figure 2.6-6

Silver Cross Hospital

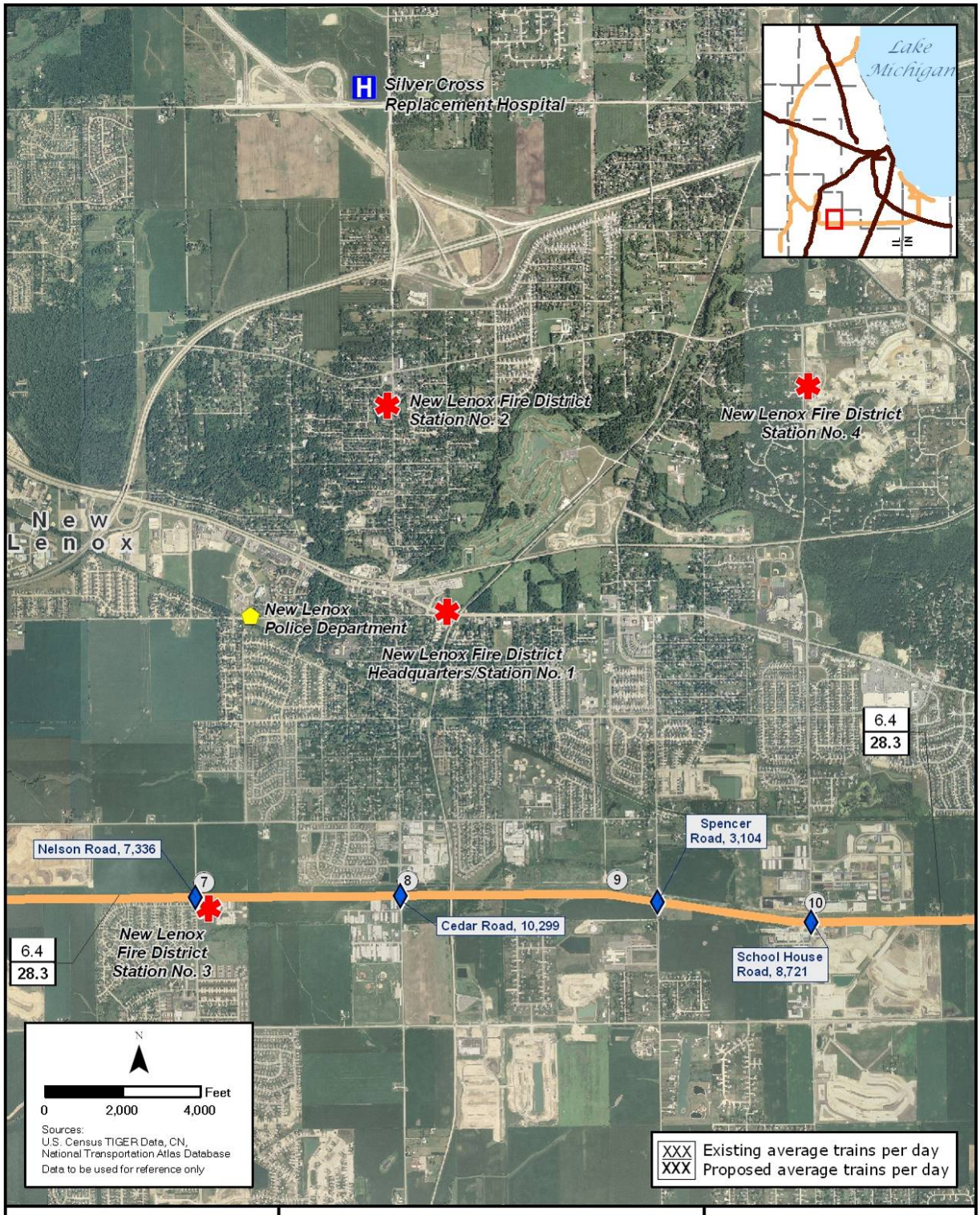


Figure 2.6-7
Silver Cross Replacement Hospital, New Lenox Fire District Headquarters/Station No.1 and Station No. 3

2.7 Hazardous Materials Transportation Safety

As discussed in Section 4.2.5 of the Draft EIS, an important part of SEA's environmental analysis involved a safety study regarding transportation of hazardous materials. As part of that analysis, SEA considered the current risk on rail segments and assessed the potential risk associated with implementation of the Proposed Action. USDOT regulations require railroads to submit a report each time a release occurs; SEA used Chicago Area Incident and Lake County Indiana Incident reports (2003-2007) to develop the analysis for risk assessment.

Commenters on the Draft EIS were concerned about the transport of hazardous materials, both domestically and in Canada. However, the Proposed Action involves a domestic regional railroad; therefore SEA's analysis has properly focused on the transport of hazardous materials within the region that would be directly affected by the Proposed Action. Information from the original analysis is presented again here in Table 2.7-1, below. Additionally, because of the comments received on this issue, SEA has reviewed CN's safety record in Canada and a summary is provided in Appendix A of this Final EIS. See Appendix A for FRA's letter approving the Applicant's Safety Integration Plan.

SEA also considered emergency response capabilities in the event of a hazardous materials release and summarized materials presented in Attachment C5 (in Appendix C of the Draft EIS). Methodologies and details of SEA's analysis are described in detail in Appendix C of the Draft EIS.

Table 2.7-1. Hazardous Material Incident Reporting System Summary[a]

AAR Commodity Group Description	Number of Incidents	Percent of Incidents	Typical Common Name
Flammable Combustible Liquid	57	62%	ethanol, methanol, toluene, xylene, styrene
Corrosive Material	14	15%	sulfuric acid, hydrochloric acid
Nonflammable Compressed Gas	7	8%	carbon dioxide, anhydrous ammonia
Miscellaneous Hazardous Material	4	4%	asphalt, crude oil
Flammable Compressed Gas	3	3%	liquefied petroleum gas (LPG), butane
Combustible Liquid	3	3%	petroleum oils
Oxidizer	2	2%	sodium chlorate, ammonium nitrate
Flammable Solid	1	1%	sulfur
Dangerous When Wet Material	1	1%	inorganic self-heating solids
Poisonous Gases	0	0%	chlorine, sulfur dioxide
Total	92	---[b]	

Notes:

[a] Data are from the Pipeline Hazardous Material Safety Administration data from the Hazardous Material Incident Reporting System (HMIRS).

[b] When added together, the percent of incidents should equal 100 percent. However the percentages equal 99 percent due to rounding.

In the Draft EIS, SEA calculated the likelihood of a release of hazardous materials resulting from a derailment, collision, or other accidents that may lead to derailments, and evaluated the proposed increase in the transport of hazardous materials on EJ&E rail segments. SEA then determined whether such increases might reach a level that warrants safety mitigation.

SEA's analysis showed that the overall predicted frequency of a release of hazardous materials (the potential that one or more railcars involved in a derailment would release such materials to the environment) anticipated under the Proposed Action varied from 71 years to 90,356 years, depending on the rail segment.

SEA concluded that hazardous material releases have historically been, and are expected to continue to be, extremely rare. SEA also concluded that there would be a potential increase in the possibility of a release on the EJ&E rail line under the Proposed Action because of an increase in train miles and carloads of hazardous materials but that the possibility of a release would remain remote.

Moreover, SEA explained there would be a reduction in the risk of a release on the CN rail lines as a result of the Proposed Action because of the redistribution of CN rail traffic to the EJ&E rail line. SEA also noted that under the No-Action Alternative, hazardous materials take more time to move through the Chicago metropolitan area on the CN rail lines than they would under the Proposed Action. The existing conditions on CN rail lines have the potential to expose more people to risk for a longer period of time than would be the case under the Proposed Action.

In response to the Draft EIS, a number of commenters requested that SEA provide additional information concerning the types of hazardous materials that would be transported on the EJ&E rail line under the Proposed Action. Section 2.7.1, below, describes the types of hazardous materials that would be transported under the No-Action and the Proposed Action Alternatives. A number of commenters also requested that SEA evaluate the potential environmental effects of a series of hypothetical situations of low probability related to the movement of hazardous materials, such as assuming that a train derails, the train includes a hazardous material, the hazardous material is released, the hazardous material is liquid, the derailment occurs in an aquifer recharge area, clean up activity is either delayed or ineffective, ground water is contaminated, and then what would be the human health effect for someone drinking water from a well. SEA believes that this type of speculation is exactly the type of "worse case" analysis that CEQ specifically determined need not be undertaken as part of a NEPA evaluation. However, in Section 2.7.2, below, SEA provides a discussion of the potential effects of a hazardous material release on some types of water resources.

2.7.1 Hazardous Materials Hauled by Trains

CN has provided detailed information to SEA about hazardous materials currently transported on CN and EJ&E rail lines, and what hazardous materials would be carried under the Proposed Action. A summary of this information, categorized by American Association of Railroads commodity groups, is presented in Table 2.7-2, Hazardous Materials Movement, below. SEA used daily carload-miles (a carload-mile is one rail car carried one mile) to measure the change in volume per commodity group transported. SEA believes that since under both the No-Action and the Proposed Action Alternatives most of the same commodity groups would be carried on the EJ&E rail line, emergency response providers would face the same types of issues in dealing with incidents that they would face under the No-Action Alternative. Emergency responders currently receive training in how to deal with hazardous materials spills and can get information from railroads as to what types of hazardous materials may be hauled through their communities. Railroads typically also have their own emergency response contractors who assist with such incidents. CN has committed to voluntary mitigation (VM 22) that would further assist communities with training needs.

Table 2.7-2. Hazardous Materials Movement
(carload-miles per day)

AAR Description	EJ&E Line (No-Action)	EJ&E Line (Proposed Action)	CN Lines (No-Action)	CN Lines (Proposed Action)	Example
Combustible Liquid	7.1	449.1	249.6	117.9	Petroleum Naphtha, Creosote
Corrosive Material	240.1	5,214.6	3,140.2	426.4	Batteries, Acids
Dangerous When Wet		21.6	12.5	0.14	Aluminum Alkyls, Magnesium Metal
Explosives		1.1	0.55	0.05	Blasting Explosives, Fireworks
Flammable Gases	91.5	4,173.0	2,159.7	33.2	Liquefied Petroleum Gas, Butane, Propylene, Acetylene
Flammable Liquid	105.6	9,134.5	4,947.9	1,235.6	Gasoline, Fuel Oil, Ethanol, Toluene, Xylene
Flammable Solid	0.9	3,305.4	879.0	71.8	Sulfur, Phosphorus (amorphous), Matches
Hazardous Waste	17.0	187.0	69.4	5.0	Contaminated soil and sediment
Miscellaneous Hazmat	69.7	5,582.8	2,363.2	769.6	Asbestos, Asphalt, Coal Tar, Petroleum Oils
Nonflammable Gases	13.0	1,354.9	745.9	22.8	Carbon Dioxide, Anhydrous Ammonia, Refrigerants
Oxidizers	28.0	1,588.1	546.5	34.3	Ammonium Nitrate Fertilizer, Hydrogen Peroxide
Poisonous Gases	52.2	796.0	436.6	57.3	Chlorine, Sulfur dioxide
Poisonous Materials	22.3	678.7	342.1	26.4	Carbon Tetrachloride, Organophosphorus Pesticides
Radioactive			0.17	0.17	Radioactive Materials, Surface Contaminated Objects
Spontaneous Combustible	0.05	9.7	6.3	0.08	White Phosphorus
Total	647.4	32,496.6	15,899.6	2,800.7	

2.7.2 Effects of Hazardous Materials Spills

SEA anticipates that a release of hazardous materials into the environment (a spill) likely would potentially lead to environmental exposure of relatively short duration, and that the effects of a potential spill would be limited by the volume of hazardous material in the railcar and by containment or remediation required by Federal, state, and local requirements. Potential soil contamination would also be limited by prompt containment and clean-up.

In response to the comments on the Draft EIS, the following sections describe a probable sequence of events and potential effects of a hypothetical spill as it relates to water resources (wetlands, ditches, streams and lakes, and groundwater and wells). The analysis is not intended to be inclusive of everything that could occur as a result of a particular incident. Different substances, locations, or circumstances could alter the chain of events that would occur in response to a spill. These examples are not meant to replace, supplement, or contradict existing or proposed hazardous material response plans. Actual affects, containment, and clean-up methods would depend on the particular substance spilled, the specific location of the spill, weather conditions at the time, accessibility of the spill site, and response time. Once again SEA notes that the actual risk of a hazardous material spill at any one specific location along the EJ&E rail line would be extremely low.

2.7.2.1 Effect on Ditches

- Effects of a spill as it relates to water resources would be mostly on railroad ROW unless there is close proximity of the spill to a municipal storm sewer, a stream, or other water resource, or if there is wet weather.
- The likelihood of long-term effects is low for a dry weather spill, and would be variable for a wet weather spill, if the material were to move beyond the ROW.
- Federal, state and local agencies would be contacted immediately as required by existing law, even if the spill is fully contained on railroad property.
- The extent of the spill would depend on the weather conditions. Wet weather conditions would result in a situation similar to a stream. See Section 2.7.2.2, below.
- A spill during dry weather could be easily contained and removed if the response is prompt.
- The spill could be contained by booms or soil berms for liquids or solids.
- Containment and clean-up would be relatively simple if access to the material is easy and should not result in environmental damage beyond the ROW when proper measures are taken. If direct access to the spill is not possible, including use of railroad right-of-way when necessary, effects beyond the ROW could be substantial.
- Spilled material could typically be 100 percent recovered.

2.7.2.2 Effect on Streams and Lakes

- The likelihood of long-term effects of a spill on affected streams and lakes would range from low to high and can not be estimated due to the many variations of possible scenarios.
- Effects likely would occur mostly beyond the railroad ROW.
- Federal, state and local agencies, and downstream communities would be contacted immediately as required by existing law.
- Some materials released could travel long distances in a short time. Floatable materials could be deposited along stream or lake banks. Heavy materials could be deposited on the stream or lakebeds. Dissolved materials could be irretrievable. Spilled material likely could not be 100 percent recovered.
- Downstream municipal drinking water intakes could have to be closed from several days to several weeks.

- The spill could be contained by cross-stream booms or coffer dams.
- Temporary emergency fill effects should be expected when creating site access for spill cleanup. Any emergency fill, alteration to hydrology or dredging would be coordinated with all appropriate Federal, state, county and local agencies and would be mitigated according to existing law.
- Containment and clean-up could be difficult and time consuming and could result in further damage to the environment, although this would be temporary.

2.7.2.3 Effect on Wetlands

- Effects of a spill located near wetlands could be both on and off railroad ROW.
- Federal, state and local agencies would be contacted immediately as required by existing law.
- The spilled material might not travel great distances, but floatable or soluble materials could, in a short time, cover open water wetlands and be transported by streams associated with fringe wetlands.
- Containment and clean-up could be difficult and time consuming and could result in further damage to the environment.
- The spill could be contained by booms or soil berms, where applicable and appropriate.
- Adverse effects resulting from temporary or permanent emergency fill would be expected when creating site access for spill cleanup. Any emergency wetland effects, including fill, alteration to hydrology or dredge would be coordinated with all appropriate Federal, state, county and local agencies and mitigated according to the existing law.
- Spilled material might not be 100 percent recovered.
- There is a moderate risk of long-term effects and would most likely result in a change in wetland vegetation and could create the potential increases in invasive species depending on the material that was spilled. Potential long-term effects could include:
    - A change in the water or soil pH
    - A change in the soil nutrient composition or nutrient uptake
    - A smothering of vegetation and soil compaction
    - A change in community composition, which could favor pioneer or invasive species

2.7.2.4 Effect on Groundwater and Wells

In the study area, groundwater is used for public water supplies, private wells, and industrial uses. There are 54 public water supply wells near the EJ&E rail line. Research indicates that a majority (62 percent) of these use the shallow (less than 500 feet) bedrock aquifers.

SEA evaluated the susceptibility of a hazardous material spill on local groundwater by considering well proximity to the ROW, direction of groundwater flow, and potential for contamination as determined by the properties (thickness and permeability) of the geologic materials. In many locations along the EJ&E rail line the material overlying the groundwater layer is of low permeability, or is reasonably thick, such that containment and remediation measures would limit the potential of a spill to effect the groundwater. However, SEA did identify one location where a public water supply well in Plainfield, Illinois could be affected by a hazardous material spill. SEA also identified several rail segments with potential for a spill to affect private wells.

Additional analysis following publication of the Draft EIS identified areas where the Silurian dolomite aquifer has a higher potential for contamination from the surface. In these areas, the geologic materials overlying the bedrock are thin, or have been eroded and replaced by more permeable alluvial or glaciofluvial materials. These conditions would reduce the attenuation of contaminants in the overburden and reduce the time for contaminants to migrate through the overburden and enter the bedrock, increasing the susceptibility of the bedrock aquifer.

In addition to increased aquifer susceptibility, water supplies in these areas are at greater risk because of flow conditions within the shallow bedrock aquifer. Groundwater flow in the Silurian Dolomite occurs within fractures in the rock. Over time, the flow of water dissolves the carbonate rock, enlarging the fractures into cavities. The majority of flow occurs in these cavities, and the flow behaves hydraulically as pipe flow. As a result, these conduits are capable of rapidly moving large amounts of water or contamination over long distances. As seen in Figure 3.12-3 of the Draft EIS, a sinkhole has been documented southeast of the Joliet area. This suggests that significant dissolving action may have caused enlargement of fractures in the dolomite aquifer within the region.

Not all spills result in groundwater contamination. Because groundwater velocities are very low, there typically is time to react to contamination before public or private water supplies are affected. Because hazardous material spills are rare and containment and cleanup are generally prompt, the overall potential of the Proposed Action to adversely affect groundwater supplies is very low. In the unlikely event that groundwater resources were affected by a spill, CN would be required by existing law to provide mitigation. This could include such activities as groundwater remediation and/or providing an alternate supply of water. The exact nature of the final mitigation resulting from a specific incident would be negotiated with the Illinois Environmental Protection Agency or the Indiana Department of Environmental Management, and other governmental bodies.

Figure 2.7-1, below, shows the areas where the shallow bedrock aquifer is more susceptible to contamination. For the EJ&E rail line portion of the Proposed Action, the susceptible area is in the vicinity of Joliet along and near the Des Plaines River. The area of susceptibility extends northeastward from Joliet following the existing CN ROW along the Des Plaines River in Will, DuPage and Cook Counties. If a contaminant were released in these areas, public and private wells drilled into bedrock in the vicinity of the release could be affected. Because of the large number of potentially affected wells in the area, it would be speculative for SEA to attempt to provide any sort of detailed analysis on what the potential effects of a spill would be. Due to the variable nature of the type of hazardous material released, the specific location of the release, the amount of the release, the effectiveness of the response, and specific hydrogeological factors such as fracture patterns, well construction, pumping rates and general flow directions, any groundwater contamination, and transport modeling would be speculative. It also should be noted, that since the EJ&E rail line currently traverses these susceptible areas, the threat to these wells already exists. The Proposed Action changes the likelihood that a given well could be affected (because more hazardous material would travel over the EJ&E rail line), but does not change the potentially affected areas or populations.

The Proposed Action does not create any new threats to wells or water supplies. The environmental consequences of the Proposed Action to groundwater take the form of increased possibilities for spills, which increases existing risks.

If a spill were to occur, CN would be required by existing law to mitigate the effects by remediating the groundwater resource and/or providing an alternate supply of water to the property owner. Mitigation measures would be negotiated with governmental agencies. A typical scenario is provided below.


N
Miles
0
5
10
Sources:
U.S. Census TIGER Data, CN,
National Transportation Atlas Database
IL. Geological Survey
Data to be used for reference only
Waukegan
North Chicago
Green Oaks
Mundelein
Libertyville
Lake Bluff
Hawthorn Woods
Mettawa
Vernon Hills
Lake Zurich
Long Grove
Lincolnshire
Buffalo Grove
Lake Co.
McHenry Co.
Kane Co.
Cook Co.
Deer Park
Barrington
Barrington Hills
Wheeling
Prospect Heights
South Barrington
Hoffman Estates
Mount Prospect
Des Plaines
Elgin
South Elgin
Hanover Park
Bartlett
Bloomingdale
Freeport Subdivision
Waukesha Subdivision
Chicago
Lake Michigan
Wayne
Carol Stream
Glendale Heights
Elmhurst
Franklin Park
River Grove
Melrose Park
Hillside
River Forest
West Chicago
Villa Park
Berwyn
Cicero
Westchester
Riverside
Warrenville
Summit
Aurora
Eola
Naperville
Bedford Park
Willow Springs
Justice
Kane Co.
Kendall Co.
DuPage Co.
Will Co.
Western Subdivision
Joliet Subdivision
Elsdon Subdivision
Chicago Subdivision
Normantown
Plainfield
Romeoville
Lemont
Alsip
Blue Island
Dolton
South Holland
Harvey
Hazel Crest
Hammond
Gary
Lansing
Crest Hill
Lockport
Fairmont
Homewood
Munster
Highland
South Bend Subdivision
Joliet
New Lenox
Flossmoor
Frankfort
Matteson
Chicago Heights
Dyer
Griffith
Brisbane
Eastern Subdivision
Richton Park
Park Forest
Sauk Village
Schererville
Merrillville
Cook Co.
Will Co.
Lake Co.
Kendall Co.
Grundy Co.
Minooka
Manhattan
University Park
Illinois
Indiana
No Data
EJ&E Rail Line
CN Rail Line
Other Rail Line
Areas of Higher Susceptibility for Contamination of Shallow Bedrock
CN | EJ&E
Environmental Impact Statement
Figure 2.7-1
Areas of Higher Susceptibility for Contamination of Shallow Bedrock Aquifers

- Effects likely would mostly be beyond the railroad ROW.
- Federal, state and local agencies would be contacted immediately as required by law.
- The first priority would be emergency mitigation of the spill, including:
  - Containment of migration as run-off or via surface water
  - Excavation of the most highly contaminated soils
  - Sampling of potentially affected public and private water supplies and mitigation if any effects were documented
- If residual contamination remained following the emergency mitigation, a remedial investigation would be conducted to document the extent and magnitude of the soil and groundwater contamination, as well as the rate and path of its migration.
  - Soils would be sampled to document levels of residual contamination that might pose health risks or that may become a future source of groundwater contamination
  - Groundwater would be investigated by constructing monitoring wells to determine rates and directions of groundwater flow, as well as to provide chemical samples of the contaminant plume
  - Additional sampling of potentially affected public and private wells would be conducted, if warranted
- The risk assessment process would establish the cleanup standards. Once the extent of the groundwater contamination had been identified, the risks to human health and the environment would be assessed. Receptors of the contamination would be identified and potential exposures of the receptors would be evaluated. Potential routes of exposure would include ingestion, dermal contact and vapor inhalation by residents in their homes and workplaces.
- Corrective actions, if necessary, would be determined by a feasibility study of the best available remedy to fully address the risk.
- The remedial action plan decided upon by the appropriate authorities would be implemented and progress would be monitored.
- The entire process would be overseen by Federal and state regulatory agencies, and approval would be required at each step.

2.7.3 Emergency Response

Several comments on the Draft EIS questioned the ability of local communities and CN to respond to a release of a hazardous material. Although unlikely, these events require railroads to work very closely with the chemical industry to educate emergency responders. The American Chemistry Council's (ACC) Transportation Community Awareness and Emergency Response (TRANSCAER) program, and programs developed by railroads, are used to train over 20,000 emergency responders a year in response methods. CN is an active participant in the TRANSCAER program. CN's Rail Transportation Centers play an important role in the emergency response process, and local operations are handled out of CN's Homewood Rail Transportation Center. The Rail Transportation Centers coordinate all response efforts within CN and with outside agencies and responders.

The Applicants have proposed 13 different voluntary mitigation measures discussed in Chapter 4 of this Final EIS (VM 14 through VM 26), that include providing communities with information and training to assist local response agencies to prepare for emergencies. Under CN's voluntary mitigation, if a rail accident were to occur, railroads would provide emergency responders with a full train consist (or list of car types) to better manage the response. CN would also provide three phases

of training for the response community, through its Responder Education Assistance and Certification Training (REACT) program, designed to enhance preparedness and foster partnerships with emergency responders.

As noted in the Draft EIS, CN's system-wide plan for handling emergencies, or Emergency Response Plan (ERP), is reviewed annually, and local response plans are prepared for individual yards and facilities. The ERPs include extensive training requirements for rail employees.

Sections 3.2.3.3 and 3.2.3.4 of the Draft EIS discussed the capabilities for response to a release incident in and around the Chicago metropolitan area. In addition to the emergency management and response capabilities of both CN and EJ&E, many communities along the EJ&E have Local Emergency Planning Commission (LEPCs) that are trained and prepared to respond to hazardous materials incidents. A table providing the response capabilities of local communities is provided in Appendix C4 of the Draft EIS.

2.7.4 Conclusion

Although train accidents resulting in the release of hazardous materials are remote, increases in freight rail traffic along the EJ&E rail line would have a corresponding increase in the risk of hazardous material spills. However, the freight currently being transported on the EJ&E includes hazardous materials, and the same classes of hazardous materials would be transported if the Proposed Action is approved. Therefore, SEA has reached the conclusion that the Proposed Action does not create any new threats. Adverse effects from the Proposed Action take the form of increased probabilities for spills and releases, although the probabilities are still low. As explained in the Draft EIS, if a spill were to occur, CN is required by Federal and state regulations to report and respond immediately. SEA has also determined that CN has appropriately trained and equipped responders to provide effective and timely response in the event of a release.

2.8 Property Values

A number of commenters questioned SEA's conclusions concerning effects to property values in the Draft EIS. In response, SEA conducted additional research on potential property value effects, which included:

- Conducting an additional literature review to find additional studies of potential effects of freight rail traffic on property values or other closely related studies
- Preparing a comparative assessment of current residential property values along the EJ&E rail line to determine if there is a difference between the value of properties near the EJ&E rail line and those further away from the rail line
- Estimating the number of residences potentially affected by changes in train traffic as a result of the Proposed Action, as well as the total number of residences in the adjacent communities
- Estimating the extent of the effect to residential property values and tax revenues for communities that would experience transaction-related additional freight train traffic

SEA summarizes the results of this research, below:

2.8.1 New Property Value Studies

The supplemental literature review found four additional studies on the potential for train noise to adversely affect residential property values. These studies provide background for the additional property value analysis in this section.

Study 1. Schwieterman, Joseph P. Ph.D and Brett Baden. 2001. *Alternatives to the Whistle: The Role of Education and Enforcement in Promoting Highway-Rail Grade Crossing Safety in Metropolitan Chicago, Chaddick Institute Working Paper 09-00*. Chaddick Institute for Metropolitan Development, DePaul University. March 2001.

The Schwieterman and Baden study, suggested by a stakeholder group, evaluated the costs of implementing (or enforcing) whistle bans in Chicago. The study noted that sounding whistles at rail crossings increases safety, but there are social costs of increased noise. Conversely, decreasing noise levels by enforcing Quiet zones reduces safety because drivers misjudge how far away the train is from the crossing and drive around the crossing barriers. Schwieterman and Baden concluded that improving crossing controls (constructing barrier arms across the entire road on both sides of the track, and installing video monitors to catch motorists who try to go past the gates) would increase safety while maintaining low noise levels. SEA notes that Federal Railroad Adminstration (FRA) has issued final rules for the establishment of Quiet zones. In addition, the Applicant's voluntary mitigation (VM 3 through VM 5) would address these issues.

Although the crossing controls suggested by Schwieterman and Baden are expensive (between $200,000 and $300,000 per intersection), the authors assert that these improvements are cheaper than the social cost of reduced property values from whistle noise. In Table 1 of their study, Noise Pollution Property Damage Studies, Schwieterman and Baden summarize the findings from six studies that provide a range of property value effects. Of these studies, two are from highway traffic studies, three are from airport noise studies, and one is from a neighborhood noise levels study. Prior to Table 1, Schwieterman and Baden describe a study by David E. Clark that specifically addressed the effects of locomotive horn nuisances in three communities in Ohio and Massachusetts (see the summary of study by Clark below), but conclude that "due to the Clark study's ambiguous results, it is omitted from the table."

Table 2.8-1 below shows the range of expected property value effects from noise-related property damages shown in Table 1 of the Schwieterman and Baden study and the calculated percentage of property value loss. The range of adverse effects ranged from 2.5 percent to 21.65 percent. However, it appears that the high and low estimates may be atypical and that the expected effects generally would range from 6.66 percent to 10.82 percent.

Table 2.8-1. Summary of Impacts from Schwieterman and Baden

Author	Study Type	Estimated Impact	Total Value of Property[a]	Percent Impact
Vaughan/Huckins	Highway Traffic	$4,004,944,000	$37,000,000,000	-10.82%
Nelson	Highway Traffic	$2,464,581,000	$37,000,000,000	-6.66%
O'Bryne	Airport Noise	$3,758,488,000	$37,000,000,000	-10.16%
Nelson	Airport Noise	$3,080,727,000	$37,000,000,000	-8.33%
Levesque	Airport Noise	$8,009,891,000	$37,000,000,000	-21.65%
Li/Brown	Neighborhood Noise Levels	$924,218,000	$37,000,000,000	-2.50%

Notes:
[a] The Total Value of Property estimate is from the Schwieterman and Baden study.

The Schwieterman and Baden study only addressed whistle noise and did not include potential effects of traffic delays, noise, vibration, or air quality. In their voluntary mitigation (see Chapter 4), the Applicants have committed to maintain existing quiet zones and cooperate with communities wishing to establish new quiet zones (Condition No. 10); this would reduce a major source of rail-related noise along the populated sections of the EJ&E rail line and would avoid any property value effects associated with increased whistle noise.

Given the differences in study type, methodology, location, and year, the potential range of effects (6.66 percent to 10.82 percent) suggested by Schwieterman and Baden, while somewhat higher than the information provided in the Draft EIS, is generally consistent with the Draft EIS findings. It also should be noted that the Schwieterman and Baden study did not include the Clark (2006) study available to them because they believed the results of that study were ambiguous. In addition, a study by Fields and Walker (1981) may question the validity of the Schwieterman and Baden (2001) study; Fields and Walker found that railway noise is less annoying than other noises at any given high noise level because railway noise annoyance increases less rapidly with increasing noise level.

Study 2. Strand, J. and M. Vagnes. 2001. *The Relationship between Property Values and Railroad Proximity: A Study Based on Hedonic Prices and Real Estate Brokers' Appraisals.* Transportation, 28. 2001.

Strand and Vagnes examined the relationship between the price of residential property and proximity to railroads in Oslo, Norway, by conducting hedonic price analysis[5] and real estate agents' evaluation of such a relationship. They found that properties within 100 meters (328 feet) of a rail line are detrimentally affected. They also found that doubling of the distance within the 100 meter buffer area increases housing values by 10 percent over properties closer to the rail lines.

Study 3. Clark, David E. 2006. *The Effects of Ignoring Train Whistle Bans on Residential Property Values.* Marquette University.

Clark addressed effects of whistle noise on property values. This issue has not received many comments because of the existing Quiet zones along sections of rail line. Clark's thesis is that "… proximity to both Conrail and other rail lines consistently reveal that properties within 1,000 feet of a rail line experience significantly lower home sale prices. The reductions for properties along Conrail lines are between 4.7 percent and 5.9 percent, whereas the reductions were somewhat higher along other lines (i.e., about 5.8 percent in Trumbull County, Ohio; 13.3 percent in Butler County, Ohio; and 7.7 percent in Middlesex County, Massachusetts)."

Clark went on to state that, "The findings consistently show that proximity to rail lines has a negative and statistically important influence on residential property values. In addition, there is also evidence that proximity to rail crossings can reduce the real sale price of homes, although there is also evidence to the contrary. All of these effects existed prior to the point at which Conrail began ignoring the train whistle bans in these three areas. However, the overall weight of evidence reveals little information that the decision by Conrail to begin ignoring whistle bans had any permanent and appreciable influence on the housing values in these communities."

In his study of three communities, Clark found that proximity to rail lines reduced property values by 4.7 percent to 13.3 percent. This suggested that property values are already affected by proximity to rail lines. Because the EJ&E rail line is an existing feature of the area, however, one can assume that a portion of these adverse affects has already been incorporated into current property values.

Study 4. Berry, Christopher and Ethan Bueno de Mesquita. 2008. *Stalemate over Rail Plan Reflects Failure of Political Leadership.* Harris School of Public Policy Studies. The University of Chicago. Unpublished study.

The authors of the Berry and Bueno de Mesquita paper submitted it as a comment to the Draft EIS. Responses to the paper's comments are found in Chapter 3 of the Final EIS. Berry and Bueno de Mesquita's thesis is that the benefits to downtown Chicago neighborhoods and the region as a whole from reduced freight train traffic as a result of the Proposed Action would clearly outweigh any harm

[5] Hedonic pricing is defined as the use of statistical techniques such as regression analysis to determine, from the prices of goods with different measurable characteristics, the prices that are associated with those characteristics. The latter can then be used to construct what the comparable price of a good would be from its characteristics.

faced by the suburbs along the EJ&E rail line. Berry and Bueno de Mesquita note that there are more residents in the downtown Chicago neighborhoods than in the suburbs and that these people are less wealthy and more likely to be minorities. Berry and Bueno de Mesquita claim that suburban residents have the "political clout associated with money and organization." They conclude that political leaders should work to find ways to offset suburban costs rather than block the Proposed Action, and that the Board should require the Applicants to pay more than a railroad's customary share for grade-separated crossings in areas where traffic would increase significantly as a result of the Proposed Action. The Berry and Bueno de Mesquita study does not specify or quantify the regional benefits; they simply state that the regional benefits would be greater than the costs for nearby residents.

The Berry and Bueno de Mesquita paper supports the conclusion that redirecting train traffic from downtown Chicago neighborhoods to less populated suburban/rural areas would produce a net social benefit. But, they did not quantify these effects and did not estimate the property effects from either adding trains to an existing freight rail line or removing trains from another existing rail line.

2.8.2 Comparative Assessment of Current Residential Property Values

In preparing this Final EIS, SEA used a property appraiser to conduct an analysis of properties currently for sale in Barrington and Matteson, Illinois, within 300 feet of the EJ&E rail line (adjacent to the rail line) and compared those properties outside of the 300-foot study area (away from the rail line). Barrington and Matteson were selected for study because of a high number of concerns raised by citizens of those communities related to effects to property values and data availability. The quantitative data for the analysis is presented in Table 2.8-2 through Table 2.8-5. The analysis found:

- In Barrington, the price of land adjacent to the tracks was roughly half the value of land away from the tracks; however, the asking price for houses adjacent to the tracks in Barrington was greater than for houses further away.
- In Matteson, the price of land adjacent to the tracks is roughly 20 percent less than land away from the tracks. The asking price for homes adjacent to the tracks in Matteson is less than for homes further away.
- In more expensive areas like Barrington, people buy relatively cheaper land closer to the tracks and build larger, more expensive homes on larger lots. In Matteson, the housing stock is older, and the value is less for properties next to the tracks.
- For higher end houses, amenities may offset the adverse effect of trains, but this is not true for lower value houses. This finding is consistent with the findings of the Simons and El Jaouhari study (2004) cited in the Draft EIS.

Data for Table 2.8-2 through Table 2.8-5 were developed using a combination of the Zillow Real Estate listing service to obtain prices for listed properties and county assessor records to determine size of lots. These are homes listed for sale with the multiple listing service, and data collected during the week of October 6, 2008 were used to calculate ratios based on total assessment for bare lands values and improvement values. SEA looked for homes within 300 feet of the EJ&E rail line and homes outside the 300-foot boundary. Addresses for the actual properties compared are included in the tables below.

Table 2.8-2. 2008 Property Values in Barrington, Illinois – Adjacent to the EJ&E Rail Line (within 300 feet)								
House	House Square Footage	Land Square Footage	Asking Price	Estimated Land Value	Estimated House Value	Land Value per Square Foot	Cost per Acre	Address
1	3,801	22,414	$999,000	$281,372	$717,628	$12.55	$546,826	55 Lakeview Lane, Barrington
2	8,996	57,369	$3,895,000	$550,930	$3,344,070	$9.60	$418,318	7 Elle Court, Barrington
3	7,602	142,441	$3,399,500	$308,903	$3,090,597	$2.17	$94,466	65 Round Barn Rd., Barrington
4	4,127	217,800	$865,000	$240,417	$624,583	$1.10	$48,083	65 Windrush, Barrington Hills
5	4,939	280,091	$1,995,000	$51,543	$1,943,457	$0.18	$8,016	132 Old Dundee, Barrington Hills
6	3,242	215,535	$1,195,000	$382,140	$812,860	$1.77	$77,231	120 Brinker Rd., Barrington Hills
7	6,501	261,360	$4,197,000	$730,615	$3,466,385	$2.80	$121,769	210 Otis Rd., Barrington Hills
8	3,510	206,039	$799,000	$229,992	$569,008	$1.12	$48,624	69 Otis Rd., Barrington
9	3,701	182,081	$1,975,000	$456,531	$1,518,469	$2.51	$109,218	61 Otis Rd., Barrington
10	2,806	17,610	$599,900	$127,898	$472,002	$7.26	$316,368	375 Elm Rd., Barrington
11	2,629	222,592	$875,000	$296,916	$578,084	$1.33	$58,105	48 Otis Rd., Barrington
12	3,495	233,046	$800,000	$245,148	$554,852	$1.05	$45,822	40 Otis Rd., Barrington
13	3,800	34,292	$559,000	$214,081	$344,919	$6.24	$271,940	665 Bent Ridge Lane, Barrington
Average	4,550	160,975	$1,704,108	$316,653	$1,387,455	$3.82	$166,522	

Table 2.8-3. 2008 Property Values in Barrington, Illinois – Away from the EJ&E Rail Line (beyond 300 feet)								
House	House Square Footage	Land Square Footage	Asking Price	Estimated Land Value	Estimated House Value	Land Value per Square Foot	Cost per Acre	Address
1	4,137	12,527	$775,000	$52,599	$722,401	$4.20	$182,902	1469 Columbia Lane, Barrington
2	4,452	50,878	$1,450,000	$306,377	$1,143,623	$$6.02	$262,309	6 Hubbell Court, Barrington
3	1,190	13,983	$309,000	$98,731	$210,269	$7.06	$307,568	716 S Cook, Barrington
4	4,622	11,478	$760,000	$243,034	$516,966	$21.17	$922,335	208 Astoria Court Barrington
5	3,898	272,293	$1,339,000	$433,882	$905,118	$ 1.59	$69,410	337 Old Sutton Rd, Barrington Hills
6	1,990	10,005	$389,900	$76,242	$313,658	$ 7.62	$331,944	1246 Berkshire Lane Barrington
7	2,580	44,296	$649,000	$162,198	$486,802	$ 3.66	$159,503	21950 Chapel Hill Dr. Deer Park
8	3,128	20,038	$769,000	$218,246	$550,754	$10.89	$474,438	619 Oak Rd, Barrington
9	864	8,683	$285,000	$110,188	$174,812	$12.69	$552,780	447 N Cook St., Barrington
10	2,700	7,890	$599,000	$96,396	$502,604	$12.22	$532,194	422 N Cook St., Barrington
11	10,104	17,360	$598,990	$61,530	$537,460	$ 3.54	$154,392	210 Lageschulte St., Barrington
12	2,610	10,650	$569,000	$76,017	$492,983	$ 7.14	$310,920	450 Westwood Dr. Barrington
13	2,738	20,625	$1,000,000	$228,115	$771,885	$11.06	$481,779	444 Otis Rd. Barrington
14	832	6,250	$289,900	$46,741	$243,159	$ 7.48	$325,766	732 Prairie Ave. Barrington
Average	3,275	36,211	$698,771	$157,878	$540,892	$ 8.31	$362,017	
Difference[a]	1,275	124,763	$1,005,337	$158,774	$846,562	-$ 4.49	$195,495	

Note:

[a] The difference equals the average values adjacent to the EJ&E rail line (Table 2.8-2) minus the average values away from the EJ&E rail line.

Table 2.8-4. 2008 Property Values in Matteson, Illinois – Adjacent to the EJ&E Rail Line (within 300 feet)								
House	House Square Footage	Land Square Footage	Asking Price	Estimated Land Value	Estimated House Value	Land Value per Square Foot	Cost per Acre	Address
1	2,650	18,889	$255,000	$65,421	$189,579	$3.46	$150,868	22011 Brook Ave., Richton Park
2	3,000	10,533	$333,423	$58,482	$274,941	$5.55	$241,857	5064 Capri Lane, Richton Park
3	1,219	11,269	$129,900	$41,654	$88,246	$3.70	$161,012	4508 Balmoral Dr., Richton Park
4	4,127	6,100	$69,900	$16,358	$53,542	$2.68	$116,812	4456 Balmoral Dr., Richton Park
5	1,092	7,500	$189,000	$39,019	$149,981	$5.20	$226,622	21707 Locust St., Matteson
6	1,100	9,243	$94,900	$45,232	$49,668	$4.89	$213,167	150 Algonquin St., Park Forest
7	1,356	6,600	$120,000	$41,250	$78,750	$46.25	$272,250	11 Apache St., Park Forest
8	1,197	7,140	$56,900	$19,555	$37,345	$2.74	$119,302	278 Allegheny St., Park Forest
Average	1,968	9,659	$156,128	$40,871	$115,257	$4.31	$187,736	

Table 2.8-5. 2008 Property Values in Matteson, Illinois – Away from the EJ&E Rail Line (beyond 300 feet)								
House	House Square Footage	Land Square Footage	Asking Price	Estimated Land Value	Estimated House Value	Land Value per Square Foot	Cost per Acre	Address
1	1,744	8,880	$169,000	$35,523	$133,477	$4.00	$174,254	557 Homan Ave., Park Forest
2	1,209	7,500	$156,900	$36,305	$120,595	$4.84	$210,859	302 Illinois St., Park Forest
3	1,391	9,297	$127,000	$32,887	$94,113	$3.54	$154,088	506 Davis St., Park Forest
4	1,801	8,400	$99,000	$23,035	$75,965	$2.74	$119,453	21616 Richmond Rd., Matteson
5	1,224	8,417	$174,500	$46,437	$128,063	$5.52	$240,323	21201 Tower Ave., Matteson
6	1,284	36,895	$235,000	$34,542	$200,458	$0.94	$40,782	4341 Kildare Ct., Matteson
7	1,354	1,534	$215,000	$26,157	$188,843	$17.05	$742,763	5232 Southwick Ct., Mattes.
8	2,752	9,153	$184,900	$33,798	$151,102	$3.69	$160,848	6246 Garden View Lane, Matteson

Table 2.8-5. 2008 Property Values in Matteson, Illinois – Away from the EJ&E Rail Line (beyond 300 feet)								
House	House Square Footage	Land Square Footage	Asking Price	Estimated Land Value	Estimated House Value	Land Value per Square Foot	Cost per Acre	Address
9	1,294	8,400	$169,900	$35,162	$134,738	$4.19	$182,340	6307 Streamwood Lane, Matteson
Average	1,561	10,942	$170,133	$33,761	$136,373	$5.17	$225,079	
Difference [a]	406	-1,283	-$14,005	$7,111	-$21,116	-$0.86	-$37,343	

Note:
[a] The difference equals the average values adjacent to the EJ&E rail line (Table 2.8-4) minus the average values away from the EJ&E rail line (Table 2.8-5).

2.8.3 Estimate of Property Value and Residential Property Tax Effects

Commenters expressed concern about the effects of the Proposed Action on property values. Commenters also stated that loss of property values and reductions in the tax base would affect local jurisdictions' ability to fund schools and other programs. In response, SEA prepared an estimate of the fiscal effects of the Proposed Action based on decreases in value of homes near the EJ&E rail line. SEA made reasonable assumptions or estimates when data were unavailable or likely to understate the effects of the Proposed Action.

2.8.3.1 Assumptions

- Based on the study by Simons and El Jaouhari (2004) cited in the Draft EIS, effects on property values predominantly occur within 250 feet of railroad tracks. For the analysis in this Final EIS, SEA extended the potential effect study boundary from 250 to 300 feet to provide a more conservative (that is, higher) estimate of the number of housing units affected. SEA also applied the 5.35 percent decline in property value estimated in the Simons and El Jaouhari study.
- SEA assumed that only the value of single-family residential units would be affected.
- SEA used 2007 as the analysis year. SEA used 2007 aerial photographs to count housing units, and other data are from 2007 estimates. SEA used 2007 property tax rates for each jurisdiction, unless data were not available. In those situations, SEA used a 10 percent property tax rate, which is higher than the property tax rate for most jurisdictions.
- Cook County appraises residential property at approximately 10 to 16 percent of actual value and other counties appraise at 33 1/3 percent of actual value. To provide a conservative estimate of appraised value, SEA used 20 percent for jurisdictions in Cook County and 35 percent for jurisdictions in other counties. In cases where a community is located in Cook County and another county, the 35 percent figure was applied so that the calculations were conservative (that is, higher).
- SEA found that the only estimates of 2007 single-unit housing values available were median values for each jurisdiction. SEA recognizes that median values likely understate the value of housing units near the EJ&E rail line. Therefore, SEA inflated other factors noted above to compensate (that is, SEA used more housing units and higher appraised values).

2.8.3.2 Data Sources

- *2000 Homes* – U.S. Census Bureau, Census 2000, Summary File 1, Table H1
- *2000 – 2007 Building Permits* – Manufacturing, Mining, and Construction Statistics section of U.S. Census Bureau, "Permits By County or Place," <http://www.census.gov/const/www/permitsindex.html>
- *2007 Estimated Total Housing Units* – Calculated value based on the above two items.
- *Municipal Tax Rates (IL)* – Illinois Department of Commerce and Economic Opportunity, Community Profiles, <http://www.commerce.state.il.us/dceo/Bureaus/Community_Development/CommProfiles/Default.htm>
- *Municipal Tax Rates (IN)* – State of Indiana Department of Local Government Finance - *Lake County Final Budget Order 2007*, page 4 of PDF, <http://www.in.gov/dlgf/files/BudgetOrder_2007_LakeCounty.pdf>
- SEA identified houses within 300 feet of the EJ&E rail line using Geographic Information System technology and 2007 aerial photography.

Table 2.8-6, below, presents the total number of single-family housing units, the number of potentially affected units, and associated property values. Overall, about 0.5 percent of the housing units in communities along the EJ&E rail line could potentially be affected by the Proposed Action, with four of the 29 cities along the EJ&E rail line having more than 100 residents affected. Column (f) in Table 2.8-6, below, shows the estimated loss in property value for housing units within 300 feet of the EJ&E rail line using the 5.35 percent loss factor from the Simons and El Jaouhari (2004) study. For the communities along the EJ&E rail line, the potential loss in residential property value under the Proposed Action would be about 0.02 percent, with some communities such as Barrington, Illinois, experiencing losses as high as 0.16 percent and other communities such as Lynwood and Mokena, Illinois, and Schererville, Indiana, experiencing almost no loss at all.

Table 2.8-6. Estimated Effects of the Proposed Action on Residential Property Values

Location	(a) 2007 Estimated Total Single Housing Units	(b) Homes within 300 Feet of Tracks	(c) Percent of Affected Single Housing Units (c)=100 x (b)/(a)	(d) 2007 Median Value of Single Housing Units	(e) Estimated Total Single Unit Residential Property Value (e)=(a) x (d)	(f) Estimated Residential Property Value Effect (Loss) (f)=(b) x (d) x 0.0535
Illinois						
Aurora	55,752	170	0.30	$213,400	$11,897,476,800	$1,940,873
Barrington	4,013	117	2.92	$589,500	$2,365,663,500	$3,689,975
Barrington Hills	1,683	18	1.07	$1,182,100	$1,989,474,300	$1,138,362
Bartlett	14,418	91	0.63	$365,800	$5,274,104,400	$1,780,897
Chicago Heights	11,534	58	0.50	$169,400	$1,953,859,600	$525,648
Crest Hill	7,126	30	0.42	$176,100	$1,254,888,600	$282,641

Table 2.8-6. Estimated Effects of the Proposed Action on Residential Property Values

Location	(a) 2007 Estimated Total Single Housing Units	(b) Homes within 300 Feet of Tracks	(c) Percent of Affected Single Housing Units (c)=100 x (b)/(a)	(d) 2007 Median Value of Single Housing Units	(e) Estimated Total Single Unit Residential Property Value (e)=(a) x (d)	(f) Estimated Residential Property Value Effect (Loss) (f)=(b) x (d) x 0.0535
Crystal Lawns	1,044	20	1.92	$191,300	$199,717,200	$204,691
Deer Park	1,088	15	1.38	$704,800	$766,822,400	$565,602
Elgin	37,087	20	0.05	$222,600	$8,255,566,200	$238,182
Frankfort	5,945	94	1.58	$388,700	$2,310,821,500	$1,954,772
Hawthorn Woods	2,441	29	1.19	$619,700	$1,512,687,700	$961,465
Hoffman Estates	18,772	27	0.14	$324,700	$6,095,268,400	$469,029
Joliet	51,046	91	0.18	$197,400	$10,076,480,400	$961,042
Lake Zurich	6,429	112	1.74	$352,900	$2,268,794,100	$2,114,577
Long Grove	2,471	8	0.32	$870,600	$2,151,252,600	$372,617
Lynwood	3,109	1	0.03	$251,600	$782,224,400	$13,461
Matteson	6,721	124	1.84	$241,400	$1,622,449,400	$1,601,448
Mokena	6,573	2	0.03	$343,000	$2,254,539,000	$36,701
New Lenox	8,251	30	0.36	$284,500	$2,347,409,500	$456,623
Park Forest	9,585	58	0.61	$150,800	$1,445,418,000	$467,932
Plainfield	12,359	61	0.49	$313,500	$3,874,546,500	$1,023,107
Sauk Village	3,727	55	1.48	$138,100	$514,698,700	$406,359
Warrenville	5,183	75	1.45	$248,500	$1,287,975,500	$997,106
Wayne	850	8	0.94	$738,400	$627,640,000	$316,035
West Chicago	7,518	76	1.01	$267,000	$2,007,306,000	$1,085,622
Subtotal	284,725	1,390	0.49	$381,832	$108,717,116,200	$23,604,767
Indiana						
Dyer	5,999	64	1.07	$197,100	$1,182,402,900	$674,870
Gary	43,825	32	0.07	$71,700	$3,142,252,500	$122,750
Griffith	7,087	351	4.95	$151,800	$1,075,806,600	$2,850,576
Schererville	11,275	1	0.01	$220,700	$2,488,392,500	$11,807
Subtotal	68,186	448	0.66	$160,325	$10,931,920,450	$3,660,005
Total[a]	352,911	1,838	0.52	$271,079	$119,649,036,650	$27,264,772

Note:
[a] The total is the Illinois subtotal and Indiana subtotal added.

Table 2.8-7, below, shows the calculations used to estimate the loss in property tax revenues for each jurisdiction along the EJ&E rail line as a result of the Proposed Action. SEA expects that the results are conservative, based in part on the reasons and assumptions stated above. For example, in Cook County assessed values are calculated at 10 to 16 percent of actual values; SEA used 20 percent to

provide some overstatement of effects. For the jurisdictions outside Cook County, Illinois, residential property is assessed at 33 percent of actual value; SEA used a rate of 35 percent. For jurisdictions in both Cook County and another county, SEA used a rate of 35 percent.

Considering that the single unit residential property value element is only one component of each jurisdiction's property tax base, which also includes multi-unit residential, commercial, and industrial properties, effects on tax revenues of jurisdictions and programs should be relatively small.

Table 2.8-7. Property Tax Revenue Effects by Jurisdiction of Collection

Location	(e) Estimated Total Single Unit Residential Property Value (e)=(a) x (d)	(f) Estimated Single Unit Residential Property Value Effect (Loss) (f)=(b) x (d) x 0.0535	(g) Estimated Loss in Assessed Value (g)=(f) x 20 percent or 35 percent	(h) Tax Rates (Percent)[a]	(i) Tax Revenue Effect (i)=((g) x (h))-1
Illinois					
Aurora	$11,897,476,800	$1,940,873	$679,306	7.003	-$47,568
Barrington	$2,365,663,500	$3,689,975	$1,291,491	5.317	-$68,669
Barrington Hills	$1,989,474,300	$1,138,362	$398,427	N/A[c]	-$39,843
Bartlett	$5,274,104,400	$1,780,897	$623,314	7.262	-$45,265
Chicago Heights	$1,953,859,600	$525,648	$105,130	12.496	-$13,137
Crest Hill	$1,254,888,600	$282,641	$98,924	0 in DCEO[c]	-$9,892
Crystal Lawns	$199,717,200	$204,691	$71,642	N/A[c]	-$7,164
Deer Park	$766,822,400	$565,602	$197,961	N/A[c]	-$19,796
Elgin	$8,255,566,200	$238,182	$83,364	0.085167	-$7,100
Frankfort	$2,310,821,500	$1,954,772	$684,170	0.071301	-$48,782
Hawthorn Woods	$1,512,687,700	$961,465	$336,513	N/A[c]	-$33,651
Hoffman Estates	$6,095,268,400	$469,029	$93,806	0.08167	-$7,661
Joliet	$10,076,480,400	$961,042	$336,365	0.069124	-$23,251
Lake Zurich	$2,268,794,100	$2,114,577	$740,102	0.06152	-$45,531
Long Grove	$2,151,252,600	$372,617	$130,416	0 in DCEO[c]	-$13,042
Lynwood	$782,224,400	$13,461	$2,692	0.09042	-$243
Matteson	$1,622,449,400	$1,601,448	$320,290	0.10564	-$33,835
Mokena	$2,254,539,000	$36,701	$12,845	0.070068	-$900
New Lenox	$2,347,409,500	$456,623	$159,818	0.071593	-$11,442
Park Forest	$1,445,418,000	$467,932	$163,776	0.17823	-$29,190
Plainfield	$3,874,546,500	$1,023,107	$358,088	0.069248	-$24,797
Sauk Village	$514,698,700	$406,359	$81,272	0.14008	-$11,385
Warrenville	$1,287,975,500	$997,106	$348,987	0.061726	-$21,542
Wayne	$627,640,000	$316,035	$110,612	N/A[c]	-$11,061
West Chicago	$2,007,306,000	$1,085,622	$379,968	0.075812	-$28,806
Subtotal (Illinois)	$108,717,116,200	$23,604,767			-$603,553

Table 2.8-7. Property Tax Revenue Effects by Jurisdiction of Collection					
	(e)	(f)	(g)	(h)	(i)
Location	Estimated Total Single Unit Residential Property Value (e)=(a) x (d)	Estimated Single Unit Residential Property Value Effect (Loss) (f)=(b) x (d) x 0.0535	Estimated Loss in Assessed Value (g)=(f) x 20 percent or 35 percent	Tax Rates (Percent)[a]	Tax Revenue Effect (i)=((g) x (h))-1
Indiana					
Dyer	$1,182,402,900	$674,870	N/A[c]	0.0271	-$18,289
Gary	$3,142,252,500	$122,750	N/A[c]	0.0271	-$3,327
Griffith	$1,075,806,600	$2,850,576	N/A[c]	0.0271	-$77,251
Schererville	$2,488,392,500	$11,807	N/A[c]	0.0246	-$291
Subtotal (Indiana)	$10,931,920,450	$3,660,005			-$99,157
Total[b]	$119,649,036,650	$27,264,772			-$702,710

Notes:
[a] Illinois Department of Commerce and Economic Opportunity.
[b] The total is the Illinois subtotal and Indiana subtotal added.
[c] N/A: Data were not available.

Table 2.8-8, below, presents the project-related property tax revenue loss by jurisdictional recipient of the revenue. In most cases, property tax revenues are distributed among the city where the property is located, the county, the school district, and an "other" category that could include a variety of special taxing districts.

In all cases, the estimated loss to city and county revenues would be less than $10,000. Only in Barrington would the estimated loss in revenues to other programs exceed $10,000.

The estimated loss in revenues to schools would exceed $25,000 in a number of jurisdictions. However, property tax rates in the jurisdictions vary from year to year. For example, in the past three years (2005-2007), rates have varied as much as 0.9 percent, which may have a greater effect on programs than the loss in property tax revenues due to the Proposed Action.

Table 2.8-8. Residential Property Tax Loss by Jurisdictional Recipient					
Location	Property Tax Revenue Effect	City Revenue Loss	County Revenue Loss	School Revenue Loss	Other Revenue Loss
Illinois					
Aurora	-$47,568	-$9,332	-$3,531	-$26,911	-$7,795
Barrington	-$68,669	-$6,832	-$5,734	-$42,516	-$13,586
Barrington Hills	-$39,843	N/A[a]	N/A[a]	N/A[a]	N/A[a]
Bartlett	-$45,265	-$5,179	-$4,047	-$36,039	$0
Chicago Heights	-$13,137	-$3,186	-$940	-$7,937	-$1,074
Crest Hill	-$9,892	N/A[a]	N/A[a]	N/A[a]	N/A[a]
Crystal Lawns	-$7,164	N/A[a]	N/A[a]	N/A[a]	N/A[a]
Deer Park	-$19,796	N/A[a]	N/A[a]	N/A[a]	N/A[a]
Elgin	-$7,100	-$1,603	-$358	-$4,285	-$854
Frankfort	-$48,782	-$2,603	-$4,463	-$33,014	-$8,702
Hawthorn Woods	-$33,651	N/A[a]	N/A[a]	N/A[a]	N/A[a]
Hoffman Estates	-$7,661	-$845	-$513	-$5,136	-$1,167
Joliet	-$23,251	-$3,734	-$2,142	-$15,715	-$1,660
Lake Zurich	-$45,531	-$6,409	-$3,330	-$30,988	-$4,803
Long Grove	-$13,042	$0	-$1,443	-$11,598	$0
Lynwood	-$243	-$19	-$7	-$182	-$35
Matteson	-$33,835	-$3,248	-$3,606	-$25,751	-$1,230
Mokena	-$900	-$30	-$73	-$592	-$206
New Lenox	-$11,442	-$616	-$841	-$7,735	-$2,250
Park Forest	-$29,190	-$8,173	-$876	-$18,390	-$1,751
Plainfield	-$24,797	-$1,461	-$1,801	-$16,465	-$5,070
Sauk Village	-$11,385	-$1,794	-$492	-$7,720	-$1,378
Warrenville	-$21,542	-$2,424	-$1,053	-$14,208	-$3,857
Wayne	-$11,061	N/A[a]	N/A[a]	N/A[a]	N/A[a]
West Chicago	-$28,806	-$1,610	-$1,216	-$21,120	-$4,861
Total[b]	-$603,553	-$59,098	-$36,466	-$326,302	-$60,279

Notes:
[a] N/A: Data not available.
[b] The total of the available values.

2.8.4 Residential Property Effects from the CN Rail Lines

Commenters were also interested in the number of residences in the vicinity of the CN rail lines and the effects of reduced train traffic on property values.

SEA identified single-family residential units within 300 feet of the CN rail lines using geographic information systems (GIS) technology and 2007 aerial photographs (see Table 2.8-9, below). Population densities are much higher in Chicago, and this is demonstrated by the higher number of single-family housing units within 300 feet of the CN rail lines.

SEA did not attempt to calculate the effect of reducing the number of trains on the CN rail lines as a result of the Proposed Action since other trains would continue to use these tracks. SEA was unable

to locate literature that estimated the effects of partially reducing train traffic through residential areas.

Table 2.8-9. Estimated Number of Single Unit Residences on the CN Rail Lines

Location	(a) 2007 Estimated Total Single Housing Units	(b) Homes within 300 Feet of Tracks	(c) (c)=100 x (b)/(a) Percent of Affected Single Housing Units
Illinois			
Bartlett	14,418	200	1.39
Berkeley	1,944	15	0.77
Berwyn	20,727	196	0.95
Blue Island	8,985	70	0.78
Broadview	3,324	70	2.11
Buffalo Grove	16,479	64	0.39
Chicago	1,161,741	2,733	0.24
Cicero	24,642	128	0.52
Des Plaines	23,253	297	1.28
Dixmoor	1,528	15	0.98
Elmhurst	18,052	248	1.37
Evergreen Park	7,677	345	4.49
Flossmoor	3,690	80	2.17
Franklin Park	6,648	105	1.58
Glendale Heights	11,607	48	0.41
Hanover Park	11,597	176	1.52
Harvey	10,268	181	1.76
Hillside	3,112	77	2.47
Homewood	7,966	40	0.50
Lansing	11,941	180	1.51
Markham	4,146	27	0.65
Matteson	6,721	28	0.42
Merrionette Park	1,058	84	7.94
Mount Prospect	22,136	93	0.42
North Riverside	2,990	106	3.55
Olympia Fields	2,025	23	1.14
Park Forest	9,585	11	0.11
Phoenix	863	6	0.70
Posen	1,896	7	0.37
Prospect Heights	6,649	7	0.11
River Forest	4,275	142	3.32
River Grove	4,527	11	0.24
Riverdale	5,446	128	2.35
Riverside	3,724	10	0.27
Rosemont	1,749	17	0.97
Schiller Park	4,390	36	0.82

Table 2.8-9. Estimated Number of Single Unit Residences on the CN Rail Lines			
Location	(a)	(b)	(c)
	2007 Estimated Total Single Housing Units	Homes within 300 Feet of Tracks	(c)=100 x (b)/(a) Percent of Affected Single Housing Units
South Holland	8,025	168	2.09
Vernon Hills	9,081	204	2.25
Villa Park	8,117	45	0.55
Westchester	7,134	102	1.43
Wheeling	13,992	8	0.06
Subtotal (Illinois)	1,498,128	6,531	0.44
Indiana			
Griffith	7,087	26	0.37
Highland	10,180	90	0.88
Munster	8,803	66	0.75
Subtotal (Indiana)	**26,070**	**182**	**0.70**
Total Single Unit Residences[a]	**1,524,198**	**6,713**	**0.44**

Note:
[a] The total is the Illinois subtotal and Indiana subtotal added.

Based on the comments on the Draft EIS, SEA also conducted additional analysis of the potential effects of the Proposed Action on property values. In general, the additional analysis supports SEA's conclusions in the Draft EIS that communities and residents near the EJ&E rail line may experience minor adverse local effects on property values. Based on the analysis in the Draft EIS, the comments on the Draft EIS, and the additional evaluation described above, SEA concludes that the existence of a rail line in the community has been accounted for in the value of property near both the EJ&E and CN rail line segments. The Proposed Action could have a minor beneficial effect on residential property value near the CN rail line segments inside the EJ&E arc, although the effects have not been quantified, and rail traffic would continue along the CN rail line segments. The Proposed Action would have a minor adverse effect on residential property values along the EJ&E rail line segments where train traffic would increase. Finally, there would be effects to property taxes, but they would be minor.

2.9 Environmental Justice

SEA has updated the environmental justice analysis presented in the Draft EIS to include additional analyses of noise, safety, and delay and a revised calculation to identify the census block groups that are classified as environmental justice. SEA inadvertently used 2006 U.S. Census American Community Survey data rather than the 2000 U.S. Census data. In addition, double-counting of some minority populations occurred in the calculation of the percentage of minority populations. The analysis in this Final EIS has been revised to reflect calculations based on the 2000 U.S. Census data and to eliminate the double-counting of any minority populations.

In the Draft EIS, SEA identified the criteria for identifying low-income and minority environmental justice census block groups. SEA used the following environmental justice criteria to identify minority and low-income status in affected communities:

- At least one-half of the census block group is of minority status
- At least one-half of the census block group is of low-income status
- The percentage of minority status is at least 10 percentage points higher than for the entire county in which the population is located
- The percentage of low-income status is at least 10 percentage points higher than for the entire county in which the population is located

In addition, to identify and evaluate low-income communities by census block, SEA also calculated the percentage of these groups in each county. Table 2.9-1, below, presents percentages of minority and low-income populations per county used in the Draft EIS and the revised percentages of minority and low-income populations per county used by SEA to identify minority and low-income populations.

Table 2.9-1. Minority and Low-Income Status Calculated by County

County	Minority Census Block Groups		Low-Income Census Block Groups	
	Presented in Draft EIS	Revised	Presented in Draft EIS	Revised
Lake, IL	48.3%	36.6%	15.6%	15.7%
Cook, IL	50.0%	50.0%	25.3%	23.5%
DuPage, IL	41.1%	31.3%	14.9%	13.6%
Will, IL	46.4%	32.6%	15.8%	14.9%
Lake, IN	50.0%	49.4%	26.7%	22.2%

In the Draft EIS, SEA identified 67 census block groups that meet the minority environmental justice status and 26 census block groups that meet the low-income environmental justice status. As a result of the revised values presented in Table 2.9-1, SEA identified 67 census block groups meet the minority environmental justice status and 31 census block groups meet the low-income environmental justice status. The change in identified minority and low-income populations only increased by five block groups under the revised evaluation.

In Section 4.7.3.1 of the Draft EIS, SEA summarized the effects of safety or delay and noise on minority and low-income populations due to the Applicants' proposed change in train operations. SEA concluded that there would be no high and adverse effects on safety or delay, so no analysis was undertaken to determine whether the effects would be disproportionately experienced by minority or

low-income populations in the study area. SEA concluded that there would be high and adverse effects from noise but that these effects would not be disproportionately experienced by minority or low-income populations. SEA reviewed the additional analysis of safety, delay and noise and the revised calculations on minority and low-income populations to determine whether the conclusions in Section 4.7.3.1 of the Draft EIS are still valid. Indications are outlined below.

2.9.1 Effects on Minority Populations Based on Revised Data

The additional analysis of safety and traffic delay on minority populations indicates that they would not experience a high and adverse effect. There are no changes to the number of crossings with safety and delay effects or to the number of affected environmental justice and non-environmental justice census block groups. Since this analysis confirms the conclusion in the Draft EIS that there are no high and adverse effects on safety and delay this analysis was undertaken to determine whether the effects would be disproportionately experienced by minority populations.

High and adverse train noise effects are identified where the noise levels are equal to 70 dBA Ldn or greater. Approximately two-thirds (44 census block groups) of the environmental justice census block groups along the EJ&E rail line would experience a high and adverse train noise effect, and approximately 80 percent (75 census block groups) of the non-environmental justice census block groups would experience high and adverse train noise effects. Based on SEA's analysis of train noise effects on environmental justice communities, it was determined that environmental justice communities would experience high and adverse effects from train noise. However, SEA concluded that high and adverse train noise effects would not be disproportionately borne by environmental justice communities.

Therefore, SEA has confirmed that minority populations along the EJ&E rail line would not experience disproportionate effects on safety and delay or from train noise at highway/rail at-grade crossings. This conclusion is unchanged based on analysis in the Draft EIS.

2.9.2 Effects on Low-Income Populations

The additional analysis of safety and traffic delay on minority populations indicates that no low-income populations would experience a high and adverse effect. There are no changes to the number of crossings with safety and delay effects, and there are low effects to the same number of census block groups as reported in the Draft EIS. This analysis is consistent with the conclusion in the Draft EIS that there are no high and adverse effects on safety and delay. Thus, no analysis was undertaken to determine whether the effects would be disproportionately experienced by low-income populations.

High and adverse train noise effects are identified where the noise levels are equal to 70 dBA Ldn or greater. Based on this criterion, low-income census block groups would experience high and adverse train noise effects. Twenty-four census block groups that meet the environmental justice criteria for low-income status would experience high and adverse train noise effects and 95 non-environmental justice block groups would experience high and adverse train noise effects. SEA concluded that the high train noise effects caused by the Proposed Action would not be disproportionately borne by low-income environmental justice populations.

SEA has determined that low-income populations along the EJ&E rail line would not experience disproportionate effects from either train noise or safety and delay issues at highway/rail at-grade crossings. This conclusion is unchanged from the Draft EIS.

2.10 Air Quality and Climate Change

2.10.1 Air Quality

Sections 3.9 and 4.9 of the Draft EIS presented a quantitative analysis of emissions from automobiles delayed near highway/rail at-grade crossings. The Draft EIS included quantitative analysis of localized air quality effects of motor vehicle emissions from vehicles delayed near highway/rail at-grade crossings, and qualitatively addressed the potential for localized air quality effects of locomotive emissions.

A number of comments received on the Draft EIS raised concerns about localized effects on air quality as a result of locomotive emissions. To address these concerns, SEA conducted additional air quality analysis using dispersion modeling described below. This quantitative analysis addressed two types of emissions scenarios: 1) emissions from moving trains; and 2) emissions from idling trains on sidings. This analysis evaluates the effects of locomotive emissions on levels of:

- Criteria air pollutants — those for which National Ambient Air Quality Standards (NAAQS) have been established
- Mobile source air toxic (MSAT) pollutants – which are not regulated by NAAQS, but for which EPA has established thresholds for assessing possible effects on public health.

The methodology and results of the additional air quality analysis are described below.

2.10.1.1 Additional Analysis

Dispersion Model Selection

SEA used the current regulatory version of the AERMOD dispersion model (Version 07026, executed with the regulatory default and rural area options) to estimate effects on air quality from both moving and idling locomotives. This model is approved by the EPA.

Meteorological Input Data

SEA processed meteorological data dating from 1988 through 1992, with EPA's AERMET software (Version 06341) using surface meteorological data from the National Weather Service Station at Chicago O'Hare Airport (WBAN 94846), upper air data from the Greater Peoria Airport (WBAN 14842), and land use data from EPA's AERSURFACE software (Version 08009).

Modeled Scenarios

SEA subjected two simple emissions scenarios to dispersion modeling to assess the potential for effects on air quality. One scenario addressed moving trains and the other scenario addressed stopped/idling trains. These scenarios were applied to a generic stretch of track assumed to be 50 feet from the edge of nearest ROW. Two orientations were modeled for each scenario: 1) a North-South track orientation and 2) an East-West track orientation.

Analysis for the moving train scenario was based on a maximum of 42.3 trains per day. This corresponds to the highest level of train traffic on the EJ&E rail line, which is projected to occur in Will County near Joliet.

For the stopped/idling train scenario, SEA analyzed the overall capacity of the EJ&E rail line and confirmed that the 42.3 trains per day value is effectively "at capacity" for the highest train traffic rail segment near Joliet. SEA estimated that, when operated at capacity, the maximum total-train wait-time on sidings would be equivalent to 1.6 hours per train, per transit (one-way trip). This implies

approximately 68 hours of train idling time per day. Theoretically, almost 24 hours of that total could occur on a particular siding. On average, approximately half the trains move in each direction and locomotives are usually at the front end of the train. To estimate effects on air quality, SEA assumed that:

- 24 hours of idling would occur on a single siding
- With each train stoppage, locomotives would stop within the length of a locomotive (75 feet) at either end of a siding
- Idling would occur at either end of the siding half of the time
- Each train was assumed to have two operating locomotives

According to the Applicant's information request response dated February 15, 2008, a typical train uses one model SD-40 (3,000 hp) locomotive and one model Dash-9 (4,400 hp) locomotive.

Source and Receptor Geometry

For the moving train scenario, the emissions from moving trains were evenly distributed between adjacent volume sources input to AERMOD to simulate a continuous line source centered over the track. The line source was given a total length of 2 miles. Receptors, meaning points at which the model calculates concentrations, were placed at the mid-point of the line source, thus resulting in a mile of line source extending in each direction from the receptors. The receptors were placed in a line perpendicular to the track starting at 50 feet away (assumed edge of ROW) on both sides of the track, and spaced every 50 feet, extending out to 250 feet away on both sides of the track. This was determined, based on model results, to be sufficient to capture the maximum modeled concentrations for each averaging period.

For the idling train scenario, emissions were entered into AERMOD as two volume sources, each the size of a single locomotive (75 feet long, 10 feet wide, and 15 feet high), and having a release height of 15 feet. The two volume sources were placed 75 feet apart, which is the approximate distance between exhaust portals on the locomotives when they are facing the same direction. Receptors for this scenario were placed 50 feet from the center of the track, on both sides of the track, and spaced at 50-foot intervals both perpendicular to and parallel to the track.

SEA assumed flat terrain between the source (track) elevation and the receptor elevations. Results based on this assumption are expected to be somewhat conservative (high) because railroad grades are usually built slightly above the existing ground surface, thus putting the actual plumes at slightly greater elevation than modeled.

Source release parameters were based on AERMOD guidance and on model inputs for dispersion studies of locomotives at rail yards in California. The release height for the moving train scenario (20 feet) accounts for slight plume rise, given the exhaust plume momentum and buoyancy for a moving train. For the idling train scenario, the release height was set to the exhaust portal height, and did not account for the slight plume buoyancy from an idling train.

The "initial sigma-y," or horizontal plume spread, for a line source is based on EPA modeling guidance, which specifies that the value should be equal to the spacing of volume sources divided by 2.15 (see Table 3-1 of the AERMOD model User's Guide). The same factor applies to the "initial sigma-z," or vertical plume spread, for a volume source on or adjacent to a building, or in this case, the train. The source release parameters used in the analysis are provided in Table 2.10-1, below. Note that the initial sigma-y refers to the standard deviation of the plume horizontal concentration distribution, and the initial sigma-z refers to the standard deviation of the plume vertical concentration distribution.

Table 2.10-1. AERMOD Emission Source Release Parameters		
Input Parameter	**Moving Train Scenario**	**Idling Train Scenario**
Emission Rate	1.0 gram/sec (per volume source)	1.0 gram/sec (per locomotive)
Release Height	20 feet (6.1 m)	15 feet (4.57 m)
Initial Sigma-y	46.51 feet (14.18 m)	34.88 feet (10.63 m)
Initial Sigma-z	6.98 feet (2.13 m)	6.98 feet (2.13 m)

Emission Rates

To run AERMOD, SEA input emission rates of 1.0 grams/sec to the model for each of the emission sources entered into each model run. The modeled concentrations for this unit emission rate were then multiplied by the estimated emission rate in grams per second for each pollutant of interest, to obtain concentration estimates for that pollutant. For both the moving and idling scenarios, emission rates were based on test data for locomotives similar to the typical Applicants' locomotives referenced above. The emissions data for the tested locomotives are listed in Appendix A of this Final EIS.

For the moving train scenario, SEA determined that moving trains would use a throttle setting of Notch 3 (besides idle and dynamic braking settings, locomotives have eight throttle settings, or "notches" with eight as the highest or most powerful setting). Because test data used as inputs to this analysis were collected from line haul locomotives used in 1999, the fleet emissions from actual CN trains are expected to be lower. EPA emissions standards for both new and remanufactured locomotives are forcing locomotive fleet-average emission levels downward, and they will ultimately become much lower than emissions used for this analysis. Thus, the modeled emissions used here are considered to be conservatively high.

The idling train scenario accounted for the Applicant's voluntary mitigation, which includes shutting off locomotives when the temperature is above 40ºF. Based on climate data for O'Hare Airport, average monthly temperatures are below 40ºF in December, January, February and March. Therefore, the "monthly scalars" option was used in AERMOD to turn off the emissions for the remainder of the year under the idling scenario.

As stated above, maximum train idling time for all combined trains operating on the EJ&E rail line under the Proposed Action is estimated to be 12 hours per day, at any one location. Data entered into AERMOD were based on the assumption that all idling would be at the same location. The emissions estimates and the source of the individual emission rates used in this study are provided in Appendix A of this Final EIS.

2.10.1.2 Results and Findings

Criteria Pollutant Results

The dispersion modeling results for criteria pollutants under a moving train scenario are listed in Table 2.10-2, below, where concentrations are measured in micrograms per cubic meter of air (ug/m3). The modeled concentrations of carbon monoxide (CO) and sulfur dioxide (SO_2) are negligible, meaning they are below the Significant Impact Levels (SIL) set by EPA. Note that concentrations above the SIL are not necessarily "significant" in a NEPA context.

The modeled maximum concentration of nitrogen dioxide (NO_2) is above the SIL, but when added to the background concentration, the total concentration is well below the NAAQS. For NO_2, the maximum modeled concentration of nitrogen oxides (NO_x) was multiplied by EPA's recommended default NO_2/NO_x ratio of 0.75 (see 40 CFR 51, Appendix W) to obtain a conservatively high concentration estimate.

The modeled effect of particulate matter smaller than 10 microns in diameter (PM_{10}) is also considered negligible. For particulate matter smaller than 2.5 microns in diameter ($PM_{2.5}$), the EPA has not set the SIL, but proposed a possible range of levels in September 2007. The maximum-modeled $PM_{2.5}$ concentrations for both the 24-hour and annual average periods are essentially right at the lower end of the range targeted by EPA. Thus, these levels are likely to be considered negligible, once EPA selects a SIL for $PM_{2.5}$. While monitoring data show the existing concentrations are slightly over the current 24-hour $PM_{2.5}$ NAAQS, EPA is working to bring this and many other areas of the nation into compliance by applying tighter emission standards to stationary and mobile emissions sources.

Table 2.10-2. Criteria Pollutant Modeling Results for Moving Train Scenario

NAAQS Pollutant (Rank)	Averaging Period	Modeled Max. Conc. (ug/m3)	SIL [a] (ug/m3)	Will County Monitored Backgd [b] (ug/m3)	Modeled + Monitored Total (ug/m3)	NAAQS (ug/m3)
CO (2nd high)	1-hour	51	2000	1410	1461	40,000
CO (2nd high)	8-hour	24	500	914	938	10,000
NO_2 (high)	Annual	15.1	1	53	68	100
PM_{10} (2nd high)	24-hour	1.8	5	40	42	150
$PM_{2.5}$ (98th %)	24-hour	1.1	1.2-5.0 [c]	36.7	37.8	35
$PM_{2.5}$ (high)	Annual	0.4	0.3-1.0 [c]	14.1	14.5	15
SO_2 (2nd high)	3-hour	0.14	25	133	133	1300
SO_2 (2nd high)	24-hour	0.04	5	45	45	365
SO_2 (high)	Annual	0.01	1	11.4	11.4	80

Notes:

a Significant Impact Level as listed under 40 CFR 51.165. Concentration contributions below this level are considered to be too low to hold a source responsible.

b Background concentrations based on average of "ranked" values to which the NAAQS applies, for the most recent available 3 years of monitoring data for each pollutant.

c Value not yet established. Range of proposed values, per EPA proposed rule publication in Sept. 21, 2007 *Federal Register*.

The dispersion modeling results for criteria pollutants from an idling train scenario are listed in Table 2.10-3 below, where concentrations are measured in micrograms per cubic meter of air (ug/m3). The maximum-modeled concentrations of CO and SO_2 are negligible, as they are below the SILs set by EPA. The maximum-modeled concentration of NO_2 is above the SIL, but when added to the background concentration, the total concentration is well below the NAAQS. As with the moving train modeling, SEA used EPA's recommended default NO_2/NO_x ratio of 0.75 (see 40 CFR 51, Appendix W) to obtain a conservatively high NO_2 concentration estimate.

The modeled maximum concentration of PM_{10} is above the SIL for the idling train scenario, but when added to the background concentration, the total concentration is well below the NAAQS.

The maximum-modeled $PM_{2.5}$ concentrations for both the 24-hour and annual average periods are within the range of SILs targeted by EPA. Thus, these modeled concentrations might be considered non-negligible based on EPA's final selection of a SIL for $PM_{2.5}$. This calculation, however, is based on very conservative assumptions, as described in the Methodology section above, particularly that each locomotive idling on a siding would stop at the same exact location on the siding as other locomotives on the day of the highest-modeled concentration. Furthermore these $PM_{2.5}$ concentration

estimates are based on the greatest 98th percentile effect in any year out of five years of meteorological data. The likelihood of multiple trains idling at exactly the same location for enough days per year (seven days/year is approximately equivalent to the 98th percentile), for the seven days of the most adverse meteorological conditions, is extremely small.

Table 2.10-3. Criteria Pollutant Modeling Results for Idling Train Scenario

NAAQS Pollutant (Rank)	Averaging Period	Modeled Max. Conc. (ug/m3)	SIL[a] (ug/m3)	Will County Monitored Backgd[b] (ug/m3)	Modeled + Monitored Total (ug/m3)	NAAQS (ug/m3)
CO (2nd high)	1-hour	284	2000	1410	1694	40,000
CO (2nd high)	8-hour	120	500	914	1034	10,000
NO_2 (high)	Annual	13.1	1	53	66	100
PM_{10} (2nd high)	24-hour	5.0	5	40	45	150
$PM_{2.5}$ (98th %)	24-hour	3.5	1.2-5.0[c]	36.7	40.2	35
$PM_{2.5}$ (high)	Annual	0.6	0.3-1.0[c]	14.1	14.7	15
SO_2 (2nd high)	3-hour	0.73	25	133	134	1300
SO_2 (2nd high)	24-hour	0.14	5	45	45	365
SO_2 (high)	Annual	0.02	1	11.4	11.4	80

Notes:

a Significant Impact Level as listed under 40 CFR 51.165. Concentration contributions below this level are considered to be too low to fold a source responsible.

b Background concentrations based on average of "ranked" values to which the NAAQS applies, for the most recent available 3 years of monitoring data for each pollutant.

c Value not yet established. Range of proposed values, per EPA proposed rule publication in Sept. 21, 2007 *Federal Register*.

The maximum modeled concentrations of all these pollutants occur at distances ranging from 50 to 100 feet from the track. The model results indicate that concentrations fall off rapidly with distance, to approximately one-fourth of the maximum values, at a distance of 250 feet from the track.

The EPA's 2008 regulations for locomotive emissions, which apply to new and rebuilt locomotives, are expected to dramatically reduce emissions of both particulate matter and NO_x. As locomotive fleets across the country age and are replaced, the new standards will reduce fleet-wide NO_x and PM emissions up to 80-90 percent below current emissions levels. EPA's new regulations focus on these two pollutants, which were the only criteria pollutants with modeled concentrations above SILs based on SEA's air quality analysis for the EJ&E rail line.

Mobile Source Air Toxic (MSAT) Pollutant Results

For both the moving trains and idling trains emissions scenarios, SEA estimated effects on air quality from mobile source air toxic (MSAT) pollutants. The results of this analysis are provided in Table 2.10-4 and Table 2.10-5, below, for moving and idling trains. The model results for the moving train scenario show that all MSAT maximum modeled concentrations are below the listed EPA's Integrated Risk Information System (IRIS) thresholds.

Table 2.10-4. MSAT Pollutant Modeling Results for Moving Train Scenario			
MSAT Pollutant	Averaging Period [a]	Modeled Max. Conc. (ug/m3)	IRIS[b] Threshold (ug/m3)
Acetaldehyde	24-hour	0.075	9
Acetaldehyde	Annual	0.012	50
Acrolein	24-hour	0.010	0.02
Benzene	24-hour	0.014	30
Benzene	Annual	0.002	45
1,3-Butadiene	24-hour	0.012	2
1,3-Butadiene	Annual	0.002	3
Formaldehyde	Annual	0.024	8
Diesel Exhaust (DPM)	24-hour	2.4	5

Notes:

a The 24-hour IRIS limits for each pollutant are set to protect against acute non-cancer effects – annual IRIS thresholds are set to establish risk of developing cancer. The "annual" levels listed actually represent 70-year lifetime exposure levels, estimated to result in a 1/10,000 risk of developing cancer. To adjust the cancer risk to 1/100,000, divide the listed annual IRIS concentration by 10.

b The IRIS database, available on-line at http://cfpub.epa.gov/ncea/iris/index.cfm, contains EPA's recommended exposure limits to provide a margin of protection for public health.

The model results for the idling train scenario (Table 2.10-5) show that all MSAT effects are below the listed IRIS threshold except for acrolein and diesel exhaust, which is similar to diesel particulate matter (DPM).

Acrolein

Acrolein is a chemical compound emitted as a product of incomplete combustion by locomotive engines (as well as other diesel- and gasoline-powered engines). In fact, many types of combustion, including cigarette smoking, can produce acrolein. As documented in the IRIS database, EPA was very conservative in setting the threshold for acrolein, based on the Lowest Observed Adverse Effects Level of 20 $\mu g/m^3$, the concentration at which after exposure, rats developed nasal sores. EPA divided this value by 1,000 to create a significant safety margin with respect to human exposure, setting a Reference Concentration (RfC) threshold of 0.02 $\mu g/m^3$.

A recent review by the Health Effects Institute (HEI 2007) provides a summary of measured acrolein concentrations in various settings, including motor vehicles, open air, and residences. HEI's review summarized several studies and listed the average concentrations for each study and setting. All of the measured average concentrations of acrolein summarized by HEI were above the 0.02 µg/m3 IRIS threshold and the majority of the exposures were far above this concentration. A recent study collected hundreds of samples of "personal exposures" of adults and children over 2-day periods, and found average concentrations over the 2-day period ranged from 10.9 to 12.9 µg/m3.

After reviewing measurement data summarized by HEI, SEA notes that people are generally exposed to acrolein concentration levels at one to two orders of magnitude higher than the maximum acrolein concentration in Table 2.10-5, below, with no apparent ill effects. Based on the data from the HEI study, and the fact that the EPA has established a very conservative threshold, it is apparent that the maximum-modeled acrolein concentration presents negligible risk to public health in comparison to risks to which people are already exposed through living in urban environments.

Table 2.10-5. MSAT Pollutant Modeling Results for Idling Train Scenario			
MSAT Pollutant	Averaging Period[a]	Modeled Max. Conc. (ug/m3)	IRIS[b] Threshold (ug/m3)
Acetaldehyde	24-hour	1.10	9
Acetaldehyde	Annual	0.10	50
Acrolein	24-hour	0.23	0.02
Benzene	24-hour	0.13	30
Benzene	Annual	0.01	45
1,3-Butadiene	24-hour	0.14	2
1,3-Butadiene	Annual	0.01	3
Formaldehyde	Annual	0.22	8
Diesel Exhaust (DPM)	24-hour	6.2	5

Notes:

[a] The 24-hour IRIS limits for each pollutant are set to protect against acute non-cancer effects, and the annual IRIS thresholds were set to establish risk of developing cancer. The "annual" levels listed actually represent 70-year lifetime exposure levels estimated to result in a 1/10,000 risk of developing cancer. To adjust the risk to 1/100,000 one needs to simply divide the listed concentration by 10.

[b] The EPA's Integrated Risk Information System (IRIS) database, available on-line at http://cfpub.epa.gov/ncea/iris/index.cfm, contains EPA's recommended exposure limits to provide a margin of protection for public health.

Diesel Exhaust/Diesel Particulate Matter (DPM)

The maximum-modeled 24-hour DPM value is slightly above the threshold set by EPA to be protective against acute (short-term) effects on public health. However, as described earlier, SEA applied a conservative methodology by assuming that all locomotive stop points from multiple trains would be exactly aligned, so that emissions would be concentrated at two points. Additionally, the PM emission rates entered into the dispersion modeling analysis were based on locomotive test data obtained on operating locomotives in the year 2000, before the locomotive fleet was significantly affected by the 1998 EPA locomotive emissions standards. EPA's tighter 2008 emissions standards will drive PM emission rates down from the fleet even faster. Because the modeled concentrations are linear with emission rate, the modeled concentrations would decrease proportionally to emissions as locomotive fleets are replaced or overhauled.

Conclusions

SEA's analysis found that the majority of criteria and MSAT pollutant effects were far below levels set to protect public health. Maximum acrolein effects were estimated to exceed the EPA's threshold, but further study found that average daily exposure from other sources far exceeds the small, incremental acrolein level that would be a result of the Proposed Action. With respect to effects from DPM and $PM_{2.5}$ for the idling train scenario, these were slightly over thresholds and could imply a possible concern, especially at locations just outside the rail corridor ROW. However, given the conservative nature of the methodology applied to SEA analysis, coupled with the fact that PM emissions from locomotives will continue to drop, results indicate that idling locomotive PM emissions on the EJ&E corridor would pose minimal threat to public health.

2.10.2 Climate Change

A number of commenters expressed concerns about the effects of the Proposed Action on climate change, and claimed that the Draft EIS had understated the potential, (when combined with other

human activities) to contribute to climate change. The commenters suggested that any such cumulative climate change would be environmentally detrimental. Other comments mentioned the possibility of an increase in the urban heat island effect for the Chicago metropolitan area. The EPA also commented that it would like to see a discussion of current science related to climate change.

The sections below provide SEA's response, to the comments regarding climate change.

2.10.2.1 Current Scientific Understanding

One commenter claimed that the Draft EIS's "dismissive approach to climate change is out-of-date and out of step with the position of the US government and overwhelming, worldwide scientific consensus." A number of other comments repeated this same general theme.

SEA's technical team for climate assessment included atmospheric scientists who have reviewed extensive literature on this subject, including reports produced by a United Nations agency known as the Intergovernmental Panel on Climate Change (IPCC), journal papers, and various publications by a variety of governmental agencies. SEA did not find that there is a single "position" of the US Government or an "overwhelming, worldwide scientific consensus" on all of the issues related to man-made global climate change. However, SEA believes that there is generally a scientific consensus regarding human effects on local climate change via the urban heat island (UHI) effect. SEA's intent in this section is to describe the current science as it relates to climate change and to expand on SEA's conclusions regarding the Proposed Action's effect on climate change.

2.10.2.2 Global Climate Change Science

While there are many viewpoints regarding human-caused effects on global climate, there are three primary positions on global climate change science with respect to greenhouse gas (GHG) emissions:

1) The effect of anthropogenic, or man-made, emissions of greenhouse gases (those other than water vapor) is the dominant driver of recent climate change and will continue to be for decades to come, barring elimination of a vast majority of the emissions.

2) The effect of anthropogenic emissions of greenhouse gases on climate is not negligible, but is not the dominant driver of global climate change.

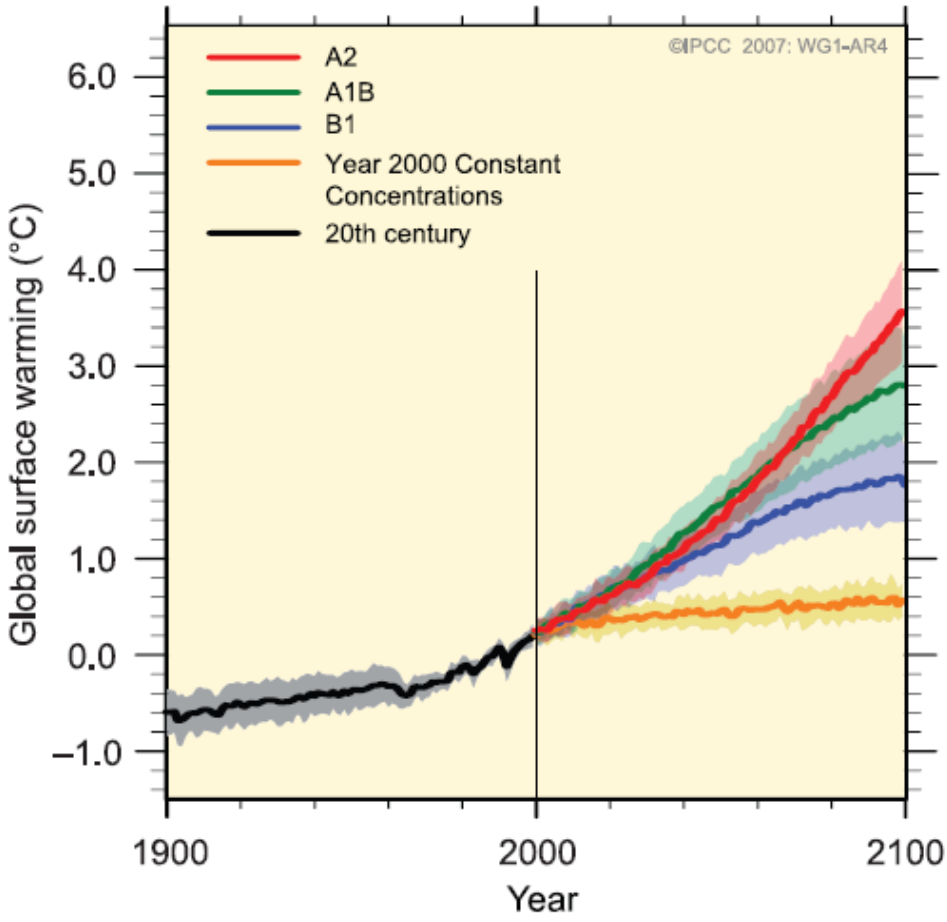
3) The effect of anthropogenic emissions of greenhouse gases on climate is negligible, in part because water vapor provides a negative feedback to greenhouse gas (GHG) "forcing."

Model Projections

The committee that developed the IPCC's "Summary for Policymakers" has concluded that the first position noted above is the most supportable. In support of this conclusion, the IPCC has used computer-based mathematical models called "global circulation models" (GCMs) to simulate the climate's response to a wide range of GHG emissions scenarios. Carbon dioxide (CO_2), the primary anthropogenic GHG, is used as the basis for these IPCC scenarios. Figure 2.10-1, below, shows the results of some IPCC simulations using GCMs to project future global average temperature for various CO_2 emissions and concentrations scenarios.

The four projection curves in Figure 2.10-1, below, represent emissions scenarios that are assumed to result in Year 2100 concentrations of 370 ppm (Year 2000 Constant Concentration curve), 600 ppm (B1 curve), 850 ppm (A1B curve), and 1250 ppm (A2 curve). The lowest curve represents CO_2 concentrations reverting to the year 2000 level and remaining steady until the year 2100. The other three curves reflect increases in CO_2 concentration of approximately 2.3 ppm per year, 4.8 ppm per year, and 8.8 ppm per year, corresponding to the year 2100 concentrations of 600, 850, and 1250 ppm, respectively. For the two most recent years (2007 vs 2006) of complete CO_2 monitoring

Figure 2.10-1. IPCC Projections of Global Warming for Several CO_2 Emissions Scenarios



Source: IPCC 2007

Solid lines are multi-model global averages of surface warming (relative to 1980-1999) for the scenarios A2, A1B, and B1, shown as continuations of the 20th century simulations. Shading denotes the ± 1 standard deviation range of individual model annual averages. The orange line is for the experiment where concentrations were held constant at year 2000 values. The grey bars at right indicate the best estimate (solid line within each bar) and the likely range assessed for the six SRES marker scenarios. The assessment of the best estimate and likely ranges in the grey bars includes the AOGCMs in the left part of the figure, as well as results from a hierarchy of independent models and observational constraints.

data (at Mauna Loa, Hawaii), the average rate of CO_2 increase has been approximately 1.87 ppm per year (NOAA 2008). Thus, the IPCC's scenarios range from a modest increase from recent emissions (2.3 ppm per year) to a nearly a five-fold increase in the rate of CO_2 increase (8.8 ppm per year). Note that the shaded areas around each curve represent the IPCC's estimates of uncertainty for each emissions scenario simulation.

A GCM "is a simplification and simulation of reality, meaning that it is an approximation of the climate system. The first step in any modeled projection of climate change is to first simulate the present climate and compare it to observations. Projections of future climate change depend on how well the computer climate model simulates the climate and on our understanding of how forcing functions will change in the future" (NOAA 2008).

Observational Data

Observations of global temperature and increasing greenhouse gas concentrations provide a basis for comparison with the IPCC's modeled projections. Given the many problems with surface station records, including limited numbers of stations over oceans, Urban Heat Island (UHI – see "Local Climate Change Science" section below) issues, and instrumentation siting issues in non-urban areas, the satellite record may be the best way to monitor global temperatures. Unfortunately, there is only a 30-year record of satellite data, which are used to estimate temperature in a layer of the lower atmosphere, or troposphere. However, a 30-year record is sufficient to see some trends as well as short-term fluctuations.

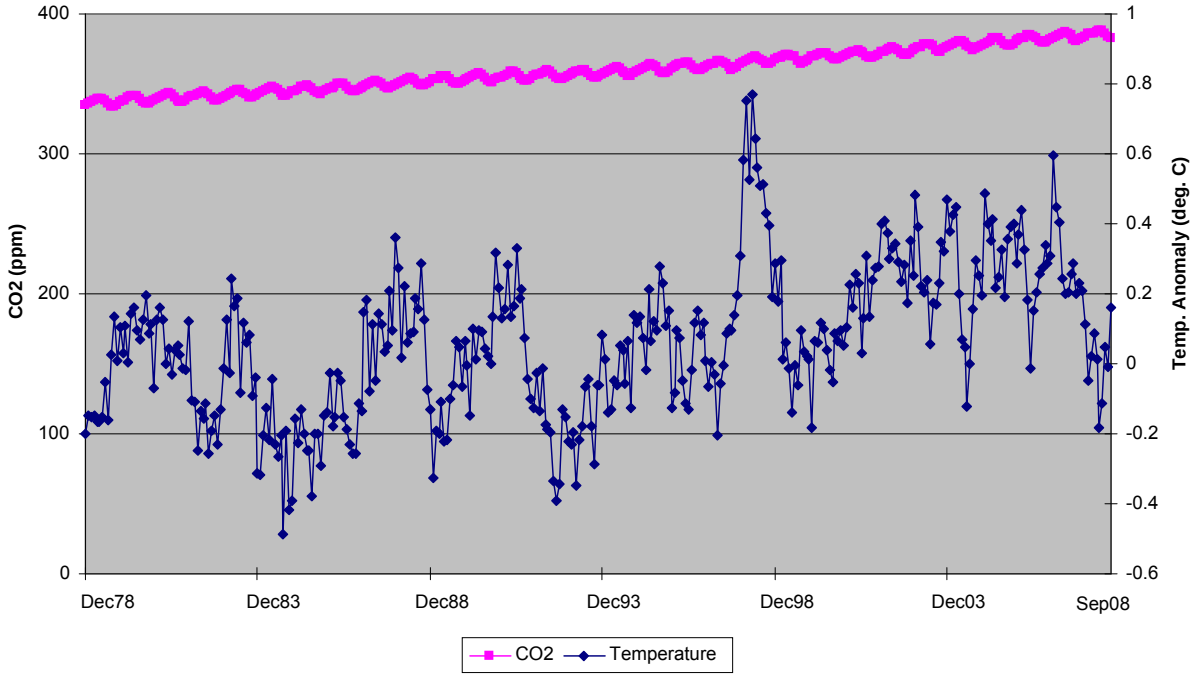
Table 2.10-2, below, compares the trends of nearly 30 years of global temperature, measured via satellite (UAH 2008), with atmospheric CO_2 concentration, measured at Mauna Loa, Hawaii (NOAA 2008). The CO_2 measurements are done on the island of Hawaii because it is removed from large anthropogenic influences, so the measurements should be representative of global, rather than local, trends. As shown below, there has been a steady rise in CO_2, much of it due to fossil fuel use and deforestation. The regular up and down pulsing of CO_2 represents annual variation, as the northern hemisphere biosphere removes CO_2 from the atmosphere during the growing season and releases it in the winter.

The temperature data shown in Figure 2.10-2, below, are based on data collected by satellites, using an instrument called a microwave sounding unit (MSU). The satellite data presented are those analyzed by the University of Alabama at Huntsville (UAH), and represent the lower layer portion of the troposphere (http://vortex.nsstc.uah.edu/public/msu/t2lt/tltglhmam_5.2). Because they represent an average over a vertical layer, and are also averaged across the globe, the data are not as likely to be influenced by station siting issues. They provide much better coverage over oceans as compared to the primarily land-based surface measurement sites. The "temperature anomaly" plotted on the right side of the graph represents the temperature deviation of any given month of data from the mean value based on averaging the data collected from the start of monitoring in December 1978 through December 1999. While this is a somewhat arbitrary period to use as a baseline, it is long enough to average out the short-term fluctuations in the record, and is generally consistent with analyses of these data presented in other forums.

The average temperature trend represented in the UAH data analysis is an increase of approximately 0.13 degrees Celsius (C) per decade, or 1.3 C per 100 years. This value is somewhat lower than the IPCC scenario B1 shown in Figure 2.10-1, above, which represents a CO_2 average rate of increase of 2.3 ppm through 2100, corresponding to an IPCC-projected increase over the current century of approximately 1.5 degrees Celsius. If GHG emissions are the primary driver of recent climate trends, then the IPCC's temperature projections, for Scenario B1 at least, are not at great odds with the past 30 years of satellite observations. However, if a significant portion of the observed warming over the past 30 years is due to natural effects, this could mean that the models are significantly overestimating effects of GHG emissions.

Some natural factors are evident in the temperature record displayed in Figure 2.10-2, below. The most obvious is a very strong El Niño episode in December 1998, which created a spike in global temperatures. El Niño is characterized by higher than normal sea surface temperatures in the eastern equatorial Pacific Ocean; it is widely recognized that these episodes can affect global average temperatures. The opposite of the El Niño effect is La Niña, in which cooler than average sea surface temperatures occur in the same region. This happened in late 2007 and early 2008, and its effects can be seen in the temperature trend above.

Figure 2.10-2. Global Temperature (via Satellite) and CO_2 Trends Since1978



A longer-term Pacific Ocean cycle, considered to affect temperatures globally, is the Pacific Decadal Oscillation (PDO). The PDO cycle is approximately 60 years in length, with approximately 30 years of cool phase followed by 30 years of warm phase and so on. The PDO last switched to a warm phase around 1978, near the time that satellite temperature measurements began. In April 2008, the National Aeronautics and Space Administration (NASA) announced that the PDO had recently switched to a cool phase (NASA 2008). Given that the PDO does affect global average temperatures, it is possible that a significant part of the past 30 years of warming could be influenced by this cycle.

Global Circulation Models (GCM) Models and Climate Change Uncertainties

A recent paper by NASA and other researchers to document the performance of NASA's GCM demonstrates the difficulties it has in predicting the known, past climate conditions (Lynn, et al 2007). In the subject study of summertime (June through August) temperature and precipitation conditions covering nearly the entire eastern half of the US, NASA's model estimated the daily maximum temperatures as an average across the modeled region. The NASA model under-predicted daily maximum temperature by an average of 8.5º F compared to actual observed daily maximum temperatures for the five-year study period (1993-1997). For precipitation, observations indicate approximately 52 centimeters (cm) of precipitation fell on average per summer, with measurable precipitation occurring on approximately 25 percent of the days. NASA's model predicted only 25 cm of precipitation—less than 50 percent of the actual total, and predicted it would fall on approximately 67 percent of the days.

The above findings highlight an uncertainty associated with all current GCMs, due to their inability to successfully simulate the hydrologic cycle. This is in large part due to limitations of the models that cannot properly simulate scales of clouds in general, especially convective cloud systems, which perform most of the vertical moisture distribution in the atmosphere. Water vapor is not only the dominant greenhouse gas in the atmosphere; it also has a major effect on climate through

precipitation and clouds, which reflect sunlight to keep the earth's surface cool, and trap infrared radiation that would otherwise escape to space, thus keeping the earth's surface warm. While the Sun provides the energy for Earth's climate, water, in all its forms is the primary thermostat that moderates temperature. In the case of deserts where water is nearly absent, temperature is not substantially moderated by water vapor or clouds, because of their relative absence.

The authors of the study using the NASA model state: "Unrealistic features of the AOGCM [NASA's GCM] simulation of some climate fields compromise the accuracy of the projections of climate change. However, mindful of the validations of its performance, the AOGCM's simulation of the IPCC A2 climate change scenario (see Figure 2.10-1 and the accompanying discussion above) is as plausible as simulations from other IPCC models…" While the NASA study points out substantial problems with its model, the authors say that, while it is not very good, it is as good as the other GCMs used by the IPCC.

Currently, uncertainties remain surrounding the science of climate change. These uncertainties will remain unless and until advancements in science can be made in the understanding of natural climatic variations, changes in the sun's energy, land-use changes, the warming or cooling effects of pollutant aerosols, and the effects of changing humidity and cloud cover. The relative contribution to climate change of human activities and natural causes must still be determined (EPA 2008). Other uncertainties include the projection of future greenhouse gas emissions and how the climate system will respond, and the reasons behind past abrupt climate changes and potential for future such changes (EPA 2008).

The U.S. Climate Change Science Program (CCSP 2008) is developing twenty-one synthesis and assessment products to advance scientific understanding of these uncertainty areas by the end of 2008. The first product, SAP-1.1 (CCSP 2006), which to date is the only product that has been made final, addresses identified conflicts between observations and simulations of surface and atmospheric temperature trends. The goals of the CCSP include summarizing what is known about climate change, what is uncertain, and what areas should be recommended for further study.

In addition to the current uncertainties discussed above, there are many longer-term natural factors that affect temperature trends both up and down. These include the natural factors that caused the major ice ages, the Medieval Warm Period, and the Little Ice Age. Some natural factors include:

- Longer-term deep-sea ocean circulations
- Volcanic activity
- Variations in the strength and characteristics of solar output
- Orbital variations of the earth

These factors, to the extent that they could be affecting climate trends, create additional uncertainty because it is not clear which of the natural factors are the dominant influences on climate change.

2.10.2.3 Local Climate Change Science

The one aspect of man-made climate change for which there is scientific consensus is the urban heat island (UHI) effect. The UHI effect is the result of thermal energy releases and land use changes in urban areas, as compared to the rural areas surrounding them. Data collected in numerous large cities reveal that summertime high temperatures can be 5-10º F higher in the urban core than in nearby rural areas. Similarly, nighttime low temperatures in urban areas tend to be significantly higher than in surrounding rural areas. The tendency of more densely populated areas to exhibit the UHI effect is illustrated below, which is based on a study done using data from California.

California counties that have developed large populations show significant warming over the last century; counties with intermediate sized populations show a lower amount of warming. Counties that were the least developed showed very little warming, and even in these counties, there is no doubt that some weather stations are affected by nearby modest growth, that may cause a slight upward temperature trend. This study shows that in California, the UHI effect is evident over the 20th century in developed areas, while in more rural areas there has been little increase in temperatures.

2.10.2.4 Proposed Action Effects & Conclusions

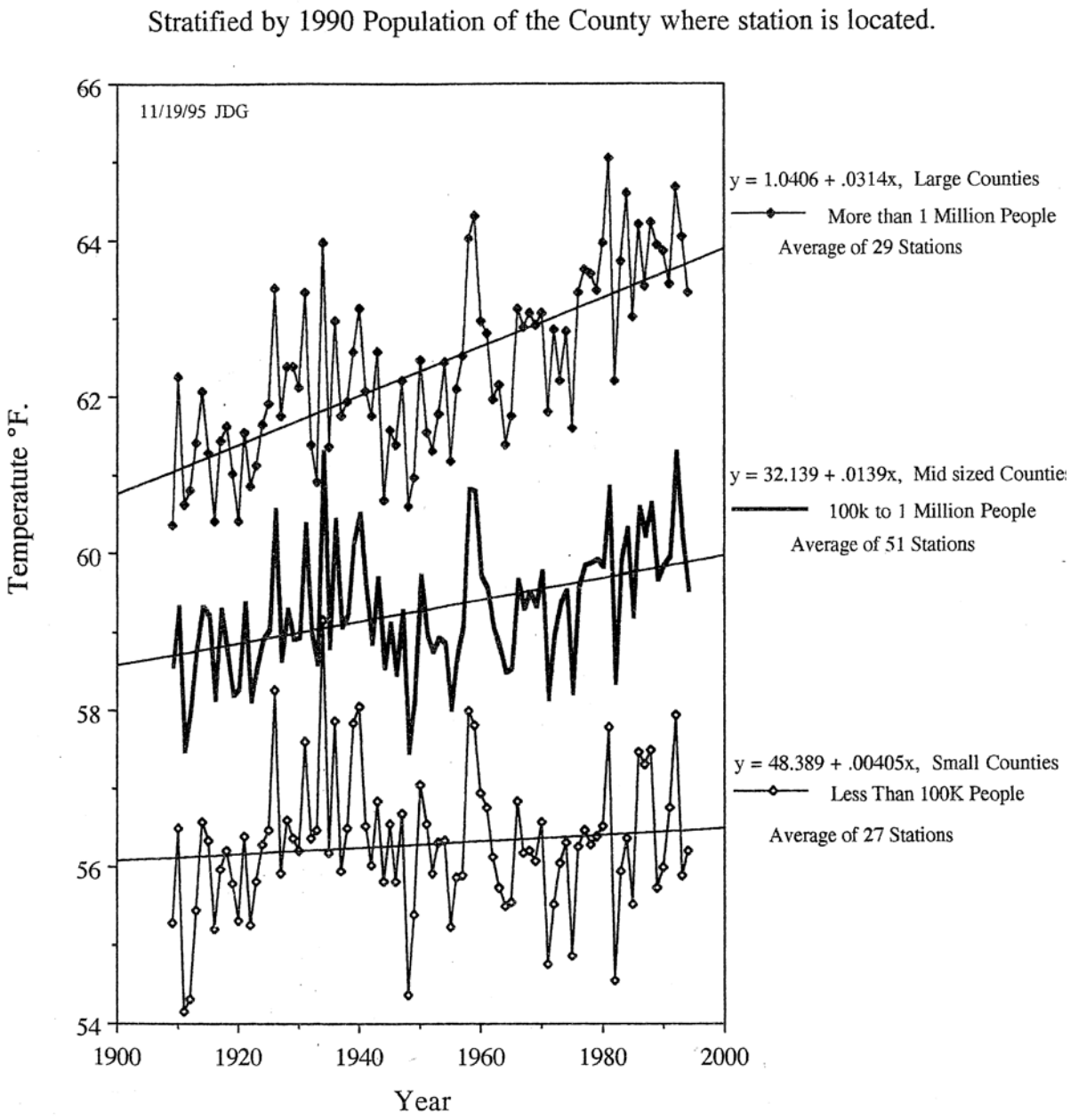
The Proposed Action is expected to add a very small amount of CO_2 emissions to local, regional, national and global emissions of CO_2, in comparison to total anthropogenic emissions. However, if there will be adverse effects on climate because of these emissions, they would be in the context of a cumulative, global-wide effect, as the emitted CO_2 would mix throughout the global atmosphere over the years and decades important for describing climate. SEA acknowledges that even though the emissions from the Proposed Action would have a miniscule effect globally, these cannot be discounted relative to cumulative effects.

If global climate change occurs as a result of anthropogenic GHG emissions, there could be both a variety of effects. The effects could include a rise in sea level as it relates to infrastructure, possible increases in rainfall events causing flooding, summer time heat stress on mammals, and changes in ecosystems that affect plant and animal habitats. The effects could also include less cold-related stress on mammals and the potential for a cumulative, worldwide increase in atmospheric CO_2 concentrations that would enhance crop production for both food and biomass.

To the extent that the Proposed Action has the effect of increasing the efficiency of the CN rail system it would have the potential to reduce the pressure on current rail shippers to make a modal shift from rail to truck. From the energy efficiency and GHG emissions standpoints, transport of goods by rail is far superior to transport by truck, on a per freight-ton-mile basis. See the discussion of energy in the Draft EIS Sections 3.9, 4.8, and 5.6.

Finally, the Proposed Action would have a very small, but cumulative, effect on local climate through the urban heat island (UHI). This would be due to the slight increase (on an urban-wide basis) of fuel usage, and some additional rail infrastructure construction, which would increase very slightly the area of developed land in the metropolitan area (see Figure 2.10.3, below).

Figure 2.10-3. Urban Heat Island Effect in California vs. County Population in 1990



Source: Bulletin of the American Meteorological Society, July 1996

2.11 Noise and Vibration

In response to comments on the Draft EIS, SEA revised the analysis of noise and vibration associated with the Proposed Action, to more completely assess the effects of idling trains, trains rolling through crossovers, wheel flange squeal on sections of curved track, and revised connections associated with the Proposed Action. SEA also revised these assessments at other connections to more completely assess noise and vibration at those locations. As a result, the number of receptors adjacent to the EJ&E that are predicted to experience threshold levels of noise and vibration has changed. Table 2.11-1, below, presents the revised noise analysis results (see also Appendix A).

Table 2.11-1. Revised Assessment of Receptors Exposed to a 3 dBA Increase and an Ldn of 65 dBA

EJ&E Rail Line Segment	Receptors Exposed to a 3 dBA Increase and a 65 dBA Ldn on EJ&E Rail Line		
	Existing Conditions	Future Conditions	Incremental Change from the Proposed Action
1	0	0	0
2	0	590	590
3	29	63	34
4	350	581	231
5	120	353	233
6	148	567	419
7	284	756	472
8	265	523	258
9	227	435	208
10	436	987	551
11	173	358	185
12	5	59	54
13	55	169	114
14	185	883	698
Total	**2,277**	**5,785**	**3,508**
Net Change on the CN Rail Lines (from the Draft EIS)		-2,738	
Total Change in Affected Receptors to CN and EJ&E Rail Lines		3,047	
Increase in Affected Receptors (over Draft EIS)		853	

Data in the table show that the net effect of SEA's revised noise analysis is an increase in the number of noise-sensitive receptors predicted to experience a 3 dBA (decibel above reference noise) increase and an Ldn (day-night noise level) of 65 dBA or greater. Similarly, SEA also revised the assessment of receptors predicted to experience an increase of 5 dBA and an Ldn of 70 dBA. SEA performed this revision to correct errors in the analysis shown in the Draft EIS, and also to reflect other revisions to the noise analysis that SEA performed in support of the Final EIS. Table 2.11-2, below, presents a summary of that assessment.

Table 2.11-2. Revised Assessment of Receptors Exposed to a 5 dBA Increase and an Ldn of 70 dBA		
EJ&E Rail Line Segment	**Receptors Exposed to a 5 dBA increase and an Ldn of 70 dBA**	
	Draft EIS	**Final EIS**
4	319	347
5	109	109
6	77	155
7	263	310
12	27	18
13	83	88
14	344	406
Total	**1,222**	**1,433**
Increase in Receptors (from Draft EIS)		211

As shown in the Table 2.11-2, above, the net effect of SEA's revised noise analysis is an increase in the number of noise-sensitive land uses (211 receptors) predicted to experience a 5 dBA increase and an Ldn of 70 dBA. The Applicants have proposed voluntary mitigation, which, SEA concludes, would result in meaningful and appropriate noise reduction.

SEA also revised the vibration analysis to refine the assessment of vibration due to wheels rolling over the gap in the rail at crossovers. The analysis of vibration at crossovers performed for the Draft EIS modeled the crossovers as point sources (with energy radiating equally in all directions), resulting in circular vibration contour lines. However, the precise location of crossovers was not determined in SEA's original analysis. Therefore SEA conservatively created rectangular vibration contours in the vicinity of known crossovers. As a result, the Draft EIS conservatively overstated the number of vibration effects associated with crossovers. For the Final EIS, SEA obtained more refined information about the number and location of crossovers. In the revised assessment, this vibration source was treated as a point source and SEA plotted circular vibration contours using GIS technology. Table 2.11-3, below, presents the results of this revised vibration assessment.

Table 2.11-3. Revised Vibration Analysis Results		
EJ&E Rail Line Segment	**Number of Vibration-Sensitive Receptors Predicted to Experience a Vibration Effect as Defined by FTA**	
	Draft EIS	**Final EIS**
1	0	0
2	0	0
3	13	10
4	176	86
5	67	58
6	23	11
7	11	5
8	19	15

Table 2.11-3. Revised Vibration Analysis Results		
EJ&E Rail Line Segment	Number of Vibration-Sensitive Receptors Predicted to Experience a Vibration Effect as Defined by FTA	
	Draft EIS	Final EIS
9	23	0
10	5	5
11	31	10
12	2	0
13	19	0
14	33	13
Total	422	213

Analysis results in the table above show a decrease in the number of potential train-induced ground-borne vibration effects associated with the Proposed Action. This decrease reflects SEA's refinement of the depiction of vibration contours at crossovers. The following sections discuss SEA's additional noise analysis.

2.11.1 Noise from Idling Trains

SEA revised the analysis of noise from idling trains in the EJ&E corridor to reflect revised assumptions regarding the number and duration of idling trains. The analysis assessed noise from stationary locomotives idling on a siding, noise from trains traveling over the crossover to enter a siding, and combined these with the wayside noise from trains on the main line. These analyses are based on Federal Transit Administration (FTA) methods.

SEA assumed that the total daily duration that a siding is occupied by idling trains is 12 hours; this may be from any number of trains temporarily idling on a siding. SEA's analysis assumed that each train has two idling locomotives – the noise sources. Assuming an even mix of northbound trains and southbound trains, the net locomotive idling time is 6 hours per day at one end of the siding, and six hours per day at the other end of the siding. Under these assumptions, the highest concentration of noise is located at the furthest ends of the sidings, where locomotives park. SEA used the same noise contour distance for the entire length of the siding as a conservative overestimate of noise from locomotives idling on sidings in the project area.

In addition to noise from idling locomotives, SEA assessed noise from trains traveling over crossovers at the entrance and exit of each siding. The analysis produced a circular noise contour because crossovers were modeled as point sources where noise emissions travel equally in all directions. To analyze of noise from crossovers and connections, SEA used segment-specific traffic data that was provided by CN. As a final measure of conservatism in the additional noise modeling, SEA combined noise from idling locomotives, crossovers, and wayside noise associated with trains on the main line. The combined noise levels were then used to calculate the distance to the 65 and 70 dBA Ldn contours. These refinements resulted in an increase in the number of noise-sensitive receptors exposed to threshold levels of noise associated with the Proposed Action. The receptors shown in Tables 2.11-1 and 2.11-2, above, include these additional receptors. Noise contours shown in Appendix A of this Final EIS present the results of this analysis.

2.11.2 Wheel Flange Squeal

The Draft EIS contained a limited assessment of noise associated with wheel squeal on segments of curved track. Based on the comments received on the Draft EIS, SEA determined that additional analysis of wheel squeal was necessary. The following discussion presents SEA's revised analysis of wheel squeal.

2.11.2.1 Introduction

Wheel squeal occurs "when a steel-wheel tread or its flange rubs across the rail, setting up resonant vibrations in the wheel which cause it to radiate a screeching sound" (FTA 2006). It is a common occurrence. More specific sources of squeal are dependent on numerous environmental and train-specific factors. Train speed, length, and train wheel base are considered in a detailed evaluation and assessment of wheel squeal. The latest research suggests that the most prevalent cause of wheel squeal is friction between the truck wheel base and a curved track. All sources cited refer to the primary cause of wheel squeal as being lateral creep, which takes place along curved tracks.

2.11.2.2 Assessing Wheel Squeal

There are several contrasting views as to when and where wheel squeal should be evaluated, as listed below. The general consensus is that lateral creep, the primary cause of wheel squeal, is caused by interaction between the rail on a curve and the wheel base of a truck. The likelihood of wheel squeal can then be determined by a ratio of R/W (R being the radius of the curve and W being wheel base). Most texts refer to a ratio of over 100 as sufficient in eliminating wheel squeal without mitigation.

Wheel base research suggests that curve squeal be examined for all curves with a radius of less than 500 m. This is a conservative approach as many texts suggest wheel squeal occurs at curves with a radius of 300 m or less.

SEA performed a limited literature review to identify a suitable threshold for determining where wheel squeal could potentially occur and, therefore, where it should be evaluated. Table 2.11-4, below, summarizes SEA's literature review.

Table 2.11-4. Summary of Wheel Squeal Assessment Thresholds

Reference Source	Parameters for Wheel Squeal Sssessment
Transit Noise and Vibration Effect Assessment[1]	Not addressed
Handbook of Acoustical Measurement and Noise Control [2]	Under a 100 m (328ft) radius
"Wheel/Rail Noise Control Manual" [3]	Approximately 600 m (2000 ft) R/W ratio of 50-100 and below
N. Vincent. "Curve squeal of urban rolling stock - Part 1: State of the art and field measurements" [4]	500 m (1640 ft) R/W ratio of 100 and below

Sources:
1 FTA 2006
2 Harris 1998
3 TCRP Report 23
4 Vincent 2006

FTA does not address a radius threshold at which wheel squeal should be analyzed. However, there is common acceptance among freight rail engineers that tracks with a radius greater than 7 degrees may produce wheel squeal. SEA conservatively assumed that the threshold for potential wheel squeal is a track curve radii of 3 degrees. Based on this conservative assumption, SEA revised the analysis of

noise associated with wheel squeal in the project area. Numerous locations along the EJ&E corridor, including revised connections at Leithton and Matteson, met the three-degree criterion, and were assessed in this analysis. These refinements resulted in an increase in the number of noise-sensitive receptors exposed to threshold levels of noise associated with the Proposed Action. The receptors shown in Tables 2.11-1 and 2.11-2, above, include these additional receptors. Noise contours shown in Appendix A.7 of the Final EIS present the results of this analysis. SEA notes that the Applicants have proposed voluntary mitigation, discussed in Chapter 4 of this Final EIS, which SEA believes would result in meaningful and appropriate reduction in wheel squeal.

2.11.3 Ivanhoe and Munger Connections

Appendix L (Noise and Vibration Analysis) of the Draft EIS presented noise and vibration contours overlaid on aerial photographs. The contours shown at the Ivanhoe and Munger connections were incomplete. For the Final EIS, SEA revised the noise contours by assessing noise from crossovers, wheel squeal, and wayside noise for both the Ivanhoe and Munger connections. Appendix A of this Final EIS presents the 65 and 70 dBA Ldn contours for these two locations. Appendix A of this Final EIS also presents the vibration contours.

2.11.4 Noise and Vibration at Crossovers

Appendix L (Noise and Vibration Analysis) of the Draft EIS presented noise and vibration contours overlaid on aerial photographs. The noise and vibration analysis performed for the Draft EIS did not account for all crossovers associated with the Proposed Action. Revised noise and vibration contours do account for all crossovers associated with the Proposed Action. These refinements resulted in an increase in the number of noise-sensitive receptors exposed to threshold levels of noise associated with the Proposed Action. The receptors shown in Tables 2.11-1, 2.11-2 and 2.11-3, above, include these additional receptors. Appendix A of this Final EIS presents final noise and vibration contours.

2.11.5 Noise and Vibration at Historic Structures

FTA guidance (FTA 2006) indicates it is extremely rare for ground-borne vibration from train operations to cause building damage, including minor cosmetic damage. Damage from vibration is unlikely to occur except when the track alignment is very close to the structure. The criteria level for minor structural damage (possible cracks in plaster walls) is 100 VdB (velocity decibels) for fragile buildings. For fragile historic buildings the criteria level for minor structural damage is 95 VdB (see Table 4.8-1 in the FTA guidance).

STB conducted supplemental analysis of the potential for predicted ground-borne vibration levels to effect historic structures. The 94VdB contour lines (the closest available contour modeled) are located 10 feet from the centerline of the closest tracks for the entire EJ&E corridor, except for the segments listed in Table 2.11-5, below. All the segments listed below have special track work and are located between Bishop Ford Freeway in Dyer, Indiana, and Main Street in Griffith, Indiana. The 94VdB contours for the segments listed in Table 2.11-5 are located at 50 feet from the centerline of the closest tracks.

Table 2.11-5. Predicted 94 VdB Vibration Contours for EJ&E Segments				
City	EJ&E Segment	Mile Post	Closest Arterial Rd.	Contour Distance (ft)
Griffith, IN	4	36.19E	Broad Street	50
Griffith, IN	5	35.75E	Broad Street	50
Schererville, IN	5	34.95E	Kennedy Avenue	50
Schererville, IN	5	34.40E	Kennedy Avenue	50
Schererville, IN	5	33.80E	Kennedy Avenue	50
Dyer, IN	5	31.30E	Lake Street	50

The Barrington Historic District boundary most closely approaches the EJ&E railroad track at its northwest corner. However, the centerline of the nearest track is approximately 300 feet from the district boundary. Therefore, SEA concludes that the Proposed Action would not result in vibration levels that pose a hazard to fragile historic structures in Barrington.

2.11.6 Noise Mitigation Analysis

SEA performed an assessment of noise mitigation cost-effectiveness using criteria that Illinois DOT and Indiana DOT use to assess highway noise mitigation measures. SEA evaluated over 90 locations to determine if cost-effective noise barriers could potentially be constructed in areas adjacent to the EJ&E. Appendix A of this Final EIS presents the results of SEA's assessment. Figures in Appendix A.8 show the locations where noise mitigation measures were evaluated. Through this Final EIS, the areas where noise mitigation measures have been determined to be cost-effective by SEA and should be given priority consideration by the Applicants as they execute their voluntary noise mitigation measures.

2.12 Biological Resources

In response to the U.S. Department of Interior Fish and Wildlife Service's (USFWS) comments dated September 29, 2008, SEA undertook additional analysis for the federally listed Hine's emerald dragonfly (*Somatochlora hineana*), the Karner blue butterfly (*Lycaedies melissa samuelis*), the Eastern prairie fringed orchid/Prairie white fringed orchid (*Platanthera leucophaea*), and the Indiana bat (*Myotis sodalis*). A biological report documents the results of this analysis, and is found in Appendix A of this Final EIS. Responses to issues raised by the USFWS are addressed in Chapter 3 of this Final EIS.

As part of the additional analysis for biological resources, SEA undertook species research, field investigations, resource agency coordination, and preparation of a biological report. On October 23, 2008, SEA conducted a meeting with Illinois and Indiana USFWS personnel to discuss issues pertaining to the threatened and endangered Federal and state species, turtle crossings, and the effect of noise on migratory species. Through extensive coordination with USFWS, SEA has made the following determinations with regard to potential effects on threatened and endangered species as a result of the Proposed Action and Transaction-related constructions.

2.12.1 Hine's Emerald Dragonfly (HED)

Since there are no changes in rail operations on the Paul Ales Branch or on the CN Joliet subdivision where the most suitable habitat exists for the HED, SEA determined that the Proposed Action and construction of the Joliet connection may affect, but would not adversely affect, the HED or its habitat. There is no presence of breeding, foraging, or larval habitat at the proposed Joliet rail connection, and, trains will be required to slow down to 10 mph to cross over the existing Des Plaines River EJ&E railroad bridge in Segment 9B on the EJ&E rail line. Since there is no change in operations on the Paul Ales Branch and the Joliet subdivision, and there would be reduced train speeds in Segment 9B, SEA determined the Proposed Action would not adversely affect the HED along the EJ&E rail line.

2.12.2 Karner Blue Butterfly

As a result of additional investigations and coordination, SEA determined that the Proposed Action may affect, but it is not likely to adversely affect, the habitat of the Karner blue butterfly.

2.12.3 Eastern Prairie Fringed Orchid

Eastern prairie fringed orchid/Prairie white fringed orchid. As part of the field studies conducted for the orchid, SEA's biological resources team identified potentially suitable habitat, such as wetland fringe or mesic prairie areas, that may be present at the proposed rail connections (Matteson and Munger) and double track locations. SEA determined that the Proposed Action would not affect the orchid in Indiana. On November 5, 2008, the biological resources team met with representatives of the Illinois USFWS to conduct a field visit to determine if potentially suitable habitat for the orchid occurred within Transaction-related construction areas. In addition, SEA developed a mitigation measure stating that, should the Proposed Action be approved, no construction would occur until after protocol surveys for the orchid are complete. If orchids are found, consultation would be re-initiated.

2.12.4 Indiana Bat

SEA determined that the Proposed Action and transaction-related constructions may affect, but would not likely adversely affect, the Indiana bat or its habitat. SEA has included a mitigation measure in Chapter 4 of this Final EIS with regard to Indiana bat habitat—no trees that provide suitable habitat will be removed for rail construction purposes between April 15th and September 15th.

The Biological Report, contained in Appendix A of this Final EIS, presents data and information gathered during the period SEA performed additional analysis.

2.13 Cumulative Effects of Rail/Rail At-Grade Crossings on Highway/Rail At-Grade Crossings

As described in Chapter 5 of this Final EIS, SEA hosted a number of stakeholder and public meetings during the Draft EIS comment period. At these meetings, public participants and agency representatives questioned cumulative effects of additional traffic on rail/rail at-grade crossings on the EJ&E rail line. Commenters contended that the Draft EIS underestimated effects on environmental effect categories including vehicle delays, noise and vibration, and emergency services because the analysis did not include the effects of the Proposed Action on rail/rail at-grade crossings and nearby highway/rail crossings. Some communities also commented that cumulative effects could result from the combination of existing trains on other railroad lines with those proposed by CN on the EJ&E rail line.

In response, SEA reviewed the locations where other railroads intersect or run parallel to the EJ&E rail line to determine whether cumulative effects would likely occur. SEA's analysis includes its best estimate of the number of trains operating on the intersecting rail lines. However, SEA notes that most of the intersecting rail lines are owned and operated by entities that are not parties to the Proposed Action before the Board. The train numbers, train speeds, and train lengths are all subject to change based on the business needs of the operating railroad. Table 2.13-1, below, summarizes SEA's analysis of possible cumulative effects, including noise and vibration, vehicle delay, and emergency services effects at locations affected by rail/rail at-grade crossings.

Table 2.13-1. Cumulative Effects of Intersecting Railroads

Location	Railroad Crossed by the EJ&E	Type of Crossing	2015 EJ&E, Diverted CN, and Other[a] Trains/day on EJ&E Rail Line with the Proposed Action	Additional Railroad Traffic (Trains/day) on Intersecting Rail Lines	Potential Cumulative Effects
Illinois					
Barrington	UP	At-Grade	20.3 CN/EJ&E	56 Metra, 7 UP (additional Metra trains could be possible with UP Northwest expansion)	Increased number of vehicle delays on Hough Street (IL.59) and Main Street/Lake Cook Road during peak travel periods when Metra trains are most frequent; increased noise & vibration; increased effect on emergency services during peak travel periods. Since railroads intersect at grade, effects of both not likely to occur concurrently.
Spaulding Road (Bartlett)	CP/IC&E	At-Grade	20.3 CN/EJ&E (52 additional Metra trains could be possible with STAR Line)	50 Metra 31 CP/IC&E	Increased number of vehicle delays on Spaulding Road; increased noise & vibration; increased effect on emergency services. Since railroads intersect at grade, effects of both not likely to occur concurrently.

Table 2.13-1. Cumulative Effects of Intersecting Railroads					
Location	**Railroad Crossed by the EJ&E**	**Type of Crossing**	**2015 EJ&E, Diverted CN, and Other[a] Trains/day on EJ&E Rail Line with the Proposed Action**	**Additional Railroad Traffic (Trains/day) on Intersecting Rail Lines**	**Potential Cumulative Effects**
Hawthorn Lane (West Chicago)	UP	Parallel and Adjacent	23.4 CN/EJ&E (52 additional Metra trains could be possible with STAR Line)	6 UP	Increased delay on Hawthorn Lane from CN/EJ&E trains waiting for UP freight trains to cross at West Chicago Road; increased noise & vibration; increased effect on emergency services in West Chicago & Wayne.
Washington Street (West Chicago)	UP	At-Grade	31.6 CN/EJ&E (52 additional Metra trains could be possible on flyover with STAR Line)	52 Metra 51 UP (additional Metra trains could be possible with UP West Expansion)	Increased number of vehicle delays at Washington Street; increased noise & vibration.
Eola (Aurora)	BNSF	Grade Separated	39.5 CN/EJ&E (52 additional Metra trains could be possible with STAR Line)	72 Metra 6 Amtrak 67 BNSF	Increased noise & vibration
Rock Island Jct. (Joliet)	Metra/CSX/AIS	At-Grade	28.3 CN/EJ&E	47 Metra 10 CSX/IAIS	Increased noise & vibration
New Lenox	NS	Grade Separated	28.3 CN/EJ&E	4 Metra 2 NS	Increased noise & vibration
Chicago Heights	CSX/UP	At-Grade	31.6 CN/EJ&E	53 CSX/UP (up to 24 more Metra trains could be possible with Southeast Service)	Increased noise & vibration
Indiana					
Dyer	CSX/ Amtrak	At-Grade	34.2 CN/EJ&E	2 Amtrak 2 CSX (18 additional NICTD trains could be possible with West Lake service to Lowell)	Increased noise &vibration
Hartsdale (Schererville)	NS	At-Grade	34.2 CN/EJ&E	2 NS	Increased noise & vibration

Table 2.13-1. Cumulative Effects of Intersecting Railroads					
Location	**Railroad Crossed by the EJ&E**	**Type of Crossing**	**2015 EJ&E, Diverted CN, and Other[a] Trains/day on EJ&E Rail Line with the Proposed Action**	**Additional Railroad Traffic (Trains/day) on Intersecting Rail Lines**	**Potential Cumulative Effects**
Griffith[b]	CN	At-Grade	28.6 CN/EJ&E	2.9 CN west of crossing, 4.6 CN east of crossing (18 additional NICTD trains could be possible on flyover with West Lake Service to Valparaiso)	Increased noise & vibration from NICTD trains
Van Loon (Gary)	NS	At-Grade	28.6 CN/EJ&E	23 NS	Increased noise & vibration
Ivanhoe (Gary)	IHB/ CSX	At-Grade	29.8 CN/EJ&E	2 IHB/CSX	Increased noise & vibration

Notes:
[a] Other train traffic could be the result of BNSF, CSX, UP, Norfolk Southern, etc., trackage rights on EJ&E lines.
[b] See Sections 2.5 and 2.10 for discussion of effects of CN trains on vehicle delay and noise.

SEA discussed the cumulative effects of Metra's proposed STAR Line and Southeast Service in Chapter 5 of the Draft EIS and Section 2.3 of the Final EIS. Cumulative effects of the Proposed Action on Metra Northwest, UP West, and the proposed NICTD extension are discussed in Sections 4.1.7 and 5.4.2 of the Draft EIS.

SEA notes that the Applicants have included a voluntary mitigation measure, VM 38, whereby the Applicants commit to operate the key interlockings (rail/rail at-grade crossings) at West Chicago and Barrington, Illinois, in accordance with the current agreements governing EJ&E operations. The agreements generally give priority to the Metra commuter trains. SEA reviewed these agreements and notes that the agreements would potentially limit the operations of EJ&E trains at the rail/rail at-grade crossings during the peak period of Metra train operations. SEA believes that the voluntary mitigation measure, if imposed and implemented, would have the effect of reducing the likelihood of some of the potential cumulative effects identified in Table 2.13-1, above.

2.13.1 Effects of Additional Programmed Highway Projects

Section 5.5.3 of the Draft EIS examined potential cumulative effects of planned highway construction projects. However, agency representatives at the stakeholder meetings commented that the analysis in the Draft EIS omitted certain planned county road projects that would cross the EJ&E rail line where the Applicants propose an increase of at least eight trains per day under the Proposed Action. These projects were not included in the Draft EIS because they were not included in the *Proposed Highway Improvement Program* (IDOT 2008) for Northeastern Illinois. In response to this comment, SEA reviewed published transportation construction plans for the respective counties and found two

projects that cross the EJ&E rail line where the Applicants propose to increase train numbers—Penny Road in Barrington Hills, Illinois, and Harlem Avenue in Frankfort, Illinois (Cook County 2007). Information on these projects is provided below.

2.13.1.1 Penny Road - Barrington Hills

Cook County plans to improve Penny Road from the Cook/Kane county line in Barrington Hills to Illinois 59. Penny Road crosses the EJ&E rail line at-grade just west of IL 59. The Cook County Department of Highways explained in a telephone conversation that the crossing would be widened to accommodate a new left-turn lane on Penny Road at IL 59 (R. Bettenhausen, pers. comm., September 30, 2008). Cook County would retain the existing warning system of flashing lights and gates. Staff from the ICC, an Illinois state agency that regulates safety at all public railroad crossings, confirmed Cook County's information in a meeting with SEA on October 8, 2008. The addition of a left-turn lane should create additional storage capacity which will reduce the possibility for cars to wait on the EJ&E tracks. As a result, SEA does not believe there would be cumulative effects from this road improvement project.

2.13.1.2 Harlem Avenue - Frankfort

Cook County plans to reconstruct Harlem Avenue from US 30 on the north, across the EJ&E rail line, to south of Sauk Trail. The project would add two travel lanes to make Harlem Avenue a four-lane road with a median. Cook County explained that the plans are 20 percent complete and details are not available as to whether the existing warning system of flashing lights with gates would be retained or improved (R. Bettenhausen, pers. comm., September 30, 2008). SEA believes there could be beneficial cumulative effects on safety from warning system improvements, and vehicle delay from reduced queue length because of additional travel lanes, depending on the final design of this improvement.

2.13.2 Effects of Actions of the Illinois Commerce Commission

Before a new highway/rail at-grade crossing can be added or an existing highway/rail at-grade crossing can be altered, the ICC must review the proposal and approve it. In discussions with ICC staff, SEA identified the following ICC actions that could have cumulative effects.

2.13.2.1 Gifford Road - Bartlett and Elgin

In November 2004, the EJ&E Railway Company petitioned the ICC for authorization to create a new at-grade crossing where an industrial side track was proposed for service to a new asphalt plant. The side track was proposed to run from the EJ&E rail line just south of Spaulding Road westerly along the CP/Metra Milwaukee District West Line to the new asphalt plant and other industrial customers. In order to reach the new plant, the side track would need to cross Gifford Road, a road under the jurisdiction of the Cook County Highway Department that runs north and south approximately 0.5 mile west of the EJ&E rail line. In April 2005, the ICC approved EJ&E's petition for the new at-grade crossing on Gifford Road at a point only 210 feet south of the CP/Metra Milwaukee District Line. The ICC heard evidence that: 1) EJ&E planned to serve the new asphalt plant between 9 p.m. and 5 a.m.; 2) EJ&E would erect advance warning signs along Gifford Road, and 3) EJ&E would retain level shoulder areas along Gifford Road so that vehicles caught between the two crossings would have an escape area. ICC staff advised SEA that if circumstances change, EJ&E could be required to interconnect the warning system at the new Gifford Road crossing with the Metra warning system. As explained in the Draft EIS, the Proposed Action would not cause vehicle safety and delay effects at the highway/rail at-grade crossing at Gifford Road (see Section 4.2. and Section 4.3.1 of the Draft EIS). As a result, the ICC-approved highway/rail at-grade crossing of Gifford Road should not result in cumulative effects.

2.13.2.2 116th Avenue - Frankfort and Mokena

In May 2008, the Villages of Frankfort and Mokena, Illinois, petitioned the ICC to modify the roadway at the 116th Avenue crossing on the EJ&E rail line. The Villages proposed modifications including a median barrier in the center of the roadway, a sidewalk on one side of the roadway and a multi-use trail on the other side. The Villages would upgrade the current warning system of flashing lights by adding gates at the 116th Avenue crossing, the sidewalk, and the trail. The ICC has not yet approved the petition, but ICC staff indicated in a conversation with SEA on October 8, 2008, that approval is expected shortly after negotiations are complete. When these improvements have been approved and constructed, there should be a beneficial cumulative effect on safety.

2.13.3 Sauk Village

In February 2008, the developer of an industrial park, Sauk Village, Illinois and Cook and Will counties petitioned the ICC for authorization to create four new at-grade crossings over Jason Rasmussen Drive, a public road under the jurisdiction of Sauk Village. The industrial park is served by EJ&E, and because it is expanding, Jason Rasmussen Drive would be extended across the industrial park lead track that EJ&E uses to serve the park's tenants. Currently, EJ&E averages six train deliveries per week between 7 p.m. and 11 p.m. When the industrial park expansion is completed, train movements could increase to 24 train movements per week during the same hours, meaning any disruptions on the EJ&E rail line would be minimal.

In August 2008, the ICC approved the petitioners request and ordered the installation of reflecting crossbucks, yield signs, and pavement markings. ICC advised that signage should be placed on the roadway and on a sidewalk that would be extended over the at-grade crossings. Whenever EJ&E moves rail cars through an at-grade crossing, a person on the ground would advise when traffic conditions allow safe movement through the at-grade crossing. Based on this information, SEA concludes that the new at-grade crossing could result in cumulative effects on safety and vehicle delay, but that the safety and traffic precautions being undertaken would minimize any such effects.

2.14 Corrections to the Draft EIS

Section 2.14 presents information that has been corrected or updated since publication of the Draft EIS. Each chapter, page, paragraph and sentence, table, or Appendix in the Draft EIS that is being updated is identified prior to the change shown. In each case, SEA denotes words that are added with an underline and words that are deleted by ~~strikethrough~~. Partial tables reprinted in this chapter reflect only those pages where information or values changed. The remainder of such tables remains as published in the Draft EIS. SEA changed and corrected data originally published in Appendices to the Draft EIS and these updates can be found in Appendix A-11 of this Final EIS. This chapter incorporates, by reference, the Draft EIS into the Final EIS, as updated, revised, and corrected.

2.14.1 Corrections to the Draft EIS

The Board's Section of Environmental Analysis (SEA) prepared the Draft EIS, which it published for public comment and review on July 25, 2008. On July 30, 2008, SEA sent out a postcard to all contacts on the project mailing list notifying them of the incorrect dates for the public meetings that were inadvertently published in Table ES-3 in the Executive Summary of the Draft EIS. A corrected Table ES-3 is presented in Section 2.4, below.

The Applicants filed a letter on May 21, 2008, that revised rail traffic data before and after implementation of the Proposed Action on the CN rail lines outside of the EJ&E arc. The Draft EIS reported that there would be no change to the number of trains on the CN rail lines outside of the EJ&E arc. The changes were quite minor and the corresponding values published in the Draft EIS are more conservative. This Chapter updates the rail traffic data reported in the Draft EIS to reflect the Applicants' revised data from the May 21 filing.

On August 5, 2008, the Applicants filed a letter with the Board that identified incorrect data reported in Exhibit A of the March 12, 2008, response to SEA's information request and the subsequent Draft EIS (see the August 5 filing in Appendix B). SEA conducted independent analysis of the new data – results are reported in Sections 2.5, 2. 6, and 2.11, above. In general, the corrections noted by the Applicants in their August 5, 2008, letter stem from imprecise use of rail line mile markers for estimating the location of highway/rail at-grade crossings, and from the complex operations through certain connections. SEA found that the scale of the transaction mile markers are very useful in identifying specific segments and train traffic. However, five specific highway/rail at-grade crossings near the end of certain segments were incorrectly assigned to the wrong segment, based on the use of the mile markers.

At two of the crossings, there will actually be fewer trains per day than was stated in the Draft EIS (143rd Street and Van Dyke Road, near Plainfield, Illinois). Three crossings will have slightly more trains per day (Main Street in Matteson and East End Ave. in Chicago Heights, Illinois, and Broad Street in Griffith, Indiana) than was noted in the Draft EIS. See Figures 2.14-1 through 2.14-4, below, for further detail on the proposed train numbers at rail crossings in Walker/Plainfield, Matteson, Chicago Heights, Illinois, and Griffith, Indiana, respectively.

CN, in their effort to clarify rail traffic moving on the Joliet Subdivision, submitted a response to SEA on October 31, 2008, that described the pre- Trains Per Day (TPD) number on CN Segments 16, 17 and 18 to be 2.0 TPD, instead of the 1.8 TPD, as shown in the Draft EIS. The marginal difference equates to a revision between 2006 and 2007 traffic levels for a BNSF trackage rights train that operated on CN's Joliet Sub between Glenn Yard and Joliet over these three segments. The 0.2 TPD increase simply reflected the fact that, in 2007, BNSF operated this train 14 times each week instead of 12.5 trains weekly, as occurred during the 2006 and earlier time period. According to the Applicants, this BNSF trackage rights train would be interchanged at Eola under the Proposed Action, and would operate along the EJ&E line to Joliet. This anticipated train volume was included in the Applicant's TPD totals as described in Table 2-2 in the Draft EIS. Therefore, there is no change in train traffic per day on the Joliet subdivision.

This train would be then replaced by 2.0 TPD being operated by CN between East Joliet Yard and Glenn Yard over CN Segments 16, 17 and 18. These trains would connect with the Joliet Sub using the proposed connection to be constructed near State Street just east of the Des Plaines River bridge.

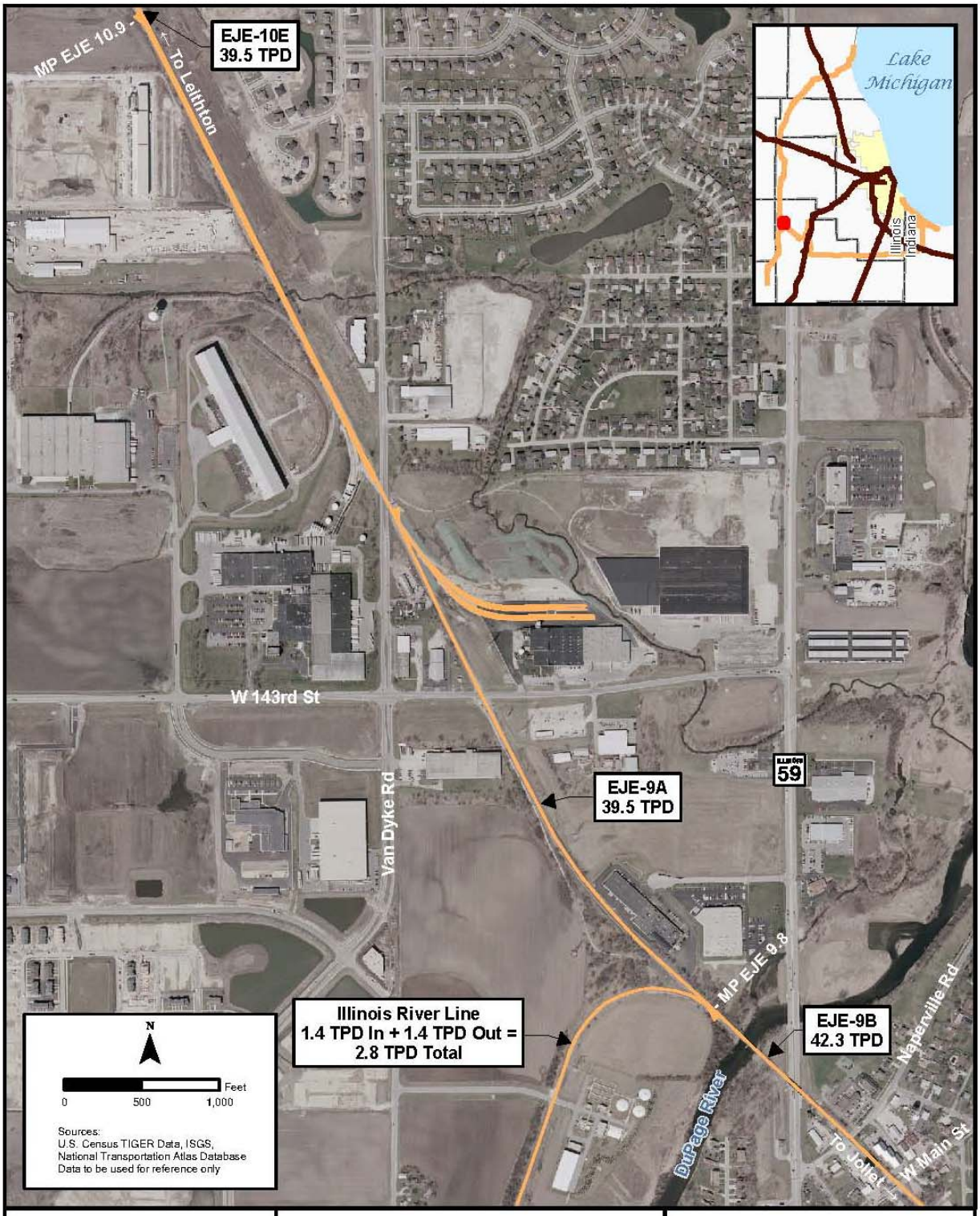
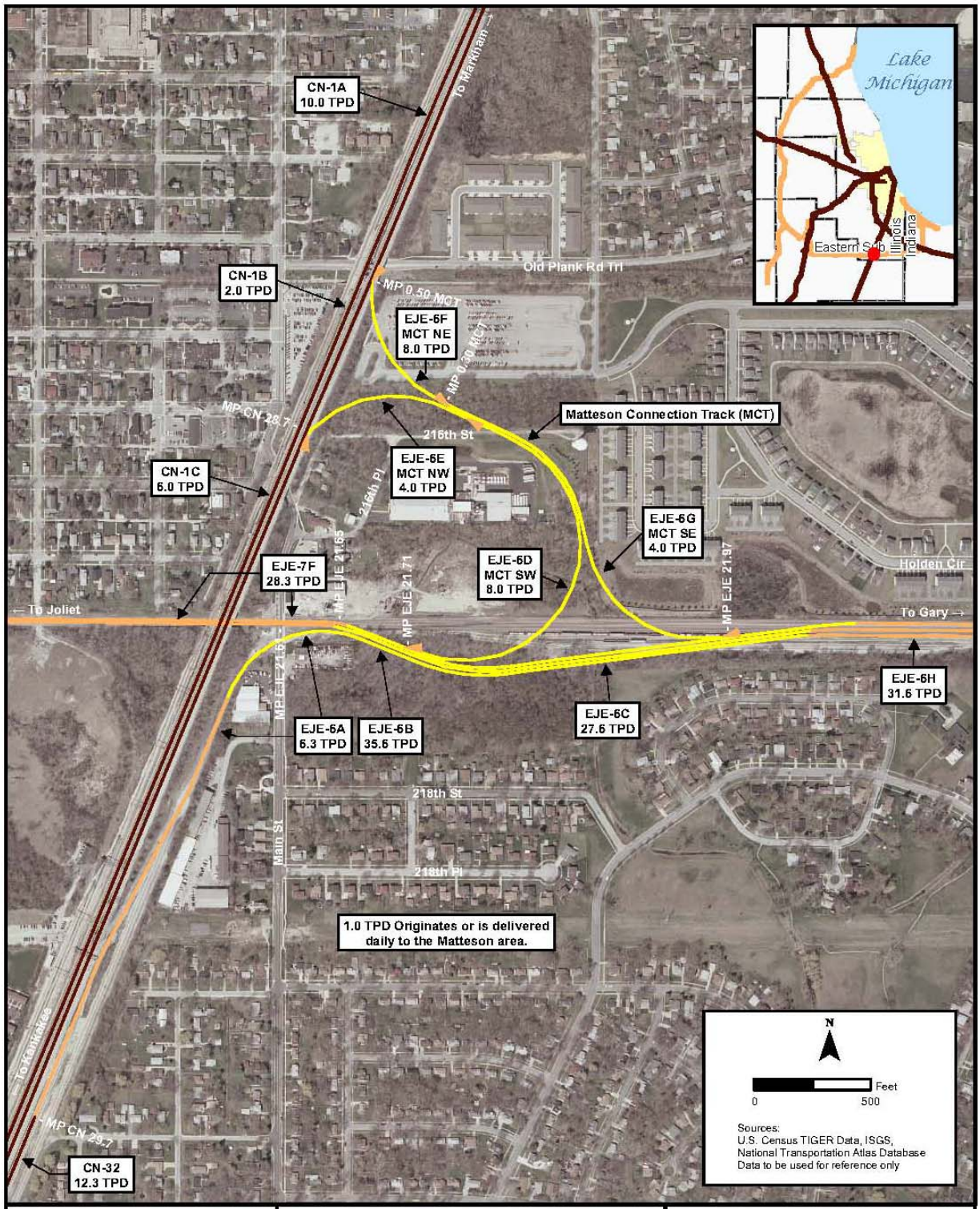


Figure 2.14-1

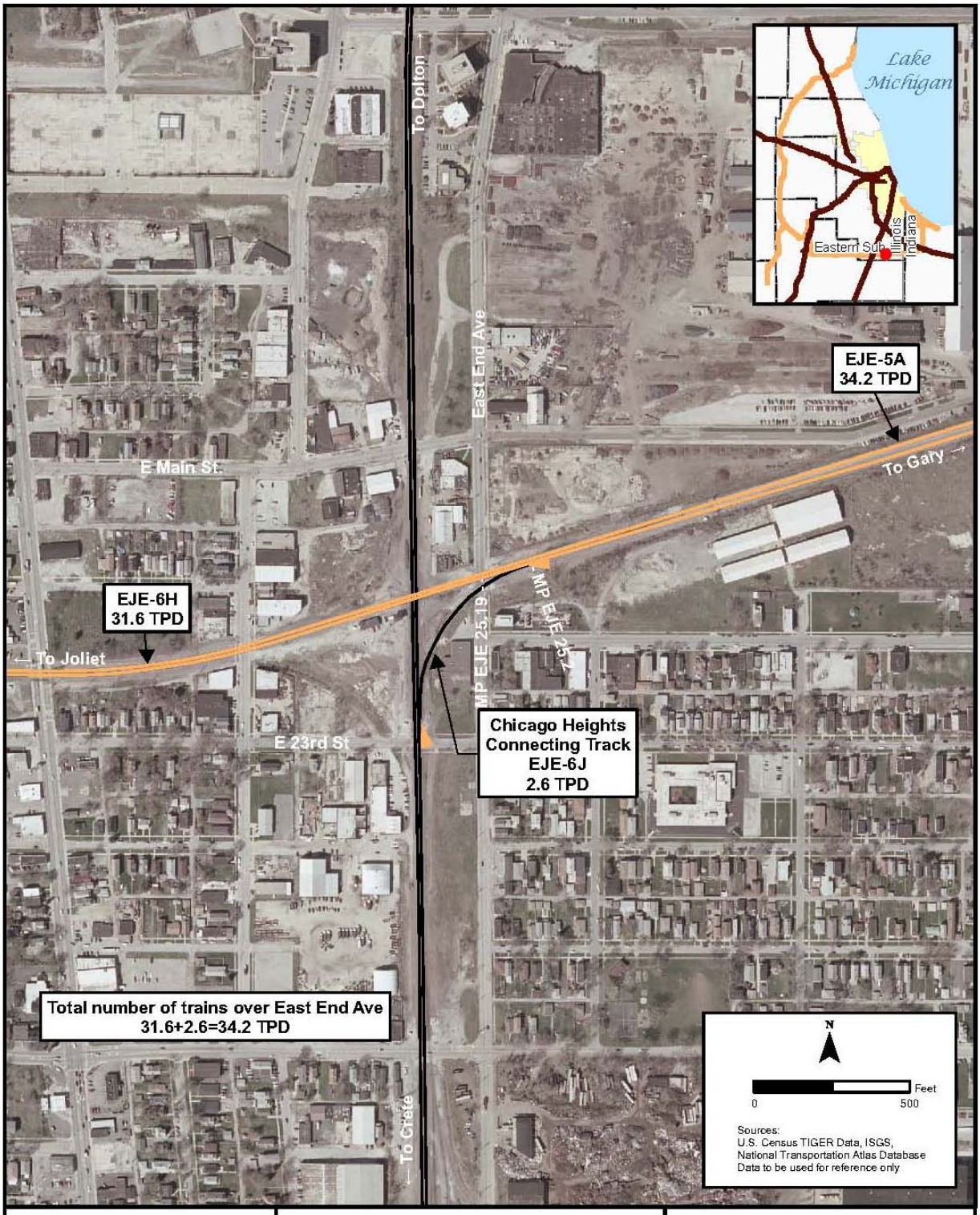
Revised Estimated Trains per Day - Walker/Plainfield



CN | EJ&E
Environmental Impact Statement

EJ&E Rail Line
CN Rail Line
Switch
Proposed Track
TPD = Trains per Day

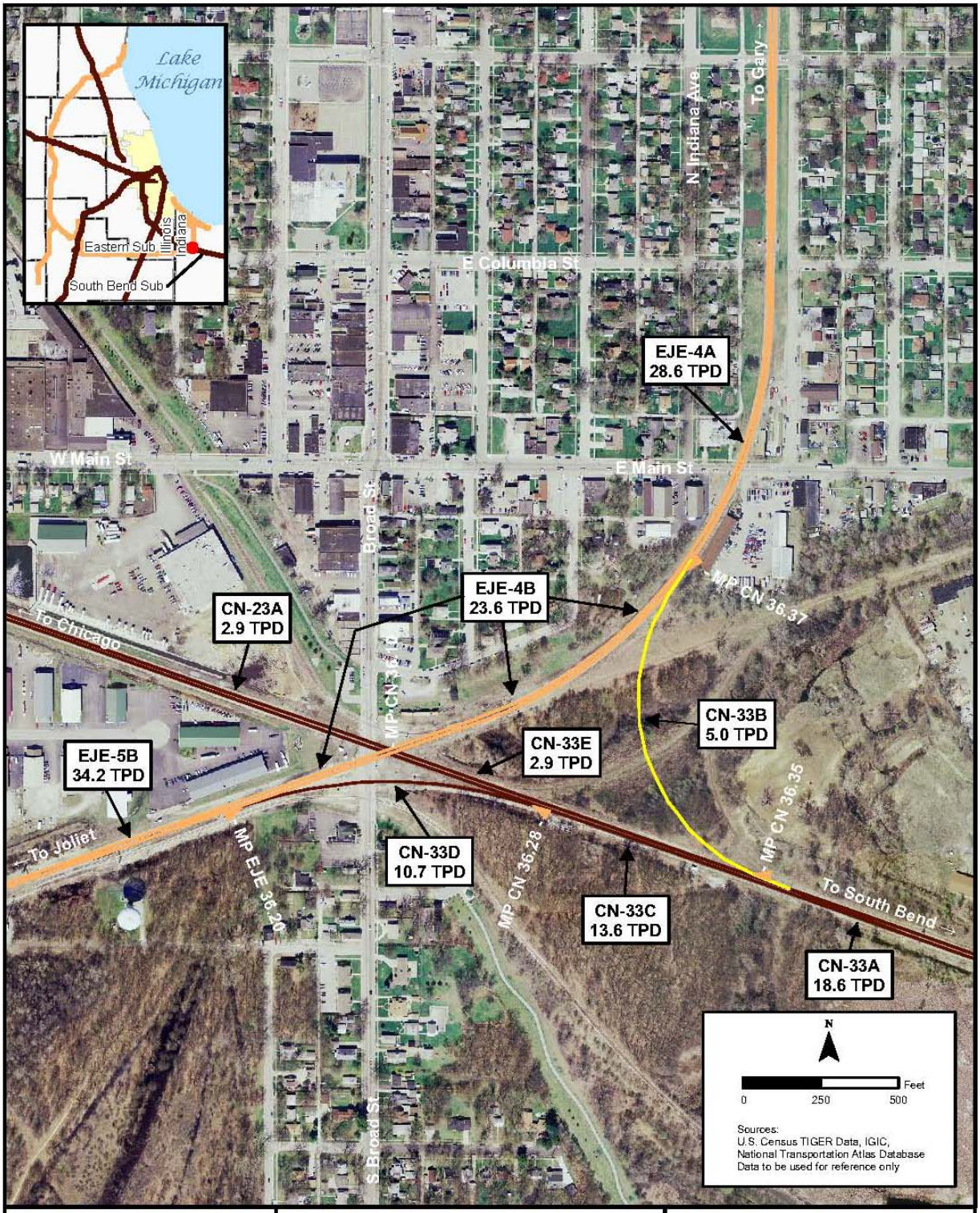
Figure 2.14-2
Revised Estimated Trains per Day - Matteson



CN | EJ&E
Environmental Impact Statement

EJ&E Rail Line
UP Rail Line
Switch
TPD = Trains per Day

Figure 2.14-3
Revised Estimated Trains per Day - Chicago Heights


Lake Michigan
Illinois
Indiana
Eastern Sub
South Bend Sub
E Columbia St
N Indiana Ave
To Gary
EJE-4A
28.6 TPD
W Main St
E Main St
Broad St
EJE-4B
23.6 TPD
CN-23A
2.9 TPD
To Chicago
MP CN 36.37
CN-33B
5.0 TPD
EJE-5B
34.2 TPD
CN-33E
2.9 TPD
MP CN 36.35
To Joliet
MP EJE 36.20
CN-33D
10.7 TPD
MP CN 36.28
CN-33C
13.6 TPD
To South Bend
CN-33A
18.6 TPD
N
Feet
0
250
500
Sources:
U.S. Census TIGER Data, IGIC,
National Transportation Atlas Database
Data to be used for reference only
CN | EJ&E
Environmental Impact Statement
EJ&E Rail Line
CN Rail Line
Switch
Proposed Track
TPD = Trains per Day
Figure 2.14-4
Revised Estimated Trains per Day - Griffith

2.14.2 Dear Reader Letter of the Draft EIS

Page 2, second paragraph, third sentence:

SEA has also distributed the Draft EIS to all parties of record (official participants), as well as making additional print copies of the Draft EIS available for review in ~~49~~ 51 libraries and one village hall throughout the Study Area.

2.14.3 Fact Sheet of the Draft EIS

OPEN HOUSE/PUBLIC MEETINGS ON DRAFT EIS

Date	Location	Address
Monday, August 25	Matteson, Illinois Holiday Inn Hotel & Conference Center	500 Holiday Plaza Drive Matteson, IL 60443
Tuesday, August 26	Mundelein, Illinois Crowne Plaza Chicago North Shore	510 E. Route 83 Mundelein, IL 60060
Wednesday, August 27	Barrington, Illinois Barrington High School	616 W. Main Street Barrington, IL 60010
Thursday, August 28	Bartlett, Illinois Bartlett High School	701 W. Schick Road Bartlett, IL 60103
Monday, Sept. 8	Chicago, Illinois Loyola University of Chicago Rubloff Auditorium	25 East Pearson Street Chicago, IL 60611
Tuesday, Sept. 9	Aurora, Illinois West Aurora High School	1201 W. New York Street Aurora, IL 60506
Wednesday, Sept. 10	Gary, Indiana Indiana University Northwest Savannah Center	3400 Broadway Gary, IN 46408
Thursday, Sept. 11	Joliet, Illinois Holiday Inn Hotel & Conference Center	411 S. Larkin Avenue Joliet, IL ~~60435~~ 60436

2.14.4 Executive Summary of the Draft EIS

Page ES-12, seventh paragraph:

SEA also calculated the risk of accidents at public highway/rail at-grade crossings. Under the No-Action Alternative (current conditions), the SEA analysis predicted ~~4.47~~ 4.40 accidents annually on the EJ&E rail line and ~~6.26~~ 6.29 on the CN rail line, with three CN and one EJ&E highway/rail at-grade crossings having a high accident frequency (one accident every 7 years). Under the Proposed Action, the SEA analysis predicted an increase of ~~from 1.57 to 6.04~~ 1.62 (to 6.03) highway/rail accidents annually on the EJ&E rail line and a decrease of ~~from 2.47 to 3.79~~ 2.52 (to 3.77) on the CN rail line, with four EJ&E highway/rail at-grade crossings and no CN highway/rail at-grade crossings having a high accident frequency (one accident every 7 years). Overall, highway/rail at-grade crossing accidents would decrease by 8% (from 10.70 to 9.80) under the Proposed Action.

Page ES-13, fifth paragraph:

Although the number of potential accidents involving pedestrians or bicycles at trail/rail crossings could not be quantified because no agency keeps data on such incidents, SEA concluded that the consequences of increased train traffic on the EJ&E rail line would increase the risk for pedestrians

and bicycles at ~~those 21~~ 16 trail/rail at-grade crossings and decrease the risk at ~~the 36~~ 19 trail/rail at-grade crossings along the CN subdivisions.

Page ES-15, third paragraph, third sentence:

These are: Munger Alternative Connection – Original Proposal, Munger Alternative – UP Connection, Munger Alternative – Northwest Quadrant, ~~Joliet Alternative – Original Proposal,~~ Matteson Connection, and Matteson Alternative – Northeast and Southwest Quadrants.

Page ES-15, fourth paragraph, first and second sentences:

The proposed increase in rail traffic along the EJ&E rail line would potentially cause ~~increased noise~~ proximity effects on public lands adjacent to the line, affecting ~~17~~ 15 forest preserves, natural areas ~~and~~, nature preserves, resource-rich areas, and land and water reserves. ~~Increased noise associated with the Proposed Action would also potentially affect~~ Approximately 14 adjacent trails, greenways, and scenic corridors; ~~16~~ 22 adjacent local parks; and 4 adjacent land and water conservation fund properties are determined to have proximity effects due to the proposed increase in rail traffic along the EJ&E rail line.

Page ES-15, fifth paragraph, first and second sentences:

The Pratt's Wayne Woods Forest Preserve at the proposed Munger Connection and the Brewster Creek Fen and Nature Preserve are ~~the only~~ public forest preserve land that would be directly affected by the proposed construction activities of two of the alternatives. Because of the proximity of all proposed connection and double track construction activities, ~~11~~ 9 trails, greenways, and scenic corridors and 10 local parks would be affected.

Page ES-17, fourth paragraph, second sentence:

Although train operations would be more efficient, the distance traveled would be longer using the EJ&E rail line, resulting in a net increase in annual energy use of ~~639,442~~ 639,435 gallons per year of diesel fuel including trucks stopped at grade crossings.

Page ES-48, second paragraph, first sentence:

As discussed in the Draft EIS, SEA ~~does not find~~ found that wildlife ~~is likely to~~ had a slight possibility ~~to be~~ of being adversely impacted by the Proposed action and therefore ~~does~~ did not propose specific mitigation ~~at this time~~.

Page ES-54, Table ES-3:

Table ES-3. Public Meeting Dates and Locations

Date	Location	Address
Monday, August 25 Open House – 4:00 PM – 6:00 PM Public Meeting – 6:00 PM – 9:00 PM	Matteson, Illinois Holiday Inn Hotel & Convention Center	500 Holiday Plaza Drive Matteson, IL 60443
Tuesday, August 26 Open House – 4:00 PM – 6:00 PM Public Meeting – 6:00 PM – 9:00 PM	Mundelein, Illinois Crowne Plaza Chicago North Shore	510 E. Route 83 Mundelein, IL 60060
Wednesday, August 27 Open House – 4:00 PM – 6:00 PM Public Meeting – 6:00 PM – 9:00 PM	Barrington, Illinois Barrington High School	616 W. Main Street Barrington, IL 60010
Thursday, August 28 Open House – 4:00 PM – 6:00 PM Public Meeting – 6:00 PM – 9:00 PM	Bartlett, Illinois Bartlett High School	701 W. Schick Road Bartlett, IL 60103
Monday, September 8 Open House – 4:00 PM – 6:00 PM	Chicago, Illinois Loyola University of Chicago	25 East Pearson Street Chicago, IL 60611

Public Meeting – 6:00 PM – 9:00 PM	Rubloff Auditorium	
Tuesday, September 9 Open House – 4:00 PM – 6:00 PM Public Meeting – 6:00 PM – 9:00 PM	~~Gary, Indiana~~ ~~Indiana University Northwest~~ Aurora, Illinois West Aurora High School	~~3400 Broadway~~ ~~Gary, IN 46408~~ 1201 W. New York St Aurora, IL 60506
Wednesday, September 10 Open House – 4:00 PM – 6:00 PM Public Meeting – 6:00 PM – 9:00 PM	~~Aurora, Illinois~~ ~~West Aurora High School~~ Gary, Indiana Indiana University Northwest Savannah Center	~~1201 W. New York St~~ ~~Aurora, IL 60506~~ 3400 Broadway Gary, IN 46408
Thursday, September 11 Open House – 4:00 PM – 6:00 PM Public Meeting – 6:00 PM – 9:00 PM	Joliet, Illinois Holiday Inn Hotel & Conference Center	411 S. Larkin Avenue Joliet, IL ~~60435~~ 60436

2.14.5 Frequently Asked Questions of the Draft EIS

What is the STB's process for authorizing railroad consolidations and acquisitions of control?

Third paragraph:

There are statutory time limits for the STB's processing of merger/control applications. ~~For~~ Because the Board determined that the CN-EJ&E acquisition ~~application involving the proposed merger of a Class I and a Class II railroad~~ is a minor transaction, the STB's decision ~~is~~ normally would be due within ~~10~~ six months of the filing of the application (49 U.S.C. 11325(~~c~~ d)). However, the STB must also comply with the National Environmental Policy Act (NEPA), 42 U.S.C. 4321 *et seq.*, in its decisionmaking and must complete the necessary environmental review process before making a final decision. Therefore, a final decision here will be issued as soon as possible after completion of the environmental review process.

2.14.6 Abbreviations, Acronyms, and Short Forms of the Draft EIS

Pages 1 through 4, Abbreviations, Acronyms, and Short Forms Table:

Abbreviations, Acronyms, and Short Forms	
Abbreviation, Acronym, or Short Form	**Definition**
ADID	advanced identification (of wetlands)
~~AHCP~~ ACHP	Advisory Council on Historic Preservation
CW	Chicago Wilderness
dBA	A-weighted decibels
ELM	ecological land management
HED	Hine's emerald dragonfly
ICLS	Illinois Compiled Statutes
INAI	Illinois Natural ~~Areas~~ Area Inventory
INHS	Illinois Natural History Survey
Ldn	day-night average sound levels
LRHR	Lake Renwick Heron Rookery
~~National Register~~ NRHP	National Register of Historic Places
STCC	~~Surface~~ Standard Transportation Commodity Code
T&E	Threatened and Endangered (Species)
Transaction** (Delete asterisks)	The proposed acquisition by Canadian National Railway Company and Grand Trunk Corporation of control of EJ&E West Company

Abbreviations, Acronyms, and Short Forms	
Abbreviation, Acronym, or Short Form	**Definition**
TNC	The Nature Conservancy

2.14.7 Glossary of the Draft EIS

Pages 1 through 17:

census block groups .....The U.S. Census Bureau uses this geographical unit, which is between the census tract and the census block. It is the smallest geographical unit for which the bureau publishes sample data, i.e., data that is only collected from a fraction of all households.

Chicago Subdivision .....One of five CN rail lines that converge in Chicago; this subdivision approaches Chicago from the south and constitutes the former Illinois Central Railroad Company (IC~~RR~~).

Control Point *(CP)* .....~~A location where remote control operators~~ The location of absolute signals controlled by a control operator that divert trains onto different tracks.

daily exposure .....The total number of potential conflicts at each rail/rail or highway/rail at-grade crossing based on the number of trains that cross the location in a 24-hour period.

EJ&E main line .....~~EJ&E's principle railroad track consisting of their eastern and western divisions and includes sidings, spurs, and yards at a number of different locations to serve train meets, customers, and/or hold freight cars.~~ A rail line in northeastern Illinois and northwestern Indiana that extends in a 120-mile arc around the city of Chicago.

EJ&E rail line .....~~A rail line in northeastern Illinois and northwestern Indiana that extends in a 120-mile arc around the city of Chicago.~~ EJ&E's principle railroad track consisting of their eastern and western divisions and includes sidings, spurs, and yards at a number of different locations to serve train meets, customers, and/or hold freight cars.

Elsdon Subdivision .....One of five CN rail lines that converge in Chicago; this subdivision approaches Chicago from the southeast.

Freeport Subdivision.....One of five CN rail lines that converge in Chicago, this Subdivision approaches Chicago from the west.

grade separated.....An intersection of roads or rail lines that is separated by a bridge, so that traffic flows do not conflict.

head protection elements .....Devices that limit the potential for puncturing the end of a rail car in an accident.

Joliet Subdivision.....One of five CN rail lines that converge in Chicago; this subdivision approaches Chicago from the southwest.

Local Emergency Planning

Committee *(LEPC)* ..... A group of ~~concerned~~ citizens and officials from local governments, law enforcement, fire and emergency medical services, hospitals, schools, civic and environmental groups, business and industrial facilities, and the news media that prepares for and manages emergencies associated with hazardous materials.

maintenance of way..... The repair and maintenance of a railroad's right-of-way, track, and structures.

marshaling..... Another word for classification. See "classification" and "classification yard."

release interval ..... The expected time interval ~~between releases on a segment is essentially the average or expected time~~ that would elapse between two successive release events ~~on a particular rail segment~~.

repair in place *(RIP)* track ..... A designated track or tracks in a rail yard where locomotives and/or railroad cars are set ~~out~~ for ~~minor~~ repairs without removing the units from service, sometimes without even removing a freight load from the car. In some yards, a RIP track may be used for staging defective locomotives or ~~"bad order"~~ rail cars for major repairs. Some yards may have more than one RIP track ~~to serve both functions~~.

Surface Transportation Board.....An economic regulatory agency authorized by Congress to review proposed railroad mergers and acquisitions and rail constructions and abandonments, and resolve railroad rate and service disputes. The Board is decisionally independent, although it is administratively affiliated with the U.S. Department of Transportation.

TPC ..... A Train Performance Calculator (TPC) is an industry standard computer model that ~~looks at~~ analyzes the performance characteristics of a single train, such as trip duration, speed, fuel use, and fuel efficiency.

transloading..... The direct transfer of bulk materials from one mode to another, typically from train to truck, that sometimes includes intermediate storage.

universal crossover..... The location on a double track where trains in either direction can change from one track to another.

Waukesha Subdivision..... One of five CN rail lines that converge in Chicago; this subdivision approaches Chicago from the north.

Wheel Impact Load Detector

(WILD) ..... A device for the protection of rail infrastructure that continually monitors locomotive and rail car wheel ~~health~~ performance to ensure safe train operations~~, managing the wheel impact load spectrum for the targeted removal of defective wheels from service~~.

2.14.8 Chapter 1 of the Draft EIS

Page 1-5, third paragraph, second sentence:

The National Railroad Passenger Corporation, better known as Amtrak, provides passenger service in the Chicago metropolitan area on Amtrak-owned rail lines and by means of trackage rights granted by Class I railroads (BNSF, CN, UP, and NS) and by Metra.

Page 1-8, first paragraph, first sentence:

EJ&E operates on slightly more than ~~198~~ 200 miles of track in northeastern Illinois and northwestern Indiana.

Page 1-10, fifth paragraph, second sentence:

The projected increases in annual gross ton-miles per day would range from 78 to ~~1,280~~ 1,230 percent on 17 of the 18 EJ&E rail line segments.

Page 1-11, sixth paragraph, bulleted list:

- U.S. Department of Energy, Fermi National Accelerator Laboratory

Page 1-12, second paragraph, bulleted list:

~~o U.S. Department of Energy, Fermi National Accelerator Laboratory~~

- U.S. Senators and Representatives and State-Elected Officials

Page 1-16, seventh paragraph, first sentence:

The Board will host public meetings on the Draft EIS as ~~announced~~ listed in the ~~Dear Reader letter~~ Fact Sheet attached to this Draft EIS, above, or in Chapter 9, Section 9.6, below.

2.14.9 Chapter 2 of the Draft EIS

Page 2-12, third paragraph, first sentence:

Amtrak provides passenger service in the Chicago metropolitan area on rail lines owned by Amtrak and on rail lines owned by Class I railroads (BNSF, CN, UP, and NS) and Metra.

Page 2-12, third paragraph, third sentence:

Amtrak served more than ~~two~~ 2.8 million intercity passengers traveling to or from Chicago in 200~~2~~7 and currently operates about 78 trains per day (CREATE 2005; Amtrak 2008c).

Page 2-12, fourth paragraph, fourth sentence:

Amtrak's *City of New Orleans* train operates a daily round trip between New Orleans, Louisiana and Chicago, and its *Illini* and *Saluki* trains ~~each~~ together operate a twice-daily round trip between Chicago and Champaign/Carbondale, Illinois (Amtrak 2008c).

Page 2-12, fifth paragraph:

Amtrak crosses CN's rail lines ~~in six places~~ at six locations within the Chicago metropolitan area, four grade-separated and two at-grade crossings. ~~At-grade crossings occur at four locations in Chicago, and two grade-separated crossings occur at Berwyn and Harvey, Illinois (Applicants 2008a)~~. Amtrak operates on CN's Chicago Subdivision as described above and on a portion of CN's Elsdon Subdivision (from Harvey to Munster, Indiana) and the South Joliet and Freeport Subdivisions (Amtrak 2008b).

Page 2-14, second paragraph, third sentence:

Metra also operates in partnership with NICTD, which runs ~~41~~ 37 trains per day from South Bend, Indiana, to Millennium Station in Chicago (NICTD 2007a).

Page 2-14, third paragraph, fifth and sixth sentence:

At-grade crossings occur at Des Plaines, Franklin Park, Chicago, ~~Bartlett~~ Ashburn, and Joliet~~, and Blue Island~~ in Illinois, and ~~a~~ grade-separated crossings occur~~s~~ in Elmhurst and Blue Island, Illinois (Applicants 2008c). Metra operates on CN's Waukesha Subdivision from ~~Mundelein~~ Antioch to Franklin Park, Illinois, and shares CN's Chicago Subdivision from ~~Harvey~~ University Park, Illinois, to ~~Munster, Indiana~~ 16th Street in Chicago, Illinois (Metra 2006a).

Page 2-15, fourth paragraph, third sentence:

NICTD operates ~~41~~ 37 weekday trains (~~20~~ 18 westbound and ~~21~~ 19 eastbound) (NICTD 2007a).

Page 2-21, second paragraph, sixth and seventh sentences:

~~Certain~~ Some of these locations are also used ~~as interchanges of trains and freight~~ to interchange rail cars between railroads. During ~~SEA's~~ on-site visits, SEA inspected ~~included on railroad ROW inspection of~~ the EJ&E rail system on its railroad ROW.

Page 2-48, first paragraph, second sentence:

To potentially avoid this land, ~~the Forest Preserve District of DuPage County (FPDDC)~~ SEA put forth an alternative to the Applicants' Proposed Munger Connection, which is proposed to be sited in the southwest quadrant.

Pages 2-20, Table 2-8 (This is only a portion of the table):

Table 2-8. Proposed Changes in Train Traffic Volume on CN Rail Lines

From Station	To Station	Existing No. of Trains	Anticipated Change[a]	Projected Total
Joliet Subdivision				
Joliet (near Joliet, Illinois)	Argo (near Summit, Illinois)	~~1.8~~ 2.0	~~0.2~~ 0	2.0
Argo	Glenn Yard (in Chicago)	5.8	(3.8)	2.0
Glenn Yard	Lemoyne (in Chicago)	2.1	(0.1)	2.0
Lemoyne	Bridgeport (in Chicago)	2.1	(2.1)	0.0

Pages 2-71 and -75, Table 2-9 (This is only a portion of the table):

TABLE 2-9. SUMMARY OF POTENTIAL ENVIRONMENTAL IMPACTS DUE TO CHANGES IN RAIL OPERATIONS		
Resource Category	**No-Action Alternative**	**Proposed Action**
Rail Operations		
Freight Rail Operations	The No-Action Alternative would not affect freight rail operations.	The Applicants' train traffic projections are reasonable and are not likely to be exceeded by 2015.~~.~~
Land Use		
Trails, Greenways, Scenic Corridors	The No-Action Alternative would not affect trails, greenways, or scenic corridors.	The Proposed Action has the potential to affect 14 trails, greenways, or scenic corridors ~~due to increased noise levels and delay at pedestrian/rail at-grade crossings~~.
Local parks	The No-Action Alternative would not affect local parks.	The Proposed Action has the potential to affect ~~23~~ 22 existing or planned local parks ~~due to increased noise levels and delay at pedestrian/rail at-grade crossings~~.
Land and Water Conservation Fund Properties	The No-Action Alternative would not affect Land and Water Conservation Fund properties.	The Proposed Action has the potential to affect four properties ~~due to increased noise levels and delay at pedestrian/rail at-grade crossings~~.
Environmental Justice[a]		
Minority Populations along the EJ&E Rail Line	Under the No-Action Alternative, impacts on minority populations along the EJ&E rail line would be the same as those experienced under existing conditions.	Under the Proposed Action, minority populations along the EJ&E rail line would not experience disproportionate impacts from safety and delay at highway/rail at-grade crossings, but would experience high and adverse impacts due to train noise.
Low-Income Populations along the EJ&E Rail Line	Under the No-Action Alternative, impacts on low-income populations along the EJ&E line would be the same as those experienced under existing conditions.	Under the Proposed Action, low-income populations along the EJ&E rail line would not experience disproportionate impacts from safety and delay at highway/rail at-grade crossings, but would experience high and adverse impacts due to train noise.
Minority and Low-Income Populations along the CN Rail Lines	Under the No-Action Alternative, ~~the number of trains would decrease along the CN rail lines as described in the Application. Minority and low-income populations along the CN rail lines in Chicago metropolitan area would benefit from decreasing train traffic~~ impacts on minority and low-income populations along the CN rail lines would be the same as those experienced under existing conditions.	Under the Proposed Action, the environmental justice communities traversed by or adjacent to these rail segments would experience beneficial impacts related to hazardous materials transport, safety and delay at highway/rail at-grade crossings, and train noise from the decreased train traffic on the CN rail lines.
Biological Resources[b]		

TABLE 2-9. SUMMARY OF POTENTIAL ENVIRONMENTAL IMPACTS DUE TO CHANGES IN RAIL OPERATIONS		
Resource Category	**No-Action Alternative**	**Proposed Action**
Plant Communities	The No-Action Alternative would not change effects on plant communities.	The Proposed Action ~~would not affect plant communities~~ may affect plant communities due to a higher probability of hazardous materials spills. However, since the probability of an accidental spill is still remote, impacts are expected to be minimal. No impacts due to reduced traffic on CN.
Wildlife	The No-Action Alternative would not change effects on wildlife.	The Proposed Action ~~would not affect~~ wildlife may affect wildlife due to increased noise and higher probability of spills and train-animal collisions. Decreased traffic along CN lines are expected to be beneficial to wildlife; however, most beneficial habitat is on the outside EJ&E arc.
Federal, State, or Local Conservation and Natural Areas	The No-Action Alternative would not change effects on Federal, state, and local conservation and natural areas.	The Proposed Action ~~would not affect conservation and natural areas~~ may affect wildlife and plant communities that adjoin the rail lines. Impacts to areas outside of the Study Area are expected to be minimal to non-existent. Decreased traffic along CN lines would result in beneficial impacts to Conservation and Natural Areas. However, most beneficial areas are on the outside EJ&E Arch.
Federally-Listed Threatened and Endangered Species	The No-Action Alternative would not change effects on Federally-listed threatened and endangered species.	~~With the appropriate mitigation,~~ The Proposed Action may affect, but is not likely to adversely affect the Hine's emerald dragonfly. The Proposed Action is not likely to adversely affect the Karner blue butterfly. The Proposed Action will not affect the Prairie Fringed Orchid.
State-Listed Threatened and Endangered Species	The No-Action Alternative would not change effects on state-listed threatened and endangered species.	~~State-listed species along the EJ&E rail line may have individual effects due to train collisions or increased noise~~ State-listed species most likely to be affected by the proposed action include Blanding's and spotted turtles; however, mitigation to facilitate movement across tracks would minimize impacts to the species. Other state-listed species may have individual effects due to train collisions. The proposed relocation of rail traffic from the existing CN rail line within the Hoosier Prairie Area to the EJ&E rail line near the edge of the Hoosier Prairie Area would result in a beneficial effect

TABLE 2-9. SUMMARY OF POTENTIAL ENVIRONMENTAL IMPACTS DUE TO CHANGES IN RAIL OPERATIONS		
Resource Category	**No-Action Alternative**	**Proposed Action**
		on dune invertebrate species.

Notes:

[a] The governing regulation for environmental justice analysis, Executive Order 12898, uses the term "disproportionately high and adverse impacts" to refer to potential effects on environmental justice populations. Therefore, this section refers to impacts rather than effects.

[b] The wording used in this section is required by Section 7 of the Endangered Species Act of 1973 (16 USC 1531 et seq.) for quantifying potential effects on listed species

Pages 2-80 through -81, Table 2-10 (This is only a portion of the table):

Table 2-10. Summary of Potential Environmental Impacts – Munger Connection					
Resource Category	**No-Action at Munger**	**Proposed Munger Connection**	**Munger Alternative Configurations**		
			Original Proposal	**UP Connection**	**Northwest Quadrant**
Transportation Systems					
Emergency Response	Would not affect existing emergency service response.	~~Would not affect existing emergency service response.~~ Would potentially delay existing emergency response.	~~Would not affect existing emergency service response.~~ Would potentially delay existing emergency response.	~~Would not affect existing emergency service response.~~ Would potentially delay existing emergency response.	~~Would not affect existing emergency service response.~~ Would potentially delay existing emergency response.
Land Use					
Current or Future Land Use Patterns	Would not affect land use patterns because no construction or acquisition of new ROW would occur.	Would not affect land use patterns since construction would occur on lands primarily identified for transportation and utility uses.	Would affect land use patterns because the connection would be constructed on 0.69 acre of ~~forest preserve property~~ open space land.	Would affect land use patterns because 2.86 acres of open space land and 0.58 acres of residential land would be acquired to construct this connection.	Would affect land use patterns because 2.37 acres of open space land would be acquired to construct this connection.
Public Lands	Would not affect public lands.	Would not affect public lands.	Would affect Pratt's Wayne Woods Forest Preserve.	Would ~~not~~ affect ~~public lands~~ Brewster Creek Fen and Nature Preserve.	Would affect Pratt's Wayne Woods Forest Preserve.

Table 2-10. Summary of Potential Environmental Impacts – Munger Connection					
Resource Category	**No-Action at Munger**	**Proposed Munger Connection**	**Munger Alternative Configurations**		
			Original Proposal	**UP Connection**	**Northwest Quadrant**
Biological Resources					
Wildlife	No effect.	Would result in increased noise and ~~indirect~~ loss of habitat, potentially decreasing the breeding activity of marsh birds.	~~No effect~~. Would result in loss of wetland habitat; wildlife may be impacted by increased noise and mortality.	~~No effect.~~ Would result in loss of wetland habitat; would avoid habitat impacts to PWWFP. Wildlife may be impacted by increased noise ant mortality.	~~No effect.~~ Would result in loss of wetland habitat; would avoid habitat impacts to PWWFP. Wildlife may be impacted by increased noise ant mortality.
Federal, State or Local Conservation and Natural Areas	No effect.	Would affect Pratt's Wayne Woods Forest Preserve.	~~No effect.~~ Would affect Pratt's Wayne Woods Forest Preserve.	No effect.	Would affect Pratt's Wayne Woods Forest Preserve.
Federally-Listed Threatened and Endangered Species	No effect.	~~No effect~~. Not likely to adversely affect Prairie Fringe Orchid.	~~No effect~~. Not likely to adversely affect Prairie Fringe Orchid.	~~No effect~~. Not likely to adversely affect Prairie Fringe Orchid..	~~No effect~~. Not likely to adversely affect Prairie Fringe Orchid.
State-Listed Threatened and Endangered Species	No effect.	Minor effects on marsh and wetland reptile and plant species.	Minor effects on marsh and wetland reptile and plant species.	Minor effects on marsh and wetland reptile and plant species.	Minor effects on marsh and wetland reptile and plant species.

Page 2-88, Table 2-11 (This is only a portion of the table):

Table 2-11. Summary of Potential Environmental Impacts – Joliet Connection			
Resource Category	**No-Action at Joliet**	**Proposed Joliet Connection**	**Joliet Alternative – Original Proposal**
Biological Resources			
Plant Communities	No effect.	Would affect railroad embankment, ~~and~~ immature forest, and degraded riparian vegetation.	No effect on plant communities – construction would occur on industrial land.
Wildlife	No effect.	~~No effect.~~ Would result in loss of degraded woody and wetland habitat; impacts to wildlife expected to be minimal since area is urbanized.	No effect.

Page 2-90, Table 2-12 (This is only a portion of the table):

Table 2-12. Summary of Potential Environmental Impacts – Matteson Connection

Resource Category	No-Action at Matteson	Proposed Matteson Connection	Matteson Alternative Configurations	
			Northeast and Southwest Quadrants	Southwest Quadrant
Transportation Systems				
Emergency Response	Would not affect existing emergency service response.	~~Would affect existing emergency service response.~~ Would potentially delay existing emergency service response.	~~Would affect existing emergency service response.~~ Would potentially delay existing emergency service response.	~~Would affect existing emergency service response.~~ Would potentially delay existing emergency service response.
Wildlife	No effect.	No effect.	~~No effect.~~ Would result in loss of wetland and forested habitat; however impacts to wildlife would be minimal since site is highly urbanized and habitat is currently fragmented.	~~No effect.~~ Would result in loss of wetland and forested habitat; however impacts to wildlife would be minimal since site is highly urbanized and habitat is currently fragmented.
Federally-Listed Threatened and Endangered Species	No effect.	No effect.	~~No effect~~. May affect but not likely to adversely affect	~~No effect~~. May affect but not likely to adversely affect

Page 2-96 through -98, Table 2-13 (This is only a portion of the table):

Table 2-13. Summary of Potential Environmental Impacts – Griffith Connection

Resource Category	No-Action at Griffith	Proposed Griffith Connection
Transportation Systems		
Emergency Response	Would not affect existing emergency service response.	~~Would not affect existing emergency service response.~~ Would potentially delay existing emergency service response.
Land Use		
Local Parks or Land and Water Conservation Properties	Would not affect local parks or Land and Water Conservation properties.	~~Would not affect local parks or Land and Water Conservation properties.~~ May affect Griffith Historical Park and Depot Museum.
Biological Resources		
Wildlife	No effect.	~~No effect~~. Loss of remnant prairie, forest and wetland habitat may impact wildlife due to increased disturbance and mortality.
Federally-Listed Threatened and Endangered Species	No effect.	~~No effect~~. May affect, but not likely to adversely affect Eastern Prairie Fringed Orchid.

Page 2-99, Table 2-14 (This is only a portion of the table):

Table 2-14. Summary of Potential Environmental Impacts – Ivanhoe Connection		
Resource Category	**No-Action at Ivanhoe**	**Proposed Ivanhoe Connection**
Transportation Systems		
Emergency Response	Would not affect existing emergency service response.	~~Would not affect existing emergency service response.~~ Would potentially delay existing emergency service response.
Biological Resources		
Wildlife	No effect.	~~No effect~~. Loss of degraded habitat; wildlife may be impacted due to increased noise and mortality.
Federally-Listed Threatened and Endangered Species	No effect.	~~No effect with restoration of dune and swamp habitat.~~ Not likely to adversely affect Karner Blue Butterfly or Prairie Fringed Orchid.
State-Listed Threatened and Endangered Species	No effect.	Potential effect on ~~wetlands and~~ wetland and dry woodlands species, prairie plant species, and grassland bird species.
Water Resources		
Wetlands	Would not affect wetlands.	~~Would not affect wetlands~~. May impact wetlands.

Page 2-104, Table 2-15 (This is only a portion of the table):

Table 2-15. Corrected Summary of Potential Environmental Impacts – Kirk Yard Connection		
Resource Category	**No-Action at Kirk Yard**	**Proposed Kirk Yard Connection**
Biological Resources		
Wildlife	No effect.	~~No effect.~~ Loss of prairie habitat.
State-Listed Threatened and Endangered Species	No effect.	~~Potential effect on wetlands and prairie species.~~ May affect, but not likely to adversely affect prairie plant species.

Page 2-106, Table 2-16 (This is only a portion of the table):

Table 2-16. Summary of Potential Environmental Impacts – Double Track				
Resource Category	**Leithton**	**Diamond Lake Road to Gilmer Road**	**East Siding to Walker (2 Locations)**	**East Joliet to Frankfort**
Land Use				
Zoning	Would ~~be consistent with~~ not affect current zoning.	Would be consistent with current zoning.	Would not affect current zoning.	Would not affect current zoning.
Biological Resources				
Plant Communities	Would affect	Would affect	Would affect railroad	Would affect

Table 2-16. Summary of Potential Environmental Impacts – Double Track				
Resource Category	**Leithton**	**Diamond Lake Road to Gilmer Road**	**East Siding to Walker (2 Locations)**	**East Joliet to Frankfort**
	railroad embankment, wetland, and woody growth areas. May increase invasive species.	railroad embankment, immature forest, and woody growth areas. May increase invasive species.	embankment, immature forest, and woody growth areas. May increase invasive species.	railroad embankment, immature forest, woody growth, and grass areas. May increase invasive species.
Wildlife	~~No effect.~~ Loss and fragmentation of wetland habitat; may displace wildlife and increase mortality due to train collisions.	~~No effect.~~ Loss and fragmentation of wetland habitat; may displace wildlife and increase mortality due to train collisions.	~~No effect.~~ Loss and fragmentation of wetland habitat; may displace wildlife and increase mortality due to train collisions.	~~No effect.~~ Loss and fragmentation of wetland habitat; may displace wildlife and increase mortality due to train collisions.
Federal, State or Local Conservation and Natural Areas	No effect.	No effect.	~~No effect.~~ Night Heron Marsh.	No effect.
Federally-Listed Threatened and Endangered Species	~~No effect.~~ May affect, not likely to adversely affect Prairie Fringed Orchid.	~~No effect.~~ May affect, not likely to adversely affect Prairie Fringed Orchid.	~~No effect.~~ May affect, not likely to adversely affect Prairie Fringed Orchid.	~~No effect.~~ May affect, not likely to adversely affect Prairie Fringed Orchid.
State-Listed Threatened and Endangered Species	Potential effects on marsh bird, plant and reptile species.	Potential effects on wetland plant and marsh bird and reptile species.	Potential effects on prairie plant and marsh bird and reptile species.	Potential effects on marsh bird and reptile species.

2.14.10 Chapter 3 of the Draft EIS

2.14.11 Rail Operations

Page 3.1-4, third paragraph, third sentence:

The third yard, the Whiting Yard is located ~~just southeast~~ 6 miles northwest of Kirk Yard, and is used primarily to serve local customers (see Figure 1.2-2, Yard Locations, in Chapter 1).

Page 3.1-23, Table 3.1-4 (This is only a portion of the table):

Table 3.1-4. CN Rail/Rail Crossings

Crossing Name	CN Subdivision and Milepost	Crossing Railroad	Current CN Traffic (TPD)	Passenger Trains on CN Rail Line (TPD)	Passenger Trains on CN Rail Line Crossed (TPD)	Freight Trains Crossing CN (TPD)
Illinois						
Deval	Waukesha 23.4	UP/Metra	19.1	~~22~~ 21 Metra	65 Metra	10
21st Street	Freeport 2.0	Amtrak	6.4	0	12 Amtrak, 30 Metra	0
16th Street	Chicago 1.5	Metra /SCAL	4.6	6 Amtrak	68 Metra	0

Page 3.1-25, first paragraph, fourth sentence:

Inbound trains to Chicago are operated from the ~~locomotive~~ cab car, and outbound trains are operated from the ~~cab car~~ locomotive.

Page 3.1-25, third paragraph, third and fourth sentences:

Heritage Corridor trains operate on CN's Joliet and Freeport subdivisions between Joliet and ~~16th~~ 21st Street in Chicago. North of ~~16th~~ 21st Street, Heritage Corridor service trains use tracks owned by Amtrak to enter Union Station.

Page 3.1-25, fourth paragraph, first sentence:

Metra's existing North Central Service operates 22 weekday trains between Chicago and Antioch, Illinois~~, during weekday morning and evening peak periods~~.

Page 3.1-26, Table 3.1-5:

Table 3.1-5. EJ&E and Metra Rail/Rail At-Grade Crossings

Location	EJ&E MP	Intersecting Railroad	Metra Route Crossed	Number of Tracks	Daily EJ&E Freight Trains	Weekday Metra Trains
Barrington	W-49.6	UP	UP-Northwest Line	UP 2 EJ&E 1	5.3	62
Spaulding	W-37.5	~~CPR~~ Metra	Milwaukee District West Line	CPR 2 EJ&E 1	5.5	49
West Chicago	W-28.9	UP	UP-West Line	UP 3 EJ&E 1	10.7	52
Joliet-Rock Island Tower	E-0.8	Metra	Rock Island District	Metra 2 EJ&E 2	6.4	46

Source: Applicants (2007a), STB Finance Docket No. 35087, Canadian National Railway Company and Grand Trunk Corporation–Control–EJ&E West Company, Railroad Control Application, October 30, 2007.

Page 3.1-26, first paragraph:

Metra trains also operate on ~~seven~~ five other rail lines that cross the EJ&E rail line using grade-separated structures.

Page 3.1-26, fourth paragraph, fourth bullet:

- Inaugurating the SouthEast Service between Chicago's ~~Union~~ LaSalle Street Station and Crete, Illinois, along the joint UP and CSX corridor (formerly Chicago and Eastern Illinois Railroad), which extends south from Chicago and crosses the EJ&E rail line in Chicago Heights

Page 3.1-34, third paragraph, first and second sentence:

Amtrak also operates 10 daily trains on CN's Joliet and Freeport subdivisions between Joliet and ~~16th~~ 21st Street in Chicago—eight Lincoln service trains and two Texas Eagle Trains. North of ~~16th~~ 21st Street, these Amtrak trains use trackage owned by Amtrak to enter directly into Union Station.

Page 3.1-34, fifth paragraph:

Amtrak operates 16 daily trains that cross the EJ&E rail line using at-grade interlockings with the ~~CP~~ Metra North line in Rondout, Illinois. These include 14 daily Hiawatha service trains and two daily Empire Builder trains (Amtrak 2008a), less on weekends.

2.14.12 Safety

Page 3.2-9, Table 3.2-8:

Table 3.2-8. Hazardous Materials Transported by CN on CN Rail Lines in the Study Area in 2006

Segment Number	From Station	To Station	Cars per Day	Tons per Day
Illinois				
1	Matteson	Markham	191.2	16,212
2	Markham	Harvey	249.1	20,287
3	Harvey	Riverdale	94.4	6,970
4	Riverdale	Wildwood	82.0	6,013
5	Wildwood	Kensington	82.0	6,013
6	Kensington	94th Street	77.0	6,565
7	94th Street	67th Street	76.0	6,488
8	67th Street	16th Street	76.0	6,488
9	16th Street	Bridgeport	67.9	5,751
10	Bridgeport	Belt Crossing	62.0	4,992
11	Belt Crossing	Hawthorne	~~84.0~~ 84.2	6,788
12	Hawthorne	Broadview	71.5	5,792
13	Broadview	Munger	61.1	4,981
14	Bridgeport	Lemoyne	59.4	4,165
15	Lemoyne	Glenn Yard	90.6	6,452
16	Glenn Yard	Argo	139.6	11,126
17	Argo	Lemont	71.9	5,661
18	Lemont	Joliet	39.0	3,029
19	Madison Street	Forest Park	76.8	6,414
20	Forest Park	Tower B12	76.8	6,414
21	Tower B12	Schiller Park	157.0	12,843
22	Schiller Park	Leithton	156.8	12,796
24	Thornton Junction	CN Junction	272.9	23,296

Table 3.2-8. Hazardous Materials Transported by CN on CN Rail Lines in the Study Area in 2006				
Segment Number	**From Station**	**To Station**	**Cars per Day**	**Tons per Day**
25	CN Junction	Blue Island	160.2	13,269
26	Blue Island	Hayford	38.8	3,204
Indiana and Illinois				
23	Griffith	Thornton Junction	280.6	23,875

Source: Applicants (2008d), letter from Paul A. Cunningham, Counsel for Canadian National Railway Company and Grand Trunk Corporation, Harkins Cunningham LLP, to The Honorable Vernon A. Williams, Secretary, Surface Transportation Board, regarding corrections and clarifications to the Railroad Control Application, January 3, 2008.

2.14.13 Highway Rail Crossings

Page 3.2-18, first paragraph, last sentence:

In addition, tables in Appendix C summarize the predicted accident frequency for each crossing under existing conditions. SEA has made corrections to the highway/rail crossing inventory that were included within Appendix C of the Draft EIS. These changes were due to the following:

- In the interest of brevity, SEA has removed the columns from the Draft EIS table that showed the "Municipality", "County", and "State" to allow the table to be displayed in a more readable format. This deleted information is redundant with, and can be found within, the Public At-Grade Crossing Safety and Delay Analysis table and elsewhere within the document.
- SEA received a letter from the Illinois Commerce Commission dated September 29, 2008, that identified several crossings that were closed (shown by strike through text) or additional crossings (shown in red text). SEA reviewed the corrections suggested by the ICC and concurs with their corrections.
- The revisions resulted in a change in the summary totals. These changes are shown in red.
- ICC noted within their letter, and SEA concurs that "None of the public grade crossings [corrections] are located on the Applicants' or the EJ&W's mainline tracks and the remaining locations are private grade crossings. The net result with respect to the DEIS analysis is null, but ICC Staff believes the most accurate information should be included in the EIS."

2.14.14 Transportation Systems

Page 3.3-3, first paragraph, second sentence:

These include ~~214~~ 112 crossings on the Western and Eastern Divisions.

Pages 3.3-10 and -11, Table 3.3-3 (This is only a portion of the table):

Table 3.3-3. Existing Vehicle Delays at EJ&E Highway/Rail At-Grade Crossings

Street	2007 ADT	2007									Crossing LOS	Roadway LOS	Queue Length	Blocked Major Intersection
		L	V	D_C	D_A	N	T_D	NL	Q	D_V				
Will County, Illinois														
Near Plainfield, Illinois														
Normantown/ 252nd Street[a]	~~NA~~ 1,967	3,881	30	2.0	1.3	15.7	0	2	0	0.00	~~NA~~ A	~~NA~~ A		
135th Street	9,288	3,398	29	1.8	1.2	15.7	185	2	17	0.05	A	D		
Van Dyke Road	5,464	3,398	32	1.7	1.1	~~18.5~~ 15.7	~~120~~ 102	2	9	~~0.05~~ 0.04	A	B		
Plainfield, Illinois														
143rd Street	4,699	3,398	33	1.7	1.1	~~18.5~~ 15.7	~~101~~ 86	2	8	~~0.05~~ 0.04	A	B		
Southeastern Cook County, Illinois														
Matteson, Illinois														
Main Street	4,040	3,795	~~36~~ 29	~~1.7~~ 2.0	~~1.1~~ 1.3	8.6	~~41~~ 48	2	~~7~~ 8	~~0.02~~ 0.03	A	B		
Griffith, Indiana														
Broad Street	15,450	~~2,717~~ 3,261	~~23~~ 17	~~1.8~~ 2.7	~~1.2~~ 1.7	7.6	~~150~~ 219	2	~~28~~ 41	~~0.02~~ 0.05	A	E		

Note:
[a] Normantown/252nd Street is currently blocked. 2007 ADT for Normantown/252nd Street is 1,967.

Pages 3.3-18 through -25, Table 3.3-5 (This is only a portion of the table):

Table 3.3-5. Existing Vehicle Delays At CN Highway/Rail At-Grade Crossings

Street	2007 ADT	2007									Crossing LOS	Roadway LOS	Queue Length (Feet)	Blocked Major Intersection
		L	V	D_C	D_A	N	T_D	NL	Q	D_V				
Cook County, Illinois (Waukesha Subdivision)														
River Forest, Illinois														
Forest Avenue	2,590	6,104	30	2.8	1.8	~~3.5~~ 5.4	~~18~~ 27	2	7	0	A	A		
Augusta Street	2,590	6,104	30	2.8	1.8	~~3.5~~ 5.4	~~18~~ 27	2	7	0	A	A		
Keystone Avenue	2,590	6,104	30	2.8	1.8	~~3.5~~ 5.4	~~18~~ 27	2	7	0	A	A		
Thatcher Avenue	8,568	6,104	30	2.8	1.8	~~3.5~~ 5.4	~~59~~ 90	3	16	0	A	C		
River Grove, Illinois														
1st Avenue (IL 171)	27,363	6,104	30	2.8	1.8	~~3.5~~ 5.4	~~187~~ 289	4	38	0	A	C	950	North Avenue (Il 64)
5th Avenue	10,404	6,104	30	2.8	1.8	~~3.5~~ 5.4	~~71~~ 110	4	15	0	A	B		
Melrose Park, Illinois														
George Street	3,978	6,104	28	3.0	1.9	~~3.5~~ 5.4	~~29~~ 44	2	12	0	A	A		
Franklin Park, Illinois														
Fullerton Avenue	4,080	6,104	25	3.3	2.1	~~3.5~~ 5.4	~~32~~ 50	2	13	0	A	B		
Chestnut Avenue	2,000	6,104	19	4.2	2.7	~~3.5~~ 5.4	~~20~~ 31	2	8	0	A	A		
Des Plaines, Illinois														
Prospect Avenue	4,188	6,468	29	3.0	2.0	19.1	169	2	13	0	A	~~A~~ B	325	Rand Road (US 12)
Rand Road (US 12)	~~25,490~~ 29,865	6,468	27	3.2	2.1	19.1	1,089	4	41	0	B	~~C~~ D		

Table 3.3-5. Existing Vehicle Delays At CN Highway/Rail At-Grade Crossings

Street	2007 ADT	2007									Crossing LOS	Roadway LOS	Queue Length (Feet)	Blocked Major Intersection
		L	V	D_C	D_A	N	T_D	NL	Q	D_V				
Lake County, Illinois (Waukesha Subdivision)														
Near Vernon Hills, Illinois														
US 45	18,672	6,468	42	~~3.1~~ 2.3	~~0.9~~ 1.5	19.1	~~333~~ 557	3	~~17~~ 28	0	A	E		
Mundelein, Illinois														
Townline Road (IL 60)	36,919	6,468	41	~~1.4~~ 2.3	~~0.4~~ 1.5	19.1	~~670~~ 1,123	4	~~25~~ 42	0	A	E	~~1,200~~ 1,050	Butterfield Road
Allanson Road	16,719	6,468	35	2.7	1.8	~~19.1~~ 20.8	~~600~~ 654	2	45	0	A	F		
Hawley Street	7,103	6,468	35	2.7	1.8	~~19.1~~ 20.8	~~255~~ 278	3	13	0	A	C		
Park Street	578	6,468	35	2.7	1.8	~~19.1~~ 20.8	~~21~~ 23	2	2	0	A	A		
Maple Avenue	11,882	~~6,468~~ 6,800	35	2.7	1.8	~~19.1~~ 20.8	~~427~~ 465	2	32	0	A	~~A~~ C	775	Lake Street (US 45)
Dunbar Road	390	~~6,468~~ 6,800	40	2.4	1.6	~~19.1~~ 20.8	~~13~~ 14	2	1	0	A	A		
Winchester Road	5,901	~~6,468~~ 6,800	40	2.4	1.6	~~19.1~~ 20.8	~~190~~ 207	4	7	0	A	C	200	Lake Street (US 45)
Grayslake, Illinois														
Peterson Road	17,484	~~6,468~~ 6,800	45	2.2	1.4	~~19.1~~ 20.8	~~514~~ 560	5	16	0	A	F		
Harris Road	3,500	~~6,468~~ 6,800	45	2.2	1.4	~~19.1~~ 20.8	~~103~~ 112	2	8	0	A	~~B~~ A		
Cook County, Illinois (Freeport Subdivision)														
Broadview, Illinois														
17th Avenue	9,690	6,690	19	~~5.0~~ 4.5	~~3.0~~ 2.9	~~4.0~~ 4.4	133	4	22	0	A	A		
~~Du Page~~ DuPage County, Illinois (Freeport Subdivision)														
Elmhurst, Illinois														
Vallette Street	3,342	6,750	35	~~3.0~~	~~2.0~~	3.0	19	2	9	0	A	A		

Table 3.3-5. Existing Vehicle Delays At CN Highway/Rail At-Grade Crossings

Street	2007 ADT	2007									Crossing LOS	Roadway LOS	Queue Length (Feet)	Blocked Major Intersection
		L	V	D_C	D_A	N	T_D	NL	Q	D_V				
				2.7	1.7									
Spring Road	8,593	6,755	40	~~2.0~~ 2.4	~~2.0~~ 1.6	3.0	43	2	21	0	A	C		
Near Bartlett, Illinois														
Powis Road	4,350	4,600	25	2.6	1.7	~~3.0~~ 2.0	~~23~~ 16	2	11	0	A	B		
Kane County, Illinois (Freeport Subdivision)														
South Elgin, Illinois														
IL 25	8,858	4,600	45	1.7	1.1	~~3.0~~ 2.0	~~30~~ 20	2	14	0	A	C		
Randall Road	36,462	4,600	45	1.7	1.1	~~3.0~~ 2.0	~~126~~ 84	4	30	0	A	F		
Cook County, Illinois (Joliet Subdivision)														
Willow Springs, Illinois														
Old Willow Springs Road	~~18,054~~ 1,938	6,103	40	2.2	1.5	1.8	~~50~~ 5	2	~~40~~ 4	0	A	A		
Lemont, Illinois														
Pruxne Street/Illinois Street	6,120	6,103	35	~~2.0~~ 2.5	~~2.0~~ 1.6	1.8	19	2	15	0	A	C	380	Main Street
Holmes Street	385	6,103	35	~~2.0~~ 2.5	~~2.0~~ 1.6	1.8	1	2	1	0	A	A		
Stephen Street	12,138	6,103	33	~~3.0~~ 2.6	~~2.0~~ 1.7	1.8	39	2	32	0	A	~~A~~ E	800	Main Street
Lemont Street	1,000	6,103	32	~~3.0~~ 2.7	~~2.0~~ 1.7	1.8	3	2	3	0	A	~~F~~ A		
Will County, Illinois (Joliet Subdivision)														
Lockport, Illinois														
2nd Street	34	4,659	35	2.0	~~1.0~~ 1.3	1.8	0	2	0	0	A	A		
6th Street	126	4,659	35	2.0	~~1.0~~ 1.3	1.8	0	2	0	0	A	A		
9th Street (IL 7)	23,870	4,659	35	2.0	~~1.0~~ 1.3	1.8	60	2	48	0	A	F	1,200	State Street

Table 3.3-5. Existing Vehicle Delays At CN Highway/Rail At-Grade Crossings

Street	2007 ADT	2007									Crossing LOS	Roadway LOS	Queue Length (Feet)	Blocked Major Intersection
		L	V	D_C	D_A	N	T_D	NL	Q	D_V				
														(IL 171)
10th Street	126	4,659	35	2.0	~~1.0~~ 1.3	1.8	0	2	0	0	A	A		
11th Street	242	4,659	35	2.0	~~1.0~~ 1.3	1.8	1	2	0	0	A	A		
Joliet, Illinois														
Ohio Street	5,682	4,659	~~35~~ 10	~~2.0~~ 5.8	~~1.0~~ 3.8	1.8	~~14~~ 41	2	~~11~~ 33	0	A	B	~~275~~ 825	Scott Street (IL 53)
Jackson Street	16,088	4,659	~~35~~ 10	~~2.0~~ 5.8	~~1.0~~ 3.8	1.8	~~40~~ 117	2	~~32~~ 93	0	A	C		
Will County, Illinois (Chicago Subdivision)														
~~University Park~~ Richton Park, Illinois														
University Parkway/Stuenkel Road	10,768	5,400	45	1.9	~~1.0~~ 1.2	~~12.8~~ 13.8	~~178~~ 192	4	10	0	A	E	420	W Dralle Road
University Park, Illinois														
W Dralle Road	3,167	5,400	45	~~2.0~~ 1.9	~~1.0~~ 1.2	~~13~~ 13.8	~~52~~ 57	4	3	0	A	A	125	South Governors Highway
Cook County, Illinois (Elsdon/South ~~b~~Bend Subdivision)														
Chicago, Illinois														
51st Street[a]	2,046	4,365	8	6.7	4.4	1.6	15	2	14	0	A	A		
51st Street[a]	2,046	4,365	8	~~7.0~~ 6.7	~~4.0~~ 4.4	~~3.0~~ 1.6	~~31~~ 15	2	14	0	A	A		
55th Street	26,826	4,365	8	~~7.0~~ 6.7	~~4.0~~ 4.4	~~3.0~~ 1.6	~~412~~ 200	4	90	0	A	F		
71st Street	14,178	4,365	8	~~7.0~~ 6.7	~~4.0~~ 4.4	~~3.0~~ 1.6	~~218~~ 106	2	95	0	A	F		
79th Street	25,000	4,365	8	~~7.0~~ 6.7	~~4.0~~ 4.4	3.4	396	4	84	0	A	C		
Columbus Avenue	15,402	4,365	8	~~7.0~~ 6.7	~~4.0~~ 4.4	3.4	244	4	52	0	A	A		
83rd Place	1,114	4,365	8	~~7.0~~	~~4.0~~	3.4	18	2	7	0	A	A		

Table 3.3-5. Existing Vehicle Delays At CN Highway/Rail At-Grade Crossings														
Street	**2007 ADT**	**2007**									**Crossing LOS**	**Roadway LOS**	**Queue Length (Feet)**	**Blocked Major Intersection**
		L	**V**	**D_C**	**D_A**	**N**	**T_D**	**NL**	**Q**	**D_V**				
				6.7	4.4									
115th Street	13,260	4,365	8	~~7.0~~ 6.7	~~4.0~~ 4.4	3.4	210	4	44	0	A	E		
Blue Island, Illinois														
119th Street	12,240	4,365	8	~~7.0~~ 6.7	~~4.0~~ 4.4	3.4	194	2	82	0	A	D	2,050	S Kedzie Street
123rd Street	5,520	4,365	8	~~7.0~~ 6.7	~~4.0~~ 4.4	3.4	87	2	37	0	A	C		
127th Street	23,562	4,365	8	~~7.0~~ 6.7	~~4.0~~ 4.4	3.4	373	4	79	0	A	C		
Union Street	756	4,365	8	~~7.0~~ 6.7	~~4.0~~ 4.4	3.4	12	2	5	0	A	A		
Broadway Street	5,049	7,256	~~36~~ 10	~~2.8~~ 8.7	~~1.8~~ 5.7	14.9	~~146~~ 457	4	~~7~~ 22	~~0~~ 1	~~A~~ E	A		
Dixmoor, Illinois														
Western Avenue	8,568	7,256	29	~~3.0~~ 3.3	~~2.0~~ 2.2	14.9	296	4	14	0	A	A		
Robey Street	123	7,256	34	~~3.0~~ 2.9	~~2.0~~ 1.9	14.9	4	2	0	0	A	A		
Harvey, Illinois														
Lincoln Avenue	756	7,256	34	~~3.0~~ 2.9	~~2.0~~ 1.9	14.9	23	2	2	0	A	A		
147th Street/Sibley Boulevard (IL 83)	29,547	7,256	35	~~3.0~~ 2.9	~~2.0~~ 1.9	14.9	873	4	42	0	A	D		
Ashland Avenue	11,901	7,256	35	~~3.0~~ 2.9	~~2.0~~ 1.9	14.9	352	2	34	0	A	~~A~~ E		
Center Avenue	756	7,256	36	~~3.0~~ 2.8	~~2.0~~ 1.8	14.9	22	2	2	0	A	A		
Broadway Avenue	756	7,256	~~10~~ 36	~~8.7~~ 2.8	~~5.7~~ 1.8	14.9	~~68~~ 22	4	3	1	~~E~~ A	A		

Table 3.3-5. Existing Vehicle Delays At CN Highway/Rail At-Grade Crossings														
Street	**2007 ADT**	**2007**									**Crossing LOS**	**Roadway LOS**	**Queue Length (Feet)**	**Blocked Major Intersection**
		L	**V**	**D_C**	**D_A**	**N**	**T_D**	**NL**	**Q**	**D_V**				
Halsted Street (IL 1)	18,831	5,927	36	~~2.0~~ 2.4	~~2.0~~ 1.5	19.5	605	4	22	0	A	C		
South Holland, Illinois														
Thornton-Blue Island Road	4,233	5,927	35	~~2.0~~ 2.4	~~2.0~~ 1.6	19.5	139	2	10	0	A	A		
Near Thornton, Illinois														
Thornton-Lansing Road	10,200	6,081	38	~~2.0~~ 2.3	~~2.0~~ 1.5	22.1	363	2	24	0	A	E		
Lansing, Illinois														
Volbrecht Road	3,108	6,081	38	2.3	1.5	22.1	111	2	7	0	A	A		
182nd Street/Ridge Road	7,969	6,081	39	~~2.0~~ 2.3	~~1.0~~ 1.5	22.1	278	2	18	0	A	~~A~~ C		
Lake County, Indiana (Elsdon/South ~~b~~Bend Subdivision)														
Munster, Indiana														
White Oak Avenue	8,733	6,081	38	~~2.0~~ 2.3	~~2.0~~ 1.5	22.1	311	2	20	0	A	D		
Griffith, Indiana														
Main Street	8,755	6,081	35	2.5	1.6	22.1	~~332~~ 329	2	~~22~~ 21	0	A	C		
Broad Street	15,450	6,081	36	2.4	1.6	22.1	574	2	37	0	A	E		
Colfax Street	11,162	6,081	40	~~2.0~~ 2.2	~~1.0~~ 1.4	~~23.0~~ 24.8	~~402~~ 428	2	25	0	A	E		
Near Merrillville, Indiana														
Hendricks Street	438	6,081	40	~~2.0~~ 2.2	~~1.0~~ 1.4	~~23.0~~ 24.8	~~16~~ 17	2	1	0	A	A		
Merrillville, Indiana														
Taft Street	24,056	6,081	40	2.2	1.4	~~23.3~~ 24.8	~~867~~ 923	2	54	0	A	F		
Madison Street	7,129	6,081	40	~~2.0~~ 2.2	~~1.0~~ 1.4	~~23.0~~ 24.8	~~257~~ 273	2	16	0	A	C		

Table 3.3-5. Existing Vehicle Delays At CN Highway/Rail At-Grade Crossings														
Street	**2007 ADT**	**2007**									**Crossing LOS**	**Roadway LOS**	**Queue Length (Feet)**	**Blocked Major Intersection**
		L	**V**	**D_C**	**D_A**	**N**	**T_D**	**NL**	**Q**	**D_V**				
Broadway Street	31,568	6,081	40	~~2.0~~ 2.2	~~1.0~~ 1.4	~~23.0~~ 24.8	~~1,138~~ 1,211	4	35	0	A	F		

Note:
[a] 51st Street is listed twice because there are two different USDOT crossing inventory numbers (283130C and 283129H).

Page 3.3-27, Table 3.3-8:

Table 3.3-8. 2007 LOS Summary of Roadways Crossing the EJ&E Railway Line

LOS	Total	Lake (Illinois)	Cook (Illinois)	DuPage (Illinois)	Will (Illinois)	Lake (Indiana)
LOS A - B	~~55~~ 54	8	12	5	23	~~7~~ 6
LOS C - D	~~37~~ 38	11	5	3	14	~~4~~ 5
LOS E - F	20	7	3	4	2	4

Page 3.3-28, first bullet and first sub-bullet:

- ~~Six~~ One roadway~~s~~ ~~cross~~ crosses the EJ&E rail line at-grade.
    - Crossing~~s~~ operate~~s~~ at LOS D or better.

Page 3.3-28, fourth bullet:

- ~~Seven~~ Three roadways cross the EJ&E rail line at-grade.

Page 3.3-30, fifth bullet:

- Unacceptable mobility - Even with alternative routes to Ela Road, the queue lengths on Main Street block two major roadways, IL 22 and Church Street. See Chapter 4, Section 4.3.1.~~3~~ 2, Proposed Action, for a general discussion of cut-through traffic, and see Appendix E, Transportation Systems Analysis, for a more specific discussion of existing conditions of each community, including Lake Zurich.

- Page 3.3-37, fourth sub-bullet:
    - West 15th Avenue is a two-lane, undivided arterial that runs east-west crossing the EJ&E rail line, and connecting two arterials—Cline Avenue and Burt Street. 15th Avenue operates at LOS E-F.
    - West 9th Avenue is a two-lane, undivided collector street that runs east-west on the east side of Gary. ~~9th Avenue, which runs parallel to 15th Avenue within approximately 0.5 mile, is an alternate route that operates at LOS D or better.~~ It does not cross Cline Avenue on the west side of the highway/rail at-grade crossing but connects to a service road that runs parallel to Cline Avenue to eventually connect to West 15th Avenue. West 9th, West 5th, and West 25th Avenues operate at LOS D or better. West 5th has the highest ADT compared to the other three crossings.
    - ~~Alls other roadways operate at LOS D or better.~~

Page 3.3-50, first sub-bullet:

- ~~Lemont~~ Stephen Street is a two-lane collector that runs north-south, crossing the Joliet Subdivision within Lemont's center. ~~Lemont~~ Stephen Street operates at LOS E-F.

Page 3.3-50, third sub-bullet:

- ~~Stephen~~ Lemont Street is a two-lane collector that runs north-south, crossing the Joliet Subdivision within Lemont's center. ~~Stephen~~ Lemont Street operates at LOS D or better. ~~Stephen~~ Lemont Street crosses the Joliet Subdivision parallel to ~~Lemont~~ Stephen Street approximately 450 feet to the ~~east~~ west, and is a potential alternative to congested ~~Lemont~~ Stephen Street.

Page 3.3-50, eighth bullet:

- Unacceptable mobility because even with an alternative to ~~Lemont~~ Stephen Street, queue lengths block major roadways.

Page 3.3-55, first sub-bullet:

  - All the roadways but Ashland Avenue operate at LOS D or better. Ashland Avenue operates at LOS E-F.

Page 3.3-55, fourteenth bullet:

- Acceptable mobility because ~~all~~ most of the at-grade crossings operate at LOS D or better.

2.14.15 Emergency Response

Page 3.3-58, second sub-bullet:

  - Station No. 2 (Candlestick Way, ~~4 miles west~~ 3.5 miles northwest)

Page 3.3-59, sixth bullet:

- Libertyville Fire Department Station No. 3 (Atkinson Road in Libertyville, 1.5 miles southeast of Green Oaks, ~~0.75~~ 0.5 mile northwest of the EJ&E rail line)

Page 3.3-60, third sub-bullet:

  - Station No. 3 (Atkinson Road in Libertyville, 3.5 miles north of Mettawa, ~~0.75~~ 0.5 mile northwest of the EJ&E rail line)

Page 3.3-60, fourth bullet:

- Libertyville Police Department Headquarters (East Cook Avenue, ~~2~~ 2.5 miles north)

Page 3.3-60, eighth sub-bullet:

  - Station No. 3 (Atkinson Road, ~~0.75~~ 0.5 mile northwest)

Page 3.3-61, first bullet:

- Mundelein Police Department Headquarters (North Lake Street, 1.5 miles north of the EJ&E rail line, ~~0.5~~ 0.25 mile west of the CN Waukesha Subdivision)

Page 3.3-62, second sub-bullet:

  - Station No. 3 (Old McHenry Road, 0.5 mile south of Hawthorn Woods, ~~0.5 mile east~~ 0.25 mile west of the EJ&E rail line)

Page 3.3-62, eighth sub-bullet:

  - Station No. 3 (Old McHenry Road, ~~0.5 mile east~~ 0.25 mile west)

Page 3.3-62, sixth bullet:

- Emergency Medical Care—Advocate Good Shepherd Hospital (West Highway 22 in Barrington, 4 miles west of Lake Zurich, 3 miles ~~west~~ northwest of the EJ&E rail line)

Page 3.3-63, first sub-bullet:

  - Station No. 2 (West Algonquin Road in Barrington Hills, ~~almost directly on the EJ&E rail line~~ 900 feet west)

Page 3.3-63, third bullet:

- Barrington Hills Police Department Headquarters (Algonquin Road, ~~0.5 mile northwest~~ 700 feet west)

Page 3.3-63, third sub-bullet:

  - Station No. 2 West Algonquin Road in Barrington Hills, ~~almost directly on the EJ&E rail line~~ 900 feet west)

Page 3.3-63, fifth and sixth bullets:

  - Station No. 22 (Moon Lake Boulevard, ~~3~~ 3.5 miles east)
  - Station No. 23 (Westbury Drive, ~~3~~ 3.5 miles east)

Page 3.3-64, sixth, seventh, and ninth sub-bullets:

  - Headquarters/Station No. 1 (Summit Street, 2.5 miles ~~west~~ northwest)
  - Station No. 2 (Big Timber Road, ~~8.5 miles west~~ 4 miles northwest)
  - Station No. 4 (South MacLean Boulevard, ~~4.25~~ 4 miles west)

Page 3.3-64, seventeenth sub-bullet:

  - Future Station No. 3, scheduled to open in fall 2008 (West Bartlett Road, 0.5 mile east of the EJ&E rail line, 2 miles north of the CN rail line Freeport Subdivision)

Page 3.3-65, seventh sub-bullet:

  - Future Station No. 3, scheduled to open in fall 2008 (West Bartlett Road in Bartlett, 3 miles northeast of Wayne, 0.5 mile east of the EJ&E rail line, and 2 miles north of the CN rail line Freeport Subdivision)

Page 3.3-65, ninth sub-bullet:

  - Station No. 2 (Powis Road in West Chicago, 2.5 miles south of Wayne, ~~0.5~~ 0.25 mile west of the EJ&E rail line)

Page 3.3-66, second sub-bullet:

  - Station No. 2 (Powis Road, ~~0.5~~ 0.25 mile west)

Page 3.3-66, ninth sub-bullet:

  - Headquarters for Area 2 (North Root Street ~~4~~ 3.5 miles west)

Page 3.3-67, third sub-bullet:

  - Administrative Headquarters/Station No. 7 (Aurora Avenue, ~~2.5~~ 3 miles east)

Page 3.3-67, fourteenth sub-bullet:

  - Station No. 3 (West 119th Street, ~~0.5~~ 0.25 mile east)

Page 3.3-67, tenth bullet:

- Minooka Fire Protection District Headquarters (West Mondamin Street, ~~0.25 mile east~~ 200 feet east)

Page 3.3-68, fifth bullet:

- Crest Hill Police Department Headquarters (Plainfield Road, ~~1~~ 0.75 mile south)

Page 3.3-68, fifth and sixth sub-bullets:

- Station No. 5 (West Mason Avenue, ~~2 miles west~~ 1.5 miles southwest of the EJ&E rail line, 1 mile west of the CN Joliet Subdivision)
- Station No. 6 (West Oneida Street, ~~4 miles west~~ 3 miles south of the EJ&E rail line, 2.5 miles west of the CN Joliet Subdivision)

Page 3.3-69, fifth sub-bullet:

- Station No. 2 (East Zarley Boulevard, 1 mile southwest of the EJ&E rail line, ~~1~~ 0.5 mile southeast of the CN Joliet Subdivision)

Page 3.3-70, fourth sub-bullet:

- Future Station No. 4, scheduled to open in 2008 (Steger Road and 80th Avenue, 1.5 miles south)

Page 3.3-70, third bullet:

- Emergency Medical Care—Saint James Hospital and Health Centers–Olympia Fields (South Crawford Avenue in Olympia Fields, 8 miles east of Frankfort, 1 mile west of the CN Chicago Subdivision, and ~~1.5~~ 2 miles north of the EJ&E rail line)

Page 3.3-70, sixth sub-bullet:

- Station No. 2 (Central Avenue, 1 mile north of the EJ&E rail line, ~~3~~ 2.5 miles west of the CN Chicago Subdivision)

Page 3.3-70, sixth bullet:

- Emergency Medical Care—Saint James Hospital and Health Centers–Olympia Fields (South Crawford Avenue in Olympia Fields, 1 mile east of Matteson, 1 mile west of the CN Chicago Subdivision, and ~~1.5~~ 2 miles north of the EJ&E rail line)

Page 3.3-70, ninth bullet:

- Emergency Medical Care—Saint James Hospital and Health Centers–Olympia Fields (South Crawford Avenue in Olympia Fields, 2.5 miles northeast of Richton Park, 1 mile west of the CN Chicago Subdivision, and ~~1.5~~ 2 miles north of the EJ&E rail line)

Page 3.3-72, second sub-bullet:

- Community Hospital (MacArthur Boulevard in Munster, 3 miles northeast of Lynwood, 3.5 miles north of the EJ&E rail line, and ~~0.75~~ 0.5 mile north of the CN Elsdon/South Bend Subdivision)

Page 3.3-72, fifth sub-bullet:

- Community Hospital (MacArthur Boulevard in Munster, 4.5 miles northwest of Schererville, 3.5 miles north of the EJ&E rail line, and ~~0.75~~ 0.5 mile north of the CN Elsdon/South Bend Subdivision)

Page 3.3-73, first sub-bullet:

- Community Hospital (MacArthur Boulevard in Munster, 4.5 miles northwest of Griffith, 3.5 miles north of the EJ&E rail line, and ~~0.75~~ 0.5 mile north of the CN Elsdon/South Bend Subdivision)

Page 3.3-73, sixteenth sub-bullet:

- Station No. 14 (Industrial Highway, ~~0.25~~ 0.5 mile southeast)

Page 3.3-74, fourth bullet:

- Lake Ridge ~~Fire Protection District~~ Volunteer Fire Department Headquarters (West 47th Avenue, 2 miles east)

Page 3.3-74, eighteenth sub-bullet:

  - Methodist Hospital—Midlake Campus (West 25th Avenue, 3 miles east of the EJ&E rail line, ~~5~~ 4.5 miles north of the CN Elsdon/South Bend Subdivision)

Page 3.3-73, nineteenth sub-bullet:

  - Station No. 1 (South Calumet Avenue, ~~1.5~~ 4.5 miles west)

Page 3.3-74, second and third sub-bullets:

  - Station No. 6 (169th Street, 2 miles ~~southwest~~ west)
  - Station No. 7 (East 173rd Street, ~~2.5 miles southwest~~ 3.5 miles west)

Page 3.3-74, first bullet:

- Highland Fire Department South Station (West 45th Avenue, 2 miles west of the EJ&E rail line, 0.5 mile north of the CN Elsdon/South Bend Subdivision, 4 miles southeast of Hammond)
- Emergency Medical Care—Saint Margaret Mercy Hospital – Hammond Campus (Hohman Avenue, 4.5 miles southwest of EJ&E rail line segment No. 1, 5 miles west of EJ&E rail line segment No. 3)

Page 3.3-74, Heading 3.3.2.4.1:

East Chicago, ~~Illinois~~ Indiana

Page 3.3-74, second bullet:

- East Chicago Police Department Headquarters (East Columbus Drive, ~~1~~ 0.75 mile southwest)

Page 3.3-74, eighth sub-bullet:

  - Station No. 5 (West 151st Street, ~~1 mile west~~ 3 miles southwest)

Page 3.3-76, seventh and eleventh bullets:

- Des Plaines Police Department Headquarters (~~West 26th~~ Miner Street, ~~0.25~~ 0.5 mile east)
- Emergency Medical Care—Holy Family Medical Center (North River Road, ~~0.75~~ 0.5 mile east)

Page 3.3-77, second sub-bullet:

  - Station No. 1 (North River Road, ~~1~~ 0.75 mile east)

Page 3.3-77, fifth bullet:

- Emergency Medical Care—Gottlieb Memorial Hospital (West North Avenue in Melrose Park, 3 miles southeast of Schiller Park, 0.25 mile southwest of the CN Waukesha Subdivision, and ~~4 miles north~~ 3.5 miles northeast of the CN Freeport Subdivision)

Page 3.3-77, tenth sub-bullet:

- Gottlieb Memorial Hospital (West North Avenue in Melrose Park, 2 miles southeast of Franklin Park, 0.25 mile southwest of the CN Waukesha Subdivision, and ~~4 miles north~~ 3.5 miles northeast of the CN Freeport Subdivision)

Page 3.3-78, first sub-bullet:

- Gottlieb Memorial Hospital (West North Avenue in Melrose Park, 2 miles southeast of Franklin Park, 0.25 mile southwest of the CN Waukesha Subdivision, and ~~4 miles north~~ 3.5 miles northeast of the CN Freeport Subdivision)

Page 3.3-78, sixth sub-bullet:

- Gottlieb Memorial Hospital (West North Avenue in Melrose Park, 2 miles southeast of Franklin Park, 0.25 mile southwest of the CN Waukesha Subdivision, and ~~4 miles north~~ 3.5 miles northeast of the CN Freeport Subdivision)

Page 3.3-79, fifth sub-bullet:

- Station No. 3 (West Lies Road, ~~0.75~~ 1 mile south)

Page 3.3-80, first bullet:

- Glendale Heights Police Department Headquarters (East Fullerton Avenue, ~~0.75~~ 0.5 mile south)

Page 3.3-80, eighth sub-bullet:

- Station No. 1 (East Saint Charles Road, ~~2~~ 1.5 miles south)

Page 3.3-82, eighth bullet, eighth and ninth sub-bullets:

- North Riverside Police Department Headquarters (South Des Plaines Avenue, ~~0.25 mile~~ 300 feet south)
  - ~~North Riverside Fire Department Headquarters (South Des Plaines Avenue, 0.25 mile south)~~
  - ~~Emergency Medical Care~~
- North Riverside Fire Department Headquarters (South Des Plaines Avenue, 300 feet south)
- Emergency Medical Care

Page 3.3-83, seventh bullet:

- Cicero Police Department Headquarters (West 26th Street, ~~1~~ 0.75 mile north)

Page 3.3-83, tenth bullet, page 3.3-84, first and second bullets:

- Lockport Police Department Headquarters (South Farrell Road, 3.5 miles northeast of EJ&E rail line segment No. 8, 2.5 miles east of EJ&E rail line segment No. 18, and ~~2~~ 1.5 miles east of the CN Joliet Subdivision)
- Illinois State Police District No. 5 (Broadway Street, ~~2~~ 1.5 miles northeast of EJ&E rail line segment No. 9, 500 feet west of EJ&E rail line segment No. 18, and 1 mile west of the CN Joliet Subdivision)
- Lockport Township Fire Protection District Headquarters/Station No. 1 (East 9th Street, 3 miles northeast of EJ&E rail line segment No. 8, 1.5 miles east of EJ&E rail line segment No. 18, and ~~2 miles~~ 0.75 mile east of the CN Joliet Subdivision)

Page 3.3-84, seventh sub-bullet:

- Station No. 2 (Enterprise Drive, ~~2.5~~ 3 miles north of EJ&E rail line segment No. 18, 7.5 miles north of EJ&E rail line segment No. 9, and 2 miles northwest of the CN Joliet Subdivision)

Page 3.3-84, seventh bullet:

- Lockport Township Fire Protection District Station No. 3 (North Weber Road, 4 miles northeast of EJ&E rail line segment No. 9, ~~3.5~~ 3 miles northwest of EJ&E rail line segment No. 18, and ~~3.5~~ 4 miles west of the CN Joliet Subdivision)

Page 3.3-85, sixth sub-bullet:

- Palos Community Hospital (South 80th Avenue in Palos Heights, ~~5~~ 5.5 miles southeast of Willow Springs, 5 miles southeast of the CN Joliet Subdivision)

Page 3.3-85, seventh bullet:

- Justice Police Department Headquarters (South Archer Road, ~~0.75~~ 0.5 mile southeast)

Page 3.3-85, eighth sub-bullet:

- Station No. 2 (South Archer Road, ~~0.75~~ 0.5 mile southeast)

Page 3.3-85, tenth sub-bullet:

- Palos Community Hospital (South 80th Avenue in Palos Heights, 5.5 miles south of Justice, ~~5~~ 5.5 miles southeast of the CN Joliet Subdivision)

Page 3.3-86, first and second bullets, first and second sub-bullets:

- Bedford Park Police Department Headquarters (South Archer Avenue, 0.75 mile ~~east~~ southeast)
- Bedford Park Fire Department
  - Headquarters/Station No. 1 (South Archer Road, ~~0.25 mile east~~ 0.75 mile southeast)
  - Station No. 2 (South Central Avenue, ~~3.5 miles east~~ 2.5 miles southeast)

Page 3.3-87, second sub-bullet:

- Saint James Hospital and Health Centers–Olympia Fields (South Crawford Avenue in Olympia Fields, 6.5 miles northeast of Monee, 1 mile west of the CN Chicago Subdivision, and ~~1.5~~ 2 miles north of the EJ&E rail line)

Page 3.3-87, sixth bullet:

- Emergency Medical Care—Saint James Hospital and Health Centers–Chicago Heights (Chicago Road in Chicago Heights, 4.5 miles northeast of University Park, 0.75 mile north of the EJ&E rail line, and 3 miles east of the CN Chicago Subdivision)
- Saint James Hospital and Health Centers–Olympia Fields (South Crawford Avenue in Olympia Fields, 6.5 miles northeast of Monee, 1 mile west of the CN Chicago Subdivision, 2 miles north of the EJ&E rail line, and 5.5 miles north of University Park)

Page 3.3-87, fourth sub-bullet and ninth bullet:

- Station No. 2 (Central Avenue in Matteson, 2 miles west of Olympia Fields, 1 mile north of the EJ&E rail line, and ~~3~~ 2.5 miles west of the CN Chicago Subdivision)

- Emergency Medical Care—Saint James Hospital and Health Centers–Olympia Fields (South Crawford Avenue, 1 mile west of the CN Chicago Subdivision and 2 miles north of the EJ&E rail line)

Page 3.3-88, first sub-bullet:

  - Saint James Hospital and Health Centers–Olympia Fields (South Crawford Avenue in Olympia Fields, 6.5 miles northeast of Monee, 1 mile west of the CN Chicago Subdivision, and ~~1.5~~ 2 miles north of the EJ&E rail line)

Page 3.3-89, second sub-bullet:

  - Fire Station No. 4 (Lathrop Avenue, ~~0.5~~ 0.75 mile southeast of the CN Chicago Subdivision, 1.5 miles southwest of the CN Elsdon/South Bend Subdivision)

Page 3.3-89, second and third bullets:

- Phoenix Police Department Headquarters (East 151st Street, ~~0.25~~ 0.5 mile east of the CN Chicago Subdivision, 0.5 mile northeast of the CN Elsdon/South Bend Subdivision)
- Phoenix Fire Department Headquarters (East 151st Street, ~~0.25~~ 0.5 mile east of the CN Chicago Subdivision, 0.5 mile northeast of the CN Elsdon/South Bend Subdivision)

Page 3.3-89, fifth and sixth bullets, first sub-bullet:

- Dolton Police Department Headquarters (Park Avenue, ~~1~~ 0.75 mile east)
- Dolton Fire Department
  - Headquarters/Station No. 1 (Park Avenue, ~~1~~ 0.75 mile east)

Page 3.3-90, Heading 3.3.2.9.1:

Highland, ~~Illinois~~ Indiana

Page 3.3-90, sixth sub-bullet:

  - Methodist Hospital—Midlake Campus (West 25th Avenue in Gary, 5 miles east of Highland, 3 miles east of the EJ&E rail line, and ~~5~~ 4.5 miles north of the CN Elsdon/South Bend Subdivision)

Page 3.3-90, eighth sub-bullet:

  - Station No. 2 (Fisher Street, ~~1~~ 0.5 mile north)

Page 3.3-90, sixth bullet:

- Emergency Medical Care—Community Hospital (MacArthur Boulevard in Munster, 3.5 miles north of the EJ&E rail line, ~~0.75~~ 0.5 mile north of the CN Elsdon/South Bend Subdivision)

Page 3.3-91, first bullet:

- Emergency Medical Care—Community Hospital (MacArthur Boulevard in Munster, 2 miles southeast of Lansing, 3.5 miles north of the EJ&E rail line, and ~~0.75~~ 0.5 mile north of the CN Elsdon/South Bend Subdivision)

Page 3.3-91, eighth and ninth bullets:

- Dixmoor Police Department Headquarters (West 145th Street, 200 feet ~~southeast~~ southwest of the CN Elsdon/South Bend Subdivision 1.5 miles northwest of the CN Chicago Subdivision)

- Dixmoor Fire Department Headquarters (West 145th Street, 200 feet ~~southeast~~ southwest of the CN Elsdon/South Bend Subdivision, 1.5 miles northwest of the CN Chicago Subdivision)

2.14.16 Land Use

Page 3.5-14, second paragraph, fourth sentence:

The existing land use at and surrounding the site is classified as a utility corridor (Village of Mundelein 2001 and Village of Vernon Hills 2003).

Page 3.5-16, third paragraph:

East Siding to West Wolf's Road. A portion of the proposed East Siding double track would be constructed on EJ&E segment 10B located in northern Will County, just south of 87th Street. ~~On the east side of the EJ&E rail line, land use is industrial until 91st Street, where the west side of the rail line is residential, followed by vacant land. South of 91st Street along both sides of the rail line is open space and agricultural uses. South of West Wolfs Road, transportation, communication, and utility land uses surround the rail line on the west side; vacant and agricultural uses exist on the east side.~~ On the west side of the EJ&E rail line in Aurora, the land is designated as open space and residential, according to the City of Aurora's *1984 Comprehensive Plan's General Land Use Interim Plan*. According to the City of Naperville's *Existing Land Use Map* (dated January 2007), land along the east side of the EJ&E rail line is designated as Warehouse/Distribution and Manufacturing until 91st Street. The land from 91st Street to just south of W Wolfs Road is designated as vacant (undeveloped) and transportation utilities.

Page 3.5-23, first paragraph:

Joliet Connection Construction Site

Neither Joliet nor Lockport classifies the proposed Joliet connection site on their zoning map or comprehensive plan map, respectively (City of Joliet 2005; City of Lockport 2006). The Joliet Planning District Boundary (District 3) is separated by the EJ&E rail line and only includes the area to the south. The Lockport Comprehensive Plan states that the land along stream corridors is intended to remain undeveloped and that natural landforms that currently exist be maintained (City of Lockport 1997). This would include the land west of the site. Will County has classified the proposed Joliet connection site as either industrial or commercial (Will County 2007).

Page 3.5-35, Table 3.5-2:

Table 3.5-2. Forest Preserves Adjacent to the EJ&E Rail Line

County	Forest Preserve	Size (Acres)	Location	Ownership[a]
Illinois				
Lake	Middlefork Savanna	576	Southeast Lake County near Lake Forest	LCFPD
	Old School	380	Central Lake County near Libertyville	
	MacArthur Woods	446	Central Lake County near Mettawa	
	Cuba Marsh	792	Southwest Lake County near Barrington	
Cook	~~Cuba Marsh~~	~~792~~	~~Southwest Lake County near Barrington~~	FPDCC
	Spring Creek Valley	4,000	Northwest Cook County near Barrington	

Table 3.5-2. Forest Preserves Adjacent to the EJ&E Rail Line				
County	**Forest Preserve**	**Size (Acres)**	**Location**	**Ownership[a]**
	Arthur L. Janura	4,230	Northwest Cook County near Hoffman Estates	
	Shoe Factory Woods (Poplar Creek)	600	Northwest Cook County near Hoffman Estates	
	Sauk Trail Woods	640	South central Cook County near Chicago Heights and Park Forest	
	Indian Hill Woods	50	South central Cook County near Chicago Heights and Park Forest	
DuPage	Pratt's Wayne Woods	3,800	Northwest DuPage County in Bartlett	FPDDC
	Dunham	378	Unincorporated northwest DuPage County near Wayne	~~City of West Chicago and~~ FPDDC
	West Chicago Prairie	316	West central DuPage County near West Chicago	West Chicago and FPDDC
	Blackwell	1,200	West central DuPage County near Warrenville	FPDDC
	Night Heron Marsh	109	Southwest DuPage County in Aurora	
Will	Weisbrook	16	Northern Will County near Naperville, East of the EJ&E rail line	FPDWC
	Lake Renwick Heron Rookery	250	South central Will County north of Lockport and Joliet	
	Alessio Prairie	13	Central Will County in Crest Hill	
	Kraske	4	Central Will County in Crest Hill	
	Walnut Hollow	205	Central Will County in Joliet	
	Sugar Creek	295	Central Will County east of Joliet	
Indiana				
Lake	~~No forest preserves are located near the EJ&E rail line in Lake County, Indiana.~~ Indiana uses a County Park system, rather than a Forest Preserve District system as Illinois uses; therefore, no forest preserves are located near the EJ&E Rail line in Indiana.			

Note:
[a] LCFPD = Lake County Forest Preserve District
FPDCC = Forest Preserve District of Cook County
FPDDC = Forest Preserve District of DuPage County
FPDWC = Forest Preserve District of Will County

Pages 3.5-36 and -37, Table 3.5-3:

Table 3.5-3. Nature Preserves Adjacent to the EJ&E Rail Line				
County	**Nature Preserve**	**Size (Acres)**	**Location/Proximity to Rail Line**	**Ownership[a]**
Illinois				
Lake	MacArthur Woods	446	Vernon Hills/ South of the EJ&E rail line	LCFPD

Table 3.5-3. Nature Preserves Adjacent to the EJ&E Rail Line				
County	**Nature Preserve**	**Size (Acres)**	**Location/Proximity to Rail Line**	**Ownership[a]**
	Middlefork Savanna	603	South of Green Oaks/ South of EJ&E rail line south of the Knollwood Country Club	LCFPD
Cook	Shoe Factory Road Prairie	13	Northwest Cook County near Hoffman Estates/ East of the EJ&E rail line along the south side of Shoe Factory Road.	FPDCC
	Spring Lake	531	Northwest Cook County, near Barrington Hills/ West the EJ&E rail line, just south of the CN rail line	FPDCC
DuPage	Truitt-Hoff	~~120~~ 290 *(includes Preserve's buffer)*	West central DuPage County near West Chicago, part of the West Chicago Prairie Forest Preserve west of the EJ&E rail line	City of West Chicago and FPDDC
Kane	Brewster Creek Fen	9	East central Kane County near Wayne and Bartlett	INPC
Will	Vermont Cemetery Prairie	1	North Will County, near Naperville, south of Wolf's Crossing Road and east of the EJ&E rail line	FPDWC
	Lake Renwick Heron Rookery	320	North Will County, near Plainfield/ EJ&E rail line cuts through the Nature Preserve	IDNR and FPDWC
	Old Plank Road Prairie	13	Near Route 30, approximately 1 mile west of Wolf Road, in Mokena, North of the EJ&E rail line	FPDWC
Indiana				
Lake	Hoosier Prairie	~~430~~ 600	Western half of the EJ&E and CN crossing diamond at the proposed Griffith connection in Griffith	INDNR – Division of Nature Preserves
	Ivanhoe Dune and Swale	120	Central Gary ~~West~~ East of the EJ&E rail line	The Nature Conservancy as part of the Tolleston Strand Plain.
	Clark & Pine	42	Northeast of the Gary-Chicago Airport/ West of Clark Street across from Pine Station Nature Preserve; North and	INDNR – Division of Nature Preserves, 15 acres privately owned

Table 3.5-3. Nature Preserves Adjacent to the EJ&E Rail Line				
County	**Nature Preserve**	**Size (Acres)**	**Location/Proximity to Rail Line**	**Ownership[a]**
			South of EJ&E segment 1	
	Pine Station	259	East side of Clark Street, just south of Kirk Yard	INDNR – Division of Nature Preserves
	Ivanhoe South[b]	65	East side of the EJ&E rail line, south of 5th Avenue	Privately owned (approx. 55 acres), Shirley Heinze Environmental Fund (approx. 10 acres)

Page 3.5-37, first paragraph, first sentence:

A wide variety of state-owned and administered resource-rich areas and protected areas exist in each of the ~~five~~ four counties in Illinois.

Pages 3.5-38 and -39, Table 3.5-4 (This is only a portion of the table):

Table 3.5-4. Resource-Rich and Protected Areas Adjacent to the EJ&E Rail Line					
County	**Name**	**Size (Acres)**	**Location**	**Proximity To Rail Line**	**Details/Features**
Indiana					
Lake	~~No protected areas are located near the EJ&E rail line in Lake County, Indiana.~~ Indiana does not use this terminology to designate areas needed protection as Illinois uses, therefore, no protected areas are located near the EJ&E rail line in Lake County, Indiana.				

Page 3.5-45, Table 3.5-9:

Table 3.5-9. Trails, Greenways, and Scenic Corridors in Lake County, Indiana				
Name	**Type/Status**	**Location**	**Proximity To Rail Line**	**Managed by**
Pennsy Greenway Trail	Greenway (proposed in Indiana; existing in Illinois)	Extending northwest from Crown Point into Illinois	Crosses the EJ&E rail line at US 41 near Schererville	NIRPC, Illiana Citizens for the Pennsy, Calumet Citizens for Connecting Communities (C4)
Erie Lackawanna	Regional Trail (existing)	From Crown Point northwest to Highland, IN	Runs parallel to the EJ&E rail line near Highland; runs northwest/southeast through the Griffith connection	Highland Parks & Rec,, Griffith Parks & Rec, Lake County Parks & Rec, Merrillville Parks & Rec, C4
Little Calumet River Trail Corridor	Scenic Corridor (under construction)	Along the Little Calumet River from the Erie Lackawanna Trail Corridor	Crosses the EJ&E line just south of I-80/94	~~NIRPC~~ Little Calumet River Basin Development Commission
Grand Calumet River	Regional Trail (~~existing~~ proposed)	Along the Grand Calumet River eastward from north Hammond to downtown Gary	East of the EJ&E rail line and the Gary-Chicago Airport, north and south of I-90	~~NIRPC~~ Unknown at this time
Marquette ~~Corridor~~ Trail	Regional Trail (segments	~~Extends from the Indiana-Illinois border to~~	~~North~~ Northeast of the EJ&E rail	~~NIRPC~~ Indiana Dunes National

	existing and proposed)	~~the Indiana-Ohio border near the coast line, crossing through Gary~~ Vicinity of Whihala Beach County Park in Whiting	line	Lakeshore (INDU)
Oak Savannah Bike/Hike Trail	Regional Trail (existing)	Extends from Griffith to Hobart and Hobart to Lake/Porter County Line	Follows ~~the EJ&E~~ an abandoned rail line corridor	~~NIRPC~~ Lake County Parks & Recreation
Prairie Duneland Trail	Regional Trail (existing)	Extends between ~~Portage~~ Hobart and Chesterton	Follows ~~the EJ&E~~ an abandoned rail line corridor	~~NIRPC~~ Portage Parks and Recreation

Pages 3.5-45 through -47, Table 3.5-10:

Table 3.5-10. Local Parks Near the EJ&E Rail Line

County	Name	Size (Acres)	Location	Proximity To Rail Line
Illinois				
Lake	Hawthorn Woods Community Park	Not Available	North of Old McHenry Road in Hawthorn Woods	East
	Century Park	96.0	West of South Milwaukee Avenue in Vernon Hills	South
	Lions Park	4.7	East of South Old Rand Road in Lake Zurich	North
	Citizens Park	55.0	East of US 14 in Barrington	Southeast
	Langendorf Park	39.6	West of Illinois Route 59 in Barrington	North
Cook (Northwest)	Cannon Crossing	26.3	South of Shoe Factory Road in Hoffman Estates	West
DuPage	Reed-Keppler Park	104.7	West of Illinois Route 59 in West Chicago	East
	Pioneer Park	32.4	North of West Roosevelt Road in West Chicago	West
	Summer Lakes Park	13.2	North of Illinois Route 56 in Warrenville	East
	Frontenac Park	67.0	South of New York Street in Aurora	East
	Clearwood Park	56.7	South of Ogden Avenue in Aurora	West, north of Middlebury East Park
	Andover Park	Not Available	South of 83rd Street in Aurora	West
	Middlebury East Park	Not Available	North of 83rd Street in Aurora	West, south of Clearwood Park
	Waubonsee Creek Park	Not Available	South of McCoy Drive in Aurora	West
	McCarty Park	Not Available	North of /Ogden Ave in Aurora	West
	South Spring Lake	Not Available	North of Ogden Ave in Aurora	East
	Oakhurst Wetlands	Not Available	South of New York Street	West
Will	West Side Park	Not Available	North of 9th Street in Lockport	East
	Crest Hill Memorial Park	Not	East of Weber Road in Crest	South

Table 3.5-10. Local Parks Near the EJ&E Rail Line				
County	**Name**	**Size (Acres)**	**Location**	**Proximity To Rail Line**
		Available	Hill	
	Heggie Park	40.0	South of East Woodruff Road in Joliet	West
	A.F. Hill Park	20.0	East of State Street, south of Princeton Street in Lockport	East
	Harbor Springs Park	Not Available	West of Middlebury Street, South of 87th Street	West
	King's Crossing	1.6	South of 127th Street	East
	Future Park (Under Development)	2.3	North of 127th Street	West
	Vine Street Park	2.0	Vine Street and 7th Street in Lockport	East
	Dellwood West	176.0	South Canal Road in Lockport	West
	Richland Park	27.5	Caton Farm Road, east of Weber Road in Crest Hill	West
	Ron Rob Field	4.6	County Creek Dr in New Lenox	South
Cook (Southeast)	Algonquin Park	9.9	East of Western Avenue in Park Forest	South
	Euclid Park	17.7	West of Euclid Avenue in Chicago Heights	North
	Petraca Park	1.9	North of East 22nd Street in Chicago Heights	North and south
	Winnebago Park	Not available	South of Waldman Drive, north of Westgate Drive	South
Indiana				
Lake	Griffith Historical Society Railroad Depot and Museum	Not available	Broad Street and Avenue A in Griffith	North
	Cheever Memorial Park	16.4	North of East Elm Street in Griffith	East
	Seberger Park	8.1	North of I-80/I-94 in Gary	East
	Jackson Park	4.4	East of Buchanan Street, south of Kirk Yard in Gary	East
	Oak Ridge Prairie County Park	253.0	Northwest Lake County in Griffith	East
	Tot Park	1.2	North of Lake Street in Griffith	West

Pages 3.5-47 through -49, Table 3.5-11:

Table 3.5-11. Land and Water Conservation Fund Properties				
County	**Site**	**Type**	**Proximity to EJ&E Rail Line**	**Grant Sponsor**
Illinois				
Lake	Macarthur Woods Forest and Nature Preserves	Acquisition	Located in Vernon Hills/ South of the EJ&E rail line	LCFPD
	Hawthorn Woods	Acquisition, Development	North of Old McHenry	Village of

Table 3.5-11. Land and Water Conservation Fund Properties				
County	**Site**	**Type**	**Proximity to EJ&E Rail Line**	**Grant Sponsor**
			Road in Hawthorn Woods	Hawthorn Woods
	Old School Forest Preserve	Development	Central Lake County near Libertyville, adjacent to the EJ&E rail line	LCFPD
	Hawthorn Woods Park Acquisition	Acquisition	Within Hawthorn Woods	Village of Hawthorn Woods
	Hawthorn Woods Park Development	Development	Within Hawthorn Woods	Village of Hawthorn Woods
	Hawthorn Woods Development	Combination[a]	Within Hawthorn Woods	Village of Hawthorn Woods
	Des Plaines River Trail	Development	Runs parallel to the west side of the EJ&E rail line just west of I-294, crosses at West Old School Road, runs parallel east of the EJ&E rail line until it reaches Illinois Route 41	LCFPD
	Greenbelt Forest Preserve (Grant & Greenbelt Picnic Development)	Development	Eastern Lake County, near Waukegan and North Chicago	LCFPD
Cook (NW)	Spring Lake Nature Preserve Addition	Acquisition	Northwest Cook County, near Barrington Hills/ West the EJ&E rail line, south of the CN rail line	FPDCC
	Poplar Creek Forest Preserve (Addition)	Acquisition	East side of the EJ&E rail line near Hoffman Estates	FPDCC
	~~Pratt's Wayne Woods Forest Preserve~~	~~Acquisition~~	~~East and west of the EJ&E rail line in Bartlett~~	~~DuPage County~~
	~~West Chicago Prairie Nature Preserve~~	~~Acquisition~~	~~West central DuPage County near West Chicago, west of the EJ&E rail line~~	~~City of West Chicago~~
DuPage	Pratt's Wayne Woods Forest Preserve	Acquisition	East and west of the EJ&E rail line in Bartlett	DuPage County
	West Chicago Prairie Nature Preserve	Acquisition	West central DuPage County near West Chicago, west of the EJ&E rail line	City of West Chicago
	DuPage River (Park Land)	Acquisition	East of the EJ&E rail line, east of Illinois Route 59 in Naperville	City of Naperville
	~~Hickory Creek Forest Preserve~~	~~Acquisition~~	~~Southeastern Will County near Frankfort, New Lenox, and Mokena~~	~~Will County~~
Will	Hickory Creek Forest Preserve	Acquisition	Southeastern Will County near Frankfort, New	Will County

Table 3.5-11. Land and Water Conservation Fund Properties				
County	**Site**	**Type**	**Proximity to EJ&E Rail Line**	**Grant Sponsor**
			Lenox, and Mokena	
	Statewide Local Agency Development	Development	Various areas within Channahon	Channahon Community Park District
	I & M Canal Trail System	Development	North end of Joliet and south side of Lockport, west of the CN rail line	Lockport Park District / Illinois Department of Conservancy
	Lake Renwick Heron Rookery Forest and Nature Preserves	Acquisition	South central Will County north of Lockport and Joliet	Will County / Illinois Department of Conservancy
	EJ&E Trail	Acquisition	Parallel to the EJ&E rail line	Fox Valley Park District
	Summerlakes Park	Combination	East of the EJ&E rail line	Warrenville Park District
Indiana				
Lake	Gibson Woods Nature Preserve	Combination	Near Hammond/ West of the EJ&E rail line	Lake County Park Board
	Edward C. Dowling Park	Development	West of EJ&E rail line in Hammond	Hammond Park Board
	Tolleston Park Swimming Pool	Development	East of EJ&E rail line in Tolleston	Gary Park Board
	Washington Park Swimming Pool	Development	East of EJ&E rail line in Gary	Gary Park Board
	Homestead Park	Development	West of EJ&E rail line in Highland	Highland Park Board
	Southridge Park	Acquisition	East of the EJ&E rail line in Griffith, east of Cheever Park	Highland Park Board
	Wadsworth Park	Acquisition/Development	West of the EJ&E rail line in Highland	Griffith Park Board
	Ellendale Park	Development	West of EJ&E rail line in Highland	Highland Park Board
	Sheppard Park	Development	West of EJ&E rail line in Highland	Highland Park Board
	Northgate Park	Combination	Northwest of EJ&E rail line in Dyer	Dyer Park Board
	Meadows Park	Acquisition	West of EJ&E rail line in Highland	Highland Park Board
	Sunnyside Park	Development	Southwest of EJ&E rail line in East Chicago	East Chicago Park Board
	Howe Park	Development	East of EJ&E rail line in Glen Park	Gary Park Board
	Dowling Park Tennis Court Lighting	Development	West of EJ&E rail line in Hammond	Hammond Park Board
	Harrison Park Tennis Court Lighting	Development	1.5 miles South of EJ&E rail line in Hammond	Hammond Park Board

Table 3.5-11. Land and Water Conservation Fund Properties				
County	**Site**	**Type**	**Proximity to EJ&E Rail Line**	**Grant Sponsor**
	Maywood Park Annex	Development	1.5 miles South of EJ&E rail line in Hammond	Hammond Park Board
	Hoosier Prairie State Nature Preserve	Acquisition	North of the EJ&E rail line at the proposed Griffith connection in Griffith	Owned by Division of Nature Preserves
	Clarke and Pine Nature Preserve	Acquisition	South of the EJ&E rail line in Gary	Owned by Division of Nature Preserves

Source: NPS (2008a), "Project List by County and Summary Reports," *Land and Water Conservation Fund*, retrieved on March 26, 2008 and June 17, 2008, http://waso-lwcf.ncrc.nps.gov/public/index.cfm, 2008, Correspondence with the Indiana Department of Natural Resources, Division of Outdoor Recreation, October 23, 2008.

Note:
[a] Combination grants allow for acquisition and site development.

Page 3.5-49, first paragraph, third sentence:

Table 3.5-12, below, shows ~~seven~~ several land and water reserves are located near the EJ&E rail line within the four Illinois counties, while no natural heritage landmarks exist.

Page 3.5-50, Table 3.5-12:

Table 3.5-12. Land and Water Reserves ~~in Illinois~~ adjacent to the EJ&E Rail Line					
County	**Reserve Name**	**Size (Acres)**	**Location**	**Proximity to EJ&E Rail Line**	**Ownership**
Lake	Jean Farwell Woods	14	Between Lake Bluff & Libertyville	South of the EJ&E rail line, within Middlefork Savanna Nature Preserve	Frank Farwell
DuPage	Tri-County Wetland	33	Bartlett	Northwest of the Munger Connection, located in the Northwest portion of James "Pate" Philip State Park	~~FPDCC / Bartlett Park District~~ IDNR
Will	Lake Renwick East	159	Plainfield	Surrounding the EJ&E rail line, adjacent to the Lake Renwick Heron Rookery Nature Preserve	FPDWC
Cook (Southeast)	Butterfield Creek Headwaters	89	Matteson	West of the Matteson Connection, South of I-57 & U.S. Route 30 Interchange, South of the Old Plank Road Prairie Nature Preserve	Village of Matteson

Page 3.5-50, second paragraph:

Illinois has a draft program document which is currently being reviewed internally by the IEPA and the IDNR. NOAA will conduct a public hearing on the program document. Approval of the Illinois Coastal Management Program (ICMP) is not expected for another year (2009).~~is anticipated to have a program adopted in 2008.~~ The Illinois coastal zone boundary is a distinct line that defines the

perimeter of the land and water area that is within the limits of the Illinois Coastal Management Program (ICMP). Defining the coastal zone boundary for Illinois requires delineation of a boundary that extends across the open-water area of Michigan (the lakeward boundary) and a boundary on land that defines the most landward extent of the coastal zone (inland boundary).

Indiana adopted a program in 2002. Figure 3.5-21, below, illustrates the boundaries of Indiana's coastal zone. The purpose of Indiana's Lake Michigan Coastal Program is to enhance the state's role in planning for and managing natural and cultural resources in the coastal region and to support partnerships among Federal, state, and local agencies and organizations. The Indiana Lake Michigan Coastal Program (LMCP) relies upon existing laws and programs as the basis for achieving its purpose (INDNR 2004a).

2.14.17 Socioeconomics

Page 3.6-1, fifth paragraph, fifth sentence:

~~The population bars are intended to show the relative size of each city and are not to scale.~~

Page 3.6-5, Table 3.6-1:

Table 3.6-1. Rapid Population Growth Illinois Communities 2000-2030

City	Average Annual Population Growth (%)	30-Year Growth Rate (%)
Frankfort~~,~~	14.5	436
New Lenox	13.6	410
Plainfield	13.4	404
Richton Park	6.4	192
Matteson	6.2	187
Hawthorn Woods	5.5	165
Lockport	4.6	138
Wayne	4.0	122
Lynwood	3.7	112
Romeoville	3.5	107

Source: NIPC, *Northeastern Illinois Planning Commission 2030 Forecasts of Population, Households and Employment by County and Municipality*, available online at http://www.cmap.illinois.gov/2030_forecasts.aspx, September 27, 2006.

2.14.18 Environmental Justice

Page 3.7-3, Table 3.7-3:

Table 3.7-3. Minority and Low-Income Census Block Groups Along CN Rail Line Segments Within the EJ&E Arc

CN Rail Line	County	Total Census Block Groups	Minority Census Block Groups	Low-Income Census Block Groups
Illinois				
~~Wisconsin Central~~ (Waukesha Subdivision~~)~~	Cook	39	6	0
~~Wisconsin Central~~ (Waukesha Subdivision~~)~~	Lake	18	2	0
~~Illinois Central~~ (Chicago Subdivision~~)~~	Cook	11	6	2
~~Grand Trunk Western~~ (Elsdon/South Bend	Cook	33	21	6

Subdivision~~)~~				
Indiana				
~~Grand Trunk Western (~~South Bend Subdivision~~)~~	Lake	12	0	0

Source: U.S. Census Bureau, Census 2000; Summary File 1 and Summary File 3, *Data Sets*, retrieved on February 15, 2008, http://factfinder.census.gov/servlet/DatasetMainPageServ.et?_program=DEC&_submenuId=datasets_0&lang=en, 2000.

2.14.19 Energy

Page 3.8-1, fifth paragraph, second sentence:

As shown in Table 3.8-1, below, CN estimates that it currently uses 15,613 U.S. gallons of diesel fuel per day in the Chicago metropolitan area, including fuel for CN trains traveling on the EJ&E rail line and on CN and other rail lines.

2.14.20 Air Quality and Climate

Page 3.9-5, fifth paragraph, third and fourth sentences and Page 3.9-6, first paragraph, first sentence:

Based on data listed in the NPR for the 2004 to 2006 period, ~~three~~ four counties in the Study Area had monitored values greater than the new 8-hour ozone NAAQS. These ~~three~~ four counties are Lake County and Cook County, Illinois, and Lake County and Porter County, Indiana, all with monitored values of ~~0.076, 0.077, and~~ 0.076 ppm~~, respectively~~. In Illinois, ~~Cook~~, DuPage, Will, McHenry, and Kane counties all had 2004 to 2006 monitored values equal to or less than the new NAAQS, with values of ~~0.075,~~ 0.068, ~~0.071~~ 0.070, 0.070, and ~~0.072~~ 0.071 ppm, respectively.

2.14.21 Noise and Vibration

Page 3.10-4, Table 3.10-2(This is only a portion of the table):

Table 3.10-2. 24-Hour Noise Monitoring Locations and Existing Noise Levels

Rail Line Segment	Monitoring Site	Monitoring Location (See Figure 3.10-1)	Ldn (dBA)
EJ&E-7D/E	J18	~~420 Aberdeen Road~~ Residence on the corner of Aberdeen and South Harlem Avenue(Frankfort, IL)	56
EJ&E-14C	J5	22 ~~437~~ Elm Place (Lake Zurich)	71

Page 3.10-5, third paragraph, seventh sentence:

Kirk Yard is ~~situated between the shore of Lake Michigan to the north, the US Steel Gary Works to the east, an interstate highway to the south, and rail lines to the west~~ located less than one mile south of Lake Michigan; it is bounded to the north and east by U.S. Steel Gary Works, to the south by I-90, and to the west by rail lines.

2.14.22 Biological Resources

Page 3.11-7, Table 3.11-1:

Table 3.11-1. Invasive and Nonnative Plant Species			
Common and Scientific Names			
Garlic mustard *Alliaria petiolata*	Black locust *Robinia pseudoacacia*	Reed canary grass *Phalaris arundinacea*	Yellow sweet clover *M. officinalis*
Teasel *Dipsacus fullonum* L.	Crown vetch *Coronilla varia*	Narrow-leaved cattail *Typha angustifolia*	~~Giant~~ Common reed grass *Phragmites australis*
Canada thistle *Cirsium arvense*	Moneywort *Lysimachia nummularia*	Autumn olive *Elaeagnus umbellate*	Glossy buckthorn *Rhamnus frangula*
Tartarian honeysuckle *Lonicera tatarica*	White sweet clover *Melilotus alba*	Leafy spurge *Euphorbia esula*	Common buckthorn *R. cathartica*
Purple loosestrife *Lythrum salicaria*	Oriental bittersweet *Celastrus orbiculatus*	Multiflora rose *Rosa multiflora*	Spotted knapweed *Centaurea maculosa*

Source: CW, *The State of Our Chicago Wilderness: A Report Card on the Health of the Region's Ecosystems*, Chicago, IL, available online at http://www.chicagowilderness.org/pubprod/miscpdf/CW_Report_Card_Technical.pdf, 2006.

Page 3.11-9, Table 3.11-2:

Table 3.11-2. ~~Common~~ Wildlife Species in the Study Area			
Common and Scientific Names			
Mammals			
Masked shrew *Sorex cinereus*	Eastern cottontail *Sylvilagus floridanus*	Muskrat *Ondatra zibethicus*	Beaver *Castor canadensis*
Eastern mole *Scalopus aquaticus*	Badger *Taxidea taxus*	Gray squirrel *Sciurus carolinensis*	Coyote *Canis latrans*
Little brown bat *Myotis lucifugus*	Eastern chipmunk *Tamias striatus*	Fox squirrel *S. niger*	Red fox *Vulpes vulpes*
Big brown bat *Eptesicus fuscus*	Prairie vole *Microtus ochrogaster*	White-tailed deer *Odocoileus virginianus*	Racoon *Procyon lotor*
Mink *Mustela vison*			
Birds			
Upland sand piper *Bartramia longicauda*	Great blue heron *Ardea Herodias*	Ovenbird *Seiurus aurocapillus*	Blue-winged teal *Anas discors*
Bobolink *Dolichonyx oryzivorus*	Black terns *Chlidonias niger*	Wood thrush *Hylocichla mustelina*	Pied-billed grebe *Podilymbus podiceps*
Eastern meadowlark *Sturnella magna*	Hairy woodpecker *Picoides villosus*	Great egret *Ardea alba*	Marsh wren *Cistothorus palustris*
Dickcissel *Spiza americana*	Downy woodpecker *P. pubescens*	Red-winged black bird *Agelaius phoeniceus*	Yellow-headed blackbird *Xanthocephalus xanthocephalus*
Short-eared owl *Asio flammeus*	Eastern bluebird *Sialia sialis*	Cooper's hawk *Accipiter cooperii*	Canada goose *Branta canadensis*
Sandhill crane *Grus Canadensis*	Scarlet tanagers *Piranga olivacea*	Red-tailed hawk *Buteo jamaicensis*	Wild turkey *Meleagris gallopavo*
Reptiles			
Common garter snake *Thamnophis sirtalis*	Eastern hognose snake *Hetrodon platirhinos*	Northern water snake *Nerodia sipedon*	Snapping turtle *Chelydra serpentine*
Painted turtle *Chrysemys picta*			
Amphibians			
Western chorus frog *Pseudacris triseriata*	Bullfrog *Rana catesbeiana*	Northern leopard frog *Rana pipiens*	Blue-spotted salamander *Ambystoma laterale*
Spring peeper *Pseudacris crucifer*	Gray tree frog *Hyla versicolor*	American toad *Bufo americanus*	Tiger salamander *Ambystoma tigrinum*
Fish			
Largemouth bass Micropterus salmoides	Walleye Stizostedion vitreum	Common carp Cyprinus carpio	Black crappie Pomoxis nigromaculatus
Channel catfish Ictalurus punctatus	White crappie Pomoxis annualaris	Bluegill Lepomis macrochirus	

Page 3.11-10, Table 3.11-3:

Table 3.11-3. ~~Common~~ Migratory Birds in Study Area		
Common and Scientific Names		
Lake and Shoreline Birds		
Common merganser *Mergus merganser*	Osprey *Pandion haliaetus*	Killdeer *Charadrius vociferous*
Bonaparte's gull *Larus Philadelphia*	Spotted sandpiper *Actitis macularia*	
Marsh, Pond, and Lagoon Birds		
Black-crowned night heron *Nycticorax nycticorax*	Belted kingfisher *Megaceryle alcyon*	Canada goose *Branta canadensis*
Common loon *Gavia immer*	Great blue heron *Ardea herodias*	Common snipe *Gallinago gallinago*
Prairie and Savanna Birds		
Eastern kingbird *Tyrannus tyrannus*	Common nighthawk *Chordeiles minor*	Red-tailed hawk *Buteo jamaicensis*
Red-winged blackbird *Agelaius phoeniceus*	Indigo bunting *Passerina cyanea*	
Forest and Woodland Birds		
Yellow-bellied sapsucker *Sphyrapicus varius*	Cedar waxwing *Bombycilla cedrorum*	Baltimore oriole *Icterus galbula*
Ruby-throated hummingbird *Archilochus colubris*	White-throated sparrow *Zonotrichia albicollis*	

Page 3.11-11, fifth paragraph, second sentence:

The Study Area lies within the USFWS Eastern Tallgrass Prairie and Hardwood Transition Bird Conservation Regions and hosts some of the largest concentrations of migrant species during the spring and fall migration.

Page 3.11-11, Table 3.11-4 (This is only a portion of the table):

Table Error! No text of specified style in document.-6. Conservation and Natural Areas within the Illinois Study Area (Table 3.11-4 of the Draft EIS)			
Federal	**County Forest Preserves**	**State INAI and INHS[c] Sites**	**Nature Preserves**
Lake County			
	Mundelein Park and Recreation District Park[a]		
	Cuba Marsh Forest Preserve	INAI 1238	
		INAI 1470 (Eola Road Marsh)	

Page 11-19, fifth paragraph, second sentence:

The Study Area is located near the Federally-protected Hoosier Prairie Natural Area (owned by INDNR) and Indiana Dunes National Lakeshore.

Page 3.11-21, fifth paragraph, third sentence:

The INDNR Division of Nature Preserves owns and manages the site.

Page 3.11-25, Table 3.11-6:

Table 3.11-6. Federal Listed Threatened & Endangered Species with Potential to Occur within Study Area

Common and Scientific Names	Status	State	Preferred Habitat
Hine's emerald dragonfly *Somatochlora hineana*	E	Illinois	Slow moving, shallow waters, spring-fed marshes and sedge meadows.
Mead's milkweed *Asclepias meadii*	T	Illinois	Prairies
Prairie Bush Clover *Lespedeza leptostachya*	T	Illinois	Dry, gravel hill prairies
Eastern prairie fringed orchid (in Illinois) and Prairie white-fringed orchid (in Indiana) *Platanthera leucophaea*	T	Illinois and Indiana	Open, calcium rich wet meadows and low prairie; occasionally in sedge meadows and on floating bog mats
Karner blue butterfly *Lycaeides melissa samuelis*	E	Indiana	Always occurs in close association with larval host plant wild blue lupine (*Lupinus perennis*). Sandy barrens and oak savanna with periodic fire to retain open character.
Dune thistle *Cirsium pitcheri*	T	Indiana	Sand dunes around lakes Michigan, Huron, and eastern Lake Superior
Indiana bat[a]	E	Indiana and Illinois	Require cool, humid caves for hibernation and roost in wooded areas under loose tree bark or dead or dying trees.

Source: IDNR (2008e), "Threatened and Endangered Species Elemental Occurrence GIS Database" [computer file], Springfield, Illinois, IDNR Division of Realty and Planning.

[a] See Biological Report (Appendix A8 of this FEIS) for a full discussion of the Indiana bat.

Page 3.11-25, third paragraph:

Critical habitat for the Hine's emerald dragonfly (HED) is located directly adjacent to the Paul Ales Branch or the Romeoville Line of the EJ&E rail line (EJ&E Segment 18). Currently, this segment is an industrial rail line that supplies coal fuel to two power plants owned by Midwest Generation. Additionally, EJ&E Segment 18 services the Material Service Corporation, one of the largest aggregate sources of for both local and regional markets. ~~USFWS has an agreement in place with EJ&E rail line for train operations on this segment.~~ Speed limits have been imposed on this segment of rail line per the special conditions of U.S. Army Corps of Engineers (COE) permit #199600211 (applicant: Commonwealth Edison). According to this ~~agreement~~ special condition, trains must operate between 4 to 6 miles per hour to reduce adult HED mortality from direct train collisions. Furthermore, reduced speeds on this segment minimize impacts to larval HED from "squishing" ground water out from beneath the railbed and releasing sediments into larval habitats adjacent to the railroad embankment (USFWS 2008). A small portion of HED critical habitat (Unit 1) is located about 0.3 mile north of EJ&E Segment 8A.

Page 3.11-26, fifth paragraph, sixth sentence:

~~No designated critical habitat area for the Karner blue butterfly exists in the Study Area.~~ No critical habitat has been designated for the species anywhere in its range.

Page 3.11-26, sixth paragraph, second sentence:

The lupine serves as ~~host for several of~~ the sole food source during all of the insect's larval stages.

Page 3.11-28, Table 3.11-7 (This is only a portion of the table):

Table 3.11-7. State-Listed Threatened & Endangered Species Potentially within Illinois and Indiana Study Area

Common and Scientific Names	Status	Preferred Habitat
Illinois		
Vertebrates		
Franklin's ground squirrel *Spermopholus franklinii*	T	Tall grasslands, as well as forest-prairie borders and marsh edges.

2.14.23 Water Resources

Page 3.12-2, first paragraph:

A Section 401 Water Quality Certification from the Illinois Environmental Protection Agency (IEPA) would be granted concurrently with the Section 404 Nationwide Permit(s) from the USACE, provided the project is constructed in accordance with applicable regional conditions required by the IEPA. In Indiana, the USACE has developed the Indiana Regional General Permit No. 1 (RGP 1) to replace the Nationwide Permits; the RGP1 can be used by the USACE to authorize most projects that affect less than one acre of waters of the U.S. A Section 401 Water Quality Certificate is not required from the Indiana Department of Environmental Management (IDEM) as the USACE Indiana RGP 1 covers this requirement. The Applications will need to submit for a Federal Consistency review from the IDEM for filling and dredging work in the Lake Michigan Coastal Zone under Indiana's Coastal Zone Management Act (CZMA) (16 USC 1451-1456). Normally, RGP 1 permits are exempt from CZMA review, as the USACE Section 404/401 process allows IDEM to review and comment on the Regional permit. Projects that propose impacts to waters of the U.S. equal to or greater than 1 acre in size in Indiana generally require an Individual permit, which require USACE evaluation under the environmental criteria set forth in the CWA§404(b)(1) guidelines.

Page 3.12-7, second paragraph, ninth sentence:

~~Table~~ Figure 3.12-4, below, shows the approximate locations where the maximum setbacks of WHPAs intersect the EJ&E rail line.

Page 3.12-7, third paragraph, third sentence:

The nitrate and pesticide sensitivity maps are provided in ~~Table~~ Figure 3.12-5 and ~~Table~~ Figure 3.12-6, below.

Page 3.12-32, Table 3.12-8:

Table 3.12-8. Regulation of USACE Non-Jurisdictional Wetlands

County	Isolated Wetland Law	Permit Required	State or County Agency	Delineation Requirements	Mitigation
Illinois					
Lake	Watershed Development Ordinance	Watershed Development Permit for all wetland impacts >0.25 acres	Lake County Stormwater Management Commission	USACE Wetlands Delineation Manual 1987	1.5:1 for all non-High Quality Areas (HQARs)
					~~1:3~~ 3:1 for all HQARs
					50' Buffer Requirement. Buffer Impacts to be mitigated using averaging of buffer width
DuPage	Countywide	Type VII Permit	DuPage	USACE	1.5:1 for regulatory

Table 3.12-8. Regulation of USACE Non-Jurisdictional Wetlands					
County	**Isolated Wetland Law**	**Permit Required**	**State or County Agency**	**Delineation Requirements**	**Mitigation**
	Stormwater and Flood Plain Ordinance - Special Management Areas (Article 10)	for impacts >25,000 sq ft	County Department of Economic Planning and Development / Division of Environmental Concerns	Wetlands Delineation Manual 1987	wetlands (based on required functions and values assessments)
				Functions and Values Assessment	3:1 for critical wetlands (based on required functions and values assessments)
					50'-100' Buffer required depending on wetland quality
Will	Stream and Wetland Protection Ordinance, Resolution No. 98-25	Site Development Permit With Lowlands - Requires review and approval by Director / Administrator	Will County Land Use Department	USACE Wetlands Delineation Manual 1987	not specified
Cook	No specific regulations for isolated wetland basins. Floodplain rules apply to USACE jurisdictional waters.				
Indiana					
Lake ~~County~~	Indiana Administrative Code, Article 17. Wetland Activity Permits	Wetland Activity Permit	Water Pollution Control Board / IDEM / Coastal Consistency Commission	USACE Wetlands Delineation Manual 1987	1:1 to 3:1 based on Indiana Article 17 Code Classification

Page 3.12-31, fourth paragraph, third sentence:

Some of the most common and problematic invasive species in Chicago metropolitan area wetlands include: non-native or hybridized forms of ~~P~~purple loosestrife (*Lythrum salicaria)*, ~~R~~reed canary grass (*Phalaris arundinacea*), ~~Giant~~ common reed grass (*Phragmites australis*), ~~G~~glossy buckthorn (*Rhamnus frangula*), and ~~N~~narrow-leaved cattail (*Typha angustifolia*).

Page 3.12, third paragraph, fourth sentence:

Major wetlands protected through public ownership in the study area include: Cuba Marsh (Lake County, Illinois), Crabtree Preserve (Cook County), floodplain areas along Poplar Creek in Janura Forest Preserve (Cook County), Pratt's Wayne Woods wetlands along Brewster Creek and Norton Creek (DuPage County), wetlands associated with West Chicago Prairie (DuPage County), Blackwell Forest Preserve wetlands (DuPage County), Night Heron Marsh (DuPage County), Lake Renwick Heron Rookery (Will County), Des Plaines River crossing in Joliet (Will County), large marsh, meadow, and wet prairie areas in and near Hoosier Prairie (Lake County, Indiana), wetlands along Little Calumet River (Lake County), and the "dune and swale" area wetlands in and around Gary, Indiana.

Page 3.12-33, fourth paragraph, third sentence:

~~Fen effects may include the following.~~ The following anthropogenic (human influenced) activities are known to impact fens:

2.14.24 Chapter 4 of the Draft EIS

2.14.25 Commuter Capacity and Passenger Rail Service

Page 4.1-41, sixth paragraph, first and second sentences:

Metra's existing Heritage Corridor service operates six weekday trains on the CN's Joliet and Freeport subdivisions between Joliet and ~~16th~~ 21st Street in Chicago. North of ~~16th~~ 21st Street, these Metra trains use trackage owned by Amtrak to enter Chicago Union Station.

Page 4.1-42, Table 4.1-3

Table 4.1-3. CN Line Segments with Metra Service

CN Segment No.	Location	Current Daily CN Freight Trains	Proposed Daily CN Freight Trains	Current Daily Metra Trains
9	16th Street to Bridgeport	4.6	0.0	6 Heritage Corridor
14	Bridgeport to Lemoyne	2.1	0.0	6 Heritage Corridor
15	Lemoyne to Glenn Yard	2.1	2.0	6 Heritage Corridor
16	Glenn Yard to Argo	5.8	2.0	6 Heritage Corridor
17	Argo to Lemont	1.8	2.0	6 Heritage Corridor
18	Lemont to Joliet	1.8	2.0	6 Heritage Corridor
21	Tower B-12 to Schiller Park	19.3	2.0	~~22~~ 21 North Central
22	Schiller Park to Leithton	19.1	2.0	~~22~~ 21 North Central

Page 4.1-42, first paragraph, first sentence:

Metra's existing North Central service operates ~~22~~ 21 weekday trains on the CN's Waukesha Subdivision between Mundelein, Illinois and Tower B-12 in Franklin Park, Illinois. East of Tower B-12, these Metra trains use trackage owned by ~~Canadian Pacific (CPR),~~ Metra and Amtrak to enter Chicago Union Station.

Page 4.1-42, Table 4.1-4 (This is only a portion of the table):

Table 4.1-4. EJ&E And Metra Rail/Rail At-Grade Crossings

Location	Railroad That EJ&E Crosses	Metra Route Crossed	Tracks	Current Daily Freight Trains	Proposed Daily Freight Trains	Current Weekday Metra Trains On Route Crossed	Current Daily Freight Trains On Route Crossed
Spaulding	~~IC&E (Metra)~~ Metra (IC&E)	Milwaukee District West Line	IC&E 2 EJ&E 1	5.5	22.5	50	15

Page 4.1-44, second paragraph, first sentence:

At the Spaulding interlocking, Metra trains operate on trackage owned by ~~CPR~~ Metra, ~~which~~ CPR controls the interlocking at Spaulding.

Page 4.1-44, Table 4.1-5 (at right) has been replaced by the table below:

Table 4.1-5. Train Occupancy Times For EJ&E And Metra Rail/Rail At-Grade Crossings (24-Hour Period)

Location	Proposed CN Freight Trains	Total Time Occupied For Proposed CN Freight Trains (Hours)	Current Weekday Metra Trains On Route Crossed	Total Time Occupied For Current Weekday Metra Trains (Hours)	Current Freight Trains On Route Crossed	Total Time Occupied For Current Freight Trains On Route Crossed (Hours)	Total Time Crossing Is Occupied In 24-Hour Period (Hours)
Barrington	20.3	6.7	56	4.6	12	2.0	13.3
Spaulding	22.5	7.4	50	4.2	15	2.5	14.1
West Chicago	31.6	10.4	52	4.3	35	5.8	20.6
Joliet-Rock Island Tower	28.3	9.3	47	3.9	10	1.7	14.9

Updated Table 4.1-5. Train Occupancy Times for EJ&E and Metra Rail/Rail At-Grade Crossings (24-Hour Period)

Location	Proposed CN Freight Trains	Time Crossing Occupied per Freight	Total Time Crossings Occupied for CN Freight (Hours)	Opposing Crossing									Total Time Crossing is Occupied
				Current Weekday Metra Trains on Route Crossed	Time Crossing Occupied per Passenger Train (Minutes)	Total Time Occupied for Current Weekday Metra Trains (Hours)	Current Freight Trains on Route Crossed	Time Crossing Occupied per Freight Train (Minutes)	Total Time Occupied for Current Freight Trains on Route Crossed (Hours)	Number of Tracks	Percent of Crossing Route is Occupied by more than One Train	Total Time Crossing Route is Occupied	
Barrington	20.3	20	6.7	62	5	5.2	6	10	1.0	2	30	5.0	11.7
Spaulding	22.5	10	3.8	48	5	4.0	12	10	2.0	2	30	4.2	8.0
West Chicago	31.6	15	7.9	52	5	4.3	55	10	9.2	3	60	5.4	13.3

Joliet-Rock Island Tower	28.3	15	7.1	46	5	3.8	10	10	1.7	2	30	3.8	10.9

Page 4.1-44, second paragraph, first sentence:

At the Spaulding interlocking, Metra trains operate on trackage owned by ~~CPR~~ Metra, ~~which~~ CPR controls the interlocking at Spaulding.

Page 4.1-45, third paragraph, first sentence:

As discussed in Section ~~3.2.1~~ 3.1.3.1, Metra has extensively evaluated the feasibility of its proposed STAR Line, an outer circumferential commuter rail route that would use major portions of EJ&E corridor to provide suburb-to-suburb service and connect the spokes of the Metra system.

Page 4.1-48, fourth paragraph, fourth sentence:

~~CN~~ Metra controls the Kensington interlocking.

Page 4.1-50, fifth paragraph, first sentence:

Amtrak also currently operates 10 daily trains on CN's Joliet and Freeport subdivisions between Joliet and ~~16th~~ 21st Street in Chicago.

2.14.26 Existing Amtrak Service on Rail Lines That Cross Affected EJ&E Rail Line Segments

Page 4.1-51, Table 4.1-9 (at right) has been replaced by the table below:

TABLE 4.1-9 TRAIN OCCUPANCY TIMES FOR EJ&E AND AMTRAK RAIL/RAIL AT-GRADE CROSSINGS (24-HOUR PERIOD)

Location	Proposed CN Freight Trains	Total Time Occupied for Proposed CN Freight Trains (Hours)	Average Daily Amtrak Trains on Route Crossed	Total Time Occupied for Proposed Weekday Metra Trains (Hours)	Current Freight Trains on Route Crossed	Total Time Occupied for Current Freight Trains on UP Route Crossed (Hours)	Total Time Crossing is Occupied in 24-Hour Period (Hours)
Dyer	34.2	11.4	2	0.2	10	1.7	13.3

Table 4.1-9 Train Occupancy Times For EJ&E And Amtrak Rail/Rail At-Grade Crossings (24-Hour Period)

Location	Proposed CN Freight Trains	Time per CN Train (minutes)	Total Time Occupied by CN Freight Trains (hours)	Number of Tracks	Crossing Route is Occupied by more than One Train (percentage)	Total Time Occupied by CN Freight Trains (hours)	Number of Amtrak Trains	Time per Amtrak Train (minutes)	Total Time Occupied by Amtrak Trains (hours)	Current Number of Freight Trains	Time per Current Freight Train (minutes)	Total Time Occupied by Current Freight Trains (hours)	Total Time Occupied by any Train under the Proposed Action (hours)
Dyer	34.2	15	8.5	2	30	6	2	6	.2	2	15	0.5	6.7

Page 4.1-51, fifth paragraph, first sentence:

Amtrak currently operates 16 daily trains on the ~~CP~~ Metra corridor that cross the EJ&E rail line via at-grade crossing rail/rail at-grade crossings in Rondout.

2.14.27 Rail Safety

Page 4.2-1, third bullet:

- SEA also calculated the potential risk of accidents at public highway/rail at-grade crossings. Under the No-Action Alternative (current conditions), the SEA analysis predicted ~~4.455~~ 4.472 accidents annually on the EJ&E rail line ~~segments~~ and ~~6.233~~ 6.406 accidents annually on the CN rail line ~~segments~~, with three CN highway/rail at-grade crossings and ~~two~~ one EJ&E highway/rail at-grade crossing~~s~~ having a high ~~predicted~~ accident frequency (one accident every 7 years). Under the Proposed Action, the SEA analysis predicted an increase of ~~1.566 (to 6.021)~~ 1.546 (to 6.018) highway/rail accidents annually on the EJ&E rail line ~~segments~~ and a decrease of ~~2.514 (to 3.719)~~ 2.536 (to 3.880) on the CN rail line~~s~~ ~~segments~~, with four EJ&E highway/rail at-grade crossings and no CN highway/rail at-grade crossings having a high accident frequency (one accident every 7 years). Overall, SEA predicted that potential highway/rail at-grade crossing accidents would decrease by 9 percent (from ~~10.688 to 9.740~~ 10.877 to 9.898) under the Proposed Action. [Section 4.2.2]

Page 4.2-9, Table 4.2-7 (This is only a portion of the table):

Table 4.2-7. Rail/Rail At-Grade Crossings for EJ&E Rail Line Segments

Location	EJ&E Subdivision & Milepost	Railroad That EJ&E Crosses	Current Daily EJ&E Freight Trains	Current Weekday Passenger Trains On EJ&E Route	Current Weekday Passenger Trains On Route Crossed	Current Daily Freight Trains On Route Crossed	Railroad That Controls Operations
Rondout	Western 65.5	CP/Metra/Amtrak	3.2	0	~~46~~ 48 Metra 16 Amtrak	10	~~Metra~~ CPR
Leithton	Western 60.3	CN/Metra	5.3	0	~~22~~ 21 Metra	19.1	CN
Barrington	Western 49.6	UP/Metra	5.3	0	~~56~~ 66 Metra	7	EJ&E
Spaulding	Western 37.5	CP/ICE/Metra	5.5	0	~~50~~ 54 Metra	~~31~~ 7	~~Metra~~ CPR

Page 4.2-10, Table 4.2-8 (This is only a portion of the table):

Table 4.2-8. Rail/Rail At-Grade Crossings for CN Rail Line Segments

Location	CN Subdivision and Milepost	Railroad That CN Crosses	Current Daily CN Freight Trains	Current Weekday Passenger Trains on CN Route	Current Weekday Passenger Trains on Route Crossed	Current Daily Freight Trains on Route Crossed	Railroad That Controls Operations
Tower B-12	Waukesha 15.5	CP/Metra	19.3	0[a]	~~58~~ 62 Metra	46.0	Metra
Deval	Waukesha 23.4	UP/Metra	19.1	~~22~~ 21 Metra	~~65~~ 85 Metra	10.0	Deval Tower
21st Street	Freeport 2.0	Amtrak	6.4	0	12 Amtrak 30 Metra	0.0	Amtrak
16th Street	Chicago 1.5	Metra	4.6	6 Amtrak	~~68~~ 78 Metra	0.0	~~16th Street Tower~~ Metra
Kensington	Chicago 14.5	NICTD	8.4	6 Amtrak	37 NICTD	0.0	~~Kensington Tower~~ Metra
Ashburn	Elsdon 12.8	NS/Metra	3.4	0	30 Metra	10	NS

Note:

[a] 21 Metra trains using the CN route enter and use B-12, but do not cross on the diamonds.

Page 4.2-11, Table 4.2-9 (This is only a portion of the table):

Table 4.2-9. Rail/Rail At-Grade Crossings on the EJ&E that Would Experience Changes in Freight Rail Traffic Under the Proposed Action.

Location	EJ&E Subdivision & Milepost	Railroad That EJ&E Crosses	Current Daily EJ&E and CN Freight Trains	Current Weekday Passenger Trains on EJ&E Route	Proposed Daily CN+EJ&E Freight Trains	Current Weekday Passenger Trains on Route Crossed	Current Daily Freight Trains on Route Crossed	Railroad That Controls Operations
Rondout	Western 65.5	CP/Metra/ Amtrak	3.2	0	3.2	~~46~~ 48 Metra 16 Amtrak	10	~~Metra~~ CPR
Leithton	Western 60.3	CN/Metra	5.3	0	5.3	~~22~~ 21 Metra	2	CN
Barrington	Western 49.6	UP/Metra	5.3	0	20.3	~~56~~ 66 Metra	7	EJ&E
Spaulding	Western 37.5	CP/ICE/Metra	5.5	0	20.3	~~50~~ 54 Metra	~~31~~ 7	~~Metra~~ CPR

Page 4.2-12, Table 4.2-10 (This is only a portion of the table):

Table 4.2-10. Rail/Rail At-Grade Crossings on the CN That Experience Changes in Freight Rail Traffic Under the Proposed Action

Location	CN Subdivision and Milepost	Railroad That CN Crosses	Current Daily CN Freight Trains	Current Weekday Passenger Trains on CN Route	Proposed Daily CN and EJ&E Freight Trains	Current Weekday Passenger Trains on Route Crossed	Current Daily Freight Trains on Route Crossed	Railroad That Controls Operations
16th Street	Chicago 1.5	Metra	4.6	6 Amtrak	0	68 Metra	0	~~16th Street Tower~~ Metra
Kensington	Chicago 14.5	NICTD	8.4	6 Amtrak	2	37 NICTD	0	~~Kensington Tower~~ Metra

Page 4.2-15, second paragraph, first, second, and third sentences:

SEA analyzed the predicted accidents for the rail lines ~~segments~~ under the No-Action Alternative. The analysis shows an expected ~~4.471~~ 4.472 accidents per year on the EJ&E rail line ~~segments~~ and ~~6.264~~ 6.018 on the CN rail line ~~segments~~. The overall expected number of accidents is ~~10.735~~ 10.877 per year.

Page 4.2-17, Table 4.2-13:

Table 4.2-13. Exposure (Trains x Vehicles) No-Action

USDOT	Segment	Street	MP	Subdivision	Municipality	County	State	Exposure Factor (No-Action)
283201W	CN 23A EJE 4B CN 33D	Broad Street	36.09 (CN) 36.22 (EJ&E)	Eastern (EJ&E)	Griffith	Lake	IN	~~1,049,836~~ 634,133

Page 4.2-17, second paragraph, first sentence:

Broad Street is a unique crossing in that it has seven tracks (two CN main tracks, two EJ&E main tracks, one connection track, and ~~three~~ two industrial switching tracks) that are in close proximity to each other and utilize the same set of warning devices.

Page 4.2-17, third and fourth paragraphs:

SEA analyzed the predicted accidents for the affected rail line segments assuming the Applicants' Proposed Action was fully implemented. The findings predict that the expected accidents or incidents at highway/rail at-grade crossings would increase from ~~4.455 to 6.021~~ 4.472 to 6.018 accidents per year on the EJ&E rail line ~~segments~~ and decrease from ~~6.233 to 3.719~~ 6.406 to 3.880 on the CN rail lines ~~segments~~. The findings predict that the overall accidents would decrease from ~~10.688 to 9.740~~ 10.877 to 9.898 accidents per year under the Proposed Action.

SEA concluded that the predicted annual accidents as a result of full implementation of the Applicants' operating plan would result in an increase of ~~1.566~~ 1.546 highway/rail accidents per year on the EJ&E line, and a decrease of ~~2.514~~ 2.536 accidents per year on the CN line, for a net decrease of ~~0.948~~ 0.980 accidents per year. This represents a 9 percent decrease.

Page 4.2-19, Table 4.2-16:

Table 4.2-16. Vehicle Exposure (Trains x Vehicles) No-Action and Proposed Action

Street	MP	Subdivision	Municipality	County	State	Exposure Factor	
						No-Action	Proposed Action
Ogden Avenue (US 34)	19.05	Western	near Aurora	DuPage	IL	~~719,500~~ 723,927	~~1,810,206~~ 1,821,345
Lincoln Highway	30.69	Eastern	Lynwood	Cook	IL	~~404,491~~ 298,217	~~1,356,235~~ 999,905
Broad Street	36.09	Eastern	Griffith	Lake	IN	~~1,049,836~~ 634,133	~~1,113,462~~ 731,993
Montgomery Road	18.18	Western	near Aurora	DuPage	IL	425,957	1,071,675

Page 4.2-19, second paragraph, first sentence:

Broad Street is a unique crossing in that it currently has seven tracks (two CN main tracks, two EJ&E main tracks, one connection track, and ~~three~~ two industrial switching tracks) that are in close proximity to each other and utilize the same set of warning devices.

Pages 4.2-34 and -35, Table 4.2-23:

Table 4.2-23. Changes in Potential Hazardous Material Releases No-Action vs. Proposed Action

Rail Line Segment	Current Annual Hazardous Material Carloads	Proposed Action Annual Hazardous Material Carloads	Segment Length (Miles)	Current Interval Between Anticipated Hazardous Material Releases (Years)	Proposed Action Interval Between Anticipated Hazardous Material Releases (Years)
CN 1	69,775	7,146	7.9	355	3,462
CN 2	90,922	-	1.8	1,194	n/a
CN 3	34,455	-	2.1	2,701	n/a
CN 4	29,932	-	2.4	2,721	n/a
CN 5	29,932	-	1.0	6,529	n/a
CN 6	28,110	-	2.8	2,483	n/a
CN 7	27,753	-	3.6	1,956	n/a
CN 8	27,753	-	6.6	1,067	n/a
CN 9	24,767	-	2.3	3,431	n/a
CN 10	22,641	-	3.9	2,213	n/a
CN 11	30,723	-	0.6	10,602	n/a
CN 12	26,084	6,779	5.8	1,292	4,971
CN 13	22,318	6,779	21.0	417	1,373
CN 14	21,692	-	4.4	2,048	n/a
CN 15	33,074	4,188	2.5	2,364	18,667
CN 16	50,950	20,463	2.7	1,421	3,537
CN 17	26,228	20,463	12.2	611	783
CN 18	14,223	32,468	11.5	1,195	523
CN 19	28,023	-	0.1	69,743	n/a
CN 20	28,023	-	4.5	1,550	n/a
CN 21	57,300	1,916	2.3	1,483	44,350
CN 22	57,220	2,256	20.1	170	4,310
CN 23	102,401	3,270	10.9	175	5,483
CN 24	99,622	3,266	2.0	981	29,921
CN 25	58,469	3,249	3.9	857	15,424
CN 26	14,146	-	7.5	1,842	n/a
EJ&E -2	-	515	4.2	n/a	90,356
EJ&E -1	-	515	4.6	n/a	82,499
EJ&E 0	-	4,021	3.4	n/a	14,296
EJ&E 1	19,163	148,299	2.2	7,974	599
EJ&E 2	16,608	145,744	1.4	14,459	958

Table 4.2-23. Changes in Potential Hazardous Material Releases No-Action vs. Proposed Action					
Rail Line Segment	Current Annual Hazardous Material Carloads	Proposed Action Annual Hazardous Material Carloads	Segment Length (Miles)	Current Interval Between Anticipated Hazardous Material Releases (Years)	Proposed Action Interval Between Anticipated Hazardous Material Releases (Years)
EJ&E 3	16,608	145,744	2.0	10,121	670
EJ&E 4	16,316	153,847	3.6	5,723	353
EJ&E 5	26,134	181,222	11.0	1,169	98
EJ&E 6	28,726	181,040	~~3.5~~ 5.5	3,344	308
EJ&E 7	17,885	131,692	20.9	899	71
EJ&E 8	17,849	145,306	3.1	6,076	434
EJ&E 9	17,849	145,306	8.6	2,190	156
EJ&E 10	15,841	143,299	10.2	2,081	134
EJ&E 11	11,206	115,048	7.8	3,846	218
EJ&E 12	7,702	99,024	6.6	6,614	299
EJ&E 13	10,585	76,431	2.1	15,123	1,218
EJ&E 14	6,607	66,904	22.7	2,242	129
EJ&E 15	3,431	3,431	5.2	18,842	10,954

2.14.28 Transportation

Page 4.3-8, Table 4.3-3:

Table 4.3-3. Total Vehicle Delay				
	No-Action (hours/day)	Proposed Action (hours/day)	No-Action (hours/year)	Proposed Action (hours/year)
EJ&E Rail Line	~~275~~ 280	~~2,030~~ 2,075	~~1,670~~ 101,930	~~12,370~~ 757,295
CN Rail Lines	~~1,600~~ 1,660	~~320~~ 310	~~9,710~~ 606,500	~~1,960~~ 112,810
Total	~~1,875~~ 1,940	~~2,350~~ 2,385	~~11,380~~ 708,430	~~14,330~~ 870,105
Difference	~~475~~ 445		~~2,950~~ 161,675	

Page 4.3-9, first bullet:

- Minimal: when the Proposed Action calculated queue length blocks no major roadways and the crossing LOS is D or better.

Page 4.3-10, first bullet:

- Moderate: when the Proposed Action calculated queue length blocks a major roadway that is also blocked under the No-Action Alternative and the crossing LOS is D or better.

Page 4.3-10, second bullet:

- Serious: when the Proposed Action queue length blocks a major roadway that is not blocked under the No-Action Alternative or the crossing LOS is reduced to E-F, or the Total Vehicle Traffic Delay in a 24-hour period exceeds 40 hours (2,400 minutes).

Pages 4.3-12 through -15, Table 4.3-4 (This is only a portion of the table):

Table 4.3-4 Summary of Proposed Action Effects on Highway/Rail At-Grade Crossings on the EJ&E Rail Line

Street	2015 ADT	Trains per Day		2015 Level of Service			Queue Length (Feet)		Average Delay per Delayed Vehicle (Minutes)		Total Vehicle Traffic Delay (24-Hr) (Minutes)	
				Crossing		Roadway						
		No-Action	Proposed Action	No-Action	Proposed Action		No-Action	Proposed Action	No-Action	Proposed Action	No-Action	Proposed Action
Near Mundelein, IL												
IL 60 & 83	29,659	5.3	20.3	A	B	F	1,201	~~1,215~~ 2,426	1.1	2.1	194.7	2,872.8
Near Bartlett, IL												
Stearns Road	~~21,129~~ 12,364	5.5	22.5	A	A	D	~~325~~ 218	~~625~~ 365	0.9	1.5	~~102.6~~ 61.0	~~1,168.5~~ 699.9
Near West Chicago, IL												
Hawthorne Lane	20,024	4.4	23.4	A	B	~~D~~ F	694	1,430	0.9	1.9	76.5	1,765.1
Near Plainfield, IL												
Van Dyke Road	6,921	~~18.5~~ 15.7	~~42.3~~ 39.5	A	B	C	295	389	1.1	1.5	~~167.2~~ 141.9	~~685.5~~ 623.1
Renwick Road	12,873	18.5	42.3	A	B	C	~~249~~ 516	~~328~~ 695	1.0	1.4	265.0	1,143.8
Plainfield, IL												
143rd Street	5,952	~~18.5~~ 15.7	~~42.3~~ 39.5	A	B	A	~~187~~ 249	~~247~~ 328	1.1	1.4	~~140.8~~ 118.8	~~539.0~~ 514.8
Plainfield-Naperville Road	4,568	18.5	42.3	A	B	F	~~907~~ 187	~~1,197~~ 247	1.1	1.4	105.6	406.0
Main Street	22,175	18.5	42.3	A	B	~~A~~ F	~~75~~ 907	~~100~~ 1,197	1.1	1.4	512.6	1,969.8
Center Street	1,845	18.5	42.3	A	B	A	~~158~~ 75	~~209~~ 100	1.1	1.4	42.9	163.8
Eastern Avenue	3,876	18.5	42.3	A	B	~~E~~ A	~~464~~ 158	~~613~~ 209	1.1	1.4	89.1	344.4
Lockport Road	11,351	18.5	42.3	A	B	~~D~~ E	~~516~~ 464	~~695~~ 613	1.1	1.4	262.9	1,008.0
Joliet, IL												
Woodruff Road	10,659	18.5	42.3	B	F	~~C~~ E	1,550	2,371	2.6	4.4	1,411.8	9,380.8

Table 4.3-4 Summary of Proposed Action Effects on Highway/Rail At-Grade Crossings on the EJ&E Rail Line

Street	2015 ADT	Trains per Day		2015 Level of Service			Queue Length (Feet)		Average Delay per Delayed Vehicle (Minutes)		Total Vehicle Traffic Delay (24-Hr) (Minutes)	
				Crossing		Roadway						
		No-Action	Proposed Action	No-Action	Proposed Action		No-Action	Proposed Action	No-Action	Proposed Action	No-Action	Proposed Action
Frankfort, IL												
Center Avenue	7,752	6.4	28.3	A	B	C	385	530	1.2	1.7	~~33.6~~ 88.4	~~300.9~~ 748.8
Near Frankfort, IL												
Old Sauk Trail	3,461	6.4	28.3	A	B	A	160	226	1.1	1.5	~~76.8~~ 33.6	~~676.6~~ 300.9
Pfeiffer Road / 88th Avenue	7,752	6.4	28.3	A	B	D	358	506			~~104.5~~ 76.8	~~855.0~~ 676.6
Harlem Avenue	12,336	6.4	28.3	A	A	D	534	726	1.3	1.8	~~88.4~~ 104.5	~~748.8~~ 855.0
Matteson, IL												
Main Street	4,375	~~6.4~~ 8.6	~~28.3~~ 34.6	A	~~C~~ D	B	186	475	~~1.1~~ 1.3	~~2.8~~ 3.1	~~36.3~~ 67.1	~~1,036.0~~ 1,522.7
Chicago Heights, IL												
East End Avenue	5,086	~~8.6~~ 10.2	~~31.6~~ 34.2	A	~~C~~ D	B	338	515	1.7	~~2.6~~ 3.0	~~137.7~~ 166.1	~~1,175.2~~ 1,717.6
Griffith, IN												
Broad Street[a]	19,572	7.6	~~28.6~~ 23.6	A	~~B~~ C	F	~~901~~ 1,311	~~1,615~~ 2,211	~~1.2~~ 1.7	2.1 2.9	~~228.0~~ 482.0	~~2,694.3~~ 4,260.1

Notes:

a Broad Street crosses multiple railroad lines at grade in Griffith, Indiana. These railroad lines include existing CN and EJ&E rail lines. Please see Figure 4.3-11 of the Draft EIS for a schematic of the Broad Street at-grade crossing. Table 4.3-4 only reports the total vehicle delay in a 24-hour period on the EJ&E rail line. The total increase in vehicle traffic delay for the Proposed Action as a result of a combined effect of both CN and EJ&E rail lines is 4,930 minutes in a 24-hour period (that is 5,512 total minutes of delay under the Proposed Action minus 582 total minutes of delay under the No-Action Alternative). See Table 4.3-8.

Page 4.3-16 through -18, Table 4.3-5 (This is only a portion of the table):

Table 4.3-5. Train Operations Factors for the EJ&E Rail Line

Street	Length of Train		Train Speed		Trains per Day	
	No-Action	Proposed Action	No-Action	Proposed Action	No-Action	Proposed Action
Near Plainfield, IL						
Van Dyke Road	3,398	5,842	32	38	~~18.5~~ 15.7	~~42.3~~ 39.5
Plainfield, IL						
143rd Street	3,398	5,842	33	39	~~18.5~~ 15.7	~~42.3~~ 39.5
Matteson, IL						
Main Street	3,795	6,684	~~36~~ 29	~~20~~ 18	~~6.4~~ 8.6	~~28.3~~ 34.6
Chicago Heights, IL						
East End Avenue	3,615	6,256	19	~~20~~ 17	~~8.6~~ 10.2	~~31.6~~ 34.2
Griffith, IN						
Broad Street[a]	~~2,717~~ 3,261	~~5,915~~ 6,012	~~23~~ 17	~~24~~ 17	7.6	~~28.6~~ 23.6

Notes:

[a] Broad Street crosses multiple railroad lines at grade in Griffith, Indiana. These railroad lines include existing CN and EJ&E rail lines. Please see Figure 4.3-11 of the Draft EIS for a schematic of the Broad Street at-grade crossing.

Pages 4.3-19 through -26, Table 4.3-6 (This is only a portion of the table):

Table 4.3-6. Summary of Proposed Action Effects on Highway/Rail At-Grade Crossings on the CN Rail Lines

Street	2015 ADT	Trains per Day		2015 Level Of Service			Queue Length (feet)		Average Delay per Delayed Vehicle (minutes)		Total Vehicle Traffic Delay (24-Hr) (minutes)	
				Crossing		Roadway						
		No-Action	Proposed Action	No-Action	Proposed Action		No-Action	Proposed Action	No-Action	Proposed Action	No-Action	Proposed Action
Waukesha Subdivision												
River Forest, IL												
Forest Avenue	3,035	~~3.5~~ 5.4	0.0	A	A	A	213	0	1.8	0.0	~~37.8~~ 58.5	0.0
Augusta Street	3,035	~~3.5~~ 5.4	0.0	A	A	A	213	0	1.8	0.0	~~37.8~~ 58.5	0.0
Keystone Avenue	3,035	~~3.5~~ 5.4	0.0	A	A	A	213	0	1.8	0.0	~~37.8~~ 58.5	0.0
Thatcher Avenue	10,039	~~3.5~~ 5.4	0.0	A	A	~~A~~ C	471	0	1.8	0.0	~~124.2~~ 193.5	0.0
River Grove, IL												
1st Avenue (IL 171)	32,060	~~3.5~~ 5.4	0.0	A	A	C	1,127	0	1.8	0.0	~~394.2~~ 618.0	0.0
5th Avenue	12,190	~~3.5~~ 5.4	0.0	A	A	~~C~~ B	428	0	1.8	0.0	~~149.4~~ 235.0	0.0
Melrose Park, IL												
George Street	4,661	~~3.5~~ 5.4	0.0	A	A	B	347	0	1.9	0.0	~~64.6~~ 100.7	0.0
Franklin Park, IL												
Fullerton Avenue	4,780	~~3.5~~ 5.4	0.0	A	A	B	391	0	2.1	0.0	~~79.8~~ 124.9	0.0
Des Plaines, IL												
Pratt Avenue	2,735	19.1	2.0	B	A	~~B~~ A	253	121	2.4	1.2	321.6	8.4
Touhy Avenue	28,085	19.1	2.0	A	A	~~A~~ D	852	434	2.0	1.0	2,260.0	60.0
Frontage Road	3,481	19.1	2.0	A	A	~~D~~ A	264	135	2.0	1.0	280.0	7.0
Prospect Avenue	4,906	19.1	2.0	A	A	B	372	190	2.0	1.0	394.0	11.0
Oakton Street	29,160	19.1	2.0	A	A	~~A~~ D	1,106	600	2.0	1.1	2,348.0	73.7

Table 4.3-6. Summary of Proposed Action Effects on Highway/Rail At-Grade Crossings on the CN Rail Lines

Street	2015 ADT	Trains per Day		2015 Level Of Service			Queue Length (feet)		Average Delay per Delayed Vehicle (minutes)		Total Vehicle Traffic Delay (24-Hr) (minutes)	
				Crossing		Roadway						
		No-Action	Proposed Action	No-Action	Proposed Action		No-Action	Proposed Action	No-Action	Proposed Action	No-Action	Proposed Action
Algonquin Road	11,114	19.1	2.0	A	A	~~D~~ C	798	438	1.9	1.0	803.7	24.0
Graceland Avenue (US 12)	23,770	19.1	2.0	A	A	~~C~~ F	1,662	937	1.8	1.0	1,587.6	52.0
Prairie Avenue	2,873	19.1	2.0	A	A	~~F~~ A	191	111	1.7	1.0	171.7	6.0
Golf Road (IL 58)	34,985	19.1	2.0	B	A	~~A~~ E	1,367	755	2.0	1.1	2,900.0	92.4
Rand Road (US 12)	29,865	19.1	2.0	B	A	~~E~~ D	1,203	644	2.1	1.1	2,679.6	79.2
Central Road	22,348	19.1	2.0	A	A	~~D~~ F	1,453	816	1.7	0.9	1,310.7	40.5
Near Mount Prospect, IL												
Kensington Road/ Foundry Road	10,090	19.1	2.0	A	A	~~F~~ D	614	335	1.6	0.9	521.6	17.1
Mount Prospect, IL												
Euclid Avenue	22,826	19.1	2.0	A	A	~~D~~ C	680	368	1.6	0.8	1,155.2	32.8
Prospect ~~Hts~~ Heights, IL												
Wolf Road	25,216	19.1	2.0	A	A	~~C~~ F	1,474	813	1.5	0.8	1,173.0	36.0
Camp McDonald Road	10,397	19.1	2.0	A	A	~~F~~ D	608	335	1.5	0.8	483.0	15.2
Hintz Road	24,977	19.1	2.0	A	A	~~A~~ E	776	434	1.6	0.9	1,318.4	43.2
Wheeling, IL												
Willow Road	3,585	19.1	2.0	A	A	~~D~~ A	214	117	1.6	0.9	180.8	6.3
Dundee Road (IL 68)	39,374	19.1	2.0	A	A	~~E~~ F	1,107	653	1.5	0.9	1,762.5	65.7
Buffalo Grove, IL												
Deerfield Parkway/ Busch Road	20,764	19.1	2.0	A	A	~~F~~ D	1,350	745	1.7	0.9	32.0	2.0
Buffalo Grove Road	17,857	19.1	2.0	A	A	~~D~~ F	670	384	1.5	0.8	799.5	25.6
Near Vernon Hills, IL												
US 45	23,653	19.1	2.0	A	A	F	~~531~~ 887	531	0.9	0.9	379.8	39.6

Table 4.3-6. Summary of Proposed Action Effects on Highway/Rail At-Grade Crossings on the CN Rail Lines

Street	2015 ADT	Trains per Day		2015 Level Of Service			Queue Length (feet)		Average Delay per Delayed Vehicle (minutes)		Total Vehicle Traffic Delay (24-Hr) (minutes)	
				Crossing		Roadway						
		No-Action	Proposed Action	No-Action	Proposed Action		No-Action	Proposed Action	No-Action	Proposed Action	No-Action	Proposed Action
Vernon Hills, IL												
Butterfield Road	20,071	19.1	2.0	A	A	~~F~~ C	~~354~~ 598	354	0.9	0.9	338.4	35.1
Mundelein, IL												
Townline Road (IL 60)	46,768	19.1	2.0	A	A	~~C~~ F	~~799~~ 1,340	799	0.9	0.9	763.2	80.1
Allanson Road	21,179	~~19.1~~ 20.3	~~19.1~~ 17.3	A	B	F	1,434	2,310	1.8	2.8	~~1,369.8~~ 1,422.9	~~3,432.8~~ 3,149.2
Hawley Street	8,998	~~19.1~~ 20.3	~~19.1~~ 17.3	A	A	~~F~~ D	406	406	1.8	1.8	~~581.4~~ 604.5	~~581.4~~ 515.2
Park Street	732	~~19.1~~ 20.3	~~19.1~~ 17.3	A	A	~~D~~ A	50	50	1.8	1.8	~~46.8~~ 49.2	~~46.8~~ 41.9
Maple Avenue	15,052	~~19.1~~ 20.3	~~19.1~~ 17.3	A	A	~~A~~ D	1,019	1,019	1.8	1.8	~~973.8~~ 1,011.3	~~973.8~~ 861.8
Winchester Road	7,475	~~19.1~~ 20.3	~~19.1~~ 17.3	A	A	~~D~~ C	227	227	1.6	1.6	~~385.6~~ 405.1	~~385.6~~ 345.2
Grays Lake, IL												
Peterson Road	22,148	~~19.1~~ 20.3	~~19.1~~ 17.3	A	A	~~C~~ F	491	491	1.4	1.4	~~911.4~~ 997.6	~~911.4~~ 850.2
Harris Road	4,434	~~19.1~~ 20.3	~~19.1~~ 17.3	A	A	~~F~~ B	246	246	1.4	1.4	~~182.0~~ 199.7	~~182.0~~ 170.2
Freeport Subdivision												
Hillside, IL												
Harrison Street	10,948	3.0	1.7	A	A	C	723	382	1.7	0.9	102.0	16.2
Near Bartlett, IL												
Powis Road	5,510	~~3.0~~ 2.0	~~2.6~~ 2.0	A	A	C	357	789	1.7	3.7	~~51.0~~ 33.4	~~210.9~~ 163.2
South Elgin, IL												
IL 25	10,830	~~3.0~~ 2.0	~~2.6~~ 2.0	A	A	D	450	450	1.1	1.1	~~40.7~~ 27.0	~~35.2~~ 27.0

Table 4.3-6. Summary of Proposed Action Effects on Highway/Rail At-Grade Crossings on the CN Rail Lines

Street	2015 ADT	Trains per Day		2015 Level Of Service			Queue Length (feet)		Average Delay per Delayed Vehicle (minutes)		Total Vehicle Traffic Delay (24-Hr) (minutes)	
				Crossing		Roadway						
		No-Action	Proposed Action	No-Action	Proposed Action		No-Action	Proposed Action	No-Action	Proposed Action	No-Action	Proposed Action
Randall Road	46,189	~~3.0~~ 2.0	~~2.6~~ 2.0	A	A	F	959	959	1.1	1.1	~~176.0~~ 115.1	~~152.9~~ 115.1
Joliet Subdivision												
Lemont, IL												
Stephen Street	14,222	1.8	2.0	A	A	~~A~~ F	925	846	1.7	1.5	78.2	70.5
Romeoville, IL												
Romeo Road/ 135th Street	19,102	1.8	2.0	A	A	F	904	1,067	~~1.3~~ 1.2	1.5	62.4	88.5
Joliet, IL												
Ohio Street	7,198	~~2.9~~ 1.8	~~2.9~~ 2.0	~~B~~ A	~~B~~ A	C	~~1,624~~ 1,043	~~1,624~~ 1,339	~~5.9~~ 3.8	~~5.9~~ 4.8	~~772.9~~ 93.6	~~772.9~~ 355.2
Jackson Street	20,380	~~2.9~~ 1.8	~~2.9~~ 2.0	~~B~~ A	~~B~~ A	D	~~4,597~~ 2,952	~~4,597~~ 3,791	~~5.9~~ 3.8	~~5.9~~ 4.8	~~2,183.0~~ 562.4	~~2,183.0~~ 1,012.8
Chicago Subdivision												
~~University Park, IL~~ Richton Park, IL												
University Parkway / Stuenkel Road	13,640	~~12.8~~ 13.8	~~12.8~~ 12.3	A	A	F	318	318	1.2	1.2	~~271.2~~ 295.1	~~271.2~~ 263.0
University Park, IL												
W. Dralle Road	4,012	~~12.8~~ 13.8	~~12.8~~ 12.3	A	A	~~F~~ B	93	93	1.2	1.2	~~79.2~~ 86.8	~~79.2~~ 77.4
Elsdon/South Bend Subdivision												
Chicago, IL												
55th Street	31,431	~~3.3~~ 1.6	~~0.0~~ 1.6	A	A	F	2,632	~~0~~ 2,632	4.4	0.0	~~2,125.2~~ 1,029.6	~~0.0~~ 1,029.6
71st Street	16,612	~~3.3~~ 1.6	~~0.0~~ 1.6	A	A	F	2,783	~~0~~ 2,783	4.4	0.0	~~1,122.0~~ 545.6	~~0.0~~ 545.6
79th Street	29,291	3.4	0.0	A	A	D	2,453	~~3~~ 0	4.4	0.0	2,037.2	0.0
Columbus Avenue	18,046	3.4	0.0	A	A	~~A~~ C	1,511	0	4.4	0.0	1,254.0	0.0

Table 4.3-6. Summary of Proposed Action Effects on Highway/Rail At-Grade Crossings on the CN Rail Lines

Street	2015 ADT	Trains per Day		2015 Level Of Service			Queue Length (feet)		Average Delay per Delayed Vehicle (minutes)		Total Vehicle Traffic Delay (24-Hr) (minutes)	
				Crossing		Roadway						
		No-Action	Proposed Action	No-Action	Proposed Action		No-Action	Proposed Action	No-Action	Proposed Action	No-Action	Proposed Action
Blue Island, IL												
Broadway Street	5,916	14.9	1.0	~~A~~ E	A	B	~~206~~ 647	~~149~~ 517	~~1.8~~ 5.7	~~1.3~~ 4.5	~~307.8~~ 3,049.5	~~10.4~~ 130.5
Harvey, IL												
Ashland Avenue	13,944	14.9	1.0	A	A	F	996	713	1.9	1.3	782.8	26.0
Broadway Avenue	886	14.9	1.0	~~E~~ A	A	A	~~97~~ 31	~~77~~ 22	~~5.7~~ 1.8	~~4.5~~ 1.3	~~456.0~~ 46.8	~~18.0~~ 1.3
Lansing, IL												
182nd Street/Ridge Road	9,336	22.1	2.9	A	A	D	530	491	1.5	1.4	489.0	56.0
Griffith, IN												
Broad Street[a]	19,572	22.1	2.9	A	A	F	1,184	1,170	1.6	1.6	1,163.2	150.4
Colfax Street	14,139	~~23.3~~ 24.8	~~23.3~~ 18.6	A	~~A~~ B	F	787	~~787~~ 1,125	1.4	~~1.4~~ 2.1	~~714.0~~ 785.4	~~714.0~~ 1,183.7
Merrillville, IN												
Taft Street	30,473	~~23.3~~ 24.8	~~23.3~~ 18.6	A	A	F	1,697	1,697	1.4	1.4	~~1,537.2~~ 1,692.7	~~1,537.2~~ 1,269.5
Madison Street	9,031	~~23.3~~ 24.8	~~23.3~~ 18.6	A	A	D	503	503	1.4	1.4	~~455.0~~ 501.6	~~455.0~~ 376.2
Broadway Street	39,989	~~23.3~~ 24.8	~~23.3~~ 18.6	A	A	F	1,113	1,113	1.4	1.4	~~2,017.4~~ 2,221.3	~~2,017.4~~ 1,666.0

Notes:

a Broad Street crosses multiple railroad lines at grade in Griffith, Indiana. These railroad lines include existing CN and EJ&E rail lines. Please see Figure 4.3-11 of the Draft EIS for a schematic of the Broad Street at-grade crossing. Table 4.3-6 only reports the total vehicle delay in a 24-hour period on the CN rail lines. The total increase in vehicle traffic delay for the Proposed Action as a result of a combined effect of both CN and EJ&E rail lines is 4,930 minutes in a 24-hour period (that is 5,512 total minutes of delay under the Proposed Action minus 582 total minutes of delay under the No-Action Alternative). See Table 4.3-8.

Pages 4.3-27 through -31, Table 4.3-7 (This is only a portion of the table):

Table 4.3-7. Train Operations Factors for the CN Rail Lines

Street	Length of Train		Train Speed		Trains Per Day	
	No-Action	Proposed Action	No-Action	Proposed Action	No-Action	Proposed Action
Waukesha Subdivision						
River Forest, IL						
Forest Avenue	6,104	0	30	0	~~3.5~~ 5.4	0.0
Augusta Street	6,104	0	30	0	~~3.5~~ 5.4	0.0
Keystone Avenue	6,104	0	30	0	~~3.5~~ 5.4	0.0
Thatcher Avenue	6,104	0	30	0	~~3.5~~ 5.4	0.0
River Grove, Il						
1st Avenue (IL 171)	6,104	0	30	0	~~3.5~~ 5.4	0.0
5th Avenue	6,104	0	~~30.0~~ 30	0	~~3.5~~ 5.4	0.0
Melrose Park, IL						
George Street	6,104	0	~~28.0~~ 28	~~0.0~~ 0	~~3.5~~ 5.4	0.0
Franklin Park, IL						
Fullerton Avenue	6,104	0	~~25.0~~ 25	~~0.0~~ 0	~~3.5~~ 5.4	0.0
Belmont Avenue	6,388	2,645	~~19.0~~ 19	~~19.0~~ 19	19.3	2.0
Des Plaines, IL						
Prospect Avenue	6,468	3,129	29	34	19.1	2.0
Near Vernon Hills, IL						
US 45	~~3,129~~ 6,468	3,129	42	42	19.1	2.0
Vernon Hills, IL						
Butterfield Road	~~3,129~~ 6,468	3,129	39	39	19.1	2.0
Mundelein, IL						
Townline Road (IL 60)	~~3,129~~ 6,468	3,129	41	41	19.1	2.0
Allanson Road	6,800	6,800	35	20	~~19.1~~ 20.3	~~19.1~~ 17.3
Hawley Street	6,800	6,800	35	35	~~19.1~~ 20.3	~~19.1~~ 17.3
Park Street	6,800	6,800	35	35	~~19.1~~ 20.3	~~19.1~~ 17.3
Maple Avenue	6,800	6,800	35	35	~~19.1~~ 20.3	~~19.1~~ 17.3
Winchester Road	6,800	6,800	40	40	~~19.1~~ 20.3	~~19.1~~ 17.3
Grays Lake, IL						
Peterson Road	6,800	6,800	45	45	~~19.1~~ 20.3	~~19.1~~ 17.3
Harris Road	6,800	6,800	45	45	~~19.1~~ 20.3	~~19.1~~ 17.3
Freeport Subdivision						
Chicago, IL						
Pulaski Road	5,224	0	19	~~19~~ 0	2.5	0.0
Hillside, IL						
Harrison Street	6,755	3,060	36	39	3.0	1.7
Near Bartlett, IL						
Powis Road	4,600	4,600	25	10	~~3.0~~ 2.0	~~2.6~~ 2.0
South Elgin, IL						
IL 25	4,600	4,600	45	45	~~3.0~~ 2.0	~~2.6~~ 2.0
Randall Road	4,600	4,600	45	45	~~3.0~~ 2.0	~~2.6~~ 2.0

Table 4.3-7. Train Operations Factors for the CN Rail Lines						
Street	**Length of Train**		**Train Speed**		**Trains Per Day**	
	No-Action	**Proposed Action**	**No-Action**	**Proposed Action**	**No-Action**	**Proposed Action**
Joliet Subdivision						
Joliet, IL						
Ohio Street	~~7,500~~ 4,659	~~7,500~~ 6,108	10	10	~~2.9~~ 1.8	~~3.0~~ 2.0
Jackson Street	~~7,500~~ 4,659	~~7,500~~ 6,108	10	10	~~2.9~~ 1.8	~~3.0~~ 2.0
Chicago Subdivision						
~~**University Park, IL**~~ **Richton Park, IL**						
University Parkway / Stuenkel Road	5,400	5,400	45	45	~~12.8~~ 13.8	~~13.0~~ 12.3
University Park, IL						
W. Dralle Road	5,400	5,400	45	45	~~12.8~~ 13.8	~~12.8~~ 12.3
Elsdon/South Bend Subdivision						
Chicago, IL						
55th Street	4,365	~~0~~ 4,365	8	~~0~~ 8	~~3.3~~ 1.6	~~0.0~~ 1.6
71st Street	4,365	~~0~~ 4,365	8	~~0~~ 8	~~3.3~~ 1.6	~~0.0~~ 1.6
Blue Island, IL						
Broadway Street	7,256	5,711	~~36~~ 10	~~43~~ 10	14.9	1.0
Harvey, IL						
Ashland Avenue	7,256	5,711	35	42	14.9	1.0
Broadway Avenue	7,256	5,711	~~10~~ 36	~~10~~ 43	14.9	1.0
Lansing, IL						
182nd Street/Ridge Road	6,081	6,489	39	46	22.1	2.9
Griffith, IN						
Broad Street[a]	6,081	6,489	36	39	22.1	2.9
Colfax Street	6,081	6,081	40	~~40~~ 26	~~23.3~~ 24.8	~~23.3~~ 18.6
Merrillville, IN						
Taft Street	6,081	6,081	40	40	~~23.3~~ 24.8	~~23.3~~ 18.6
Madison Street	6,081	6,081	40	40	~~23.3~~ 24.8	~~23.3~~ 18.6
Broadway Street	6,081	6,081	40	40	~~23.3~~ 24.8	~~23.3~~ 18.6

Notes:

[a] Broad Street crosses multiple railroad lines at grade in Griffith, Indiana. These railroad lines include existing CN and EJ&E rail lines. Please see Figure 2.4, above, for a schematic of the Broad Street at-grade crossing.

Pages 4.3-32 and -33, Table 4.3-8 (This is only a portion of the table):

Table 4.3-8. EJ&E Substantially Affected Highway/Rail At-Grade Crossing Vehicle Delay Data

Street	2015 ADT	Trains per Day		Train Speed		Average Delay per Delayed Vehicle		Total Delayed Vehicles per Day		Crossing LOS		Total Vehicle Traffic Delay (24-Hr), Minutes	
		No-Action	Proposed Action	No-Action	Proposed Action	No-Action	Proposed Action	No-Action	Proposed Action	No-Action	Proposed Action	No-Action	Proposed Action
Griffith, IN													
Broad Street[a]	19,572	~~7.6~~ 32.4	~~28.6~~ 37.2	~~23~~ 40	~~24~~ 19	~~1.2~~ 0.9	~~2.1~~ 2.7	~~190~~ 628	~~1,283~~ 2,071	A	~~B~~ C	~~228.0~~ 582.4	~~2,694.3~~ 5,512.8

Notes:

a Broad Street crosses multiple railroad lines at grade in Griffith, Indiana. These railroad lines include existing CN and EJ&E rail lines. Please see Figure 2.4, above, for a schematic of the Broad Street at-grade crossing. Table 4.3-8 reports a combined delay for both the EJ&E and CN rail lines.

Page 4.3-34, Table 4.3-10:

Table 4.3-10. Substantially Affected Highway/Rail At-Grade Crossing LOS under No-Action and Proposed Action Alternatives (Year 2015)

~~Illinois~~ County	Street	2015 ADT	Level of Service for:		
			Roadway	Crossing, No-Action (2015)	Crossing, Proposed Action (2015)
Lake, IL	Diamond Lake Road	8,998	D	A	B
Lake, IL	Old McHenry Road	32,424	F	A	A
Lake, IL	Ela Road	21,398	F	A	A
Lake, IL	Hough Street (IL 59 & 63)	24,056	F	A	A
DuPage, IL	Liberty Street	20,696	F	A	B
~~Du Page~~ DuPage, IL	Ogden Avenue (US 34)	45,828	F	A	B
DuPage, IL	Montgomery Road/ 83rd Street	27,131	F	A	B
Will, IL	135th Street	11,766	E	A	B
Will, IL	Woodruff Road	10,659	E	B	F
Will, IL	Washington Street	11,714	C	A	F
Cook, IL	Cicero Avenue	30,598	E	A	B
Cook, IL	Western Avenue	24,717	D	A	B
Cook, IL	Chicago Road	26,842	E	A	C
Cook, IL	Lincoln Highway (US 30)	39,656	F	A	B
Lake, IN	Broad Street	19,572	F	A	~~B~~ C
Lake, IL	Allanson Road	21,179	F	A	B

Page 4.3-35, Table 4.3-11:

Table 4.3-11. Substantially Affected Highway/Rail At-Grade Crossing Queue Length under No-Action and Proposed Action Alternatives (Year 2015)

~~Illinois~~ County	Street	2015 ADT	Queue Length (feet) for:			
			No-Action	Proposed Action	Major Thoroughfare Blocked due to Proposed Action	Does Total Vehicle Traffic Delay (24-Hr), exceed 40 hours?
Lake, IL	Diamond Lake Road	8,998	384	784	IL 60 & 83	Yes
Lake, IL	Old McHenry Road	32,424	641	1,186	None[b]	Yes
Lake, IL	Ela Road	21,398	517	947	Old Rand Road	No
Lake, IL	Hough Street (IL 59 & 63)	24,056	810	1,497	Northwest Highway	No
DuPage, IL	Liberty Street	20,696	1,171	1,474	None[b]	Yes
DuPage, IL	Ogden Avenue	45,828	1,076	1,322	None[b]	Yes

Table 4.3-11. Substantially Affected Highway/Rail At-Grade Crossing Queue Length under No-Action and Proposed Action Alternatives (Year 2015)

~~Illinois~~ County	Street	2015 ADT	Queue Length (feet) for:			
			No-Action	Proposed Action	Major Thoroughfare Blocked due to Proposed Action	Does Total Vehicle Traffic Delay (24-Hr), exceed 40 hours?
	(US 34)					
DuPage, IL	Montgomery Road/83rd Street	27,131	1,274	1,597	None[b]	Yes
Will, IL	135th Street	11,766	539	721	US 30	Yes
Will, IL	Woodruff Road	10,659	1,056	1,814	None[a]	Yes
Will, IL	Washington Street	11,714	1,550	2,371	None[a]	Yes
Cook, IL	Cicero Avenue	30,598	663	1,150	None[b]	Yes
Cook, IL	Western Avenue	24,717	528	875	None[b]	Yes
Cook, IL	Chicago Road	26,842	824	1,252	None[b]	Yes
Cook, IL	Lincoln Highway (US 30)	39,656	860	1,274	Sauk Trail	Yes
Lake, IN	Broad Street	19,572	~~901~~ 1,311	~~1,615~~ 2,211	None[b]	Yes
Lake, IL	Allanson Road	21,179	1,434	2,310	None[b]	Yes

Notes:

[a] Queues on Woodruff Road and Washington Street would increase as a result of the Proposed Action and block local streets, but they are not expected to block any major thoroughfares. SEA determined that Woodruff Road and Washington Street would be substantially affected by the increased vehicle delay and the related decreased LOS at the crossing.

[b] Queues on these roadways would increase as a result of the Proposed Action and block local streets, but they are not expected to block any major thoroughfares. SEA determined that these roadways would be substantially affected by vehicle delay exceeding 40 hours per day.

Page 4.3-47, first paragraph, second sentence:

Figures 2.4-2 through 2.4-~~14~~ 15, in Chapter 2, show the construction limits of the proposed new connections.

Page 4.3-47, fourth paragraph, third and fourth sentences:

~~The effects from the construction alternatives are discussed in Appendix E.~~ In summary, the construction alternatives proposed for all of the alternatives affect the roadway network.

Page 4.3-47, first bullet, first sentence:

- Proposed Munger Connection (see Figure 2.4-2), Munger Alternative – Original Proposal (see Figure 2.4-~~14~~).

Page 4.3-52, third paragraph, second sentence:

Because this alternative would reduce train traffic on CN rail line segments, the net effect to emergency services in communities along the CN rail line would be positive because delay and total

time that a crossing is blocked would decrease for nearly all crossings ~~and the average delay time would be lengthy~~.

Page 4.3-52, third paragraph, fourth sentence:

SEA did prepare analysis summaries for each facility within 2 miles of the CN rail line~~, however.~~; ~~They~~ they are presented in Appendix E.

Page 4.3-52, fifth paragraph, first sentence:

As described above with regard to the two-step screening process, SEA assumed that the Proposed Action would potentially affect emergency services if the facility is located within 2 miles of the EJ&E rail line and more than 1 mile from a public grade-separated crossing~~s~~, and at least one public highway/rail at-grade crossing within 2 miles of the facility would experience an increase of 30 seconds or more in average delay per delayed vehicle, or an increase of 30 minutes or more for the total daily time that the crossing would be blocked.

Page 4.3-52, seventh paragraph, first sentence:

It is generally recognized that the first 4 to 6 minutes following cardiac arrest are critical to successful resuscitation and is also a national standard of emergency response time set forth by the National Fire Protection Association (NFPA).

Page 4.3-53, first paragraph, third sentence:

For this reason, SEA used the values for 30-second average delay per delayed vehicle and 30-minute total blocked crossing time to identify which facilities could experience ~~serious~~ substantial effects as a result of the Proposed Action.

Page 4.3-53, sixth paragraph, first sentence:

Table 4.3-~~12~~ 13 below lists the emergency service response facilities that would be potentially substantially affected by the Proposed Action.

Pages 4.3-54 through -74, Table 4.3-12:

This table has been revised and updated. Please see Appendix A of this Final EIS.

Page 4.3-75, Table 4.2-13:

This table has been revised and updated. Please see Appendix A of this Final EIS.

Page 4.3-86, first paragraph, third sentence:

Effects on emergency service responders could occur as a result of the ~~p~~Proposed ~~instruction~~ Action, but could be addressed through potential mitigation activities (see Section ~~6.2.4.1~~ 6.2.3 and 6.3.3).

Page 4.3-86, first, fourth, fifth, sixth, and seventh bullets:

- ~~Munger Alternative – UP Connection (see Figure 2.4-5)~~
- ~~Matteson Alternative – Southwest Quadrant (see Figure 2.4-12)~~
- ~~Proposed Griffith Connection (see Figure 2.2-13)~~
- ~~Proposed Ivanhoe Connection (see Figure 2.2-14)~~
- Proposed Kirk Yard Connection (see Figure ~~2.2-16~~ 2.4-15)

Page 4.3-86, first sub-bullet, second sentence:

- While the proposed connection would be east of Powis Road, the reduced train speeds ~~for two trains per day~~ through this area would result in increased delay at the existing Powis Road crossing and thus could delay fire service emergency response.

Page 4.3-86, second sub-bullet, second sentence:

- While the proposed connection would be east of Powis Road, the reduced train speeds ~~for two trains per day~~ through this area would result in increased delay at the existing Powis Road crossing and thus could delay police response.

Page 4.3-87, first sub-bullet, second sentence:

- The proposed connection would result in reduced train speeds ~~for two trains per day~~ through this area and thus increase delays at the existing Illinois Route 25, Dunham Road, and Powis Road crossings.

Page 4.3-87, second sub-bullet, second sentence:

- The proposed connection would result in reduced train speeds ~~for two trains per day~~ through this area and thus increase delays at the existing Illinois Route 25, Dunham Road, and Powis Road crossings.

Page 4.3-87, third sub-bullet, third sentence:

- The reduced train speeds ~~for two trains per day~~ through this area would result in increased delay at both the existing and the new Powis Road crossings. This increased delay at these crossings could delay fire service emergency response.

Page 4.3-87, fourth sub-bullet, third sentence:

- The reduced train speeds ~~for two trains per day~~ through this area would result in increased delay at both the existing and the new Powis Road crossings. This increased delay at these crossings could delay police response.

Page 4.3-87, third bullet:

- Proposed Matteson Connection (see Figure ~~2.2-10~~ 2.4.10)

Page 4.3-87, eighth sub-bullet:

- ~~The proposed connection would have no affect on emergency services in Griffith.~~
- Griffith Volunteer Fire Department Headquarters/Station No. 1. The proposed connection would result in reduced train speeds through this area and thus increase delays at the existing East Main Street, East Lake Street, East Miller Street, and East Elm Street crossings along the EJ&E rail line, and the existing Colfax Street crossing along the CN rail line. This increased delay at these crossings could delay fire service emergency response.
- Griffith Volunteer Fire Department Station No. 2. The proposed connection would result in reduced train speeds through this area and thus increase delays at the existing East Main Street, East Lake Street, East Miller Street, and East Elm Street crossings along the EJ&E rail line, and the existing Colfax Street crossing along the CN rail line. This increased delay at these crossings could delay fire service emergency response.
- Griffith Police Department. The proposed connection would result in reduced train speeds through this area and thus increase delays at the existing East Main Street, East Lake Street, East Miller Street, and East Elm Street crossings along the EJ&E

rail line, and the existing Colfax Street crossing along the CN rail line. This increased delay at these crossings could delay police response.

Page 4.3-88, first sub-bullet:

- Gary Fire Department Station No. 9. The proposed connection would result ~~in a reduction~~ in reduced train speeds ~~for two trains per day~~ through this area and thus increase delays at the existing West 15th Avenue and West 9th Avenue crossings.

Page 4.3-88, second sub-bullet:

- Hammond Fire Department Station No. 8. The proposed connection would result ~~in a reduction~~ in reduced train speeds ~~for two trains per day~~ through this area and thus increase delays at the existing West 15th Avenue and West 9th Avenue crossings.

Page 4.3-90, second paragraph, third sentence:

With the preferred alternative for the proposed airport expansion, the EJ&E rail line would be relocated in Joliet as shown in Figure 3.3-~~3~~ 2 (Alignment 1D or Alignment 1D North Shift).

Page 4.3-90, fifth paragraph, first sentence:

The preferred alternative for the proposed airport expansion would relocate the EJ&E rail line to the northwest as shown in Figure 3.3-~~3~~ 2 (Alignment 1D or Alignment 1D North Shift) of Chapter 3.

2.14.29 Land Use

Page 4.5-1, fourth bullet, second sentence:

- These connections are: Munger Alternative – Original Proposal, Munger Alternative – UP Connection, Munger Alternative – Northwest Quadrant, Proposed Matteson Connection, and Matteson Alternative – Northeast and Southwest Quadrants. [Section ~~4.5.4.1 - .5~~ 4.5.3.2]

Page 4.5-1, fifth bullet:

- The proposed increase in rail traffic along the EJ&E rail line due to the Proposed Action would cause increased proximity effects on public lands adjacent to the line, affecting 15 forest preserves, natural areas, and sensitive habitat areas. [Section ~~4.5.3.2~~ 4.5.3.1] Increased noise and at-grade crossing delays associated with the Proposed Action would also affect 14 trails, greenways, and scenic corridors; ~~23~~ 22 local parks; and 4 Land and Water Conservation Fund properties, all of which are adjacent to the rail line. [Sections ~~4.5.3.3 - .5~~ 4.5.3.1] The Pratt's Wayne Woods Forest Preserve and the Brewster Creek Fen and Nature Preserve would be directly affected by some of the proposed Munger connection alternatives. [Section ~~4.5.4.7~~ 4.5.3.2] Because of the proximity of the proposed connections and double track, ~~11~~ 9 trails, greenways, and scenic corridors and 10 local parks would be affected. [Section ~~4.5.4.8 and .9~~ 4.5.3.2] No Land and Water Conservation Fund properties would be directly encroached on by the planned construction. The Griffith, Ivanhoe, and Kirk Yard connections would be subject to the requirements of the Coastal Zone Management Act and the Indiana Lake Michigan Coastal Program. [Sections ~~4.5.4.10 and .11~~ 4.5.3.2]

Page 4.5-1, sixth bullet:

- Neither the Proposed Action nor any of the associated construction activities, including alternatives, would permanently affect prime farmland. [Section ~~4.5.4.6~~ 4.5.3.2]

Page 4.5-3, third paragraph, third sentence:

Noise effects are discussed in Section 4.10; delays are discussed in Section 4.3.2; and Section~~s 4.5.3.2 through 4.5.3.5~~ 4.5.3 presents discussion~~s~~ of proximity impacts on public lands, trails, and parks.

Page 4.5-4, Table 4.5-1 (This is only a portion of the table):

Table 4.5-1. Public Lands Adjacent to the EJ&E Rail Line Potentially Affected by the Proposed Action

County (State)	Name	Type of Public Land	Segment	Proposed Train Traffic Change (trains per day)
DuPage (Illinois)	Pratt's Wayne Woods Forest Preserve	Forest preserve	EJ&E-12	19.0
	West Chicago Prairie Forest Preserve	Forest preserve	EJ&E-12	19.0
	Fermilab	Natural area	EJ&E-11	20.9
	Truitt-Hoff Nature Preserve	Nature preserve	EJ&E-12	19.0
	Night Heron Marsh Forest Preserve	Forest preserve	EJ&E-10A	21.1

Page 4.5-4, second paragraph, second sentence:

Proposed facilities, including greenways and trails, are evaluated for proximity effects in Section ~~4.5.4.8~~ 4.5.3.

Page 4.5-6, Table 4.5-3:

Table 4.5-3. Local Parks Potentially Affected by the Proposed Action

County	Park Name	Segment	Proposed Train Traffic Change (trains per day)
Lake (Illinois)	Hawthorn Woods Community Park	EJ&E-14C	15.0
	Lions Park	EJ&E-14C	15.0
	Citizens Park	EJ&E-14C	15.0
	Langendorf Park	EJ&E-14C	15.0
Cook (Illinois)	Algonquin Park	EJ&E-6	23.0
	Euclid Park	EJ&E-6	23.0
	Petraca Park	EJ&E-5A	24.0
DuPage (Illinois)	Reed-Keppler Park	EJ&E-12	19.0
	Pioneer Park	EJ&E-11	20.9
	Summer Lakes Park	EJ&E-11	20.9
	Frontenac Park	EJ&E-10A	23.8
	Clearwood Park	EJ&E-10A	23.8
	Andover Park	EJ&E-10A	23.8
DuPage (Illinois)	Middlebury East Park	EJ&E-10A	23.8
	Waubonsee Creek Park	EJ&E-10A	23.8
	South Spring Lake	EJ&E-10A	23.8
	Oakhurst Wetlands	EJ&E-10A	23.8
Will (Illinois)	King's Crossing	EJ&E-10E	23.8
	Future Park (Under Development)	EJ&E-10E	23.8
	Ron Rob Field	EJ&E-7B	21.9
Lake (Indiana)	~~Griffith Historical Park and Depot Museum~~	~~EJ&E-4~~	~~21.0~~
	Tot Park-Griffith	EJ&E-4	21.0
	Seberger Park	EJ&E-3	20.0

Page 4.5-7, Table 4.5-4:

Table 4.5-4. Land and Water Conservation Fund Properties Potentially Affected by the Proposed Action

County (State)	Section 6(f) Property	Segment	Potential Proximity Effect
Cook (Illinois)	Spring Lake Nature Preserve	EJ&E-14D	+15.0 trains daily
DuPage (Illinois)	Summerlakes Park	EJ&E-11	+20.9 trains daily
	West Chicago Nature Preserve	EJ&E-12	+19.0 trains daily
Will (Illinois)	Lake Renwick Heron Rookery Forest and Nature Preserves	EJ&E-9B	+23.8 trains daily
Lake (Indiana)	Hoosier Prairie Nature Preserve	EJ&E-5B	+24.0 trains daily

Pages 4.5-7 and -8, Table 4.5-5:

Table 4.5-5. Proposed Connections and Double Track Improvements

Construction Site	Construction Alternatives	Location	Communities
Leithton Double Track	**1 Alternative**	South of Allanson Road in Mundelein	Mundelein, IL Vernon Hills, IL
Diamond Lake Road to Gilmer Road Double Track	**1 Alternative**	East of Diamond Lake Road in Mundelein to Gilmer Road in Long Grove	Mundelein, IL Hawthorn Woods, IL Long Grove, IL
Munger Connection	**5 Alternatives:** 1) No-Build at Munger 2) Proposed Munger Connection 3) Munger Alternative-Original Proposal 4) Munger Alternative-UP Connection 5) Munger Alternative-Northwest Quadrant	Within Pratt's Wayne Woods Forest Preserve	Bartlett, IL Wayne , IL West Chicago, IL
East Siding to Walker Double Track	**1 Alternative**	• East Siding to West Wolf's Road segment (south of Liberty Street in Aurora to south of West Wolf's Crossing Road in Naperville) • Normantown to Walker segment (north of 111th Street to south of Chapins Road/127th Street in Plainfield)	Aurora, IL Naperville, IL Plainfield, IL
Joliet Connection	**3 Alternatives:** 1) No-Build at Joliet 2) Proposed Joliet Connection 3) Joliet Alternative-Original Proposal	West of South State Street/Lockport Road (IL 171)	Joliet, IL Lockport, IL
East Joliet to Frankfort Double Track	**1 Alternative**	I-80 in Joliet to west of Wolf Road in Frankfort	Joliet, IL New Lenox, IL Frankfort, IL Mokena, IL

Table 4.5-5. Proposed Connections and Double Track Improvements			
Construction Site	**Construction Alternatives**	**Location**	**Communities**
Matteson Connection	**4 Alternatives:** 1) No-Build at Matteson 2) Proposed Matteson Connection 3) Matteson Alternative-Northeast and Southwest Quadrants 4) Matteson Alternative-Southwest Quadrant	East of Main Street	Matteson, IL Park Forest, IL
Griffith Connection	**2 Alternatives:** 1) No-Build at Griffith 2) Proposed Griffith Connection	East of Broad Street	Griffith, IN
Ivanhoe Connection	**2 Alternatives:** 1) No-Build at Ivanhoe 2) Proposed Ivanhoe Connection	South of 5th Avenue (US 20)	Gary, IN
Kirk Yard Connection	**2 Alternatives:** 1) No-Build at Kirk Yard 2) Proposed Kirk Yard Connection	Within Kirk Yard	Gary, IN

Page 4.5-11, fifth paragraph:

The majority of construction would occur within the existing EJ&E and CN ROW; however, the Applicants would acquire approximately 0.10 acre of commercial land and 3.25 acres of ~~vacant land~~ open space for this connection. This parcel of ~~vacant land~~ open space is a remnant parcel between the two rail lines that is zoned for industrial uses. Because all construction would occur on land uses identified as of similar intensities, the proposed construction would not affect current land use patterns.

Page 4.5-12 and -13, Table 4.5-6 (This is only a portion of the table):

Table 4.5-6. Land Use Conversion Summary		
Construction Site	**Existing Land Uses (If Applicable)**	**Acres to be Converted to Railroad Use**
Indiana		
No-Build at Griffith	N/A	0.00
Griffith Connection	Commercial & Services ~~Vacant~~ Open Space	0.10 3.25
No-Build at Ivanhoe	N/A	0.00
Ivanhoe Connection	Commercial & Services Open Space	0.30 2.91
No-Build at Kirk Yard	N/A	0.00
Kirk Yard Connection	Transportation	2.42

Page 4.5-24, Table 4.5-9:

Table 4.5-9. Local Parks Potentially Affected by Proposed Construction

County	Park Name	Segment	Proposed Train Traffic Change (trains per day)	Proximity to Proposed Construction Site
DuPage (Illinois)	Frontenac Park	EJ&E-10A	23.8	Adjacent; east of the East Siding double track
	Clearwood Park	EJ&E-10A	23.8	220 feet west of the East Siding double track
	Andover Park	EJ&E-10A	23.8	Adjacent; west of the East Siding double track
	Middlebury East Park	EJ&E-10A	23.8	Adjacent; west of the East Siding double track
	Waubonsee Creek Park	EJ&E-10A	23.8	Adjacent; west of the East Siding double track
	South Spring Lake	EJ&E-10A	23.8	Adjacent; east of the East Siding double track
	Oakhurst Wetlands	EJ&E-10A	23.8	Adjacent; west of the East Siding double track
Will (Illinois)	King's Crossing	EJ&E-10E	23.8	260 feet east of the East Siding double track (Normantown to Walker segment)
	Future Park (Under Development)	EJ&E-10E	23.8	300 feet east of the East Siding double track (Normantown to Walker segment)
	Ron Rob Field	EJ&E-7B	21.9	Adjacent; south of the East Joliet double track
~~Lake (Indiana)~~	~~Griffith Historical Park and Depot Museum~~	~~EJ&E-4~~	~~21.0~~	~~Adjacent; west of the Griffith connection~~

Page 4.5-25, third paragraph, first sentence:

As discussed n Section 3.5.5.8, Indiana has implemented a coastal zone management program for areas along Lake Michigan. However, Illinois has not received approval and notice to implement their Coastal Management Zone.

Page 4.5-25, fourth paragraph, first sentence:

The No-Action alternatives would not affect the Indiana or proposed Illinois coastal zone management area because construction or acquisition of new ROW would not occur.

Page 4.5-25, fifth paragraph:

None of the connections located in Illinois are within their Coastal Zone Boundary, therefore, no impacts to this Boundary would exist from the Proposed Action. The Griffith, Ivanhoe, and Kirk Yard connections are subject to two of the three LMCP components: the Indiana Coastal Nonpoint Pollution Control Plan and Federal consistency requirements (INDNR 2004a). All three connections would need to be constructed within the nonpoint pollution control plan boundary. Section 4.1.2, Water Resources, discusses nonpoint pollution and the LMCP requirements.

Page 4.5-25, sixth paragraph, first sentence:

SEA acknowledges that the following properties would experience proximity effects under the Proposed Action: ~~15~~17 public lands; 14 existing or proposed trails, greenways and scenic corridors; ~~23~~ 22 local parks; and 4 Land and Water Conservation Fund properties.

Page 4.5-25, sixth paragraph, fourth sentence:

The three Munger alternatives, the Proposed Matteson Connection, and the Matteson Alternative – Northeast and Southwest Quadrants are not consistent with land use patterns~~,~~ and land use~~., and~~ The Proposed Matteson Connection is not consistent with zoning and, therefore, may require a zoning amendment if constructed.

2.14.30 Socioeconomics

Page 4.6-3, second paragraph, fourth sentence:

~~The IMPLAN® model is discussed in Section 3.6, Socioeconomics.~~

Page 4.6-6, first paragraph, second sentence:

~~Indirect and induced effects are addressed in Section 3.5, Socioeconomics.~~

Page 4.6-7, Table 4.6-3:

Table 4.6-3. Property Value Effects from Increased Train Traffic on a Nearby Existing Rail Line

	Change in Property Value by Distance from Rail Line (%)								
	1 Additional Train			10 Additional Trains			20 Additional Trains		
House Size	≤250 ft.	251-500 ft.	501-750 ft.	≤250 ft.	251-500 ft.	501-750 ft.	≤250 ft.	251-500 ft.	501-750 ft.
Small (<1,250 sq. ft.)	(0.24)	(0.10)	(0.12)	(2.40)	(1.05)	(1.16)	(4.79)	(2.10)	(2.32)
Medium (1,251-1,700 sq. ft.)	(0.27)	(0.11)	(0.07)	(2.68)	(1.09)	(0.74)	(5.35)	(2.19)	(1.47)
Large (>1,700 sq. ft.)	(0.19)	n/a [a]	n/a [a]	(1.91)	n/a [a]	n/a [a]	~~3.81~~ (3.81)	n/a [a]	n/a [a]

Source: Derived from Simons and El Jaouhari, 2004.
Notes: Numbers in parentheses denote a negative change.
[a] Not statistically significant.

2.14.31 Energy

Page 4.8-1, first bullet, second sentence:

Although train operations would be more efficient, the distance traveled would be longer using the EJ&E rail line, resulting in a net increase in annual energy use, based on CN's revised fuel use estimates, of ~~631,255~~ 631,246 gallons of diesel fuel for train operations (~~639,442~~ 639,435 gallons of diesel including trucks at grade crossings).

Page 4.8-1, second bullet, first sentence:

Fuel use caused by cars and trucks idling at a highway/rail at-grade crossing would increase by approximately ~~84,242~~ 84,239 gallons of gasoline and ~~8,187~~ 8,189 gallons of diesel fuel per year in 2015.

Page 4.8-6, Table 4.8-8:

Table 4.8-8. Net 2015 Energy Use – Original Estimates					
Category	**Source**	**No Action Energy Use (MMBtu/yr)**	**Proposed Action Energy Use (MMBtu/yr)**	**Net Change in Energy Use (MMBtu/yr)**	**Net Change in Fuel Use (gallons)**
Operations	Moving CN trains (diesel)	711,847	1,056,214	344,367	2,477,460
	Moving and idling Other trains (diesel)	no data	no data	No data	No data
	Idling CN trains (diesel)	no data	no data	No data	No data
Intersection delay	Gasoline vehicles	38,696	49,142	10,446	~~84,242~~ 84,239
	Diesel vehicles	4,217	5,355	1,138	~~8,187~~ 8,189
Total		**754,760**	**1,110,711**	**355,951**	~~**2,569,889**~~ **2,569,888** [Diesel: ~~2,485,647~~ 2,485,649] [Gasoline: ~~84,242~~ 84,239]

Notes: Columns may not sum exactly due to rounding.

PAGE 4.8-7, TABLE 4.8-9:

Table 4.8-9. Net 2015 Energy Use – Revised Estimates					
Category	**Source**	**No Action Energy Use (MMBtu/yr)**	**Proposed Action Energy Use (MMBtu/yr)**	**Net Change in Energy Use (MMBtu/yr)**	**Net Change in Fuel Use (gallons)**
Operations	Moving CN trains (diesel)	711,877	976,691	264,814	~~1,905,137~~ 1,905,134
	Moving and idling Other trains (diesel)	187,063	60,384	(126,679)	~~(911,360)~~ (911,361)
	Idling CN trains (diesel)	80,248	29,857	(50,391)	~~(362,525)~~ (362,528)
Intersection delay	Gasoline vehicles	38,696	49,142	10,446	~~84,242~~ 84,239
	Diesel vehicles	4,217	5,355	1,138	~~8,187~~ 8,189
Total		**1,022,101**	**1,121,429**	**99,328**	~~**723,684**~~ **723,673** [Diesel: ~~639,442~~ 639,434] [Gasoline: ~~84,242~~ 84,239]

Notes: Columns may not sum exactly due to rounding.
Numbers in parentheses denote a negative change.

2.14.32 Air Quality and Climate

Pages 4.9-1 and -2, first bullet, fourth and fifth sentences:

- In 2015, when operational changes are expected to be fully implemented, emission changes for NO_x and VOC would increase by approximately 374 tons and ~~26~~ 20 tons, respectively, based on the Applicants' initial fuel use analysis accounting for only the projected changes in travel routes for CN trains. However, the Applicants' refined fuel use analysis, which accounts for reduced idling of CN trains, plus fuel savings by other carriers, means that net changes in NO_x and VOC emissions would be only 96 tons and ~~8~~ 6 tons, respectively, tons per year in 2015.

Page 4.9-7, Table 4.9-1:

Table 4.9-1. Emissions Caused By Active Operations Of CN Trains – Original Estimates

Pollutant	No-Action Fuel Use[a] (gal)	Proposed Action Fuel Use[a] (gal)	2015 E.F. (g/gal)	2015 No-Action Emissions (tons/yr)	2015 Proposed Action Emissions (tons/yr)
VOC	5,121,203	7,598,663	~~8.95~~ 6.59	~~50.5~~ 37.2	~~75.0~~ 55.2
CO			27.40	154.7	229.5
NO_x			136.73	771.8	1145.2
SO_2			0.10	0.56	0.84
PM_{10}			4.38	24.7	36.7
$PM_{2.5}$			4.25	24.0	35.6

Notes:

[a] Fuel use is total projected use, in gallons, under expected No-Action and Proposed Action operation alternatives, with full implementation of the Applicants' Operating Plan in 2015 under the Proposed Action scenario.

Page 4.9-8, Table 4.9-2:

Table 4.9-2. Emissions Caused by Active Operations of CN Trains – Revised Estimates

Pollutant	No-Action Fuel Use[a] (gal)	Proposed Action Fuel Use[a] (gal)	2015 E.F. (g/gal)	2015 No-Action Emissions (tons/yr)	2015 Proposed Action Emissions (tons/yr)
VOC	5,121,418	7,026,553	~~8.95~~ 6.59	~~50.5~~ 37.2	~~69.3~~ 51.0
CO			27.40	154.7	212.2
NO_x			136.73	771.9	1059.0
SO_2			0.10	0.56	0.77
PM_{10}			4.38	24.7	33.9

$PM_{2.5}$			4.25	24.0	32.9

Notes:
[a] Fuel use is total projected use, in gallons, under expected No-Action and Proposed Action operation alternatives, with full implementation of the Applicants' Operating Plan in 2015 under the Proposed Action scenario.

Page 4.9-8, Table 4.9-3:

Table 4.9-3. Emissions Caused by Active and Idling Operations of Other Carriers – Revised Estimates

Pollutant	No-Action Fuel Use[a] (gal)	Proposed Action Fuel Use[a] (gal)	2015 E.F. (g/gal)	2015 No-Action Emissions (tons/yr)	2015 Proposed Action Emissions (tons/yr)
VOC	1,345,781	434,420	~~8.95~~ 6.59	~~13.3~~ 9.8	~~4.3~~ 3.2
CO			27.40	40.6	13.1
NO_x			136.73	202.8	65.5
SO_2			0.10	0.15	0.05
PM_{10}			4.38	6.5	2.1
$PM_{2.5}$			4.25	6.3	2.0

Notes:
[a] Fuel use is total projected use, in gallons, under expected No-Action and Proposed Action operation alternatives, with full implementation of the Applicants' Operating Plan in 2015 under the Proposed Action scenario.

Page 4.9-9, Table 4.9-4:

Table 4.9-4. Emissions Caused by Idling of CN Trains – Revised Estimates

Pollutant	No-Action Fuel Use[a] (gal)	Proposed Action Fuel Use[a] (gal)	2015 E.F. (g/gal)	2015 No-Action Emissions (tons/yr)	2015 Proposed Action Emissions (tons/yr)
VOC	577,327	214,799	~~8.95~~ 6.59	~~5.7~~ 4.2	~~2.1~~ 1.6
CO			27.40	17.4	6.5
NO_x			136.73	87.0	32.4
SO_2			0.10	0.06	0.02
PM_{10}			4.38	2.8	1.0
$PM_{2.5}$			4.25	2.7	1.0

Notes:
[a] Fuel use is total projected use, in gallons, under expected No-Action and Proposed Action operation alternatives, with full implementation of the Applicants' Operating Plan in 2015 under the Proposed Action scenario.

Page 4.9-11, Table 4.9-7:

Table 4.9-7. Net 2015 VOC Operational Emissions (tons/yr) – Original Estimates				
Category	**Source**	**No-Action Emissions (2015)**	**Proposed Action Emissions (2015)**	**Net Change in Emissions (2015)**
Operations	CN active trains	~~50.5~~ 37.2	~~75.0~~ 55.2	~~24.5~~ 18.0
	Other active and idling trains	no data	no data	no data
	CN idling trains	no data	no data	no data
Intersection delay	Vehicle idling	6.4	8.1	1.7
Total		~~56.9~~ 43.6	~~83.1~~ 63.3	~~26.2~~ 19.7

Page 4.9-11, Table 4.9-8:

Table 4.9-8. Net 2015 VOC Operational Emissions (tons/yr) – Revised Estimates				
Category	**Source**	**No-Action Emissions (2015)**	**Proposed Action Emissions (2015)**	**Net Change in Emissions (2015)**
Operations	CN active trains	~~50.5~~ 37.2	~~69.3~~ 51.0	~~18.8~~ 13.8
	Other active and idling trains	~~13.3~~ 9.8	~~4.3~~ 3.2	~~(9.0)~~ (6.6)
	CN idling trains	~~5.7~~ 4.2	~~2.1~~ 1.6	~~(3.6)~~ (2.6)
Intersection delay	Vehicle idling	6.4	8.1	1.7
Total		~~75.9~~ 57.6	~~83.8~~ 63.9	~~7.9~~ 6.3

Note: Numbers in parentheses denote a negative change.

Page 4.9-15, Table 4.9-19:

Table 4.9-19. Transaction-Related Emissions Changes~~.~~						
	Original Operating Plan & Vehicles - 2015 (Tons Per Year)			**Revised Fuel Use Including Fuel Savings - 2015 (Tons Per Year)**		
	Trains	**Vehicles**	**Total**	**Trains**	**Vehicles**	**Total**
VOC	~~24.5~~ 18.0	1.7	~~26.2~~ 19.7	~~6.2~~ 4.6	1.7	~~7.9~~ 6.3
CO	74.8	13.6	88.4	19.1	13.6	32.7
NO_x	373.4	0.7	374.1	95.1	0.7	95.8
SO_2	0.28	0.005	0.291	0.07	0.005	0.08
PM_{10}	12.0	0.006	12.0	3.0	0.006	3.0
$PM_{2.5}$	11.6	0.005	11.6	2.9	0.005	2.9

Page 4.9-27, Table 4.9-30:

Table 4.9-30. VOC & NO_x Total Emissions for O_3 Compared with SIP (Tons/Summer Day) – Original Estimates

Year	VOCs				NO_x			
	Illinois Emissions	Illinois SIP Budget	Indiana SIP Budget[a]	Net Change due to Proposed Action[b]	Illinois Emissions	Illinois SIP Budget	Indiana SIP Budget	Net Change due to Proposed Action[b]
2007	121.69	151.11	- -	- -	279.84	280.40	- -	- -
2010	91.93	127.42	11.5	0.0054	205.33	280.40	40.6	0.052
2015	- -	- -	- -	~~0.07~~ 0.054	- -	- -	- -	1.02
2020	51.29	127.42	6.00	- -	67.67	280.40	12.60	- -
2030	51.98	127.42	- -	- -	48.17	280.40	- -	- -
2040	- -	- -	7.16	- -	- -	- -	7.96	- -

Sources: Indiana Department of Environmental Management (IDEM) (2006a), Request for Redesignation and Maintenance Plan for Ozone Attainment in the 8-Hour Ozone Nonattainment Area--Lake and Porter Counties, Indiana, retrieved on May 8, 2008, http://www.in.gov/idem/programs/air/redesignations/lakeporter/lakeporterfinal.pdf, September 2006. Chicago Metropolitan Agency for Planning (CMAP) (2006c), Transportation Conformity Analysis for the PM2.5 and 8-Hour Ozone National Ambient Air Quality Standards, retrieved on June 26, 2008, http://www.cmap.illinois.gov/uploadedFiles/publications/other_publications/pm25_conformity_analysis.pdf, October 12, 2006.

Notes:

[a] Indiana's Maintenance Plan does not provide estimates of actual emissions in comparison to the Indiana budget.

[b] Net change of emissions in tons per summer day resulting from the Proposed Action was calculated by taking the previously calculated tons per year values and dividing by 365 days per year. Values for 2010 are Proposed Action-related construction emissions, and values for 2015 are Proposed Action-related operations emissions, including vehicle idling emissions at crossings.

Page 4.9-27 and -28, Table 4.9-31:

Table 4.9-31. VOC & NO_x Total Emissions for O_3 Compared with SIP (Tons/Summer Day) – Revised Estimates

Year	VOCs				NO_x			
	Illinois Emissions	Illinois SIP Budget	Indiana SIP Budget[a]	Net Change due to Proposed Action[b]	Illinois Emissions	Illinois SIP Budget	Indiana SIP Budget	Net Change due to Proposed Action[b]
2007	121.69	151.11	- -	- -	279.84	280.40	- -	- -
2010	91.93	127.42	11.5	0.0054	205.33	280.40	40.6	0.052
2015	- -	- -	- -	~~0.021~~ 0.017	- -	- -	- -	0.26

Table 4.9-31. VOC & NO_x Total Emissions for O_3 Compared with SIP (Tons/Summer Day) – Revised Estimates

Year	VOCs				NO_x			
	Illinois Emissions	Illinois SIP Budget	Indiana SIP Budget[a]	Net Change due to Proposed Action[b]	Illinois Emissions	Illinois SIP Budget	Indiana SIP Budget	Net Change due to Proposed Action[b]
2020	51.29	127.42	6.00	- -	67.67	280.40	12.60	- -
2030	51.98	127.42	- -	- -	48.17	280.40	- -	- -
2040	- -	- -	7.16	- -	- -	- -	7.96	- -

Sources: IDEM (2006a), *Request for Redesignation and Maintenance Plan for Ozone Attainment in the 8-Hour Ozone Nonattainment Area--Lake and Porter Counties, Indiana*, retrieved on May 8, 2008, http://www.in.gov/idem/programs/air/redesignations/lakeporter/lakeporterfinal.pdf, September 2006.
CMAP (2006c), *Transportation Conformity Analysis for the $PM_{2.5}$ and 8-Hour Ozone National Ambient Air Quality Standards*, retrieved on June 26, 2008, http://www.cmap.illinois.gov/uploadedFiles/publications/other_publications/pm25_conformity_analysis.pdf, October 12, 2006.

Notes:

[a] Indiana's Maintenance Plan does not provide estimates of actual emissions in comparison to the Indiana budget.

[b] Net change of emissions in tons per summer day resulting from the Proposed Action was calculated by taking the previously calculated tons per year values and dividing by 365 days per year. Values for 2010 are Proposed Action-related construction emissions, and values for 2015 are Proposed Action-related operations emissions, including vehicle idling emissions at crossings.

2.14.33 Noise

Page 4.10-18, Table 4.10-10:

Table 4.10-10. Predicted Vibration Effect Distances at Measurement Sites

Measurement Site		EJ&E Segment	Closest Arterial Street	Trains[a]		Weighted Average Train Speed (mph)		Maximum Train Speed (mph)		Lmax at 75 ft (VdB)[b]	Effect Threshold (VdB)[c]	Effect Distance (ft)[d]
				Existing	Future	Existing	Future	Existing	Future			
V1.	Lake Zurich, IL	14	Main Street	5.3	20.3	31	31	33	36	72.4	72	80
V2A.	Barrington, IL A	14	Northwest Hwy.	5.3	20.3	37	39	40	40	72.4	72	80
V2B.	Barrington, IL B[e]	14	Main Street	5.3	20.3	37	39	40	40	82.2	72	170
V2C.	Barrington, IL C	14	Main Street	5.3	20.3	37	39	40	40	72.4	72	80
V2D.	Barrington, IL D	14	West Hillside Avenue	5.3	20.3	37	39	40	40	72.4	72	80
V3.	Hoffman Estates, IL	14	Shoe Factory Road	5.3	20.3	36	37	40	45	72.4	72	80
V4B.	Warrenville, IL	11	Batavia Road	10.7	31.6	38	41	45	45	72.4	72	80
V5.	Aurora, IL	10	Ogden Avenue	15.7	39.5	35	40	45	45	72.4	72	80
V6.	Crest Hill, IL	9	Gaylord Street	18.5	42.3	31	34	44	44	72.4	72	80
V7A.	Joliet, IL	8	Woodruff Street	18.5	42.3	9	10	10	10	72.4	72	80
V8.	Matteson, IL	7	Main Street	~~6.4~~ 8.6	~~28.3~~ 34.6	~~38~~ 29	~~41~~ 18	43	45	72.4	72	80
V9A.	Chicago Heights, IL	6	Western Avenue	8.6	31.6	24	30	45	30	76.6	72	130
V9B.	Dyer, IN	6	Calumet Avenue	10.2	34.2	35	25	35	45	76.6	72	210
V10A.	Griffith, IN[f]	4	Broad Street	7.6	~~28.6~~ 23.6	24	25	25	25	82.2	72	210
V10B.	Griffith, IN[g]	4	Broad Street	7.6	~~28.6~~ 23.6	~~24~~ 17	~~25~~ 17	25	25	82.2	72	210
V12.	Griffith, IN	4	45th Avenue	7.6	28.6	24	25	25	25	76.6	72	130
V13	Gary, IN	4	15th Avenue	9.7	29.7	38	38	45	45	76.6	72	130

Notes:

[a] Average number of freight trains per day.

[b] Maximum RMS vibration level averaged over a 15-second interval. Levels given in decibels (VdB) using a decibel reference of 1µin/sec.

[c] Effect threshold for maximum rail car vibration.

[d] Distance measured from centerline of closest track.

[e] Sites close to special trackwork, therefore vibration levels are higher here than they are in areas that are not adjacent to special trackwork.

[f] Measurement was conducted in February 2008.

[g] Measurement was conducted in April 2008.

Page 4.10-19, Table 4.10-11:

Table 4.10-11. Predicted Vibration Effect Distances for each EJ&E Segment, Standard Track

City	EJ&E Segment	Closest Arterial Street	Trains[a]		Maximum Train Speed (mph)[b]		Effect Threshold (VdB)[c]	Effect Distance (ft)
			Existing	Future	Existing	Future		
Gary	2	5th Avenue	9.8	29.8	45	45	72	130
Gary (V13)	3	15th Avenue	9.7	29.7	44	45	72	130
Griffith	4	40th Pl.	7.6	28.6	44	43	72	130
Griffith (V12)	4	Elm Street	7.6	28.6	42	32	72	130
Griffith (V10)	4	Broad Street	7.6	~~28.6~~ 23.6	25	25	72	210
Schererville	5	Kennedy Avenue	10.2	34.2	40	45	72	210
Dyer (V9B)	5	Hart Street	10.2	34.2	45	30	72	210
Sauk Village	5	Torrance Avenue	10.2	34.2	44	45	72	210
Ford Heights[d]	5	Bishop Ford Fwy.	10.2	34.2	45	30	72	210
Ford Heights[e]	5	Bishop Ford Fwy.	10.2	34.2	45	30	72	130
Chicago Heights	6	East End	8.6	31.6	21	23	72	130
Park Forest A (V9A)	6	Western Avenue	8.6	31.6	35	45	72	130
Matteson[f]	6	Main Street	~~6.4~~ 8.6	~~28.3~~ 34.6	43	45	72	130
Matteson[g] (V8)	7	Main Street	~~6.4~~ 8.6	~~28.3~~ 34.6	43	45	72	80
Frankfort	7	Harlem Avenue	6.4	28.3	45	45	72	80
New Lenox	7	S. Gougar Road	6.4	28.3	45	31	72	80
Joliet	7	Cherry Hill Road	6.4	28.3	45	33	72	80
Joliet Yard (V7A)	8	Woodruff Street	18.5	42.3	10	10	72	80
Crest Hill (V6)	9	Division Street	18.5	42.3	44	44	72	80
Plainfield	9	135th Street	18.5	42.3	42	45	72	80
Plainfield	10	Hafenrichter Road	15.7	39.5	44	45	72	80
Aurora (V5)	10	Ogden Avenue US 34	15.7	39.5	45	45	72	80
Naperville	11	Diehl Road	10.7	31.6	45	45	72	80
Warrenville (V4B)	11	Batavia Road	10.7	31.6	45	45	72	80
West Chicago	11	Aurora Street	10.7	31.6	30	30	72	80
West Chicago	12	Hawthorne Lane	4.4	23.4	35	45	72	80

Table 4.10-11. Predicted Vibration Effect Distances for each EJ&E Segment, Standard Track								
			Trains[a]		Maximum Train Speed (mph)[b]			
Wayne	12	Army Trail Road	4.4	23.4	45	45	72	80
Elgin	13	W. Bartlett Road	5.5	22.5	45	45	72	80
Elgin	14	Spaulding Road	5.3	20.3	45	45	72	80
Hoffman Estates (V3)	14	Shoe Factory Road	5.3	20.3	40	45	72	80
Barrington (V2D)	14	W. Hillside Avenue	5.3	20.3	40	40	72	80
Barrington (V2C)	14	Main Street	5.3	20.3	40	40	72	80
Barrington (V2A)	14	Northwest Hwy.	5.3	20.3	40	45	72	80
Barrington	14	Lake Zurich Road	5.3	20.3	40	45	72	80
Lake Zurich (V1)	14	Main Street	5.3	20.3	33	36	72	80
North Chicago	14	--	3.2	3.2	--	--	No Change	No Change

Notes:

[a] Average number of freight trains per day.

[b] The maximum speed of all freight trains was considered and the highest value was reported

[c] Effect threshold for maximum rail car vibration.

[d] East of Bishop Ford Freeway.

[e] West of Bishop Ford Freeway.

[f] East of Main Street.

[g] West of Main Street.

2.14.34 Biological Resources

Page 4.11-1, fourth bullet, fifth sentence:

Construction activities for ~~all~~ these two configurations of the ~~Matteson~~ Munger connection would contribute to a loss of habitat at Powis Marsh and Brewster Creek, which could result on reduced breeding activity of marsh and grassland birds and wetlands reptiles. [Section 4.11.4.3] The Munger Alternative - Northwest Quadrant would not take place within an Illinois Natural Area Inventory (INAI) site, but would affect Forest Preserve District lands and could contribute to a loss of habitat to marsh and grassland birds and wetlands reptiles, which could result in reduced breeding activity of marsh and grassland birds. The Munger Alternative - UP Connection would directly affect the Brewster Creek Fen INAI and Nature Preserve Site. Additionally, the state-listed Blanding's turtle could also be affected by the Munger connection.

Page 4.11-8, second paragraph, second, third, and fourth sentences:

The USFWS states that as trains operate on this segment, vibration of the tracks and vertical deflection of the rail bed causes native sediments to be pushed ~~from the overlying rail bed into the~~ into the cracks and fissures of the underlying dolomite bedrock, causing adverse impacts to larval Hine's emerald dragonfly (USFWS 2008a). Additionally, the USFWS has a recognized concern for potential impacts to adult individuals of this species due to train/species collisions where trains travel at high speeds during adult flight season. To minimize these impacts, EJ&E has agreed to keep train speeds between 4 and 6 mph at all times on EJ&E Segment 18 in order to reduce vibration impacts to the larvae. The reduced operational speeds also minimize the likelihood of adult mortality due to direct collisions with trains. The Proposed Action would not change operations on the Paul Ales Branch, so larval and adult Hine's emerald dragonfly habitat would not be affected beyond current operations.

Pages 4.11-9 and -10, Table 4.11-12 (This is only a portion of the table):

Table 4.11-12. Potential Effects on State-Listed Species Along the EJ&E Rail Line

Guild[a]	Common and Scientific Name	Status[b] (State)	Segment[c]	Potential Effect
Grassland bird species	Henslow's sparrow (*Ammodramus henslowii*)[d]	T (IL)	EJ&E-13A, 13B, 12,5A	Noise or train collision
		~~E (IN)~~	~~EJ&E 4~~	
	Short-eared owl (*Asio flammeus*)	E (IL)	EJ&E-12, 13B	
	Upland sandpiper (*Bartramia longicauda*)	E (IN)	EJ&E-2	
Rookery bird species	Black-crowned night heron (*Nycticorax nycticorax*)	E (IL)	EJ&E-9B, 1, 10A, 12, 13B EJ&E-14C EJ&E-15, EJ&E-22	Noise or train collision
Grassland animal species	Franklin's ground squirrel (*Spermophilus franklinii*)	E (IN)	EJ&E-0, 1, 2, 3, 20, 21, 22	Train collision

Notes:
[a] A guild is a functional category based on species' common life history traits and habitat requirements.
[b] E = endangered, T = threatened
[c] See Figure 3.1-1 for locations of the EJ&E segments.
[d] Henslow's sparrow may be present along CN segment 33 at Oak Ridge County Park or CN segment 23A at Hoosier Prairie.

Page 4.11-13, fifth paragraph, fifth bullet:

- Impacts to the Hines emerald dragonfly from ground vibration near the Paul Ales Branch are not expected to change as current operating agreements with the USFWS would continue. There will be no change to the existing conditions along the Paul Ales Branch (See Biological Report in Appendix A8 of this FEIS).

Page 4.11-14, Munger bullet, third paragraph, second sentence:

Construction of this alternative would potentially affect 0.6 acre of rail bed, 1.6 acres of rail embankment overgrown with woody and herbaceous growth, 1.9 acres of Powis Marsh dominated by ~~giant reed (*Arundo donax*)~~ common reed (*Phragmites australis*) and reed canary grass and 0.8 acre of immature upland forest.

Page 4.11-15, third paragraph, fifth sentence:

Two wetland areas would be affected, 0.3 acre of wet meadow west of Powis Road, and 0.6 acre of ~~giant~~ common reed marsh associated with a small tributary of Brewster Creek connected by culverts under both EJ&E and CN rail lines.

Page 4.11-16, second paragraph, first sentence:

Construction would affect a total of ~~22.5~~ 27.0 acres, with ~~8.9~~ 13.2 acres currently in road, pavement, building, or railroad. The remaining 13.7 acres are dominated by a mix of culturally-dominated landcover types. Forested areas are comprised of immature forest, with ~~4.1~~ 4.2 acres of immature upland forest and 6.6 acres of wet forest.

Page 4.11-17, second paragraph:

Wildlife. Construction of the connections would require the removal of wildlife habitat adjacent to the existing rail line, adversely affecting individuals species utilizing these patches of habitat. Some connections would require additional ROW acquisition. Wildlife species living ~~in patches of natural habitat~~ within the construction limits ~~along segments of the EJ&E rail line that would undergo connection construction~~ would be displaced. Displacement would require mobile wildlife species to move to adjacent, available habitat. Where adjacent habitat is either occupied or inappropriate, individual species may experience declines in local populations. Additional permanent adverse effects to wildlife at all construction sites may include direct loss of individuals at various life states, and increased fragmentation. ~~Because the affected wildlife habitat is generally minor and wildlife is mobile, SEA determined the construction of the connections would not affect wildlife.~~ Wildlife may also experience temporary increases in noise during construction.

Page 4.11-17, third paragraph, second and third sentences:

Construction activities for all configurations of the ~~Matteson~~ Munger connection would cause a temporary increase in noise within or adjacent to the Pratt's Wayne Woods Forest Preserve. Construction would cause a~~n~~ ~~in~~direct impact due to loss of habitat at Powis Marsh and Brewster Creek.

Page 4.11-23, first paragraph, fourth sentence:

Because wildlife is mobile, SEA determined the double track construction ~~would not affect wildlife~~ may displace wildlife and increase mortality due to train collisions.

Page 4.11-25, third bullet, first sentence:

Wetland plant communities ~~occur near the proposed Diamond Lake to Gilmer Road double track~~ occur along all segments of the EJ&E and do occur within many of the construction areas.

2.14.35 Water Resources

Page 4.12-6, second paragraph:

Table 4.12-1, below, identifies lakes, fens, wetlands, and natural areas that lie within 1,000 feet of the EJ&E rail line where the estimated direction of near-surface groundwater flows from the EJ&E rail line toward the resource.

Page 4.12-6, Table 4.12-1 (This is only a portion of the table):

Table 4.12-1. Potentially Affected Lakes and Preserves

Rail Segment[a]	Lakes and Preserves Within 1,000 Feet of Rail and in Direction of Presumed Near Subsurface Groundwater Flow
EJ&E-02	~~None~~ Ivanhoe Dune and Swale, Ivanhoe Dunes.

Notes:
[a] Rail segments ordered counter-clockwise along EJ&E rail line

Page 4.12-18, fifth paragraph, first and second sentences:

SEA identified and analyzed 22 structures requiring extension.~~, 19 of which were analyzed. The other three structures had insufficient structure information to complete the analysis.~~

Page 4.12-21, fifth bullet, first, second, and third sentences:

For the East Joliet to Frankfort double track area, SEA identified and analyzed 22 structures requiring extension. ~~Seventeen structures were analyzed. Structure information was insufficient for analysis of the remaining five structures.~~

Page 4.12-42, third paragraph, second sentence:

Construction would occur within a mixed Palustrine Emergent wetland with a mix of communities that appears to include shrub swamp, and a marsh dominated by ~~giant~~ common reed and reed canary grass.

Page 4.12-42, sixth paragraph, second sentence:

This proposal includes a wide, sweeping curve on a berm connecting the grade-separated tracks and would require the Applicants to fill 4.80 acres of mostly monotype (~~R~~reed ~~C~~canary ~~G~~grass and ~~Giant~~ common ~~R~~reed) marsh.

Page 4.12-44, Table 4.12-7 (This is only a portion of the table):

Table 4.12-7. Corrected Wetland Effects from Proposed Connections

Construction Site	Wetland ID	Rail Line Segment(s)	County	Jurisdiction (USACE Tributary)a	Map Sources	NWI Type	Acreage	Total Acreage
Proposed Griffith Connection	Wetland 9a	EJ&E 4 and CN 33	Lake	IDEM	1, 6	PEMC/ PSSC/ PFOC	0.77	0.77

Source: 1) National Wetlands Inventory, 2) Lake County, Illinois, Wetland Inventory and ADID Wetland Inventory, 3) DuPage County Wetland Inventory, 4) Lake County Land Use Cover, 5) Northeastern Illinois Land Use Cover, 6) Lake County, Indiana, National Wetlands Inventory, 7) Lake County, Indiana, ADID Wetland Inventory

Notes:
[a] USACE: U.S. Army Corps of Engineers, LCSMC: Lake County Stormwater Management Commission, DSMC: DuPage County Stormwater and Flood Plain Ordinance-Special Management Area, WCLU: Will County Land Use Department
[b] Based on available data, SEA did not identify wetlands that would be affected by construction of the Joliet, Ivanhoe, and Griffith alternatives. Field surveys would be required during final design.

Page 4.12-45, sixth and seventh paragraphs:

Proposed Joliet Connection. SEA's review of available wetland data indicated no wetlands within the area of construction.

Joliet Alternative – Original Proposal. SEA's review of available wetland data indicated no wetlands within the area of construction.

Page 4.12-46, fourth paragraph, first sentence:

Proposed Ivanhoe Connection. This proposed connection would transect an excavated basin. The basin appears to be overgrown with ~~giant~~ common reed and is in an area of mixed dune and swale preserves, residential development, industry, and storage yards.

Page 4.12-46, seventh paragraph, fifth sentence:

A site visit and aerial photo analysis suggests vegetation is dominated by cattails and invasive ~~giant~~ common reed.

2.14.36 Cultural Resources

Page 4.13-1, first bullet, first sentence:

- SEA analyzed the potential impact of the Proposed Action and the associated construction of new rail connections and double track on historic properties in the Area of Potential Effect that are on or are eligible to be placed on the National Register of Historic Places.

Page 4.13-2, third paragraph, first sentence:

The Proposed Action alternative consists of the construction of six proposed rail connections and ~~four~~ five proposed double tracks and/or siding extensions.

Page 4.13-2, eighth paragraph, third sentence:

In addition, the railroad-related building and three historic buildings located along Main Street immediately east of the CN tracks are also outside the project APE.

2.14.37 Chapter 5 of the Draft EIS

Page 5-22, second paragraph, second sentence:

SEA also reviewed the environmental documents associated with the runway extension, including the Final EIS and the Record of Decision prepared by the Federal ~~Airline~~ Aviation Administration (FAA), to determine whether the ~~combined~~ effects of the two projects would result in cumulative effects.

2.14.38 Chapter 9 of the Draft EIS

Page 9-17, second paragraph, second sentence:

The public can also review printed copies of the Draft EIS at the ~~49~~ 51 public libraries and one village hall that are located in the communities along the EJ&E rail system, listed in Table 9.5-1, below.

Page 9-17 through -19, Table 9.4-1:

Table 9.4-1. Locations to Review the Draft EIS		
Community	**Public Library or Village Hall**	**Address**
Illinois (alphabetical listing)		
Aurora, Illinois	Aurora Public Library	233 S. Constitution Dr., Aurora, IL 60506
Barrington, Barrington Hills, and South Barrington, Illinois	Barrington Area Library	505 N. Northwest Hwy., Barrington, IL 60010
Bartlett, Illinois	Bartlett Public Library	800 S. Bartlett Rd., Bartlett, IL 60103
Blue Island, Illinois	Blue Island Public Library	2300 York St., Blue Island, IL 60406
Bolingbrook, Illinois	Fountaindale Public Library in Bolingbrook	300 W. Briarcliff Rd., Bolingbrook, IL 60440
Buffalo Grove, Illinois	Indian Trails Public Library	355 Schoenbeck Rd., Wheeling, IL 60090
Carbondale, Illinois	Carbondale Public Library	405 W. Main St., Carbondale, IL 62901
Centralia, Illinois	Centralia Public Library	515 E. Broadway, Centralia, IL 62801
Champaign, Illinois	Champaign Public Library	200 W. Green St., Champaign, IL 61820
Chicago, Illinois	Harold Washington Library Center	400 S. State St., Chicago, IL 60605
Chicago Heights, Illinois	Chicago Heights Public Library	25 W. 15th St., Chicago Heights, IL 60411
Crest Hill, Illinois	Crest Hill Public Library	1298 Theodore St., Crest Hill, IL 60403
Crystal Lawns, Fairmont, and Joliet, Illinois	Joliet Public Library	150 N. Ottawa St., Joliet, IL 60432
Deer Park, Hawthorn Woods, Lake Zurich, Long Grove, and Mettawa, Illinois	Ela Area Public Library	275 Mohawk Trail, Lake Zurich, IL 60047
Elgin, Illinois	Gail Borden Public Library	270 N. Grove Ave., Elgin, IL 60120
Frankfort, Illinois	Frankfort Public Library	Pfeiffer Rd. at Rt. 30, Frankfort, IL 60423
Glen Ellyn, Illinois	Glen Ellyn Public Library	400 Duane St., Glen Ellyn, IL 60137
Green Oaks and Libertyville, Illinois	Cook Park Public Library	413 N. Milwaukee Ave., Libertyville, IL 60048
Hoffman Estates, Illinois	Hoffman Estates Branch Library	1550 Hassell Rd., Hoffman Estates, IL 60169
Indian Creek and Vernon Hills, Illinois	Vernon Hills Village Hall	290 Evergreen Dr., Vernon Hills, IL 60061
Lake Bluff, Illinois	Lake Bluff Public Library	123 E. Scranton Ave., Lake Bluff, IL 60044
Lockport, Illinois	Lockport Public Library	121 E. 8th St., Lockport, IL 60441
Lynwood, Illinois	South Cook ISC 4 Library	253 W. Joe Orr Rd., Chicago Heights, IL 60411
Matteson, Illinois	Matteson Public Library	801 S. School Ave., Matteson, IL 60443
Minooka, Illinois	Three Rivers Public Library-Minooka Branch	109 N. Wabena Ave., Minooka, IL 60447
Mokena, Illinois	Mokena Public Library	11327 W. 195th St., Mokena, IL 60448
Mundelein, Illinois	Fremont Public Library	1170 N. Midlothian Rd., Mundelein, IL 60060
Naperville, Illinois	95th Street Library	3015 Cedar Glade Dr., Naperville, IL 60564
Naperville, Illinois	Naper Boulevard Library	2035 S. Naper Blvd., Naperville,

Table 9.4-1. Locations to Review the Draft EIS		
Community	**Public Library or Village Hall**	**Address**
		IL 60565
Naperville, Illinois	Nichols Library	200 W. Jefferson Ave., Naperville, IL 60540
New Lenox, Illinois	New Lenox Public Library	120 Veterans Pkwy., New Lenox, IL 60451
North Chicago, Illinois	North Chicago Public Library	2100 Argonne Dr., North Chicago, IL 60064
Park Forest, Illinois	Park Forest Public Library	400 Lakewood Blvd., Park Forest, IL 60466
Plainfield, Illinois	Plainfield Public Library	15025 S. Illinois St., Plainfield, IL 60544
Richton Park, Illinois	Richton Park Public Library	4045 Sauk Trail, Richton Park, IL 60471
Rockdale, Illinois	Will County Law Library	14 W. Jefferson St., Joliet, IL 60432
Romeoville, Illinois	Fountaindale Public Library in Romeoville	201 Normantown Rd., Romeoville, IL 60446
Sauk Village, Illinois	McConathy Public Library	21737 Jeffrey Ave., Sauk Village, IL 60411
Warrenville, Illinois	Warrenville Public Library	28W751 Stafford Pl., Warrenville, IL 60555
Waukegan, Illinois	Waukegan Public Library	128 N. County St., Waukegan, IL 60085
Wayne, Illinois	St. Charles Public Library	1 S. 6th Ave., St. Charles, IL 60174
West Chicago, Illinois	West Chicago Public Library	118 W. Washington St., West Chicago, IL 60185
Wheaton, Illinois	Wheaton Public Library	225 N. Cross St., Wheaton, IL 60187
Indiana (alphabetical listing)		
East Chicago, Indiana	Robert A. Pastrick Branch Library	1008 W. Chicago Ave., East Chicago, IN 46312
Gary, Indiana	Gary Public Library	220 W. 5th Ave., Gary, IN 46402
Griffith, Indiana	Lake County Public Library-Griffith Branch	940 N. Broad St., Griffith, IN 46319
Hammond, Indiana	Hammond Public Library	564 State St., Hammond, IN 46320
Hammond, Indiana	E.B. Hayward Branch Hammond Public Library	1212 172nd St., Hammond, IN 46320
Hammond, Indiana	Howard Branch Hammond Public Library	7047 Grand Ave., Hammond, IN 46320
Munster, Indiana	Munster Branch Lake County Public Library	8701 Calumet Ave., Munster, IN 46321
Schererville, Indiana	Dyer-Schererville Branch, Lake County Public Library	1001 W. Lincoln Hwy., Schererville, IN 46375
Whiting, Indiana	Whiting Public Library	1735 Oliver St., Whiting, IN 46394

2.14.39 References in the Draft EIS

2.14.40 Land Use

Page R-12:

DuPage County

2004 *2003 Land Use Analysis and Trends.* DuPage County Economic Development and Planning Department. Retrieved on ~~February 1~~ March 29, 2008. http://www.dupageco.org/planning/landuse.pdf. April 2004.

Page R-14:

Melaniphy & Associates, Inc.

2006 ~~Retail Market Feasibility Study~~ *Retail Market Feasibility Study*. Lincoln Mall Area; Lincoln Highway, Cicero Avenue & Interstate 57; Matteson, Illinois. Prepared for Village of Matteson, Matteson, Illinois. Retrieved on April 17, 2008. http://www.choosematteson.com/pdf/Matteson_Retail_Report.pdf. June 2006.

[NIPC] Northeastern Illinois Planning Commission

1997 Northeastern Illinois Regional Greenways and Trails Implementation Program, A Map of Greenway and Trail Opportunities and Summary. Northeastern Illinois Planning Commission and Openlands Project. Retrieved on June 11, 2008. http://www.nipc.org/test/greenways_map_back.pdf. June 19, 1997.

Town of Griffith

2004 *Zoning District Map~~, Town of Griffith, Indiana~~*. Retrieved on April 1, 2008. http://www.griffithindiana.com/zoning.pdf. December 2004.

Page R-15:

Village of Mokena

2002 ~~*Village of Mokena*~~ *Comprehensive Plan.* Retrieved on May 6, 2008. http://www.mokena.org/DocumentView.asp?DID=4. August 2002.

Page R-16:

Village of Mundelein

2001 *Southside Commercial Corridor Plan.* Retrieved on March 31, 2008. http://www.mundelein.org/economic/pdfs/comp_plan.pdf.

2008 ~~*Community Development [Zoning Map]*~~ *Village of Mundelein Zoning Map*. Retrieved on March 29, 2008. http://www.mundelein.org/maps/2008_zoning_map_update_2.pdf. February 25, 2008.

Village of Vernon Hills

2003 *Comprehensive Land Use Draft Plan, Village of Vernon Hills.* Community Development Department. Retrieved on January 29, 2008. http://www.vernonhills.org/Userfiles/file/maps/landusemap18Feb03.pdf. February 18, 2003.

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Chapter 3
Comment Summaries and Responses

3.1 Comment and Response Process

SEA received over 9,500 comment documents, raising more than 55,000[1] issues and concerns about the Draft EIS. This chapter describes the comment and response process and responds to comments on the Draft EIS. SEA's responses clarify or correct information presented in the Draft EIS, cite applicable policies or regulations, answer technical questions, and direct commenters to information in the Draft EIS or to new information in other chapters of this Final EIS.

In the pages that follow, SEA introduces each issue with a separate heading, then summarizes all the comments received on the Draft EIS on that issue. Commenters frequently submitted comments that addressed similar or identical topics; SEA has grouped these comments together. In summarizing some comments, SEA has included direct quotes from commenters to illustrate specific concerns. Each summary is followed by SEA's response.

SEA prepared the comment responses in accordance with CEQ guidance. CEQ guidance states:

> … an agency is not under an obligation to issue a lengthy reiteration of its methodology for any portion of an EIS if the only comment addressing the methodology is a simple complaint that the EIS methodology is inadequate. But agencies must respond to comments, however brief, which are specific in their criticism of agency methodology.

The guidance goes on to state that "if a number of comments are identical or very similar, agencies may group the comments and prepare a single answer for each group. Comments may be summarized if they are especially voluminous."

3.1.1 Comment Database

To ensure that every comment received was read, summarized, and responded to, SEA established a comment database. The database allowed SEA to carefully track each of the approximately 9,500 comments on the Draft EIS.

Comments were submitted by a wide variety of parties including Federal, state, and local agencies, elected officials, environmental and other organizations, businesses, and thousands of members of the public. SEA accepted comments by letter, e-filing via the Board's website, e-mail, fax, and through comment forms available at public meetings and on SEA's project website (www.stbfinancedocket35087.com). In addition to written comments, SEA received approximately 1,500 oral comments. During eight public meetings held in the Chicago metropolitan area, comments from more than 300 speakers were transcribed by court reporters. Moreover, nearly 1,000 commenters provided comments on SEA's toll-free environmental hotline.

All comments (except for the transcripts of the public meetings) received or postmarked between July 25 and September 30, 2008 are included on compact disc (CD) in Appendix E. Section 3.1.5

[1] This number reflects the total number of times all issues and concerns were raised, not the number of different issues.

below describes the process for locating specific letters in Appendix E. The court reporter transcripts of the public meetings are located in Appendix D.

3.1.2 Analysis Process

SEA employed a multistage process to track and code comments received during the Draft EIS comment period. SEA assigned each comment a tracking number, identified substantive comments, grouped comments into categories as appropriate, and responded to each substantive comment, either individually or as grouped together by topic.

As explained above, many of the oral comments and written submittals contained multiple issues and concerns. SEA identified these issues and, where appropriate, grouped them into categories (for example, traffic delays, noise, or property values). Many issues in each category raised similar concerns; therefore, to eliminate unnecessary repetition, SEA grouped and sorted issues together for a response.

3.1.3 Comment Tracking

All comment documents were first loaded into SEA's environmental correspondence tracking (ECT) system and were made available to view on the Board's website (www.stb.gov). SEA assigned a unique identifying number (for example, Document 10001) to each comment document (voice mail, e-mail, published comment form, public meeting comment form, letter, transcribed oral comment, or public meeting transcript) generally in the order it was received. SEA then entered all the comment documents into a database along with the name of the commenter, the date received, and contact information.

3.1.4 Comment Coding and Response

After assigning the unique identifying numbers, SEA reviewed each comment document to identify the issues within. Each issue was sorted into categories and assigned a unique numerical code (for example, 4.3a for traffic delay comments). After SEA identified all the individual issues in each document, it determined whether the comment was "substantive." As defined in 40 CFR 1503.4(a), substantive comments require the agency preparing the Final EIS to:

- Modify alternatives, including the Proposed Action.
- Develop and evaluate alternatives not previously given serious consideration by the agency.
- Supplement, improve, or modify its analyses.
- Make factual corrections.
- Explain why the comments do not warrant further agency response, citing the sources, authorities, or reasons which support the agency's position and, if appropriate, indicate those circumstances which would trigger agency reappraisal or further response.

Next, SEA grouped similarly coded comments by issue and each issue was reviewed a second time by a technical expert, who then prepared a response to that issue for inclusion in this Final EIS. This multistage process allowed SEA to process each comment effectively while ensuring each identified issue was addressed. Comment summaries and responses are presented in Sections 3.3 through 3.5 below.

3.1.5 Guide to Locating Comment Documents

Copies of the comment documents that SEA received are presented in Appendix E on CDs. To find your comment document on the CDs:

1. Look up your name and the unique identifying number of your comment document in either Table E-1 or Table E-2 in Appendix E of this Final EIS. If you submitted more than one comment document, each document will have a unique identifying number.
2. Once you have your unique identifying number(s), find your comment document(s) on the CDs. The comment documents are ordered by unique identifying number in ascending order. If your comment document was a form letter or petition, you will be directed to a reference copy of that form letter.

3.2 Comment Highlights

As noted above, SEA received more than 9,500 comment documents and, because most comment documents addressed a variety of issues or concerns, identified over 55,000 individual issues or concerns. Fifty-two elected officials commented on the Draft EIS. Federal and state agencies and local governments submitted approximately 264 comment documents; SEA did not receive any comment documents from Federally recognized tribes. The remaining 9,200 comment documents were submitted by the public. An additional 18,000 people signed petitions both in support of and in opposition to the Proposed Action.

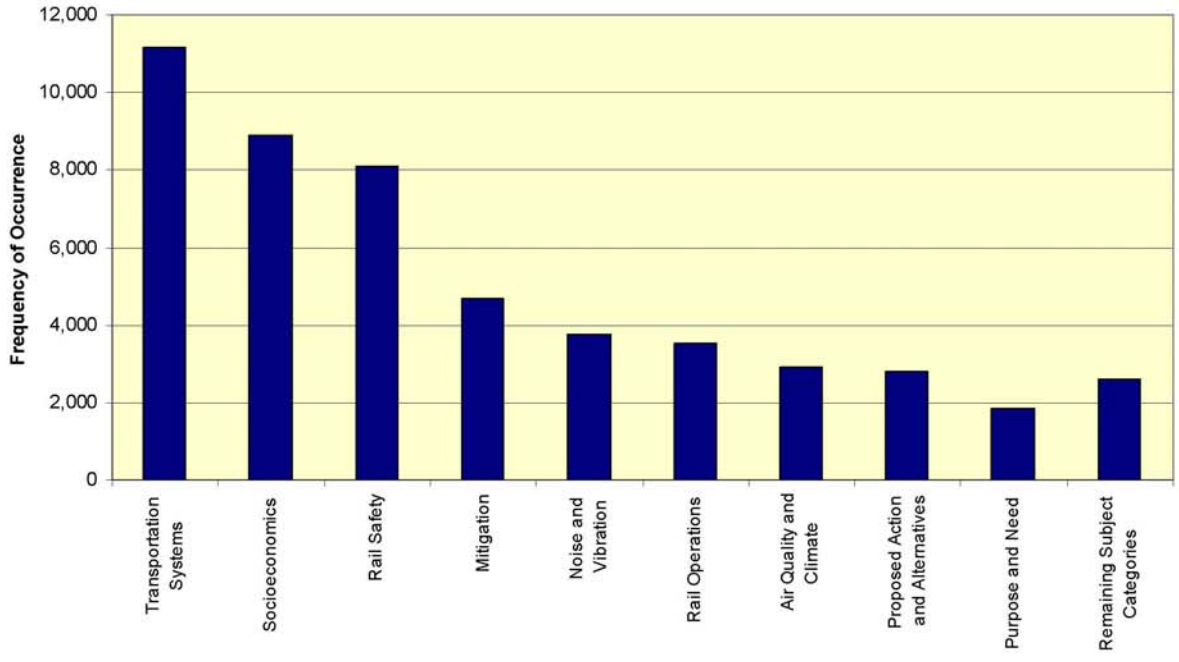
In addition to the petitions, SEA received comment documents expressing support and opposition to the Proposed Action. Many of those expressing support talked generally of project benefits, and sometimes specifically of reduced noise or congestion along the CN rail lines that would experience a decreased volume of freight rail traffic or improved regional rail traffic efficiency. Many of the commenters opposing the Proposed Action focused on traffic delays and congestion, safety, and noise. The level of public involvement in this EIS has been remarkable. SEA appreciates the time and effort of everyone who participated in and contributed to the environmental review process.

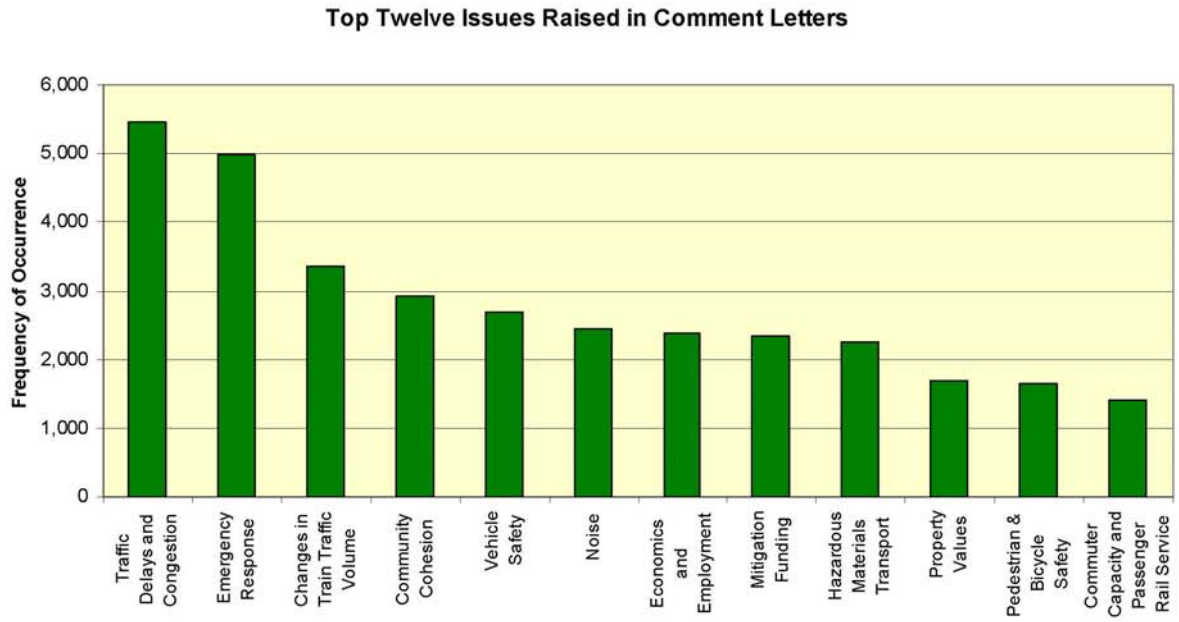
Figure 3.2-1 below illustrates both the number of comments raised for major issue categories and the major issues of public concern. Comment highlights are described in Sections 3.2.1 through 3.2.6.

3.2.1 Transportation Systems

Commenters stressed the effect the Proposed Action may have on local and regional highway systems. Key issues within this category included the potential effects of additional train traffic on the response times of emergency responders such as ambulance, fire, and law enforcement personnel, and the effect of these additional trains on already congested streets and highways.

SEA received numerous comments stating that current congested conditions on the region's roadways, especially at highway/rail at-grade crossings, slow emergency service vehicles. During rush hours, the congested road conditions that now exist impede emergency service vehicles trying to navigate their way through traffic. For this Final EIS, SEA conducted additional analysis of emergency service providers to determine those facilities that would potentially be substantially affected by the Proposed Action and warrant mitigation. The full comment summary and SEA response, titled "Delays to Emergency Response Vehicles," is presented in Section 3.4.6.3 of this Final EIS.





CN | EJ&E
Environmental Impact Statement

Figure 3.2-1
Summary of the Issues Raised During the Public Comment Period

3.2.2 Socioeconomics

The primary socioeconomic concerns expressed by commenters included potential effects on property values and effects on community cohesion due to increased train traffic. Commenters stated that their quality of life would be negatively affected because the increase in train traffic would bisect their communities.

One of the most common issues raised by commenters was the potential decrease in property values from the Proposed Action. For Section 2.8 of this Final EIS, SEA reevaluated home values, expanding the potentially affected area to 300 feet for a more conservative estimate of potentially affected properties. The full comment summary and SEA response, titled "Decrease in Property Values," is presented in Section 3.4.9.5 of this Final EIS.

3.2.3 Rail Safety

The principal concern of the public in the rail safety category was the safety of students traveling to and from school. This concern included pedestrians, student drivers, and school buses. Many commenters noted that school buses cross the EJ&E rail line many times a day during the school year, and the expected increase in rail traffic would increase the potential for accidents and delays. Concerns for the safety of pedestrians and bicyclists, particularly school children and seniors, were also frequently expressed. Commenters noted that increased train traffic would result in more accidents and more injuries to, or deaths of, vehicle passengers, pedestrians, and bicyclists.

The safety of motorists crossing rail lines, especially school buses and students traveling to or from school, was a primary concern to commenters. Commenters stated that the Proposed Action would exacerbate issues that exist today. For this Final EIS, SEA has conducted additional analysis regarding school bus safety and the potential threats to the safety of children as they walk to and from school. The full comment summaries and SEA responses, titled "School Bus Safety" and "Safety of School Children," are presented in Section 3.4.5.4 of this Final EIS.

3.2.4 Mitigation

Many of the concerns regarding mitigation focused on which highway/rail at-grade crossings SEA would recommend for mitigation. In addition, many commenters expressed interest in how mitigation would be funded; emphasizing in particular that local communities should not shoulder the bulk of the cost of grade separations.

SEA received numerous comments expressing concern about who would be responsible for funding the necessary mitigation required by the Proposed Action, particularly the possible construction of grade-separated crossings and ongoing maintenance of new grade crossing separations, should they be built. Residents of many communities feel that CN should be responsible for financing all mitigation prior to approval of the Proposed Action. The full comment summary and SEA response, titled "General Mitigation Funding," is presented in Section 3.4.18.19 of this Final EIS.

3.2.5 Noise and Vibration

Residents adjacent to the EJ&E rail line raised the issues of the noise from idling trains, noise from nighttime train operations, and protection for noise-sensitive receptors such as homes, schools, and parks. Other commenters questioned SEA's methodology and stated that it was outdated and used incorrect thresholds. Some commenters also expressed concerns about the potential effects that would result from increased vibrations caused by the increased train traffic. The full comment summaries and SEA responses, titled "Increased Noise Levels" and "Increased Vibration" is presented in Sections 3.4.13.2 and 3.4.13.3 of this Final EIS.

3.2.6 Rail Operations

Many commenters expressed concern about the number and length of trains that would be shifted onto the EJ&E rail line without relating that issue to any specific environmental impact. Other commenters questioned the capacity of the EJ&E rail line and wondered if plans for commuter rail could still be fulfilled if the Board approved the Proposed Action. In response to comments, SEA conducted additional analysis of how the Proposed Action would affect Metra's STAR Line, which is presented in Chapter 2 of this Final EIS.

Concerns about the number and length of trains were the most frequently expressed rail operations issues. These concerns were almost always expressed in the context of their effect on already congested roads and highways. For example, "increase in train traffic in the Plainfield area would place a tremendous problem for vehicle traffic on our already congested & undersized roads." The full comment summary and SEA response, titled "Concern about Number, Length, and Weight of Trains," is presented in Section 3.4.4.4 of this Final EIS.

3.3 Comments from Federal Agencies

3.3.1 U.S. Department of the Interior

On September 29, 2008, the U. S. Department of Interior (DOI) submitted its comments on the Draft EIS to SEA. The comment raised many issues of concern specific to the regulatory authority and expertise of the U.S. Fish and Wildlife Service (USFWS). The issues are both broad and narrow in scope. Below, SEA has summarized USFWS's concerns and provided responses, beginning with USFWS's concerns regarding the Proposed Action's potential impact on threatened and endangered species.

In its comment, USFWS disagreed with SEA's conclusion in the Draft EIS that the Proposed Action would have no effect on the Federally listed Eastern prairie fringed orchid, the Hine's emerald dragonfly, and the Karner blue butterfly. USFWS also stated that the Draft EIS did not adequately identify adverse effects that could occur on other USFWS "trust resources" – migratory birds, Blandings and spotted turtles, and the Indiana bat. By not agreeing with SEA's conclusions of no adverse effect, USFWS thus suggested that SEA consider requesting "formal consultation" with USFWS under Section 7 of the Endangered Species Act.

In response to USFWS's concerns, SEA undertook additional analysis of the potential effects of the Proposed Action on threatened and endangered species and their habitat. SEA hired Mr. Ken Mierzwa, a nationally-recognized expert on the Hine's emerald dragonfly. Additionally, SEA (in coordination with USFWS) conducted a number of habitat surveys within the entire Study Area. Further, SEA developed several mitigation measures to recommend to the decisionmaker (the Board), that would minimize potential effects on threatened and endangered species. Finally, the Applicants proposed voluntary mitigation measures that included working with relevant natural resource stakeholder groups to support the creation or enhancement of migratory bird habitat away from the rail line to off-set proximity affects; constructing and maintaining turtle crossings where habitat occurs on both sides of the rail line; investigating participation in the Safe Harbor Agreement for the Karner blue butterfly; designating areas of prime prairie and dune swale habitat for potential land management agreement and/or conservation easement within Kirk Yard; and surveying suitable habitat for the Eastern prairie fringed orchid. If orchids are found, SEA has developed a mitigation measure requiring the Applicants to notify the USFWS and the Board and not conduct any construction activities in the area.

SEA has prepared a Biological Report (Appendix A of this Final EIS) detailing all the work done to evaluate potential effects on species of concern to USFWS since issuance of the Draft EIS. The

Biological Report is set forth in its entirety in Appendix A of this Final EIS. The Biological Report, together with SEA's recommended mitigation and the Applicants' Voluntary Mitigation, has led SEA to conclude that, based on the new information available, the Proposed Action may affect, but is not likely to adversely affect, species of concern to USFWS. SEA has submitted the Biological Report to USFWS for its review and concurrence.

3.3.1.1 General Comments

Affect Determination for Federally Listed Species

USFWS is concerned with findings in the Draft EIS for the Hine's emerald dragonfly and Eastern prairie fringed orchid. USFWS also pointed out that the Draft EIS does not include a discussion or affects determination for the Indiana bat.

Response

In response to USFWS's concerns, SEA gathered additional data and conducted additional field visits. This information is included in a Biological Report (Appendix A of this Final EIS). The purpose of the Biological Report is to review the Proposed Action and determine to what extent the Proposed Action and its related constructions may affect Federally threatened, endangered, candidate, or proposed species and designated or proposed critical habitats.

Five species (Indiana bat, Hine's emerald dragonfly, Karner blue butterfly, Eastern prairie fringed orchid, and leafy prairie clover) were evaluated because preliminary information indicated that they do occur or might occur in or near the areas of proposed activity (called the "Action Area" in the Biological Report). An additional four plant species (Mead's milkweed, Prairie bush clover, Lakeside daisy and Pitcher's thistle) were eliminated from further consideration because they do not presently occur in proximity to the Action Area, or because they occur only in areas where no construction or operational effects are reasonably anticipated.

After a detailed review of the best scientific and commercial information available and habitat-level field surveys, determinations of "may affect but not likely to adversely affect" were made for all five species. For the Eastern prairie fringed orchid, the Applicants have agreed to conduct pre-construction surveys, and SEA will re-initiate consultation if the species is found within an area of proposed activity. For the Hine's emerald dragonfly, the Applicants have submitted voluntary mitigation requiring that they cooperate with Midwest Generation on coal deliveries to negate the need for Midwest to expand its Romeoville siding into Hine's emerald dragonfly habitat.

Clarification and Corrections Needed

The USFWS provided a number of comments regarding parts of the Draft EIS where they felt there was insufficient detail and analysis, inconsistencies, or further clarification needed.

Response

SEA provided responses to these comments through revisions in Chapter 2 of this Final EIS. Changes include addition of species names to tables; resolution of inconsistencies in impact summary statements for wildlife, state-listed species, and wetlands; clarification of information relating to forest preserves and conservation areas; and the addition of Study Area features to map figures. SEA also conducted additional coordination with USFWS to resolve issues regarding assessment of affected species.

Assessment of Impacts

USFWS was concerned that the Draft EIS does not adequately identify adverse effects on USFWS trust resources (Federally listed and migratory birds) and did not fully disclose effects on other wildlife.

Response

Chapter 2 of this Final EIS and the Biological Report in Appendix A discloses effects on migratory birds and other wildlife and outlines how the Applicants would work with the natural resource stakeholders to identify habitat improvements away from the EJ&E ROW to offset potential effects on wildlife-inhabiting areas in proximity to the ROW. As a result of further coordination with USFWS, SEA has determined that no Federally listed species would be adversely affected by the Proposed Action and constructions (see the Biological Report included in Appendix A of this Final EIS).

3.3.1.2 Proposed Action and Alternatives

Tracks Not Mentioned

The Draft EIS does not mention the Hammond Branch, City Track, or other tracks listed on Table 3.3-2 of Appendix E in the Draft EIS. The discussions about Hammond, East Chicago, and Whiting need to make clear that the rail line being addressed is not the main EJ&E rail line extending south and west from Kirk Yard into Illinois, which is the rail line that would experience the increase in numbers and sizes of trains.

Response

There would be no changes in operation on the Joliet Subdivision, Hammond Branch, City Track, Whiting Branch, Illinois River Line, Paul Ales Branch, Downtown Track, or Phoenix Lead Branch lines. Section 3.3.1.1 in the Draft EIS shows a summary of the EJ&E rail line crossing table. Subsequent discussion following Table 3.3-2 shows that the delay analysis focused on only the Western and Eastern subdivisions that meet the environmental threshold set by SEA in the Transportation Methodology section of the Draft EIS. Branches that do not meet the environmental threshold, which include the Whiting and Hammond branches, were not included in the analysis.

Proposed Munger Alternative Connection

USFWS supports the No-Build Alternative at Munger. If a build alternative is chosen, USFWS supports the Applicants' Proposed Munger Connection because changes were made to the Original Munger Connection alternative to avoid Pratt's Wayne Woods Forest Preserve. The Munger Alternative-UP Connection would also avoid wetland impacts at Pratt's Wayne Woods Forest Preserve; however, other offsite environmental effects (effects on the southern end of the forest preserver and Brewster Creek Fen Nature Preserve) would result from this alternative.

Response

The Board has concluded that the Applicants have shown that they do not need Board authorization under 49 USC 10901 to construct the six connections they have described in this proceeding. See Decision No. 9, April 21, 2008. The Applicants preferred alternative is the Proposed Munger Connection which SEA has concluded is the environmentally preferred alternative. As discussed in Section 2.4.1 of the Draft EIS, the Proposed Munger Connection would avoid the need to acquire property from the Pratt's Wayne Woods Forest Preserve.

SEA considers the Munger Alternative-UP Connection to be more environmentally damaging and is not recommending this alternative.

Proposed Joliet Connection

USFWS supports the No-Build Alternative at Joliet to avoid direct effects on the Hine's emerald dragonfly which occupies habitat in the vicinity of this alternative.

Response

SEA conducted additional analyses of the Proposed Joliet Connector and, as discussed in the Biological Report in Appendix A of this Final EIS, concluded that there is no Hine's emerald dragonfly habitat in this connection.

3.3.1.3 Wildlife Resources and Plant Communities

Blanding's and Spotted Turtles

USFWS agrees with the assessment on the Blanding's and spotted turtles, however they do not agree with SEA's conclusion that only minor effects are expected because habitat structure would not change and both species currently occur in the railroad environment.

Response

Large marsh and wetland complexes, important to Blanding's and spotted turtles, occur in numerous conservation and natural areas within the Study Area. Tables 4.11-3, 4.11-5, and 4.11-7 within the Draft EIS list the potential effects on these state-listed wetland reptiles within the Study Area and proposed construction areas.

SEA recognizes that these wetland reptile species have a tendency to move to find new habitat and breeding sites, and each species could experience increased mortality due to increased rail traffic. The potential increase in the probability of train/animal interactions will be dependent on the species, the population size and movements, habitat use, and train speeds. For species such as turtles, there may be a mortality rate increase proportionate to the increase in traffic. The increased traffic is primarily projected on the arc (that is, EJ&E rail line) and reductions in traffic are projected for tracks (that is, CN rail lines) within the arc.

Chapter 4 of this Final EIS includes a condition designed to mitigate effects on Blanding's and spotted turtles. CN has volunteered to work with natural resource stakeholders to identify locations to install turtle crossings where wetland habitat occurs on both sides of the rail line. Additional mitigation conditions have been developed in Chapter 4 that include best management practices and the development of a liaison that would allow Federal, state, and local natural resource stakeholders to interact with CN to complete various adaptive management measures and monitoring. Once monitoring is completed, the liaison and natural resource stakeholders can develop and implement appropriate site-specific mitigation measures.

Require Habitat Assessments

The Final EIS should note that habitat assessments be conducted to determine if suitable habitat is present for the Eastern prairie fringed orchid and to help determine mitigation ratios for proposed wetland impacts.

Response

Since the Draft EIS, field investigations for suitable Eastern prairie fringed orchid habitat were conducted by SEA in October and November 2008 in coordination with USFWS. It was determined that the Proposed Action may affect, but is not likely to adversely affect the Eastern prairie fringed orchid within the proposed construction areas. No construction would occur in areas where suitable habitat occurs until species-specific protocol surveys are conducted. If the species is found, SEA will re-initiate Section 7 consultation with USFWS and mitigate effects. Further detail can be found in the Biological Report within Appendix A.

SEA has also included mitigation conditions in Chapter 4 for direct effects on wetlands by replacing wetlands at a ratio of 1.5:1 to 3:1. Mitigating at a ratio of greater than 1:1 offsets the risk that compensatory mitigation will fail (either completely or partially) and the temporal loss of functions that may occur. Proposed mitigation will be either restoration of on-site wetlands, construction of new wetlands on site/off site, and/or purchasing wetland banking credits. The combination of larger mitigation ratios applied to restoration, creation, and/or banking will result in maintaining long-term productivity of wetlands and wetland functions that would be lost as a result of the Proposed Action.

Heron Rookery in Lake County, Indiana

The USFWS was concerned that rookery species of birds could be adversely affected by any activity that adversely affects the Grand Calumet and Little Calumet rivers, because herons and egrets regularly feed along these rivers, including near EJ&E rail line bridges.

Response

This rookery was not evaluated because it is located outside of the biological study area as described in the Biological Resources section of the Draft EIS. Wildlife, including migratory bird populations that forage within the Study Area, could experience increased pollution, noise, and vibration associated with the Proposed Action. These populations are already exposed to noise and vibration (see Table 3.10-2 in Chapter 3 of the Draft EIS) and air emissions (see Section 3.9 of the Draft EIS) from existing train traffic. The heron foraging areas along the river in the vicinity of the railroad river bridge, west of Cline Avenue, may experience behavioral effects, physiological effects, and masking of communication signals because of the additional noise during train pass-bys.

Mitigation measures have been developed in Chapter 4 that include best management practices and development of a liaison that would allow Federal, state, and local natural resource stakeholders to interact with CN to complete various adaptive management measures and monitoring. Once monitoring is completed, the CN liaison and natural resource agencies can develop and implement appropriate site-specific measures to mitigate potential impacts.

Disagree with Noise Effects on Wildlife Conclusions

USFWS expressed concern with conclusions that noise effects on wildlife, particularly migratory birds, would increase but effects are expected to remain slight. The USFWS was concerned that SEA's analysis only considered noise impacts on humans and did not fully consider the effects of noise on wildlife.

Response

Adverse effects on breeding bird densities can occur at lower noise levels than noted in the Draft EIS. SEA acknowledges that bird populations and migratory species within the Study Area (500 feet of the EJ&E rail line) may experience auditory, behavioral, and/or physiological effects and/or masking of communication signals because of the additional noise during train pass-bys.

SEA notes, however, that use of the Ldn descriptor in the noise analysis is somewhat misleading in the context of wildlife response to noise. The Ldn descriptor incorporates 24 consecutive hourly equivalent (average) noise levels, and then adds 10 decibels to each average noise level for hours between 10:00 p.m. and 7:00 a.m. This penalty is applied because people are generally more annoyed by nighttime noise than daytime noise. This nighttime penalty has not been demonstrated to be equally meaningful in the context of wildlife response to intermittent noise events like train noise.

Wildlife species live in patches of natural habitat along EJ&E rail line segments that could experience increased noise. The predicted increase in train noise due to the Proposed Action does not equate to elevated noise levels at all times throughout a 24-hour period. Rather, noise levels in the Study Area rise and fall with each train noise pass-by event and the Proposed Action simply increases the number of train pass-by events each day. In the absence of a train, noise levels in the Study Area return to existing levels. A pass-by lasts for approximately 2.5 minutes; assuming 40 trains per day, this equates to approximately 1 hour and 40 minutes of train noise per 24-hour period. The noise level associated with each train pass-by event would not increase under the Proposed Action. Monitoring data collected by SEA shows that CN trains are quieter than other trains that operate in the Study Area. Therefore, while the frequency of train pass-by events would increase, the overall loudness associated with each pass-by event may not.

SEA agrees that there are adverse effects on breeding bird densities at lower noise levels than noted in the Draft EIS, but these migratory bird populations already are exposed to noise levels from train traffic (See Table 3.10-2 in Chapter 3). Freight trains began operating on the EJ&E rail line more than 100 years ago, giving wildlife within the Study Area ample time to acclimate to train noise. Monitoring at 500 feet from the EJ&E rail line found existing noise levels range from 51 to 63 dBA. The presence of wildlife close to the rail line indicates wildlife may have become accustomed to noise or adjusted to repeated noises resulting from human activity (Dooling and Popper 2007). The projected average noise increase from additional trains at 500 feet from the EJ&E rail line is 5 to 6 dBA Ldn (average 24-hour noise level, see Section 4.10 for a detailed explanation).

Bird populations and migratory species within the Study Area (500 feet from the EJ&E rail line) may experience auditory, behavioral, and/or physiological effects and/or masking of communication signals because of the additional noise during train pass-bys. Beyond 500 feet from the ROW, minimal effects would likely be expected. The exact effects on wildlife, including bird populations and other migratory species, within the Study Area have not been quantified, as much of the information collected is limited to qualitative data. Effects on wildlife from noise likely vary between species, location, and season. Wildlife species in populated areas may be more acclimated than those in remote ones (Huff and Huff 2003a; 200b).

The 1,500 meter noise threshold mentioned in the USFWS comment was derived from a study on a roadway with heavy traffic. The noise patterns generated on a railway are very different from those generated on a busy highway. Slabbekoorn and Ripmeester (2008) discussed effects on bird species in urban environments but the EJ&E rail line passes through many forest preserves and non-urbanized areas that are not subjected to increased levels or roadway traffic.

Waterman et al. (2004) observed the threshold noise levels from which bird densities (which included meadow birds) were effected ranged from 42 to 49 dBA for species studied. These authors also stated that the mechanism through which birds might be affected by trains is not known and could be a combination of sound, vision, and other factors. A correlation between noise and number of bird territories was shown for three species but the other eight studied did not show a significant effect of the presence of the railway and the noise load generated (Waterman et al. 2004). They stated that the presence of a railway will result in loss of bird habitat, but this may be compensated by other measures.

Board precedent for mitigating noise from freight trains differs from that used by some other Federal agencies. Some Federal agencies identify a noise level over 65 dBA as the point at which noise mitigation measures should be considered. Precedent on prior Board decisions (Conrail and DM&E) established an Ldn of 70 dBA as the point at which options for reducing noise levels would be identified.

To mitigate increased train noise levels experienced by species in habitats immediately adjacent to the EJ&E rail line, SEA proposes to enhance CN's voluntary environmental liaison mitigation to include working with natural resource stakeholder groups to identify and improve habitat away from the EJ&E rail line to offset increased train noise levels impacts.

Beneficial Effects on Wildlife

USFWS indicated that the Final EIS should discuss the potential benefits of the Proposed Action on wildlife, as a result of reduced train activity inside the EJ&E arc.

Response

SEA's methodology for the biological resources analysis in the Draft EIS focused on the areas where Proposed Action effects were presumed to be detrimental. The methodology presumed that areas with a reduction in train traffic would likely experience positive effects due to a decrease in rail operations. Section 4.11 of the Draft EIS does not state that these potential positive effects inside the EJ&E arc offset negative impacts along the rail line. Segments where rail traffic is proposed to increase traverse more and generally higher quality habitat areas than segments where rail traffic is likely to decrease or remain the same.

Forest preserves, Illinois Natural Areas Inventory (INAI) sites, state nature preserves, and National Park Service lands occur in areas inside the EJ&E rail line, including biological resources at Lockport Prairie, Wampum Lake, Thatcher Woods Prairie, Hoosier Prairie, and portions of Pratt's Wayne Woods where CN train traffic is likely to decrease. Fewer high quality biological resources occur inside the arc than along the arc. The decrease in CN trains near these areas is likely to result in fewer collisions and decreased noise effects.

Collisions Between Trains and Animals

The Draft EIS noted that animals living in and passing along the EJ&E arc may be at higher risk of being struck by trains due to increased traffic, but went on to state that these animals have adapted to the existing train traffic, and there would not be an effect on animal populations. For both conclusions, the Final EIS should use analyses to support these claims, factoring in the increased number and higher frequency of trains traveling along the EJ&E arc.

Response

Some wildlife populations may have declined near the existing alignment due to collisions, habitat fragmentation and loss, disturbance, and other factors and some species may have been displaced by other more tolerant species or moved out of the area due to disturbance. In general, there is limited data to determine if increased train traffic results in a proportionate increase in collisions. The potential increase in the probability of train/animal collisions will be dependent on the species, the population size and movements and habitat use in the vicinity of the EJ&E ROW and will also be dependent on time of day and train speed. While train/animal collisions are not uncommon under existing conditions, species of birds and mammals, as well as amphibians, reptiles, and invertebrates (including butterflies, dragonflies, beetles, and other slower and less responsive species) may experience an increase in mortality under the Proposed Action. Some species such as deer and

predator/scavengers may be better able to avoid increased train traffic. Other species, such as turtles and snakes, may experience a proportional increase in mortality based on the increase in traffic as these species may bask or nest on the railroad ROW or become trapped between rails. Birds and mammals, as well as amphibians, reptiles, and invertebrates (including butterflies, dragonflies, beetles, and other slower and less responsive species) would probably also have an increase in mortality proportionate to the increase in traffic.

Mitigation measures and conditions in Chapter 4 include best management practices and development of a liaison that would allow Federal, state, and local natural resource stakeholders to interact with CN to complete various adaptive management measures and monitoring. Once monitoring is completed, the liaison and natural resource stakeholders can develop and implement appropriate site-specific measures to mitigate potential effects.

Wildlife at the Munger and Matteson Connections

USFWS expressed concerns with SEA's conclusion that the Munger and Matteson connections would not affect wildlife. The presence of state-listed species in these areas does not support the conclusion that the affected habitat is generally minor.

Response

Section 3.11 and Section 4.11 of the Draft EIS indicate that several endangered and threatened species occur in the area of the proposed Munger Connection (information provided by the DuPage County Forest Preserve) and limited data was available on endangered and threatened species presence at the proposed Matteson Connection (SEA requested information from Cook County Forest Preserve but it was not received). Since these areas may provide habitats for several listed species, the Applicants have committed to survey areas of suitable habitats potentially affected by project related construction for Federally and state-listed threatened and endangered species prior to construction.

Lake Renwick Heron Rookery Nature Preserve

USFWS expressed concern regarding potential effects on the Lake Renwick Heron Rookery Nature Preserve (LRHR) from train collisions and train noise.

Response

The LRHR nesting sites are located on narrow, linear gravel bar island complexes known as the "A" and "B" islands (DeMauro 1993). The A islands are located slightly closer to the EJ&E rail line than IL 30 along the eastern boundary of Preserve; however, the B islands are approximately three times closer to IL 30 than the EJ&E rail line. The roadway represents a significant source of continuous noise from numerous vehicles including motorcycles, buses, trucks, and cars. These sources of noise pose a greater risk of disturbance to the rookery than intermittent and single source noise generated by the railroad.

The LRHR is already exposed to noise levels from train traffic (See Table 3.10-2 in Chapter 3 of Draft EIS). Monitoring at 500 feet from the EJ&E rail line found existing noise levels range from 51 to 63 dBA, indicating wildlife may have become accustomed to noise and/or adjusted to repeated noise resulting from human activity (Dooling and Popper 2007). The projected average noise increase from additional trains at 500 feet from the EJ&E rail line is 5 to 6 dBA Ldn (average 24-hour noise level, see Section 4.10 of the Draft EIS for a detailed explanation).

The LRHR has been studied in detail by Marcella M. DeMauro. While the main focus of her 1993 study was not related to trains, her observations of rookery species and their response to passing trains

was documented. Birds exhibited various responses to passing trains, and 75 percent of the passing trains (N=4) did not evoke a response. One passing train caused flushing of the rookery; however, observations indicated the birds returned to their nest sites after an unspecified time interval. Based on the findings of this study, and continued success of the rookery, it is likely rookery species using the LRHR have become habituated to human activities surrounding the nesting islands, including passing trains.

The exact effects on wildlife, including bird populations and other migratory species, from the Proposed Action are unknown. It should be noted that potential effects on wildlife from noise likely vary between species, location, and season. Wildlife species in populated areas may be more acclimated than those in remote areas (Huff and Huff 2003a; 2003b).

Mitigation measures have been developed in Chapter 4 that include best management practices and appointment of a liaison that would allow Federal, state, and local natural resource stakeholders to interact with CN to complete various adaptive management measures and monitoring. Once monitoring is completed, the Applicants' liaison and natural resource stakeholders can develop and implement appropriate site-specific measures to mitigate potential effects.

Sauk Trail Woods and Indian Woods Forest Preserve

USFWS expressed concern with SEA's determination that minimal effects would occur at Sauk Trail Woods and Indian Woods forest preserves because this area is not being managed for wildlife or habitat.

Response

The Draft EIS states that Sauk Trail Woods and Indian Woods forest preserves are not currently managed for wildlife or habitat. The statement in the Draft EIS is inaccurate and has been corrected in Table M.3.2-1 in Appendix A of this Final EIS.

Change Conclusions for Natural Areas with No Impact Fragmentation

USFWS expressed concern with SEA's inclusion of natural areas that provide habitat for migratory birds and which are in proximity to the EJ&E arc.

Response

The proposed East Siding to Walker double track may affect Night Heron Marsh, and thus that preserve has been removed from Table M.3.2-1 in Appendix M of the Draft EIS and added back into Chapter 2 of this Final EIS.

SEA re-analyzed the other conservation and natural areas in Table M.3.2-1 in Appendix M of the Draft EIS and it stands by the initial assessment. Many of these conservation and natural areas have existing infrastructure, such as roads, and development that separate them from the EJ&E ROW.

Griffith Connection

Construction of the Griffith Connection would affect current land use which is undeveloped open space. USFWS was concerned that wildlife utilizing this natural habitat would be adversely affected through habitat loss. USFWS agrees that a botanical survey is necessary at the Griffith Connection site prior to construction. Such a survey is also needed at the Ivanhoe Connection site because of the remnant prairie along the south side of the CSX rail line.

Response

The Draft EIS states that there are effects on natural communities at Griffith on page 4.11-16 and that as a result of the Proposed Action, adverse effects, specifically loss of habitat and greater fragmentation would occur.

Wetland analysis for the Draft EIS was based on remote data provided by USFWS National Wetland Inventory maps and Lake County, Indiana NWI and Advance Identification maps. To map wetlands consistently across the Study Area, SEA relied on these sources. SEA recognizes that under Voluntary Mitigation (see Chapter 4 of this Final EIS), the Applicants would conduct wetland delineations, including wetland functions and floristic quality assessments. The levels of mitigation for wetland impacts will be based on these detailed assessments. Habitat and botanical surveys and wetland delineations will be conducted prior to construction.

Assessment of Wetland Impacts Due to Rail Operations

The assessment that wetlands would not be affected by rail operations "as no change in drainage patterns would occur" is incorrect.

Response

Changes in rail operations are still anticipated to have no effect on wetlands. The EJ&E rail line represents an existing condition that has been in place for more than a century. While trains are expected to be longer, the individual weight of freight and rail cars would be similar to the existing condition. Additional soil compaction based on changes in operation is not expected to substantially change. No wetlands will be filled as a result of changes in rail operations.

Wetland and Wetland Function Conclusions

USFWS expressed concerns over conclusions in the Draft EIS that long-term productivity of wetlands would not be affected because the wetlands and wetland functions would be restored or replaced via mitigation.

Response

During the design process for the selected alternative, effects on wetlands would be avoided and minimized to the extent practicable. Best management practices, developed in accordance with regulatory and permit requirements, would be utilized during construction to minimize or avoid effects on wetlands. The Applicants would compensate for unavoidable wetland effects in accordance with USACE, state, and county regulations as applicable. The amount of wetlands created under mitigation would generally be greater than the affected area because USACE permitting generally requires a wetland mitigation replacement ratio of 1.5:1 to 3:1 (replacement to impact ratio). Mitigation can take the form of restoring on-site wetlands, constructing new wetlands on site/off site, and/or purchasing wetland banking credits.

Permit Requirements

The Draft EIS confuses the Indiana Department of Environmental Management's (IDEM) Section 401 authority with the Federal Consistency Review requirements of the Indiana Department of Natural Resources (INDNR). USFWS recommends that the delineations and habitat assessments (for example, floristic quality assessments) be conducted during the growing season for greatest accuracy and reliability.

Response

Comment noted. SEA understood that the Federal Consistency Review is a requirement of INDNR's Lake Michigan Coastal Program.

The Applicants may apply for the Nationwide Permits or individual permits. If U. S. Army Corps of Engineers (USACE) determines that either threshold limits for environmental effects have been exceeded, or environmental consequences warrant it, then an individual permit will be mandatory as part of the Section 404 process. The Applicants would be required to perform on-site wetland delineations and obtain all required Federal, state, county and local permits for all direct wetland impacts if the Proposed Action is approved. In those areas where isolated wetland impacts are regulated, the Applicants will be required to follow all local guidance for delineation, including functions and values assessments, and will be required to provide mitigation according to local rules, including buffers and habitat replacement at rates specified by ordinance. USACE defers to and recognizes Lake and DuPage Counties in Illinois and IDEM as the local agencies that administer wetland impacts and mitigation in those areas. To satisfy the requirements of Lake County and DuPage County in Illinois and Lake County, Indiana, the Applicant will be required to perform floristic quality assessments (FQA) of all wetlands.

Little Calumet River Wetlands

The wetland section does not include publicly- owned wetlands along the Little Calumet River in Lake County, Indiana.

Response

Because there are no proposed construction activities adjacent to the Little Calumet River, these wetlands would not be affected by the Proposed Action and are, therefore, not addressed in the Draft EIS.

Hazardous Material Spill Risk

USFWS expressed concern with the conclusion that the risk of hazardous materials spills would increase, but the probability is still remote.

Response

In the Draft EIS (Section 4.2.5), SEA assessed the overall potential risk associated with the change in the transportation of hazardous materials. Appendix C in the Draft EIS presented a detailed description of the method and equations used by SEA, the underlying assumptions, and information about the hazardous materials that would likely be transported by the Applicants. SEA noted that most hazardous materials are transported in tank cars and that the U.S. Department of Transportation has special rules for tank cars and the shipment of hazardous materials by rail. SEA evaluated the frequency of release (an unwanted discharge of hazardous materials into the environment) based on information provided by the Applicants and verified by SEA, safety statistics compiled by the Federal Railroad Administration (FRA), and historical data on hazardous material releases resulting from derailments, collisions, and other accidents.

SEA's analysis resulted in a measure of the likelihood or chance of a release. The potential for a hazardous material release involves both the likelihood of a hazardous material rail car or cars being derailed and the likelihood of one or more rail cars releasing in the event of a derailment. Not all rail line accidents result in hazardous material releases.

On the basis of its analysis, SEA concluded that rail transportation of hazardous materials is safe, hazardous material releases have historically been, and should continue to be, extremely rare because of existing regulatory requirements and best management practices that prevent circumstances that might otherwise result in a release. In addition, in the unlikely event of a discharge, existing regulations, training, and procedures typically lead to prompt response by the appropriate authorities. While the Proposed Action would not result in an increase in the amount of hazardous materials transported in the Chicago metropolitan area, there would be a potential increase in the likelihood of a hazardous material release under the Proposed Action because of an increase in train miles traveled and more carloads of hazardous materials on the EJ&E rail line. There would be a substantial reduction in the risk of a release on CN rail lines as a result of the Proposed Action. CN rail lines tend to be in more densely-populated areas than the areas along the EJ&E rail line, where hazardous materials transportation would increase.

Plant communities, wildlife, and natural areas along the EJ&E rail line would experience a higher probability of exposure to hazardous material spills when compared to current conditions (Draft EIS, Section 4.11). Similarly, increases in freight traffic along the EJ&E rail line would produce a corresponding increase in the risk of hazardous material spills, which could affect groundwater or surface water supply sources (Draft EIS, Section 4.12). SEA identified the potentially affected lakes and preserves within 1,000 feet of the EJ&E rail line and the areas of higher potential effect on domestic wells from hazardous material spills (Draft EIS, Tables 4.12-1 and 4.12-2). SEA determined that attempting to predict the specific location of a release, its type, and its dispersion or collection would be too speculative.

Hazardous Materials and Wildlife

USFWS expressed concerns with SEA's conclusion that the possibility of hazardous materials releases is remote. The Final EIS should provide data that shows the potential frequency of spills with the proposed number of carloads transporting hazardous materials per day (anticipated at up to 500 carloads per day). The Final EIS should also provide data that compares the frequency of spills (with the proposed number of carloads) with other rail lines transporting comparable numbers of cars per day over similar distances.

Response

CN provided to SEA detailed information about the hazardous material currently transported on both CN and EJ&E rail line segments as well as what would likely be carried on the CN and EJ&E rail lines if the Proposed Action is approved. SEA used the measure "carload-miles per day" (a carload mile is one car carried one mile) to measure the magnitude of the change in volume of hazardous commodity groups transported. In general, the commodity groups that will be carried on the rail line segments if the Proposed Action is approved are the same commodity groups that are currently carried as shown in Table 3.3-1, below. SEA believes that since the same commodity groups will be carried, and the number of releases is currently very small, no additional hazard is posed by the Proposed Action. Emergency response providers will face the same incident-specific issues that they currently do.

Table 3.3-1 Hazardous Materials Movement (in carload-miles per day)

AAR Description	EJ&E Rail Line		CN Rail Lines		Example
	Existing	Proposed Action	Existing	Proposed Action	
Combustible Liquid	7.1	449.1	249.60	117.90	petroleum naphtha, creosote

Corrosive Material	240.1	5,214.6	3,140.20	426.40	batteries, acids
Dangerous When Wet		21.6	12.50	0.14	aluminum alkyls, magnesium metal
Explosives		1.1	0.55	0.05	blasting explosives, fireworks
Flammable Gases	91.5	4,173.0	2,159.70	33.20	liquefied petroleum gas, butane, propylene, acetylene
Flammable Liquid	105.6	9,134.5	4,947.90	1,235.60	gasoline, fuel oil, ethanol, toluene, xylene
Flammable Solid	0.9	3,305.4	879.00	71.80	sulfur, phosphorus (amorphous), matches
Hazardous Waste	17.0	187.0	69.40	5.00	
Miscellaneous Hazmat	69.7	5,582.8	2,363.20	769.60	asbestos, asphalt, coal tar, petroleum oils
Nonflammable Gases	13.0	1,354.9	745.90	22.80	carbon dioxide, anhydrous ammonia, refrigerants
Oxidizers	28.0	1,588.1	546.50	34.30	ammonium nitrate fertilizer, hydrogen peroxide
Poisonous Gases	52.2	796.0	436.60	57.30	chlorine, sulfur dioxide
Poisonous Materials	22.3	678.7	342.10	26.40	carbon tetrachloride, organophosphorus pesticides
Radioactive			0.17	0.17	radioactive materials, surface contaminated objects
Spontaneous Combustible	0.05	9.7	6.30	0.08	white phosphorus
TOTAL	**647.4**	**32,496.6**	**15,899.60**	**2,800.70**	

As discussed in Section 4.2.5 of the Draft EIS, an important part of SEA's analysis involved a study of hazardous materials transportation safety. To assess the overall potential risk associated with the change in the transportation of hazardous materials, SEA considered the current risk on the rail line segments; in EJ&E's Joliet and Kirk yards; and in CN's Markham, Glenn, and Hawthorne yards, as well as the potential changes in risk that the implementation of the Proposed Action might cause. SEA also considered emergency response capabilities in the Study Area.

USDOT regulations require that railroads submit a report each time a release occurs. SEA used this USDOT information to develop its analysis of the effects the Proposed Action may have on the transport of potentially hazardous materials. SEA also summarized the material presented in Attachment C5 to Appendix C of the Draft EIS. That data is from the Pipeline Hazardous Material Safety Administration (PHMSA) data from the Hazardous Material Incident Reporting System (HMIRS). The summary is shown in Table 3.3-2.

Table 3.3-2 Hazardous Material Incident Reporting System Summary

AAR Commodity Group Description	Number of Incidents	Percent of Incidents	Typical Common Name
Flammable Combustible Liquid	57	62%	ethanol, methanol, toluene, xylene, styrene
Corrosive Material	14	15%	sulfuric acid, hydrochloric acid
Nonflammable Compressed Gas	7	8%	carbon dioxide, anhydrous ammonia
Miscellaneous Hazardous Material	4	4%	asphalt, crude oil

Table 3.3-2 Hazardous Material Incident Reporting System Summary			
AAR Commodity Group Description	Number of Incidents	Percent of Incidents	Typical Common Name
Flammable Compressed Gas	3	3%	liquefied petroleum gas (LPG), butane
Combustible Liquid	3	3%	petroleum oils
Oxidizer	2	2%	sodium chlorate, ammonium nitrate
Flammable Solid	1	1%	sulfur
Dangerous When Wet Material	1	1%	inorganic self-heating solids
Poisonous Gases	0	0%	chlorine, sulfur dioxide
	92		

Using the methodologies detailed in Appendix C to the Draft EIS, SEA calculated the likelihood of a release of hazardous materials as a result of a potential derailment or collision, or other accidents that may lead to derailments, along a rail line.

SEA evaluated the extent of increases in the transport of hazardous materials on EJ&E rail line segments that would result from the Proposed Action and whether such increases might rise to a level severe enough to warrant imposing mitigation measures to improve safety and protect human health.

SEA evaluated the predicted frequency of hazardous materials releases on rail line segments based on the frequency of derailments, collisions, and other accidents. The overall predicted rate (or frequency) of release of hazardous materials on a rail line segment can also be described as the chance that one or more hazardous materials rail cars involved in a derailment would release such materials to the environment. Intervals between anticipated hazardous materials releases under the Proposed Action varied from 71 years to 90,356 years, depending on the rail line segment under consideration.

SEA concluded that hazardous material releases have historically been, and are expected to continue to be, extremely rare. SEA evaluated whether the Proposed Action would increase the likelihood of a hazardous materials release. SEA concluded that there would be a potential increase in the possibility of a release because of increased train miles traveled, and more carloads of hazardous materials on the EJ&E rail line. However, even on the EJ&E rail line, the possibility of a hazardous materials release would remain remote. Moreover, there would be a reduction in the risk of a release on CN rail lines because rail traffic would decrease under the Proposed Action. SEA also noted that CN rail lines tend to be in more densely-populated areas than the areas along the EJ&E rail line. Finally, SEA also noted that under the No-Action Alternative, hazardous materials take more time to move through Chicago metropolitan area on CN rail lines than they would under the Proposed Action, thus continuing to expose people in the vicinity of CN rail lines to risk for a longer period of time.

Proximity Effects at Gaylord Butterfly Tract and Hoosier Prairie Nature Preserve

USFWS expressed concerns with SEA's assertion that the Proposed Action would not affect public lands in Indiana. The Gaylord Butterfly Tract and the Hoosier Prairie 18-acre Kennedy Avenue tract would be affected by proximity effects, such as increased noise, because they are adjacent to the EJ&E rail line. The 18-acre Kennedy Avenue tract could also be affected by any changes to the at-grade crossing at this location. As previously noted, both Clarke and Pine and Hoosier Prairie nature preserves are Section 6(f) Land and Water Conservation Fund properties.

Response

The Draft EIS stated that operational effects due to increased noise and vibration, train/species collisions, increased risk of wildfires and hazardous materials leaks could affect the Gaylord Butterfly Tract. The Hoosier Prairie Nature Preserve boundary provided by Indiana DNR is located 500 feet from the EJ&E rail line on the opposite side of a set of abandoned Michigan Central tracks. Subsequent to the issuance of the Draft EIS, INDNR and USFWS provided information on the recent acquisition of the Kennedy Tract adjacent to the south side of the EJ&E rail line and west of Kennedy Avenue in Griffith, Indiana. This wet prairie site is located within 500 feet of EJ&E rail line segment 5B. No construction activities are proposed in this area, but this segment would experience an increase of 24 trains per day. Potential effects on this additional area are addressed in Chapter 2 of this Final EIS.

The INDNR, Divisions of Outdoor Recreation and Nature Preserves, has confirmed that Hoosier Prairie and Clarke and Pine nature preserves both received funding from the Land and Water Conservation Fund. These two properties have been added to the corresponding table in Chapter 2 of this Final EIS as existing Land and Water Conservation Fund Properties. Since Hoosier Prairie Nature Preserve is adjacent to a segment of the EJ&E rail line where rail traffic would increase by 24 trains a day, SEA considers this public land potentially affected by the Proposed Action. Therefore, Hoosier Prairie Nature Preserve has been added to the appropriate table in Chapter 2 of this Final EIS.

According to the Applicant's Operating Plan, there is no planned increase in trains on this rail line segment of the EJ&E rail line. Therefore, the Lake Front Line was not evaluated in Chapter 4, Environmental Consequences in either the Draft EIS or this Final EIS.

Short- and Long-Term Effects on Birds

The USFWS is concerned about long-term effects on: birds from increased noise; mortality of wildlife from train collisions: and wildlife being trapped for longer periods between rails. The Final EIS should address these issues.

Response

Birds residing in habitat near EJ&E and CN ROW currently experience noise and vibration and that wildlife is affected by both train/animal collisions and being trapped between rails. SEA recognizes that wildlife in the Study Area may experience adverse effects in response to the long-term effects of the Proposed Action, but the effects are anticipated to be slight. However, it is also recognized that the exact effects of the Proposed Action on the habitat of protected species are unknown because most species and habitat information collected to date is only qualitative and the specific locations and alternatives for constructing connections and double track have not yet been selected or designed.

In response to agency comments and comments from stakeholder meetings, mitigation measures have been developed which include best management practices and the establishment of a resource agency liaison with expertise in environmental and natural resource management to facilitate interaction of Federal, state, and local natural resource agencies with the Applicants to complete various adaptive management measures along the EJ&E ROW. Before beginning construction activities, the Applicants would survey all suitable habitats potentially affected by the construction activity for Federally- and state-listed threatened or endangered species. In addition, the Applicants would either conduct, or would supply financial support for, pre- and post-construction monitoring to evaluate and document potential effects by the Proposed Action. Once monitoring is completed, the resource agency liaison and natural resource agencies can develop and implement appropriate site-specific mitigation measures. Chapter 4 of this Final EIS discusses the final environmental mitigation

measures that SEA recommends the Board impose as environmental conditions, should it approve the Proposed Action.

Effects on birds from noise and vibration and effects on wildlife from train/animal collisions and being trapped between rails may decrease in habitat along existing CN rail lines where rail traffic is projected to decrease.

Long-Term Effects from Hazardous Materials

USFWS is concerned about short or long-term effects resulting from hazardous materials releases during construction.

Response

As discussed in Section 7.2 of the Draft EIS, the release of hazardous materials during construction (primarily diesel fuel and lubricants) is unlikely, due to limited amounts of hazardous materials used during construction, regulatory requirements for storage, use, and disposal of the materials, and best management practices. In accordance with a spill response plan, the Applicants or the construction contractor would have personnel and equipment on site in the event of a spill. The Applicants are required by Federal regulation to have trained response staff and contractors to handle spills, containment, and clean-up in lakes, streams, and wetlands. Measures to prevent siltation of water bodies in accordance with NPDES requirements would also limit the movement of hazardous material in the event of a spill during construction. In accordance with regulatory requirements, spills of reportable quantities would be contained and cleaned up promptly, and most other spills would be as well.

As discussed in Section 4.2.5 of the Draft EIS, the probability of a release of hazardous material during rail transportation is rare, and under the Proposed Action it would remain remote. Intervals between anticipated hazardous materials releases under the Proposed Action vary from 71 years to 90,356 years, depending on the rail line segment under consideration. As discussed in Section 4.2.5.7 of the Draft EIS, according to Pipeline and Hazardous Material Safety Administration data, there were no releases of hazardous material to sewers, waterways, or the environment from hazardous materials incidents involving CN or EJ&E trains from 2003 to 2007. As Section 4.2.5.4 of the Draft EIS discussed, due to the increase in the number of carloads of hazardous material projected to be transported over the EJ&E rail line, most of the route would become a key or major key route and most of the hazardous material would be transported by key trains, which are both subject to greater safety requirements.

SEA also considered the potential effects on surface water, groundwater, and biological resources in the Study Area if exposed to a hazardous material. SEA anticipates that a release of hazardous materials into the environment could lead to environmental exposure of relatively short duration because the release would be contained and remediated within a relatively short time, as required by Federal, state, and local requirements. In the event of a hazardous materials release, the Applicants would, in accordance with 40 Code of Federal Regulations (CFR) 263, take immediate action to protect human health and the environment and notify the appropriate Federal and local authorities in accordance with 49 CFR 171.15 and 171.16. The amount and duration of a release would be limited by the volume in the affected rail car(s). As discussed in Sections 3.2.3.3 and 3.2.3.4 of the Draft EIS, the capabilities for response to a hazardous materials incident in and around the Chicago area are extensive. Furthermore, while the amount of hazardous material transported on EJ&E rail lines would increase, the amount of hazardous material transported on existing CN lines in densely populated areas of Chicago would decrease, lowering the overall risk (which accounts for the material carried, time in transit, and miles traveled versus the population exposed) of a hazardous material incident to the Chicago metropolitan area.

3.3.1.4 Federal, State, and Local Conservation Areas and Natural Areas

Indiana Dunes National Lakeshore

The Final EIS needs to clarify why the Indiana Dunes National Lakeshore (INDU) is mentioned.

Response

The INDU is included in Chapter 3 of the Draft EIS because the western extent of the National Lakeshore is located within the 1.0-mile corridor, less than 0.50 mile from the Kirk Yard Dixie Lead. The Draft EIS acknowledges that activities within the yard are likely to increase based on the Applicants' original Application. No adverse effects are expected, so the site was not included in the Chapter 4 discussion of the Draft EIS.

Middlefork Savanna and MacArthur Woods Forest Preserves

Middlefork Savanna Forest Preserve and MacArthur Woods forest preserves should be added to applicable sections in the Final EIS.

Response

No increases in rail operations or construction are proposed on the EJ&E rail line segments adjacent to Middlefork Savanna Forest Preserve and MacArthur Woods Forest Preserve. Therefore, SEA did not include these areas in the Study Area considered for biological resources.

Clark and Pine and Pine Station State Nature Preserves

Clark and Pine and Pine Station State need to be mentioned and discussed in the Final EIS.

Response

These preserves are adjacent to rail segments that have no proposed operational increases or construction. Therefore, SEA did not consider these preserves potentially affected by the Proposed Action.

Noise Impact on Conservation Lands

Some conservation lands will be adversely affected by increases in numbers of trains passing them, resulting in noise and air pollution effects.

Response

The Draft EIS considered the potential negative effects of increased noise duration extending out to 500 feet and concluded the effects on wildlife would be slight (see Section 4.11). The projected increase in air pollutants emitted by rail traffic was not included in Section 4.11; however, the increases in pollutants are provided in Sections 3.9 & 4.9 and are discussed in relation to human health standards and issues in Section 4.9. Additional analysis addresses the effects of projected increases in air pollutants emitted from train traffic (including idling engines at yards and double track areas) on animals, plants, and other natural resources.

Ivanhoe Dune and Swale Nature Preserves

USFWS believes that a grade separation of the EJ&E rail line at 5th Avenue in Gary will likely be needed, resulting in effects on the Ivanhoe Dune and Swale preserves.

Response

SEA analyzed at-grade crossings of the EJ&E rail line and determined in Chapter 4 of the Draft EIS that there were no roadways in Gary, Indiana, that reached any of the thresholds for a roadway crossing to be considered seriously affected. The results of the delay analysis for West 5th Avenue showed that the total delay of 2004 minutes does not meet the threshold of 2400 minutes (40 hours) of delay in a 24-hour period (for an explanation of this threshold, see Chapter 4 of the Draft EIS). In addition, the queue length of 807 feet for the Proposed Action does not block any major thoroughfare. Therefore, SEA determined that mitigation, such as a grade separation is not warranted at this location.

Longer Trains

Longer trains on the Lake Front Line are not discussed in Chapter 4 of the Draft EIS, despite the fact that these longer trains could adversely impact other existing and proposed uses of the Lake Michigan shoreline (for example trails in the Marquette Plan, including a trail).

Response

The Applicants have not proposed any changes in rail traffic along Lake Front Line Segments 1 and 2 of the EJ&E rail line in Hammond and Whiting, but the Draft EIS states that Lake Front Line would increase. Train lengths along this portion of the Lake Front Line are expected to increase from 3,020 feet to 5,240 feet.

SEA acknowledges that there are a number of important bird areas where high concentrations of migratory birds gather in fall and spring along the south shore of Lake Michigan adjacent to the Lake Front Line. Significant stopover sites identified by USFWS located adjacent to the Lake Font Line include Hammond Lakefront Park and Bird Sanctuary (also known as The Migrant Trap), Whihala Beach, and Whiting Park. These sites are all narrow strips of shoreland and wooded habitat located along the lakeward side of the EJ&E rail line. The landward side of the EJ&E rail line, along the entire Lake Front Line, is fully developed with additional railroad corridors, dense residential development, heavy industry, and major state and Federal highway systems.

Longer trains along Segments 1 and 2 could potentially affect wildlife, including changes in noise patterns and increased habitat fragmentation. Since the Applicants have not proposed increasing the number of trains, effects would be limited to longer duration train events which would not increase the overall level of noise only its duration. Since the Lake Front Line lies along a heavily industrialized corridor with numerous other sources of discrete and continuous noise, it is unlikely that the increased duration of less than two events per day would have a noticeable impact on wildlife within the lakeshore habitat areas. Additionally, although the important bird areas located along the lakeshore in Hammond and Whiting are key stopover locations for migrating birds, they are not bisected by the Lake Front Line. Thus longer trains would not represent increased risk of fragmentation to these important bird areas.

3.3.1.5 Cultural Resources

Historical Park Depot and Depot Museum

SEA indicates that there would not be an effect on local parks, but in Chapter 4 of the Draft EIS, it is acknowledged that the Griffith Historical Park and Depot Museum may be affected to some extent because it is immediately adjacent to the proposed connection.

Response

Archeological and historical resource assessment surveys conducted by SEA found no archaeological sites, historic ruins, or historic structures located within the area of potential effect (APE) associated with the proposed Griffith connection. Two buildings associated with the Griffith Historical Park and Depot Museum–the Grand Trunk Depot and the EJ&E Interlocking Tower—are listed on the National Register of Historic Places (NRHP). However, both buildings are located beyond the APE. SEA therefore determined that the Proposed Action would have no effect on NRHP listed or eligible cultural resources. In a letter dated August 27, 2008, the Indiana SHPO concurred with SEA's finding.

3.3.1.6 Transportation Systems

Industrial Highway and Chicago Avenue

The discussion of existing conditions of highway/rail at-grade crossings in Gary, Indiana, does not adequately describe the crossing situation in that community.

Response

In June 2008, GCIA, EJ&E, CSX, and NS executed the Gary/Chicago International Airport Railroad Relocation Preliminary Memorandum of Agreement (PMOU). The PMOU forms the basis for future binding agreements among and between the parties who signed the PMOU. Section 6 of the PMOU describes the parties' understanding of the development plan for the expansion of GCIA. Paragraph 6.1.4 of the PMOU reads as follows:

> 6.1.4 At-Grade Rail Crossing at Industrial Highway
>
> Introducing a new at-grade rail crossing at Industrial Highway would create a safety issue and impede transit options to and from the airport. Plans will incorporate a grade separation at Industrial Highway constructed at no cost to the EJ&E or the CSX, in accordance with AREMA standards and subject to EJ&E and the CSX approval, accommodating double stacked container traffic (23'6" ATR). GCIA shall retain responsibility for all maintenance associated with the crossing. This crossing shall be completed and available for use before the EJ&E relocation is placed in service.

According to Paragraph 6.1.4, there will be no interim at-grade crossing on Industrial Highway.

SEA reviewed the plans for expansion of the GCIA that were approved by FAA in 2005 and the PMOU. The expansion plans do not include any improvements requiring the closure of Industrial Highway. Paragraph 5.4 of the PMOU discusses the possible future extension of the crosswind runway, which could affect Industrial Highway. Although this paragraph states that FAA has studied and approved air space for a crosswind runway, it states that no EIS has been conducted and markets today are not sufficient to support the extension of the runway. GCIA has studied the need for construction of a third runway parallel to its existing primary runway. If such an improvement were undertaken, Industrial Highway could need to be relocated or closed. SEA has not been advised of any action by FAA approving or endorsing the possibility of constructing a third parallel runway. As a result, the airport's expansion plans, which could require the closure or relocation of Industrial Highway, are not reasonably foreseeable and are not assessed by SEA.

As a result, there are no reasonably foreseeable actions that will remove access to Cline Avenue along Industrial Highway.

Closure Plans for Industrial Highway

SEA needs to discuss the ultimate plans of Gary-Chicago International Airport (GCIA) to close Industrial Highway at some unknown time in the future if the north-south runway is to be extended.

Response

SEA reviewed the plans for expansion of the GCIA that were approved by FAA in 2005 and the PMOU that was executed by the airport, EJ&E, CSX, and NS in June 2008. The expansion plans do not include any improvements that would require the closure of Industrial Highway. Paragraph 5.4 of the PMOU discusses the possible future extension of the crosswind runway, which could affect Industrial Highway. Although this paragraph states that FAA has studied and approved air space for a crosswind runway, it states that no EIS has been conducted and markets today are not sufficient to support the extension of the runway. GCIA has studied the need for construction of a third runway parallel to its existing primary runway. If such an improvement were undertaken, Industrial Highway could need to be relocated or closed. SEA has not been advised of any action by FAA approving or endorsing the possibility of constructing a third parallel runway. As a result, GCIA's expansion plans which could require the closure or relocation of Industrial Highway are not reasonably foreseeable and are not assessed by SEA.

3.3.1.7 Land Use

Land Uses at the Proposed Griffith and Ivanhoe Connections

Zoned "land use" does not necessarily describe the current land use at the Proposed Griffith Connection and the Ivanhoe Connection.

Response

The data for Figures 3.5-8 and 3.5-9 was obtained from the U.S. Census TIGER Data, as well as the Indiana Center of Geospatial Data Analysis. This data was last updated in 2001. SEA visited the proposed construction sites in 2008 and, if significant changes in land use were present, then the land use data were updated to represent existing conditions. The proposed connection site at Griffith was vacant; therefore, the GIS data was not altered.

According to the City of Gary's Zoning Department, the proposed Ivanhoe connection is zoned for manufacturing use. The City of Gary is currently revising its Comprehensive Plan; however, the area around the connection will, most likely, continue to remain industrial.

3.3.1.8 Indirect and Cumulative Effects

Indirect Effects on All Biological Resources

The Final EIS should address indirect effects on all biological resources listed in Chapter 4, or provide substantial documentation if the conclusion is that the Proposed Action would not result in indirect effects on biological resources.

Response

"Indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects on… natural systems, including ecosystems" (40 CFR 1508.8(b)).

To identify and analyze possible indirect effects, SEA reviewed the effects of the Proposed Action on the relevant environmental impact categories studied in the Draft EIS, including biological resources,

to determine if those effects could lead to indirect effects. SEA followed CEQ guidance that directs agencies to focus only on the effects and resources within the context of the Proposed Action. SEA concluded that "context," in the case of biological resources, meant those resources within close proximity to the EJ&E rail line, or approximately 500 feet from either side of the rail line.

Potential direct effects on biological resources were discussed in Section 4.11.3 of the Draft EIS. To potentially be affected, SEA determined that such resources would need to be within the EJ&E ROW or adjacent to it. For example, noise from increased train operations could adversely affect the diversity of bird species as well as breeding density near the ROW. Although little research exists on the effects of intermittent railroad noise on nearby wildlife species, animals in the area already live with intermittent noise from trains. Therefore, SEA concluded that additional noise from the Proposed Action could have "minor [direct] effects on wildlife and natural areas adjacent to the EJ&E rail line," that is, within 500 feet of the rail line (see Section 4.11.3 of the Draft EIS).

With regard to temporal effects, any direct effects on biological resources would occur when the Applicants' Operating Plan was implemented, whether over a 3-year period, should the Proposed Action be approved, or more rapidly. However, SEA has no reason to believe that the anticipated "direct effects" on biological resources would evolve into "indirect effects" in the future. The Applicants did not suggest or provide data to support the assumption that more trains than those projected would use the EJ&E rail line in 2015 or thereafter. In addition, SEA's own analysis of CN's Operating Plan indicated that CN's trains would fill most of EJ&E's available capacity leaving little to no room for growth. (See Section 4.1.5 of the Draft EIS) In other words, the potential direct effects would not increase in severity or distance from the ROW after proposed implementation or some time in the foreseeable future. Based on the definition of "indirect effects" and the data available, SEA does not consider indirect effects on biological resources from the Proposed Action to be "reasonably foreseeable."

Site-Specific Cumulative Effects Analysis of the Metra STAR Line

The USFWS is concerned that the Draft EIS did not disclose the cumulative effects on biological resources of the proposed Metra STAR Line and the Proposed Action.

Response

SEA received many comments concerning the potential effects that the Proposed Action could have on Metra's plans for the STAR Line. SEA has analyzed several scenarios related to construction and operation of the STAR Line along the EJ&E rail line as well as potential cumulative effects related to the combination of the Proposed Action and the STAR Line. The results are prescribed in Section 2.3 of this Final EIS. Regarding the suggestion that the Final EIS should contain figures depicting the STAR Line station locations, most of those locations are not final; therefore, figures with the locations are not included this Final EIS.

3.3.1.9 Mitigation

Appropriate Mitigation for Effects on Trust Resources

The Draft EIS failed to consider and describe appropriate mitigation for environmental effects on USFWS's trust resources (Federally listed species and migratory birds) and other wildlife.

Response

SEA has developed mitigation measures which are set forth in Chapter 4. These measures include best management practices and the establishment of a liaison that would work with Federal, state, and local natural resource stakeholders to complete various adaptive management measures and

monitoring. Once monitoring is completed, the liaison and natural resource stakeholders can develop and implement appropriate site-specific mitigation measures.

These adaptive management measures may include, but are not limited to, identifying areas where seasonal construction limits should be imposed to reduce effects on breeding birds and identifying where habitat can be enhanced away from the EJ&E ROW to offset potential effects.

Proposed Mitigation Measures that are Otherwise Required

USFWS believes that a significant number of the Applicants' proposed mitigation measures are best management practices or actions that are required by law.

Response

The Board includes conditions which include otherwise applicable regulatory requirements so that they can be enforced by the Board, as well.

Switching Mitigation Needs Timetable

The voluntary mitigation measure concerning switching to locomotives that emit fewer air pollutants is commendable, but a timetable needs to be established and adhered to.

Response

Moreover, the Board has considered what mitigation is warranted from potential adverse effects arising from the Proposed Action and EPA's regulations governing locomotive emissions per timelines for compliance with the new emission levels. Because air quality effects are minor, the Applicants' voluntary mitigation is deemed adequate without additional requirements.

OSHA Requirements as Mitigation

USFWS questions why adherence to required safety plans, including Occupational Safety and Health Administration (OSHA) requirements, is considered mitigation.

Response

Comment noted. It is SEA's practice to list and recommend regulations that the Applicants must comply with

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Noise and Vibration Inspection Schedule

Several of the SEA proposed mitigation measures use terms such as "regularly inspect" or "communicate regularly" with other entities concerning noise and vibration, without defining "regularly."

Response

The term "regularly" is used to establish a standard of reasonableness. If a dispute arises concerning what is considered reasonable, than the Board would resolve the dispute.

Noise Barriers

USFWS raised concerns about noise effects on natural areas and wildlife and suggested the Applicants should construct noise barriers in all locations where the EJ&E arc crosses through or is adjacent to a natural area that has been identified in the Draft EIS where birds are concentrated.

Response

The Board has considered noise walls and other barriers in prior Board proceedings and found them to often be prohibitively expensive and of marginal utility, given the many "gaps" such barriers would have to have to provide for vehicle crossings.

No Biological Resources Mitigation Measures

The Applicants did not propose any mitigation measures to compensate for unavoidable effects on biological resources.

Response

Mitigation measures have been developed in Chapter 4 that include best management practices; including a liaison that would allow Federal, state, and local natural resource stakeholders to interact with the Applicant to complete various adaptive management measures and monitoring. Once monitoring is completed, the Applicants' liaison and natural resource stakeholders can develop and implement appropriate site-specific mitigation measures.

Paul Ales Branch Hine's Emerald Dragonfly Mitigation

The Applicants should continue to abide by the special conditions of the 1996 COE Permit # 199600211 for train operations on the Paul Ales Branch to minimize further effects on larval Hine's emerald dragonflies.

Response

The Applicants' voluntary mitigation includes a measure that abides by the special conditions of the 1996 COE Permit # 199600211 for train operations on the Paul Ales Branch to minimize further effects on larval Hine's emerald dragonflies.

Wetland Delineation and Eastern Prairie Fringed Orchid Mitigation

The Applicants should conduct wetland delineations and habitat assessments in all construction areas to determine if suitable habitat is present for the Eastern prairie fringed orchid.

Response

SEA met with USFWS on October 23, 2008 to discuss project specific issues related to Federally listed species. Additional field investigations for suitable Eastern prairie fringed orchid habitat were conducted by SEA in October and November 2008 within the proposed connection and double tracking construction areas. The Applicants have committed to additional surveying. Further detail can be found in the Biological Report in Appendix A.

Replace Dune and Swale Mitigation with Preservation of Kirk Yard Prairie

USFWS raised concerns about the proposed mitigation measure concerning development and implementation of a plan for the restoration of dune and swale in the Ivanhoe connector area. The USFWS requests that this proposed mitigation be deleted and replaced with mitigation to require the preservation and enhancement of the EJ&E rail line prairie at the northwest end of Kirk Yard.

Response

The Applicants have proposed voluntary mitigation, which includes designating EJ&E-owned areas of prime prairie and dune swale habitat for potential land management agreement and/or conservation easement. See Chapter 4 (mitigation) in this Final EIS.

Avoid Construction During the Breeding Season

The Applicants should avoid construction at Pratt's Wayne Woods Forest Preserve during the bird breeding season (April-August) to avoid disturbance of breeding birds in the vicinity.

Response

SEA proposes a condition in Chapter 4 of this Final EIS that avoids construction at the proposed Munger connection during the bird breeding season (April – August) to minimize disturbances to breeding birds at Pratt's Wayne Woods Forest Preserve.

Modify Invasive Species Mitigation to Include Animal Species

USFWS agreed with the mitigation measure concerning clearing of all equipment to reduce or prevent the spread of invasive plant species, is necessary and desirable. However, the equipment would also need to be cleaned to remove invasive animal species, many of which are microscopic, such as veligers of invasive mussels that could spread into natural lakes and streams.

Response

SEA's recommended mitigation has been modified in this Final EIS to include removal of invasive animal species at construction sites where they are known to exist.

Offset Habitat Restoration

USFWS recommends that the Applicants consider conducting wetland and habitat restoration at one or more sites more remote from the rail lines to offset any reduced breeding bird productivity.

Response

The Applicants, with resource stakeholders, will enhance migratory bird habitat where migratory bird populations (that is, nesting and breeding areas) are known to occur within the Study Area. Potential mitigation can include, but not be limited to, enhancement of migratory bird habitat away from the EJ&E ROW; see Chapter 4 (Mitigation) in this Final EIS.

Hazardous Materials Containment

The Applicants should construct a hazardous materials containment system at Pratt's Wayne Woods Forest Preserve to capture hazardous materials in the event an accidental spill in this important wetland and bird habitat.

Response

Plant communities, wildlife, and natural areas along the EJ&E rail line would experience a higher probability of exposure to hazardous material spills as compared to current conditions (Draft EIS Section 4.11). Similarly, increases in freight rail traffic along the EJ&E rail line would have a corresponding increase in the risk of hazardous material spills, which could affect groundwater or surface water supply sources (Draft EIS Section 4.12). SEA identified the potentially affected lakes

and preserves within 1,000 feet of the EJ&E rail line and the areas of higher potential effect on domestic wells from hazardous material spills (Draft EIS Tables 4.12-1 and 4.12-2). SEA determined that attempting to predict the specific location of a release, the type of release, and the fate and transport of the release is too speculative.

SEA believes that performing an analysis of an unknown (and unknowable) hazardous material or a combination of such materials in an unknown location under unknown weather conditions is speculative, particularly given the series of rare events that would have to simultaneously occur (a rail accident or derailment, involving one or more rail cars carrying hazardous materials, in which one or more of the tank cars carrying the hazardous materials is breached, and the discharge is in a sensitive area where containment and remediation efforts fail to prevent contamination to a drinking water source thereby threatening human health). SEA also believes that such an analysis is not required by NEPA or applicable NEPA regulations. It is sufficient that SEA analyzed the potential for an increased risk and acknowledged that the risk would increase along the EJ&E rail line and decrease along the CN rail lines under the Proposed Action.

Mitigation Replacement Ratios

The Applicants should conduct wetland delineations and associated habitat assessments to determine the floristic quality of wetlands that would be affected by construction activities. The habitat assessments would be useful in determining the wetland mitigation replacement ratios, which could be higher than the 3:1 ratio noted in Section 6.3.14.7.

Response

The Applicants will be required to perform on-site wetland delineations and obtain all required Federal, state, county and local permits for all direct wetland impacts if the Proposed Action is approved. In those areas where isolated wetland impacts are regulated, the Applicants will be required to follow all local guidance for delineation, including functions and values assessments, and will be required to provide mitigation according to local rules, including buffers and replacement at rates specified by ordinance. The USACE defers to and recognizes Lake, Will, and DuPage Counties in Illinois and IDEM as the local agencies that administer wetland impacts and mitigation in those areas. To satisfy the requirements of Lake, Will, and DuPage counties in Illinois and Lake County, Indiana, the Applicants will be required to perform FQA of all wetlands. The Section 404 permit process and local ordinance procedures would determine if wetland mitigation replacement ratios greater than 3:1 are warranted.

Improve Mitigation Measures to Mitigate Effects on Wildlife

USFWS is concerned about SEA's conclusion that the Proposed Action would not irreversibly or irretrievably affect any particular animal populations.

Response

Protected species residing in habitat near EJ&E and CN rail line ROW currently experience noise and vibration and train/animal collisions, but SEA recognizes that wildlife in the Study Area may experience adverse affects in response to the long-term effects of the Proposed Action. However, it is also recognized that the exact effects of the Proposed Action on the habitat of protected species are unknown because most species and habitat information collected to date is only qualitative.

Protected species would continue to be at risk from potential effects from wildfires and releases of hazardous material transported on trains, but the probability of these events would remain remote, and mitigation measures would be implemented to further reduce the probability of these events, increase

the awareness and readiness of emergency responders, and to limit the effects of an incident should it occur. Chapter 4 of this Final EIS discusses the final environmental mitigation measures that SEA recommends the Board impose as environmental conditions should it approve the Proposed Action. In the event of a hazardous materials release, the Applicants would, in accordance with 40 CFR 263, take immediate action to protect human health and the environment and notify the appropriate Federal and local authorities in accordance with 49 CFR 171.15 and 171.16. The Applicants would work with the appropriate agencies such as USFWS, Illinois Environmental Protection Agency, and IDEM to respond to and remediate hazardous materials releases with the potential to affect wetlands or wildlife habitats, particularly those of Federally threatened or endangered species.

In response to agency comments and comments from stakeholder meetings, mitigation measures have been developed which include best management practices and the establishment of a resource agency liaison that will facilitate interaction between Federal, state, and local natural resource agencies and the Applicants to complete various adaptive management measures along the EJ&E ROW. Before beginning construction activities, the Applicants would survey all suitable habitats potentially affected by the construction activity for Federally- and state-listed threatened or endangered species. In addition, the Applicants would either conduct, or would supply financial support for, pre- and postconstruction monitoring to evaluate and document potential effects by the Proposed Action. Once monitoring is completed, the Applicants' resource agency liaison and natural resource agencies can develop and implement appropriate site-specific mitigation measures.

Effects from noise and vibration, train/animal collisions, wildfires, and potential releases of hazardous materials to protected species may decrease in habitat along existing CN rail lines where rail traffic is projected to decrease.

3.3.1.10 Other

USFWS/Board Coordination

USFWS recommends further coordination with the appropriate field office(s) to discuss anticipated project effects on trust resources and mitigation needed to address the effects.

Response

SEA has conducted additional coordination with representatives from USFWS since this comment letter was received. This coordination has included both the Illinois and Indiana portions of the study area. The results of the coordination are presented in the Biological Report in Appendix A of this Final EIS.

3.3.2 U.S. Department of Transportation

The U.S. Department of Transportation (USDOT) submitted extensive comments on the Draft EIS. Because of its position as a Federal agency, SEA decided to address USDOT's comments as an individual letter and response. USDOT noted that the Proposed Action would have transportation benefits and would "benefit the public by enhancing safety on a net basis even without mitigation measures in place," and noted that the shift in operations contemplated by the Proposed Action would benefit some areas. At the same time, USDOT stated that the Proposed Action would have detriments to other areas and sought assurances that the potential effects of the Proposed Action on EJ&E rail line congestion and its consequences have been properly assessed. Summaries of USDOT's comments and SEA's responses to those comments are below. USDOT's comment letter is provided in its entirety in Appendix E.

3.3.2.1 Mitigation

Unintended Consequences of Mitigation

USDOT stated "We urge the Board to adhere to this perspective as it considers possible mitigation measures for impacts that cannot be resolved by agreement among the parties. Delays in approval and/or the imposition of overwhelming mitigation costs on participating carriers could also provide an unintended and unfortunate incentive to railroads to forego otherwise beneficial transactions or seek alternatives that do not require regulatory approval." In so commenting, the USDOT urged the Board to take a broad perspective on mitigation of the adverse effects of the Proposed Action rather than focusing on individual, localized effects.

Response

In railroad acquisition cases, SEA generally only performs environmental impact analyses for effects from traffic changes that would not occur but for the approval of the Proposed Action within a reasonably foreseeable time. The Board can impose conditions that mitigate potential environmental effects, but that ability is not limitless. It can only impose conditions that are consistent with its statutory authority. Any conditions the Board imposes must relate directly to a specific proposed action, must be reasonable, and must be supported by the record before the Board. The Board's practice has been to mitigate only those effects that result from a proposed action.

Applicants' Responsibility for Mitigation

USDOT submitted that "CN should not be held responsible for mitigation measures that are beyond its authority to implement, nor should it alone bear the costs of mitigating impacts that arise from a combination of the Proposed Action and other sources." USDOT went on to recommend reasonable mitigation options and funding mechanisms.

Response

It is the Board's practice to impose only reasonable and appropriate mitigation on applicants. The Board encourages the Applicants to work with agencies, communities, or other entities to resolve issues through negotiated agreements that often can be more far reaching and effective than mitigation the Board could unilaterally impose. It is not the Board's practice to require mitigation for existing conditions or preexisting problems. Rather, SEA recommends mitigation to eliminate or minimize, to the extent reasonable, potential environmental effects that would arise from the Proposed Action before the Board.

In this case, SEA is recommending two grade separations at crossings along the EJ&E rail line as mitigation. With respect to the appropriate cost share of this mitigation for the Applicants, SEA is cognizant that railroads typically pay only a small percentage of the cost because grade separation primarily benefits the community and not the railroad. As discussed in detail elsewhere in this Final EIS, SEA performed a detailed analysis to determine the cost percentage of the two grade separations that should be borne by the Applicants. SEA believes its final recommendation of a 15 percent cost share (based on a regional analysis that balances both the adverse effects of the Proposed Action at those two crossings and the potential benefits of the Proposed Action to communities along the CN lines, and reflects existing traffic congestion as well) is reasonable and appropriate given the circumstances presented here. USDOT's recommendations for mitigation options and funding mechanisms were considered in deciding on SEA's approach and determinations.

No Mitigation of Pre-existing Conditions

USDOT stated that applicants in rail consolidation cases are not responsible for mitigation of pre-existing conditions. Further, USDOT states that EJ&E trains are not responsible for all traffic congestion at rail crossings and that both the Applicants and affected communities should fund remedial measures.

Response

In this Final EIS, SEA developed reasonable mitigation requirements not to mitigate for pre-existing conditions but, for adverse effects which arise from the Proposed Action. Existing vehicle traffic congestion is a factor in overall vehicle delays and congestion at highway/rail at-grade crossings along the EJ&E rail line, and SEA has taken that into account in developing its final recommended mitigation. As discussed above, where appropriate (as for the recommended grade separations) SEA's final mitigation would require mitigation costs to be shared.

Traffic Impact Mitigation Fund

USDOT supported the option of establishing a "Traffic Impact Mitigation Fund" with monies provided by CN and local, state, and Federal agencies to finance mitigation measures. The fund would be administered by interested agencies to address delay and safety effects of the Proposed Action.

Response

A mitigation fund for the two grade separations SEA is recommending would not be appropriate given the small number of grade separations that are warranted as a result of the Proposed Action. SEA has considered the concept of a mitigation fund that could be used for some or all of SEA's other mitigation; however, the number of communities and agencies in both Indiana and Illinois which could be involved would make such a fund complex and difficult to administer. Therefore, SEA's final mitigation conditions require that the Applicants would provide funds when they implement the mitigation or at the appropriate point in the process where it is clear that mitigation that involves other entities would be implemented.

Recourse for Excessive Traffic Delays

USDOT stated that if vehicular delays occur in excess of those reported in the Draft EIS with any consistency that the Board "Require CN to limit its train operations over the EJ&E rail line to the level necessary to redress transaction-related delays." In this case, USDOT recommends that CN divert trains to its existing rail lines in the Chicago metropolitan area to relieve vehicular delays.

Response

It is not the Board's practice to insert itself into the day-to-day operations of railroads. SEA is recommending that the Board impose a reporting requirement on the Applicants that would allow the Board to monitor the Applicants' progress until the Applicants have implemented the Proposed Action and the Board's final mitigation. This condition would allow the Board to take appropriate action if circumstances significantly change beyond what has been anticipated. SEA also continues to encourage the Applicants to work with agencies and communities to enter into negotiated agreements to resolve issues in a mutually satisfactory manner. Such mitigation can be more far-reaching and effective to address local concerns than mitigation that the Board could unilaterally impose.

West Chicago High School Pedestrian Crossing

USDOT expressed concern that the Draft EIS did not mention the pedestrian crossing at West Chicago High School as a potentially dangerous situation if blocked by a standing train. USDOT recommends a specific condition here, such as a lit pedestrian underpass to avoid a future accident.

Response

SEA does not consider the installation of a pedestrian underpass at this location necessary at this time. SEA did include the existing pedestrian at-grade crossing near West Chicago High School in its analysis in Appendix C of the Draft EIS (USDOT No. 260806T, milepost 28.27). The pedestrian crossing is located at the vacated George Street highway/rail at-grade crossing (George Street no longer intersects the EJ&E rail line) within the George Street ROW. SEA has observed, and EJ&E staff have confirmed, that northbound (railroad westbound) trains holding for the UP interlocking currently stop south of Ann Street, approximately 0.10 mile south of the pedestrian crossing and 0.30 mile south of the absolute signal. EJ&E holds their trains at this location to avoid blocking the Ann and Church streets highway/rail at-grade crossings and the pedestrian at-grade crossing. Southbound trains do not need to stop because they have already passed their signal. South of Ann Street, there are several miles of track without an at-grade crossing in which train(s) can wait with a clear line of sight to the signal. Upon obtaining a clear signal, EJ&E trains advance without stopping again. SEA has recommended mitigation that would require the Applicants to continue this practice.

Gary/Chicago International Airport Runway

USDOT stated that it fully expects CN to honor the Preliminary Memorandum of Understanding regarding extension of the Gary/Chicago International Airport runway and relocation of the EJ&E rail line and related rail facilities.

Response

The Applicants have agreed to honor the Preliminary Memorandum of Understanding and SEA has included this requirement as part of the mitigation in Section 4.4 of this Final EIS.

Postpone STAR Line Mitigation

USDOT recommended that specific mitigation measures for Metra's proposed STAR Line be postponed to such time as the Proposed Action and its operational limits are known.

Response

SEA concurs.

3.3.2.2 Rail and Vehicular Congestion

Annual Monetary Cost of Delays

USDOT recommended that SEA determine "the present monetary value of the annual cost of delays" as one approach to identifying the Applicants' contribution to the mitigation costs.

Response

Chapter 4 of this Final EIS explains in detail SEA's method for determining CN's appropriate share of the transportation improvements that SEA is recommending. Because SEA's vehicle delay mitigation is focused on several site-specific locations, SEA determined that establishing a funding

percentage was a more appropriate approach to establishing the Applicants' contribution to mitigation costs.

Unrealistic Assumptions for Rail/Rail At-Grade Crossings

USDOT suggested SEA's finding in the Draft EIS related to the operational feasibility of the Proposed Action "depends to some degree upon unrealistic assumptions, and thus may understate the likely extent of rail congestion on the EJ&E rail line and its consequences." USDOT was concerned the Proposed Action would result in more "clustering" of trains than reflected in the operational analysis contained in the Draft EIS because:

- Trains would arrive onto the EJ&E rail line at random intervals.
- Lifts of the Des Plaines River Bridge would be irregular.
- Connecting carriers would delay acceptance of (trackage rights) trains leaving the EJ&E rail line.

Response

SEA stands behind its determination that the Proposed Action is operationally feasible; this response explains why the assumptions used in its model produced realistic operational results.

As explained in more detail in the Draft EIS, SEA used the rail traffic controller (RTC) rail-operations simulation tool to assess potential outcomes of CN's Operating Plan on the EJ&E rail line under a scenario that assumed that CN had constructed its proposed connections and double track. The RTC simulation was conducted to replicate a 1-week period. This period of operation generates randomness in that while the *input* events, such as bridge lifts or how often trains enter the EJ&E system, might be regular, the *response* events are irregular. The response events are irregular because the simulation tool's attempts to operate the trains in the most expeditious manner possible are not regular, and, as time progresses, the reactions of the model are increasingly representative of actual railroad operations. When run to replicate long periods, the RTC model exposes flaws and congestion points in a railroad's operating plan or its infrastructure, meaning that demand on the infrastructure remains constant and congestion becomes additive.

Furthermore, SEA developed two other methods to ensure representative sampling. First, the RTC model can "dispatch" trains using a randomness factor whereby trains originate on a variable schedule that would produce different meet/pass outcomes throughout the week. Second, of the 1-week period sampled, the delay ratio and average speed generated by each scenario were calculated using a 96-hour period. The first and last day of the model run were dropped to allow the model to become established with the flow of trains.

CN's Operating Plan includes an average train length of 6,321 feet and the potential to operate two trains daily of 10,000 feet. SEA's RTC analysis applied six trains per day of 10,000 feet length each. The Applicants did not propose a fixed schedule of operating freight trains. SEA inserted trains into the RTC model at regular intervals based on its knowledge of empirical rail industry train-dispatching. SEA also used its knowledge of simulations that demonstrate that when presented to a rail network in quantities that approach its ultimate capacity, trains that may initially be bunched will rapidly unbunch because meet-and-pass events cannot occur at a rate greater than the capacity of the network. Even if CN attempted to present trains to the EJ&E rail line at Leithton and Kirk Yard bunched rather than regularly spaced (as SEA inserted them into the RTC model), the EJ&E rail line would not be able to accept them at Leithton and Kirk Yard or other entry places along the EJ&E rail line because there might be no capability to advance them based on the locations of other opposing

trains. In addition, such bunching would exceed the train-dispatching capacity of Kirk Yard, as well as the capacity of the CN rail line connecting at Leithton.

For this Final EIS, SEA ran the RTC model in compliance with existing curfew agreements with Metra and UP by restricting the number of trains the model could move over the rail/rail at-grade crossings at Barrington, Spaulding, West Chicago, and Rock Island Junction during the morning and evening peak commuter-train operation hours. Comparison of EJ&E rail line train-operation performance under these scenarios where commuter-train curfews were enforced showed minor degradation compared to the case where commuter-train curfews were not reflected.

According to EJ&E personnel, the Des Plaines River Bridge is lifted an average of 17 times per day, but only during months when the river is not frozen. SEA used an average of 20 lifts per day instead of 17 for its analysis because SEA's investigation of lift patterns revealed that there was no particular schedule to lifts and they had broad variation. SEA used the additional three lifts to offset the lack of a bridge lift pattern.

SEA notes USDOT's concern about Metra and other non-CN freight trains promptly departing the EJ&E rail line system. However, SEA believes CN's operating methods will conform to normal railroad operating practices where a host railroad will accept a non-CN train onto its system only if it can also move the train expeditiously across its system and the non-CN railroad has already agreed to receive the train back onto its rail lines promptly upon presentation. SEA expects that CN will ensure that the non-CN railroad will reaccept its train at the departure point from the EJ&E rail line before CN will accept the train onto the EJ&E rail line.

Concerning acceleration and deceleration of freight and passenger trains, SEA's RTC model used industry-standard locomotive performance parameters and industry-standard acceleration and deceleration formulas to realistically depict the performance of a train. The model incorporated such variables as number of locomotives on the train, horsepower curves, tractive-effort curves that are accurate for each locomotive type designated for the train, and the length and tonnage of each train. The RTC model placed each train onto the actual characteristics of the EJ&E rail line, which includes maximum authorized track speeds on main tracks, sidings, through turnouts, through diverging routes and connections to other rail lines, location of highway/rail at-grade crossings, grade resistance, curve resistance, rolling resistance, and the method of operation (for example, centralized traffic control, track warrant control, or yard limits). The RTC model enabled assessment of the performance of a train for any desired set of characteristics. Outputs, including data on instantaneous speed, acceleration, deceleration, throttle position in both power and dynamic braking, and brake-pipe reductions, are presented in the Train Performance Calculation graphs SEA produced in the Draft EIS, Appendix B, Figure B5-1. For example, SEA used the RTC model to calculate the time necessary to cross the Barrington interlocking for a 135-car coal train consisting of 134 tons (gross) weight each. The RTC model calculated that a coal train stopped at the absolute signal at either Lake Street or Lake Zurich Road, and then proceeding on a signal aspect more favorable than stop would take not more than 9 minutes to accelerate and have its rear end clear the interlocking control-point limits at Barrington. Because of adverse grade, the loaded coal train accelerated to only 25 mph as it passed through Barrington from the absolute signal at Lake Street.

The RTC model also allowed train length to be compared with the length of track available between highway/rail at-grade crossings. SEA's input data for the model predicted a need to hold a train for a bridge lift, to allow another train to have priority over the EJ&E rail line at a rail/rail at-grade crossing, or for a meet-and-pass event (when two train go in different directions). The model would also stop and hold the train *before* it would block a highway/rail at-grade crossing (that is, the train would be held a location where it would not interfere with highway/rail at-grade crossings). In short, SEA's modeling indicates that while the EJ&E rail line may be approaching or is at capacity for the

Operating Plan proposed by the Applicants, SEA's analysis did not understate congestion on the EJ&E rail line, nor did it underestimate effects on highway/rail or rail/rail at-grade crossings.

Inaccurate Bottleneck Analysis

USDOT suggested that the "bottleneck analysis" conducted on the 11-mile segment between Walker and Rock Island Junction may not accurately portray rail line congestion and its consequences from the Proposed Action on this EJ&E rail line segment.

Response

The bottleneck analysis was one of the steps taken to evaluate rail operations feasibility of the Proposed Action, based on the bottleneck near Joliet, Illinois. The results of bottleneck analysis complement both the RTC analysis, as well as line occupancy index (LOI) analysis discussed in the previous response.

Line Occupancy Index Analysis

USDOT restated the results of the LOI analysis and raised concerns that "…it will be very difficult to operate the number of trains CN proposes in a timely manner over these rail line segments without adversely affecting vehicle travel."

Response

SEA developed an LOI analysis as an additional modeling tool for the Proposed Action. The LOI analysis confirmed SEA's findings in the bottleneck analysis. As USDOT stated, the LOI analysis does not supplant the RTC analysis. From that analysis, SEA determined the chokepoint on the system is not likely to be in the Barrington area.

Major Delays at Several Locations

USDOT stated that the results of the RTC model indicate that major delays would occur at several locations along the EJ&E rail line under CN's Operating Plan.

Response

As described in more detail elsewhere in this Final EIS, SEA's simulation modeling for this case reflects the delays that could occur on the EJ&E rail line.

Commuter Rail Congestion

USDOT stated that adding more trains would dramatically increase congestion on the EJ&E rail line; "adding more trains from any source (such as Metra or UP) would multiply the [delay] ratio dramatically." USDOT states that STAR Line trains would run at right angles to existing Metra commuter lines and potentially create congestion on the existing Metra commuter lines.

Response

Adding more trains to the EJ&E rail line from UP rail lines is not included in the Applicants' Operating Plan. If USDOT is referring to UP trains that cross the EJ&E rail line on UP rail lines such as at West Chicago, UP can add—and Metra can add (with UP's permission)—as many trains as are operationally feasible across the rail/rail interlocking at West Chicago.

Additional Metra trains, proposed as part of the STAR Line service, would require an agreement between Metra and CN to improve existing infrastructure to provide adequate and reliable transportation service for trains using the EJ&E rail line.

Finally, SEA has provided further analysis of the effects of the Proposed Action on the proposed STAR Line service in Section 2.3 of this Final EIS and has concluded that the Proposed Action would not preclude the proposed STAR Line commuter service.

Rail Congestion is Inevitable

USDOT stated that rail congestion is inevitable on certain EJ&E rail line segments. This congestion would not only adversely affect CN, but it would likewise affect other freight railroads such as BNSF and UP, Amtrak trains, and Metra commuter trains; block rail/rail at-grade crossings resulting in passenger delays; and block highway/rail at-grade crossings resulting in vehicular delays.

Response

SEA believes that all of its modeling and other analyses show that the EJ&E rail line could accommodate the proposed CN Operating Plan without adversely affecting other freight and passenger rail operations or blocking highway/rail at-grade crossings. The congestion cited by USDOT is captured in the RTC model.

The handling of non-CN trackage-rights trains, Metra and non-CN railroad trains that cross the EJ&E rail line at rail/rail at-grade crossings, and blockage of highway/rail at-grade crossings are all subject to outstanding agreements between EJ&E and other interested parties. The Applicants have included voluntary mitigation that would require them to honor these existing agreements, and SEA recommends that this mitigation be imposed. SEA recommends that CN comply with its voluntary mitigation which continues these agreements at West Chicago and Barrington.

Blocked Crossings

USDOT stated that, in the Draft EIS, SEA found that numerous highway/rail at-grade crossings and emergency service providers would be "substantially affected" by of the Proposed Action. As a result of these findings, USDOT states "…it is unacceptable for rail carriers to block crossings routinely due to inadequate system capacity." USDOT urges SEA to base the Final EIS on reasonable operating assumptions and to ensure that it fully addresses the extent of EJ&E rail line congestion and its consequences.

Response

As discussed in the Draft EIS and elsewhere in this Final EIS, SEA has done an extensive analysis of the Applicants' Proposed Action, taking a hard look at potential Proposed Action-related congestion.

3.3.3 U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (EPA) submitted extensive comments on the Draft EIS. Summaries of EPA's comments and SEA's responses to those comments are below; they are listed in the same order, and under the same headings, as found in the EPA's comment letter. EPA's comment letter is provided in its entirety in Appendix E.

3.3.3.1 Rail Operations

Provide Additional Information on Rail Operations

EPA stated that additional information should be provided in the Final EIS to support the Applicants' rail traffic projections for the EJ&E rail line. While EPA is pleased that SEA conducted three different analyses to address this concern (that is, a bottleneck assessment, maximum capacity analysis, and the RTC modeling), it is concerned that the EJ&E rail line capacity could change if the Applicants are able to alleviate the bottlenecks. EPA requested that SEA project traffic growth on the existing CN rail lines and the EJ&E rail line if current bottlenecks can be reduced.

Response

For this Final EIS, SEA has taken a thorough look at CN's proposed Operating Plan for the EJ&E rail line and has conducted the three rail capacity analyses, as EPA notes. All of SEA's analysis shows that the projected train volumes presented in the Applicants' Proposed Action are reasonable. SEA notes that the Applicants could alleviate the bottlenecks in some areas of the EJ&E rail line by making track or operational improvements. However, SEA believes that there would continue to be some bottlenecks on the EJ&E rail line that would continue to restrict train volumes to no more than the number reported in the Application.

Key Trains for Hazardous Materials

EPA noted that hazardous materials transported over the EJ&E rail line would move in key trains along designated key routes and these trains would travel at reduced speeds. EPA believes the rail capacity analysis should reflect that key trains must operate at slower speeds.

Response

The Association of American Railroads (AAR) policy # OT55 limits a key train's top operating speed to 50 mph. In general, the maximum track speed on the EJ&E rail line is 45 mph. Therefore, the speed limitations for key trains would not change the capacity analysis that SEA performed.

Adaptive Management Program

EPA recommended that the Applicants initiate an adaptive management program along the EJ&E rail line so that if it experienced greater than forecasted train volumes, the effects could be reevaluated and mitigation measures provided as appropriate. EPA also recommended that a public/private mitigation fund be established as part of the program with annual CN contributions to sustain the fund. In addition, EPA recommended that a state or regional planning agency manage the mitigation fund.

Response

SEA believes that the traffic study conducted for the Proposed Action adequately assessed the maximum number of trains that could operate on the EJ&E rail line. Indeed, SEA's capacity analysis reveals that the number of trains contemplated by the Operating Plan is optimistic, therefore, it is unlikely that additional trains would operate over the line in the foreseeable future.

Accommodation of Additional Metra Trains

EPA expressed concern that the Applicants would be at capacity on the EJ&E rail line soon after implementation if the Proposed Action is approved. EPA also requested further details on how the EJ&E rail line can accommodate the proposed Metra STAR Line trains.

Response

For this Final EIS, SEA conducted additional analysis to evaluate whether the Proposed Action would interfere with Metra STAR Line commuter service. SEA evaluated Metra's STAR Line service either as a co-mingled freight and passenger service on the EJ&E rail line or as a standalone passenger rail service on an additional third track within the ROW of the EJ&E rail line. The results of this additional analysis are included in Chapter 2 of this Final EIS.

Proposed Munger Connection

EPA recommended that the proposed Munger connection be dropped from further consideration because of potential effects on wetlands, water hydrology, and biota within the Pratt's Wayne Woods Forest Preserve.

Response

Following scoping, the Applicants redesigned the proposed Munger connection to avoid taking forest preserve property. Moreover, SEA is recommending that the Applicants provide a liaison with expertise in environmental and natural resources management to work closely with the forest preserve as well as other appropriate agencies. Finally, SEA has determined that elimination of the proposed Munger connection would adversely affect safety, traffic, and emergency response in the Study Area. Under these circumstances, SEA believes that the connection is necessary and that the potential adverse effects have been mitigated to the extent practicable.

3.3.3.2 Hazardous Materials Transport

Hazardous Materials Transport and Rail Safety

EPA stated that the CN and EJ&E rail lines have a higher-than-average incident rate so the Final EIS should provide more details on CN's corporate safety record in the U.S. and Canada. EPA recommends that the Final EIS include procedures for spill prevention and measures for containment near sensitive water resources along the EJ&E rail line.

Response

In Chapter 2 and Appendix A of this Final EIS, SEA explains CN's Canadian/U.S./corporate-wide safety record.

SEA has reviewed CN's environmental polices and procedures, and concluded that they are in compliance with all appropriate environmental regulations and requirements that relate to spill prevention and response in the U.S. CN's spill prevention and emergency response capabilities are discussed in Section 3.2.3 of the Draft EIS. Under these circumstances, SEA is concludes that the final recommended mitigation in this Final EIS is adequate to address spill prevention and measures for containing spills.

Vulnerable Natural Areas and Protective Management Areas

EPA stated that the Final EIS should contain a list of geographically vulnerable natural areas and proactive management plans for a spill in those areas. EPA suggested that SEA should work with Federal and state resource agencies and the Illinois Water Resources and Natural Resources stakeholder group to develop an inventory of the natural areas. EPA recommended that a management plan for responders and mitigation measures be developed in consultation with EPA, Illinois EPA, and Indiana Department of Environmental Management (IDEM).

Response

In Sections 3.11 and 4.11 of the Draft EIS, SEA inventoried conservation and natural areas within the Study Area and potential effects on such areas under the Proposed Action. These inventories have been updated in Chapter 2 of this Final EIS based on further coordination with local natural resources stakeholders.

Chapter 4 of this Final EIS discusses the Applicants' response plans for hazardous materials spills, and also details SEA's recommendation that the Applicants provide a resource agency liaison with appropriate experience to work with natural resource stakeholders such as public land managers to assist in quantifying project effects and developing mitigation and adaptive management measures within natural areas. The Applicants also have informed SEA that they have begun coordination activities with natural resource stakeholders to learn about their concern related to rail operations adjacent to sensitive areas.

3.3.3.3 Air Quality

Diesel Particulates

EPA asked that SEA include an assessment of locomotive diesel particulates in its air quality analysis, especially projected diesel emissions for Kirk and East Joliet yards.

Response

Additional information is presented in Chapter 2 of this Final EIS that addresses localized locomotive air quality effects along the EJ&E rail line, including diesel particulate matter (DPM) in comparison to National Ambient Air Quality Standards (NAAQS), through a quantitative dispersion analysis for scenarios involving moving line-haul locomotives and idling line-haul locomotives on sidings.

With respect to rail yards such as East Joliet Yard and Kirk Yard, SEA includes a qualitative discussion based on over 20 health risk analyses for rail yards published in the past 2 years by the California Air Resources Board.

3.3.3.4 Environmental Justice

Environmental Justice Methodology

EPA stated that the Final EIS should provide clearer explanations of the methods used to evaluate disproportionately adverse effects and use updated census data if available.

Response

The criteria used to identify the low-income and minority populations was based on census block group data. In this Final EIS, SEA revised its environmental justice analysis to more accurately reflect the environmental justice population in the Study Area. The U.S. Census Bureau has continued to gather information subsequent to the 2000 U.S. Census by completing American Community Surveys; however, this data was not used in SEA's analysis because they are estimates and do not provide data at the census block group level. SEA's methodology is explained in more detail in Appendix I of the Draft EIS and in Appendix A of this Final EIS.

3.3.3.5 Purpose and Need, Alternatives, and Mitigation

Lack of Alternatives

EPA stated that the Final EIS should include more explanation as to why certain alternatives were dismissed without detailed study and why they failed to meet the purpose of and need for the Proposed Action.

Response

Chapter 2 of the Draft EIS (Section 2.5) explains why other alternatives, such as the CREATE Program, expanded trackage rights, acquisition of a different railroad, and construction of a bypass outside of the EJ&E arc would not meet the Applicants' purpose and need.

Avoidance and Minimization of Impacts

EPA acknowledged that the Draft EIS contained proposed mitigation measures but is concerned that the document does not provide other options for avoidance and minimization of impacts. EPA requested that mitigation be presented in more detail in the Final EIS with follow-up measures for evaluating mitigation success.

Response

In the Draft EIS (Section 6.5), SEA proposed the following conditions relating to mitigation monitoring:

- If there is a material change in the facts or circumstances upon which the Board relied in imposing specific environmental mitigation conditions, and upon petition by any party who demonstrates such material change, the Board may review the continuing applicability of its final mitigation, if warranted.
- The Applicants shall retain a third-party contractor to assist SEA in the monitoring and enforcement of mitigation measures on an as-needed basis until the Applicants have completed construction activities, as well as a period covering the first 3 years of operational changes, or for any period the Board imposes.
- The Applicants shall submit to SEA quarterly reports on the progress of, implementation of, and compliance with the mitigation measures for a period covering the first 3 years of operational changes, or for any period the Board imposes.

SEA specifically requested comments regarding its preliminary recommendation measures. Based on public comment and input received, SEA developed final mitigation recommendations for the Board, which are described in Chapter 4 of this Final EIS. In response to comments on SEA's initial mitigation in the Draft EIS, the reporting and monitoring conditions have been lengthened to 5 years because it will take 3 years for the Applicants to implement the Proposed Action.

3.3.3.6 Hazardous Materials Transport

Spill Response Mitigation

EPA stated that Final EIS revisions should reflect FRA's June 2008 guidance on key routes and key trains. EPA also stated that spill mitigation measures in the Draft EIS Chapter 6, should adhere to EPA regulations at 40 CFR 263 and should include working with EPA, state, and local agencies on spill responses.

Response

On June 1, 2008, the USDOT's Interim Final Rule on Enhancing Rail Transport Safety and Security for Hazardous Material Shipments took effect. As discussed in Section 3.2.3.1 of the Draft EIS and in Chapter 2 of this Final EIS, these rules do apply to the movement of certain types of hazardous materials, but are not specific to key routes and key trains. The key route and key train concepts are AAR protocols (AAR Circular OT-55-I). SEA has added language to its spill response mitigation referring to 40 CFR 263.

Proactive Approach to Spill Prevention

EPA stated that the Draft EIS acknowledges the Applicants' Safety Integration Plan (SIP) but believes additional mitigation beyond the legal minimums should be considered to protect public health and natural resources. EPA recommended that the Final EIS present a more proactive approach to spill prevention for the transport of hazardous materials. EPA suggested that SEA include in the Final EIS specific and substantive spill prevention procedures and installation of strategic containment measures in or near sensitive water resources.

Response

The Applicants submitted an SIP under 49 CFR 1106 as part of its Application to the Board on December 28, 2007. The SIP was also filed with FRA at the same time. A revised SIP was submitted by the Applicants on June 27, 2008 and included in Appendix D of the Draft EIS. Based on its review of the revised SIP as stated in their letter of September 12, 2008, FRA found that the Applicants have now satisfactorily addressed each of the SIP elements required by FRA regulations at 49 CFR 244.13. If CN's Application is approved by the Board, FRA would monitor CN's implementation of the SIP during the operations integration period. This monitoring would continue until FRA has advised the Board that the Proposed Action has been safely implemented.

SEA recognizes that plant communities, wildlife, and natural areas along the EJ&E rail line would experience a higher probability of exposure to hazardous material spills under the Proposed Action than is the case under current conditions (Draft EIS, Section 4.11). Because of the railroad industry's best management practices, SEA concluded that this increased risk would be very small. Increases in freight rail traffic along the EJ&E rail line would have a corresponding increase in the risk of hazardous material spills, which could affect groundwater or surface water supply sources (Draft EIS, Section 4.12). But SEA determined that the risk of a hazardous materials spill would remain very small. SEA identified the potentially affected lakes and preserves within 1,000 feet of the EJ&E rail line and the areas of higher potential effect on domestic wells from hazardous material spills (Draft EIS, Tables 4.12-1 and 4.12-2). SEA reasonably concluded that attempting to predict the specific location of a release, the type of release, and the fate and transport of the release is too speculative and would amount to a "worst case analysis," which is not required under NEPA or CEQ regulations (see 51 Fed. Reg. 15625 (1986)).

SEA continues to believe that performing an analysis of an unknown (and unknowable) hazardous material or a combination of such materials in an unknown location under unknown weather conditions would be speculative, particularly given the series of rare events that would have to simultaneously occur to result in a significant spill (a rail accident or derailment, involving one or more rail cars carrying hazardous materials, in which one or more of the tank cars carrying the hazardous materials is breached, and the discharge is in a sensitive area where containment and remediation efforts fail to prevent contamination to a drinking water source thereby threatening human health). In this Final EIS SEA analyzed the potential for an increased risk and disclosed that the risk would increase along the EJ&E rail line and decrease along CN rail lines under the Proposed Action.

SEA has evaluated various options for managing hazardous materials spills, and believes the mitigation recommended in Chapter 4 of this Final EIS is reasonable and appropriate.

Methods of Locating Broken Rails

EPA stated that SEA should include new ongoing academic research regarding methods to locate broken rails, which are the leading cause of derailments and accident releases, and that these methods should be part of an adaptive management program (p.7).

Response

FRA has jurisdiction over rail safety, including inspection of rail and rail defect detection, and has standards with which railroads must comply. CN has its own internal policies and standards for internal rail defect detection that are in compliance with these FRA requirements. SEA believes that imposing a unique set of inspection requirements for just the EJ&E rail line is not necessary and would create a confusing and duplicate set of requirements.

At-Risk Assessment

EPA would like to see more hazard analysis and risk assessment presented in the Final EIS. EPA would also like to see specific at-risk facilities (for example, schools, hospitals, and eldercare facilities) identified in the Final EIS.

Response

Section 2.7 of this Final EIS contains SEA's additional analysis on hazardous materials transportation safety.

Hazardous Materials Spill Response

EPA states that more information is needed on CN's hazardous materials spill response capabilities. EPA suggests that the Final EIS provide more detail on CN's hazardous materials equipment and team response, as well as the potential effects on human health and the environment resulting from a delayed or understaffed spill response. EPA also recommends that CN offer special spill response training in the Chicago metropolitan area to maximize participation among emergency response providers.

Response

Railroads work very closely with local communities to train emergency responders on how to handle releases in the unlikely event of a release that involves hazardous materials. As noted in the Draft EIS, CN has a system-wide plan for handling emergencies. The CN Emergency Response Plan (ERP) is reviewed annually, and local ERPs are prepared for individual yards and facilities. ERPs include extensive training requirements, response plans, and location of response supplies.

CN's rail traffic control centers play an important role in the emergency response process, and local operations are handled out of CN's Homewood rail traffic control center. The rail traffic control centers coordinate all response efforts within CN and with outside agencies and responders.

Either in conjunction with the American Chemistry Council's (ACC) Transportation Community Awareness and Emergency Response (TRANSCAER) program, or on their own, railroads train over 20,000 emergency responders a year in the response methods associated with rail transportation of hazardous materials. CN is an active participant in the TRANSCAER program. To assist local

response agencies in preparing for rail transportation emergencies, railroads provide, upon request, a list of the top 25 hazardous commodities transported through their community.

As discussed in the Draft EIS, CN has begun a new emergency response outreach program designed to enhanced preparedness and foster partnerships with the response community through Responder Education Assistance and Certification Training (REACT). CN provides three phases of training for the response community. Finally, in response to EPA's comments, the Applicants have proposed voluntary mitigation to provide spill response training to all appropriate parties in this Final EIS, which should address EPA's concerns.

3.3.3.7 Rail and Community Safety

Vehicular Traffic Fouling the Tracks

EPA expressed concern about highway/rail at-grade crossings where vehicles could be trapped on the track due to highway traffic backing up over the tracks (because of traffic signals or another railroad crossing). EPA recommended that the crossings with higher safety risks should be mitigated.

Response

In response to the concerns of EPA and others regarding the potential for vehicles to stop on the tracks because of queues from closely-located intersections, SEA performed an analysis and found 17 highway/rail at-grade crossings along the EJ&E rail line that have a traffic light within 1,000 feet of the crossing. The analysis also identified several similar locations with traffic lights close to crossings along CN rail lines. SEA considers these intersections to be an existing condition. The Board does not mitigate existing conditions. Section 2.5 of this Final EIS presents further details of this analysis.

In its analysis, SEA also found that some traffic lights are interconnected with the highway/rail at-grade crossings where the distance between the intersection and the crossing is limited. In response to concerns raised by EPA and others, Chapter 4 of this Final EIS contains mitigation that would require the Applicants to work with the Illinois Commerce Commission and the Indiana Department of Transportation in identifying potential mitigation solutions at locations with traffic lights within 1,000 feet of the highway/rail at-grade crossings.

3.3.3.8 Air Emissions

Diesel Particulate

EPA stated that the Final EIS should supplement the mobile source air toxics (MSAT) analysis that was done in the Draft EIS by adding DPM. EPA cited its final rule setting standards for locomotive diesel engine emissions and noted factors that can be used to estimate health risk exposure to DPM.

Response

SEA added DPM modeling results and discussion as part of the analysis of locomotive MSAT effects in Chapter 2 of this Final EIS.

3.3.3.9 Climate Change Science

Relevant Climate Change Science

EPA recommended that the Final EIS include the most current, relevant climate change science and cited current references on the topic.

Response

SEA added discussion of current, relevant climate change science in Chapter 2 of this Final EIS, citing references such as the reports of the Intergovernmental Panel on Climate Change and published journal articles on climate science.

3.3.3.10 Environmental Justice

Determining the Environmental Justice Population

EPA asked that the analysis in the Final EIS include the citations of relevant guidance used, explain why census block groups were selected as the unit of analysis, and consider additional sources of demographic information to supplement the 2000 U.S. Census.

Response

SEA applied the guidance listed below and guidance from other Federal agencies in identifying and addressing environmental justice concerns in this EIS.

- Executive Order 12898, "Federal Actions to Address environmental justice in Minority Populations and Low-Income Populations," February 11, 1994, 59 Fed. Reg. 7630.
- U.S. Department of Transportation Order, "To Address Environmental Justice in Minority Populations and Low-Income Populations," February 3, 1997.
- U.S. Environmental Protection Agency, "Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses," April 1998.
- Council on Environmental Quality, "Environmental Justice: Guidance Under the National Environmental Policy Act," Executive Office of the President, December 1997.
- U.S. Environmental Protection Agency, "Interim Guidance for Investigating Title VI Administrative Complaints Challenging Permits," February 1998.

Census block groups were chosen for the analysis because they are the smallest geographic unit for which income and ethnic information is reported. Extensive outreach was coordinated with community leaders to gather input and information about the environmental justice communities within the Study Area. The results of the outreach efforts confirmed the census data.

Rationale for Study Area Definition

The environmental justice analysis should explain the rationale for the two definitions of the Study Area for the EJ&E rail line (census block groups with 1,500 feet of the rail line) and CN rail lines (groups within 400 feet of the rail line).

Response

SEA identified the potentially affected census block groups based on the expected changes in rail activities that would occur as a result of the Proposed Action. SEA identified affected communities as census block groups within 400 feet of rail line segments that would experience a change of at least eight trains per day and within 1,500 feet of rail line segments that would be designated as new key routes for hazardous material transportation. These distances were used by SEA in previous rail transactions to identify the areas of potential effect around the rail lines. The 1,500-foot distance used along new key routes is based on AAR's previous hazardous material exposure areas. Under the Proposed Action, CN rail lines inside the EJ&E arc would experience a decrease in freight train

traffic and would likely no longer be designated as key routes for hazardous material transport. As a result, the 400-foot distance is based on noise exposure distances.

Evaluation of Other Impact Types in the Environmental Justice Analysis

The Final EIS analysis should explain why other impact types evaluated in the Draft EIS were not evaluated in the environmental justice analysis. EPA stated that some localized effects found to be insignificant based upon a review of the entire Study Area may still merit evaluation in the environmental justice analysis.

Response

SEA's analysis of the potential effects of the Proposed Action on low-income and minority populations was completed for the environmental effects that SEA determined may have high and adverse effects on communities within the Study Area. SEA determined that noise, safety, vehicular delays may result in high and adverse effects on communities along the rail line. SEA assessed the effects of noise, safety, and delays to identify if these effects are borne disproportionately by low-income or minority populations. This analysis was not conducted for other environmental effects identified within the Draft EIS because these other effects were determined not to be substantial in the project population. Refer to Section 4.9, Air Quality, in the Draft EIS.

The effects of the Proposed Action on air quality and property values were not identified as substantial in the Draft EIS. In response to concerns about localized air quality effects due to locomotive emissions, SEA performed additional air quality impact analysis for the preparation of this Final EIS. The additional analysis, described in detail in Section 2.10, shows that changes to local air quality would be minimal in comparison to National Ambient Air Quality Standards (NAAQS). SEA also performed additional analysis of the potential effects on property values; the results (presented in Section 2.8 of this Final EIS) essentially confirm the conclusions reached in the Draft EIS. Therefore, SEA did not conduct an analysis of disproportionately high and adverse effects for air quality or property values on low-income and minority populations.

Additional Analysis of Environmental Justice Populations

EPA stated that Appendix I of the Draft EIS should provide additional information to explain the statistical analysis and conclusions of the environmental justice analysis to answer the five questions contained on page 9 of EPA's correspondence. These questions are related to marginal probabilities and the relationship between high and adverse and disproportionate impact.

Response

SEA provides additional information to explain the environmental justice statistical analysis in Appendix A of this Final EIS.

3.3.3.11 Noise

Expand Noise Analysis

EPA stated that the noise analysis discussion should be expanded in the Final EIS to include more sensitive receptors, such as schools, libraries, and eldercare facilities.

Response

The noise analysis does discuss such facilities and related land uses. The Board's environmental regulations in 49 CFR 1105.7(e)(6) require that if any of the noise thresholds are surpassed, SEA is

required to identify sensitive receptors (for example, schools, libraries, hospitals, residences, retirement communities, and nursing homes) in the Study Area, and quantify the noise increase for these receptors.

Threshold Criteria of Decibels

EPA requested that the Board explain why 70 dBA was used as the threshold criteria for mitigation on the Proposed Action and not 65 dBA.

Response

SEA's use of the 70 dBA Ldn contour for noise mitigation purposes is consistent with prior Board decisions and has been affirmed by the courts. In any event, the 70 dBA Ldn value is essentially equivalent to 65 dBA Leq. Finally, SEA notes that the Applicants have offered substantial noise mitigation in this case, and that SEA has proposed additional mitigation as appropriate. All of the mitigation is included in Chapter 4 of this Final EIS.

Location of Noise Walls

EPA believes there should be more discussion in the Final EIS about where the locations of noise walls would be reasonable and reduce noise for receptors experiencing an average daily noise level of 70 dBA or greater. This mitigation should be a part of the EIS process and not developed later. Also, other options for noise mitigation should be discussed.

Response

Noise walls, berms, insulation, etc. are all options that could be considered if warranted under SEA's final recommended mitigation. Chapter 4 of this Final EIS presents a discussion of all of SEA's recommended noise mitigation.

3.3.3.12 Surface Water, Wetlands and Stormwater Run-off

Section 404(b)(1) Guidelines

EPA acknowledged that the Applicants would be required to obtain Section 404 (wetlands and jurisdictional waters) permits and Section 401 (water quality) permits for the proposed connections and double track. However, EPA asked that the Final EIS acknowledge the requirements of avoidance, minimization, and mitigation per Section 404 (b)(1) guidelines as well as the environmentally practical alternative.

Response

See the "Discussion of Alternatives" comment summary and SEA's response below.

Discussion of Alternatives

EPA stated that the Final EIS should fully discuss the alternatives for the proposed rail connections and double track because several of the alternatives appear to avoid wetland impacts and other alternatives would affect wetlands to varying degrees. The Final EIS should explain the trade-offs of the selection process, especially at the proposed Munger and Matteson connections.

Response

Proposed Connections: In the Draft EIS, SEA analyzed potential wetland impacts at all locations presented by the Applicants and provided additional alternatives based on feasibility and impact minimization, including limiting effects on wetland resources. With regard to wetlands impacts, SEA has not chosen preferred alternatives but provided an analysis of potential wetland impacts for each alternative at all locations. SEA refers to the Applicants' Preferred Alternative as the alternative put forth by the Applicants.

Finally, the Applicants would be required to undertake the Section 404 permitting process to demonstrate every effort to avoid, minimize, and mitigate for wetland impacts at all construction areas according to local, county, state, and Federal regulations. SEA's recommended mitigation in Chapter 4 of this Final EIS also includes a condition requiring that the Applicants meet with EPA, USFWS, and USACE to refine specific construction areas to avoid and minimize, to the extent possible, effects on wetlands and biological resources.

Double Track: In areas of double track, SEA recognizes that avoidance opportunities are limited to areas adjacent to existing infrastructure. By designing construction adjacent to and reinstalling track on existing railroad embankments and prior double track, and by designing double track segments that would connect to existing sidings, SEA believes that the Applicants have attempted to limit the extent of the project construction areas. SEA provides further information on double track areas below.

In response to the Draft EIS, the Applicants revised their Matteson and Leighton designs, which would minimize some environmental effects. SEA has provided additional analyses of the connections in Chapter 2 of this Final EIS. SEA also recommends the revised Matteson and Leighton connections as environmentally preferable and includes mitigation for the connections in Chapter 4 of this Final EIS.

Diamond Lake Road to Gilmer Road: According to construction footprint locations provided by the Applicants, construction on this rail line segment would require widening an existing single track embankment to accommodate a second track. For safe rail operations, the addition of a second track should occur along only one side of the existing embankment to limit rail crossovers which could increase the potential for rail accidents. Mapping used to determine wetland boundaries for this segment include the National Wetland Inventory, Northwest Illinois Land Use Maps (CMAP) and County Wetland Inventory and ADID wetland maps georeferenced from the Lake County GIS web page. The Lake County inventory maps appear to have mapped boundaries that extend through railroad embankments in place for more than a century. Maps created by Lake County and used for SEA analysis appear to include very conservative wetland boundaries. The Section 404 permitting process would require that the Applicants consult with the permitting agencies to reduce wetland effects on the extent possible.

East Siding to Walker: Along this rail line segment, the Applicants propose to connect existing sidings into a single double track segment. This approach should minimize the amount of construction required and the potential wetland impacts.

East Joliet to Frankfort: Along this rail line segment, the Applicants have proposed constructing an additional track on an old track bed. Due to changed railroad practices requiring a slightly wider clear space between double tracks, this generally means that the embankment would require a widening of an average of 2 feet. While it may be possible to avoid wetlands by installing such things as a short retaining wall, the Section 404 permitting process would address any wetland impacts.

Compliance with Wetland Regulations

EPA stated that the Final EIS should explain how the Proposed Action would comply with the requirements of all state, county, and any local wetland regulations, such as Lake County's (Illinois) requirement for wetland buffers. Also, the Final EIS should describe the functional characteristics of the wetlands potentially affected, beyond just their vegetative quality.

Response

Draft EIS, Section 4.12.1.4, describes the regulatory requirements that the Applicants would be required to comply with prior to initiation of any construction activities. In addition to the Section 404 permitting process, it includes a discussion of state and local wetland requirements, including requirements for wetland mitigation, buffers, and site-specific delineations that include functions and values assessments.

SEA identified the location, type, and size of wetlands in the Study Area using several map sources. Wetland analysis was limited to available data sources. Based on these maps, wetland impacts from the Proposed Action were evaluated and functions generalized. Wetland functions related to habitat are discussed in Section 3.11.6 of the Draft EIS. Water regimes and the relationship to specific bird species utilizing those areas are also discussed. A detailed discussion of the functions of fens, a unique wetland type in the Study Area, is detailed in Section 3.12.5 of the Draft EIS. Effects on wetland functions as a result of the Proposed Action are discussed in Section 4.12.3.2 of the Draft EIS. Construction of connections and double track could result in the direct loss of existing wetlands. Degradation of additional wetlands by the loss of hydrology, both surface and subsurface, could result when proposed connections are constructed unless existing drainage patterns are maintained. Loss of water regimes and fragmentation of wetland habitat would affect habitat functions for a variety of species. Altering of hydrology and loss of habitat (particularly in the form of vegetation) will affect the water quality and stormwater storage functions of the wetlands.

The Applicants would be required to conduct wetland delineations as part of the Section 404 permitting process to determine the exact acreages, functions, and values of wetlands likely to be lost to determine final wetland mitigation requirements.

As explained in detail in the analysis in the Draft EIS, wetlands within the Study Area vary from high functioning wetlands complexes to degraded systems. The proximity of many of the wetlands to urban or developed areas provides ample opportunity for wetlands to perform a myriad of functions. Comprehensive assessment of the functions of each affected wetland would be completed during the permitting process.

Habitat functions related to vegetation types and species use are discussed in Section 3.11.6 of the Draft EIS. Wetlands within the Study Area provide a variety of habitat to support wetland-associated species. An important aspect of habitat function is the relationship of the wetland to the surrounding uplands. Wetlands in the Study Area are a mix of degraded and somewhat isolated wetlands in urban areas to larger wetland complexes associated with preserves and natural areas. The degraded and isolated wetlands typically lack connections to upland areas, and buffers limit interactions with species that use wetlands for part of their lifecycle. The degraded nature of the wetlands provides limited food, shelter, or refuge habitat for wetland-dependent species. Conversely, the larger wetland complexes in the study provide offer ample connectivity with adjacent upland habitats to facilitate wildlife movement. These complexes, although often dominated by non-native vegetation, do offer vegetative diversity and structural complexity to support a wide array of wetland-dependent species (Adamus et al. 1991).

Wetlands within the Study Area greatly influence the water quality in the watershed by removing contaminants. The wetlands are able to intercept surface runoff from adjacent developed or highly-

eroded areas. By slowing the movement of water and allowing runoff to react chemically with the soil and vegetation, wetlands in the Study Area are able to remove or retain organic nutrients, process organic wastes, remove pathogens, and reduce suspended sediments before they reach downstream systems (Kadleck and Knight 1996). The complexity of each individual wetland determines the degree to which these functions are performed.

Finally, the Study Area wetlands exert a strong influence on the hydrologic cycle but the characteristics both topographically as well as structurally affect the extent to which individual wetlands can perform hydrologic functions. Wetlands found in low topographic settings will store and slowly release surface runoff, thereby decreasing downstream flood effects. Vegetative complexity in the wetlands slows the movement of water through the system, reducing the effects of erosion and allowing for suspended solids to settle. These functions make wetlands near urban areas within the Study Area important to managing stormwater runoff. In addition, wetlands along lake and stream margins protect shorelines against erosion. Vegetation in these wetlands absorbs the energy of waves and breaks up the flow of water in streams. Wetlands in the Study Area, especially fens, allow surface water to infiltrate the groundwater system thereby recharging groundwater systems and providing base flows for adjacent stream systems (Bullock and Acreman 2003).

Status of Section 404 Permitting Activities at Gary/Chicago International Airport

EPA stated that the Final EIS should discuss the current status of Section 404 permitting activities occurring at the Gary/Chicago International Airport. Also, the Final EIS should address the potential effects on flight operations at this airport resulting from the Proposed Action if the EJ&E rail line relocation, which is necessary to extend the main runway, cannot move forward.

Response

With regard to Section 404 permitting, the Gary/Chicago International Airport expansion and associated EJ&E rail line relocation is not part of the Proposed Action. Any Section 404 permitting that is required will be done by the airport as part of the EJ&E rail line relocation agreed upon under the FAA EIS for the airport expansion. As discussed in Chapter 4.3 of the Draft EIS, the expansion at Gary/Chicago International Airport and the Proposed Action are separate and unconnected actions.

Construction Stormwater Runoff

EPA stated that the Final EIS should fully describe best management practices (BMPs) for construction stormwater runoff. Also, EPA believes that sediment basins and other mitigation measures should be designed for 100-year flood levels.

Response

As described in Section 4.12.3 of the Draft EIS, the Applicants would be required to comply with Section 402 of the Clean Water Act. This section requires the Applicants to obtain a state NPDES permit prior to construction activities. These permits describe the minimum level of BMPs that would be implemented by the Applicants to minimize effects on stormwater.

These BMPs are described in the IEPA Illinois Urban Manual. The regulation, ILR 10 requires a higher level of protection for construction that discharges to a 303d listed water body and stipulates that sediment basins be designed for a 25-year/24-hour rainfall. SEA is reluctant to increase this to a 100-year rainfall as lack of an ROW or other site constraints may make this even greater level of protection un-attainable. The Applicants would be required to provide erosion and sediment control plans showing the proposed BMPs during the Section 404 permitting process. The agencies involved

in that process would have the opportunity, as part of the Section 404 process, to review and comment on the Applicants' proposed BMPs to determine that resources would be adequately protected.

3.3.3.13 Floodplain Impacts and Mitigation

Clarify Effects on Floodplains and Streams

EPA stated that the Final EIS should clarify the potential effects on FEMA-mapped floodplains and streams. According to EPA, the document should also include additional information on the potential hydraulic effects on stream flows or potential stream relocations. EPA recommends that the Applicants commit to coordinating with local water resources jurisdictions and with the Illinois Water Resources and Natural Resources stakeholder group on these potential effects and mitigations.

Response

Draft EIS, Table 4.12-3, identified potential water surface impacts prior to avoidance and minimization measures. SEA evaluated culverts assuming only that the existing culvert would be extended because the Applicants have not provided information regarding which culverts they are planning to upgrade. The Draft EIS provided suggestions for mitigation measures such as improving the culvert inlet, installing a second pipe, or even totally replacing the culvert to avoid or minimize affecting upstream water surface elevations. Extending, upgrading, or replacing the culvert would trigger a Section 404 and DNR review where the Applicants must show why a water level rise is unavoidable. If changes to the flood elevation are unavoidable, the Draft EIS also outlined the steps that the Applicants would need to take to obtain permits from FEMA, as well as state and local stormwater management organizations, to allow for a rise in the water level.

Draft EIS, Table 4.12-4, identified potential stream velocity impacts prior to avoidance and minimization measures. The Draft EIS also suggested mitigation measures. In response to comments on the Draft EIS, final recommended floodplain mitigation is included in this Final EIS. In addition, the need for further mitigation would be reviewed during the required Section 404 process.

Thus, if the Proposed Action is approved, reasonable requirements would ensure that the Applicants take appropriate steps to avoid or minimize stream and floodplain effects on the extent possible. The Applicants would also be required to obtain permits for the appropriate local stormwater and flood management jurisdictions for unavoidable impacts. In addition, as part of SEA's final recommended mitigation, the Applicants would be required to negotiate with the Illinois Water Resources and Natural Resources stakeholder group on these issues to keep the stakeholders aware of design, permitting, and construction progress.

3.3.3.14 Threatened and Endangered Species/Wildlife/and Habitat/Invasive Species

Draft EIS Underestimates Potential Effects

EPA expressed concern that the Draft EIS underestimated the potential effects on threatened and endangered species, wildlife, habitat, and the consequences of invasive species. EPA recommends that the Board consult with the Illinois Water and Natural Resources stakeholder group to identify potential effects and develop appropriate mitigation measures.

Response

In cooperation with the USFWS, SEA prepared a detailed Biological Report for this Final EIS that provides a discussion of the threatened and endangered species potentially affected by the Proposed

Action. This report is included in Appendix A of this Final EIS and contains a full analysis of these issues.

With regard to the Federally listed Hine's emerald dragonfly and other species of concern, SEA has continued coordination with the USFWS to define potential effects. As a result of this coordination, and as discussed n the Biological Report (included in Appendix A of this Final EIS), SEA determined that the Proposed Action may affect, but is not likely to adversely affect, any threatened or endangered species.

Mitigation measures (including voluntary mitigation measures proposed by the Applicants) have been developed in Chapter 4 of this Final EIS that include BMPs for construction activities and for long-term management of the rail corridor by the Applicants. The development of a liaison would allow Federal, state, and local natural resource agencies to interact with the Applicants to complete various adaptive management measures along the EJ&E ROW if appropriate. In addition, the Applicants would either conduct or supply financial support for pre- and post- construction monitoring to evaluate and document potential effects and subsequent effects of the Proposed Action. Once monitoring is completed, the liaison and natural resource agencies would develop and implement appropriate site-specific mitigation measures. Finally, SEA is recommending that the Applicants continue consultation with state water and natural resource stakeholders on protected species issues.

Invasive species spread is a serious concern; many vectors are present throughout the region. Where rail operations present a potential vector, the trains operating along the EJ&E rail line represent an existing condition. Through the natural resources liaison, recommended by SEA as part of the mitigation in Chapter 4 of this Final EIS, resource agencies would have an opportunity to coordinate adaptive and cooperative management agreements to address invasive species concerns as they arise in relation to rail operations.

Herbicide and Pesticide Use

EPA stated that there should be an expanded discussion in the Final EIS of the Applicants' herbicide and pesticide use within the EJ&E ROW and that CN should follow EPA and state regulatory requirements for these maintenance practices.

Response

The Applicants must comply with applicable U.S. and state pesticide regulations. Also, the Applicants' voluntary mitigation measures in Chapter 4 of this Final EIS address these issues.

3.3.3.15 Cumulative and Indirect Impacts

Inadequate Analysis

EPA stated there should be more analysis in the Final EIS to support the indirect and cumulative effects conclusions. The Final EIS should describe the cumulative effect of past, present, and reasonably foreseeable effects on natural resources including impacts (or potential benefits through mitigation) of the Proposed Action.

Response

Section 2.13 of this Final EIS presents SEA's expanded indirect and cumulative effects analysis. SEA conducted its analyses of potential indirect and cumulative effects in accordance with CEQ regulations and guidance, and by adapting methodologies applied in previous environmental studies of railroad mergers. To identify and analyze possible indirect effects, SEA reviewed the effects of the Proposed Action on the relevant environmental impact categories studied in the Draft EIS to

determine if those effects could lead to indirect effects. With regard to its spatial boundaries, SEA followed CEQ guidance that directs agencies to focus only on the resources and effects within the context of the Proposed Action. SEA concluded that "context" in the case of most environmental impact categories, including noise, biological resources, and water resources, meant those resources adjacent to or within close proximity to the EJ&E rail line.

With regard to temporal boundaries of its indirect effects analysis, SEA concluded that any direct effects on resources would occur when the Applicants' Operating Plan was implemented, whether over a 3-year period after approval of the Proposed Action, or more rapidly. However, SEA does not believe that the anticipated "direct effects" to natural resources would evolve into "indirect effects" in the future. The Applicants did not suggest nor did SEA's analysis provide data to support the assumption that more trains than those projected would use the EJ&E rail line in 2015 or thereafter. In addition, SEA's own analysis of CN's Operating Plan indicated that CN's trains would fill most of EJ&E's available capacity leaving little to no room for growth (see Section 4.1.5 of the Draft EIS). In other words, the potential direct effects could not increase in severity or distance from the ROW after implementation of the Proposed Action, or at some point in the foreseeable future. Based on the definition of "indirect effects" and the data available, SEA does not consider indirect effects on natural resources from the Proposed Action to be "reasonably foreseeable."

CEQ regulations contain a definition of "cumulative impact" at 40 CFR 1508.7 that states: "'Cumulative impact' is the impact on the environment which results from the incremental impact of the [Proposed] Action when added to other past, present, and reasonably foreseeable future actions . . ."(emphasis added). It does not require that an agency like the Board analyze all of the "accumulation of impacts to natural resources" and how the Proposed Action would adversely or positively affect the status of those natural resources.

To identify and analyze possible cumulative effects, SEA applied a four-step analysis that is described in Section 5.2.1 of the Draft EIS. SEA defined the scope of the cumulative effects analysis by identifying "related projects" at scoping and stakeholder meetings, and through community outreach activities. SEA used matrices to analyze and present the potential effects of the Proposed Action on the affected environmental impact categories. In Section 2.13 of this Final EIS, SEA has added its analysis of the possible cumulative effects that could affect noise levels, vehicle delays, and emergency services at or near rail/rail crossings on the EJ&E rail line. It has also analyzed possible cumulative effects of several additional highway projects.

With regard to natural resources that could be improved by proposed mitigation measures, such effects are described in Chapter 4 of this Final EIS. The Applicants' have committed to a number of voluntary mitigation measures for effects on biological resources under Section 4.3.7, Biological Resources. Several voluntary mitigations found in Sections 4.3.4, Land Use, and 4.3.8, Water Resources, are also applicable to biological resources. In addition to those proposed by the Applicants, SEA is recommending additional mitigation in Section 4.4 of this Final EIS. Several of these mitigation measures could result in positive cumulative effects on natural resources.

In addition, the Applicants have proposed voluntary mitigation measures related to hazardous materials transportation that, among other things, would 1) provide hazardous materials training to emergency responders from each of the communities located along the EJ&E rail line segments where hazardous materials transportation would increase, 2) create internal emergency response plans that would be provided to the appropriate state and local agencies, and 3) set up dedicated toll-free telephone numbers allowing emergency responders to have quick access to the Applicants for information and reporting. See Final EIS Section 4.3.2, Hazardous Materials Transportation, describing the voluntary mitigation measures. In addition to the voluntary mitigation proposed by the Applicants, SEA recommends supplemental conditions, discussed in Section 4.4.2.6 of this Final EIS.

These mitigation measures could also result in positive cumulative effects on natural resources that may someday be affected by a hazardous materials spill.

3.3.3.16 Cultural Resources

Cultural Assessment and Consultation Process

EPA stated that it appears that neither the Applicants nor the Board undertook historic or cultural resources surveys during the preparation of the Draft EIS. EPA recommends that the Final EIS should provide the details on the Board's assessment of historic resources and any proposed mitigation measures, including coordination with the Illinois and Indiana State Historic Preservation Officers (SHPO).

Response

SEA conducted full surveys of historic and cultural resources during the preparation of the Draft EIS. The survey reports were included in the Draft EIS, Appendix O. SEA also coordinated with the Illinois and Indiana state historic preservation agencies and Native American tribes per consultation requirements of the National Historic Preservation Act (see Appendix O of the Draft EIS). Both the Illinois and Indiana SHPOs concur with the Board that there would be "no adverse effect" on historic and cultural resources as a result of the Proposed Action. This Final EIS more fully explains the efforts and results that SEA has accomplished with regard to historic and cultural resources in the EJ&E rail corridor.

3.4 Comments from the Public

3.4.1 Comments on Purpose and Need

3.4.1.1 Purpose and Need

Summary

Commenters stated that they did not understand the need for the Proposed Action or that it had not been mentioned in news media reports. Some commenters stated that there would be no benefits in the Chicago metropolitan area. Others stated that while some, including CN and communities closest to Chicago, may benefit from the Proposed Action, those in the communities along the EJ&E rail line would suffer adverse effects.

Response

As described in the Draft EIS, the Applicants give three primary purposes for the Proposed Action. These purposes are:

1. To improve the Applicants' operations in and beyond the Chicago metropolitan area by providing CN with a continuous rail route around Chicago, under CN's ownership, that would connect the five CN rail lines radiating from Chicago.
2. To make EJ&E's Kirk Yard, as well as smaller facilities at Joliet, Illinois, and Whiting, Indiana, available to the Applicants, thus enabling them to consolidate rail car classification work at Kirk Yard and East Joliet Yard and to reduce the use of the BRC Clearing Yard.
3. To enable the CN system to benefit from an important supply line EJ&E provided for North American steel, chemical, and petrochemical industries, as well as for Chicago-area utilities

and others, thereby allowing the Applicants to develop closer and more extensive relationships with companies in and serving those industries.

According to the Applicants, the Proposed Action would also provide regional transportation benefits by improving efficiency and reducing rail congestion in the Chicago metropolitan area, a rail hub of national importance. Currently more than 1,400 trains per day move through the Chicago Terminal District on Class I (large), regional, and switching rail lines (see Figure 2.1-1 in the Draft EIS). While some of this traffic is destined for the city, much of it is simply passing through. Rail trips can take an average of 30 hours to get through the Terminal District. Delays result not only from the high demand on existing rail lines, but also from heavy rail and road traffic at highway/rail at-grade crossings and inadequate infrastructure that requires trains to operate at low speeds. With the Proposed Action, the Applicants could reroute much of the traffic around the downtown bottleneck.

Communities along the CN subdivisions would experience a decrease in freight rail traffic under CN's proposed Operating Plan. This would result in a reduction of adverse effects such as noise and traffic delays in communities along the CN subdivisions which have a higher population density than exists along the EJ&E rail line. Further, to the extent that reduction in Chicago rail congestion in Chicago may make shippers less likely to shift from rail transportation to the inherently more unsafe truck transportation, the proposed redirection of freight traffic could enhance overall safety, particularly in the transportation of hazardous materials.

Although benefits could accrue to the Chicago metropolitan area, SEA recognizes that the communities along the EJ&E rail line would experience adverse effects as a result of an increase in freight rail traffic. Both the adverse effects and benefits associated with the Proposed Action were described in the Draft EIS, Chapter 4.

Foreign Ownership

Commenters stated that CN is a Canadian company and that EJ&E and its assets should not be sold to a foreign company. Commenters also stated that CN's profits would go to Canada and that U.S. taxpayers should not be required to pay for infrastructure upgrades to minimize adverse effects in the U.S. They stated that only CN would benefit from the Proposed Action, and that the effects would be felt only in the U.S.

Response

CN is a multinational transportation company that operates and owns assets in both Canada and the U.S. CN owns Grand Trunk Corporation, a holding company for CN's properties in the U.S. Grand Trunk Corporation, which CN acquired in 1923, controls most of CN's U.S. operations, which include the former Illinois Central and Wisconsin Central railroads. There are no legal restrictions in the U.S that prevent a Canadian company from acquiring assets in the U.S.

CN notes that l) CN or its predecessor companies have been operating in the U.S. since 1880; 2) its chief executive officer, several other key officers, and most of its U.S. employees are Americans; and 3) the Board has not deemed CN's status as a Canadian company relevant in its three prior control proceedings over the past 10 years.

CN states that the Proposed Action would provide benefits to the Chicago metropolitan area, and that the Proposed Action would provide needed regional transportation benefits by 1) improving the fluidity of intermodal and other CN traffic that must move into, from, or through Chicago; 2) providing more efficient rail operations; 3) decreasing the traffic density on CN and other rail lines in Chicago's urban core; and 4) reducing congestion and providing for faster movement of shipments on CN lines. CN maintains that shippers would benefit from shortened transit times through the Chicago Terminal District. In addition, communities along the CN subdivisions would experience a

decrease in freight rail traffic under CN's proposed Operating Plan. This would result in a reduction of adverse effects such as noise and traffic delays in communities along the CN subdivisions which have a higher population density than exists along the EJ&E rail line. Further, to the extent that reduction in rail congestion in Chicago may make shippers less likely to shift from rail transportation to inherently more unsafe truck transportation, the proposed redirection of freight traffic could enhance overall safety, particularly in the transportation of hazardous materials. However, as described in Chapter 4 of the Draft EIS, SEA recognizes that the communities along the EJ&E rail line would experience adverse effects as a result of an increase in freight rail traffic.

Additional Track

A commenter stated that CN needed more track because they are increasing port facilities in British Columbia, Canada, and that CN will not reduce the volume on other rail lines as a result of the Proposed Action.

Response

SEA analyzed the projected effects of the Proposed Action and CN's plan for operating freight rail traffic along the EJ&E rail line if the Proposed Action were approved. In its Operating Plan, CN states that it intends to redirect freight rail traffic from its five subdivisions onto the EJ&E rail line. As part of its analysis, SEA examined whether CN's projected train numbers along the EJ&E rail line were reasonable and if higher levels of rail traffic might occur in the future along that line. SEA's analysis showed that, given the track construction and Operating Plan proposed by CN, as well as the physical constraints and other uses of the EJ&E rail line that CN does not propose to change, the EJ&E rail line would be at or near its practical train volume capacity if CN chose to operate the number of trains proposed in the Operating Plan. SEA determined that CN's Operating Plan is reasonable and provides an appropriate basis for the environmental evaluation. SEA's analysis and conclusions regarding future rail traffic is contained in Chapter 4 (Section 4.1) of the Draft EIS. The extent to which the CN subdivisions may experience rail traffic above that which is currently planned is speculative at this time. In the Final Scope of Study, SEA established 2015 as the timeframe for analysis. SEA concluded that this was a reasonable time frame and changes outside of this timeframe are speculative and not reasonably foreseeable.

Costs and Benefits

Commenters expressed the view that the costs of the Proposed Action did not outweigh the benefits. Commenters who suggested that some communities would benefit from the Proposed Action also recognized that the corresponding increase in freight rail traffic would cause adverse effects on other communities. It was stated that such adverse effects should be mitigated by public and private financing of infrastructure improvements.

Response

The EIS examined both the adverse environmental effects that could be imposed and the potential benefits that could accrue to the Chicago metropolitan area as a result of implementing the Proposed Action. With respect to infrastructure upgrades, Chapter 6 in the Draft EIS presented SEA's preliminary recommended environmental mitigation measures, including voluntary mitigation measures submitted by CN. In its comments on the Draft EIS, CN stated that it was submitting a revised voluntary mitigation proposal that would provide further relief to affected communities. Subject to some exceptions, CN agreed to almost all of SEA's proposed mitigation measures included in the Draft EIS. CN stated that it expects the total cost of the revised mitigation program to be approximately $60 million.

With respect to grade separations in particular, CN stated that it will:

> …cooperate with municipalities and counties in support of their efforts to secure funding, in conjunction with appropriate state agencies, for grade separations where they may be appropriate under criteria established by relevant state Departments of Transportation. The Applicants shall contribute their statutorily required amount of funding to the cost of the grade separation.

Chapter 4 of this Final EIS contains all of the mitigation options that SEA recommends the Board impose should the Proposed Action be approved, including the extent to which CN would be required to pay for mitigation measures such as infrastructure upgrades. Because the vehicle congestion problems are a combination of existing conditions and potential effects resulting from the Proposed Action, SEA believes that the remedies (that is, mitigation) appropriately should be funded by a combination of entities, and not by the Applicants alone.

Diverted Impacts

Commenters stated that adverse effects would be redirected from one area to another, with no greater benefit to the Study Area as a whole.

Response

Communities along the CN subdivisions would experience a decrease in freight rail traffic under CN's proposed Operating Plan, while communities along the EJ&E rail line would experience an increase. The overall benefit, according to CN, is that approval of the Proposed Action would 1) improve the fluidity of intermodal and other CN traffic that must move into, from, or through Chicago; 2) result in more efficient rail operations; 3) decrease the traffic density on CN and other rail lines in Chicago's urban core; and 4) reduce congestion and provide for faster movement of shipments on CN rail lines. CN maintains that shippers would benefit from shortened transit times through the Chicago Terminal District.

Commuter Transportation a Better Use

Commenters stated that the EJ&E rail line would be better used for increased commuter transportation.

Response

Use of the EJ&E rail line for additional freight traffic would not preclude the use of the rail line for additional commuter rail traffic. Chapter 4, Section 4.1.7, in the Draft EIS, described the potential effects of the Proposed Action on existing and future passenger rail operations, including reasonably foreseeable Metra improvements. Chapter 2 of this Final EIS includes additional evaluation of Metra's proposed STAR Line and Northern Indiana Commuter Transportation District's (NICTD) proposed West Lake Corridor projects. Based on its analysis, SEA concluded that it would be physically possible for CN to operate the increased train numbers as set forth in the Proposed Action without adversely affecting existing and proposed commuter trains. SEA stated that it would be important for CN and Metra to work together closely and coordinate to ensure the efficiency of increased CN freight trains while maintaining a high level of on-time performance for Metra trains.

Source of the Proposed Action

One commenter questioned who was responsible for the Proposed Action, suggesting that it could be the state or Federal government.

Response

CN filed an Application with the Board seeking the Board's approval to acquire the EJ&E West Company and its assets, including the EJ&E rail line and three rail yards. As the project proponent under NEPA, CN is responsible for preparing the Purpose and Need for the project.

Acquire Rail Yard

One commenter stated that one purpose of the Proposed Action was for CN to provide a rail yard for recombining trains and that other railroads did not experience 2-day delays.

Response

CN states that one purpose of the Proposed Action is to make EJ&E's Kirk Yard, as well as smaller facilities at Joliet, Illinois, and Whiting, Indiana, available to them, thus enabling them to consolidate rail car classification work at Kirk Yard and East Joliet Yard and to reduce the use of the BRC Clearing Yard.

CN's Purpose and Need

Commenters stated that the SEA should substantiate the Applicant's purpose and need for the Proposed Action.

Response

SEA is not the proponent of the Proposed Action. For that reason, SEA believes it is appropriate to focus on CN's purpose and need for the Proposed Action. As described in Chapter 2 of the Draft EIS, SEA did consider other alternatives (such as CREATE), although it is not the Board's practice to order the implementation of such alternatives.

Future Control

One commenter asked what would happen if CN were purchased by another entity and what control the public would have over environmental effects.

Response

When two or more rail carriers seek to consolidate – whether through merger or common control – they must obtain prior Board approval under 49 USC 11323 – 11325 and 49 CFR 1180. Action by the Board on such an application would require compliance with NEPA. In addition, any future owner of CN would be required to meet the obligations placed on CN by the Board, including implementation of Board-imposed mitigation measures and CN's voluntary mitigation measures.

3.4.1.2 Environmental Review Process

Summary

Commenters suggested that SEA contact the USFWS, USACE, EPA, and specific Illinois resource agencies for pre-application consultation.

Response

The Board is the lead agency for the EIS in accordance with their statutory mandate (49 USC 11323-11325). Other agencies were contacted to provide special expertise in accordance with 40 CFR 1501.6, as discussed in Chapter 1 of the Draft EIS.

Under 40 CFR 1503.2, "Federal agencies with jurisdiction by law or special expertise with respect to any environmental impact involved and agencies which are authorized to develop and enforce environmental standards shall comment on statements within their jurisdiction, expertise, or authority." SEA invited the following key Federal resource agencies to participate in the scoping process:

- U.S. Army Corps of Engineers
- U.S. Coast Guard
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service

SEA invited other Federal agencies, Native American groups, and state and local agencies to participate in the scoping process. SEA also requested site-specific natural resources and biological inventory information from numerous local stakeholder groups, including forest preserve districts and parks departments. SEA met with representatives of the EPA and USFWS to hear and address their comments. The extent of public and agency outreach, including outreach to low-income and minority communities, is addressed in Chapter 9 of the Draft EIS and Chapter 5 of this Final EIS.

Working with EPA

A commenter suggested that CN work with the EPA.

Response

During the environmental review process, SEA consulted with Federal agencies that have jurisdiction and expertise in railroad operations and other areas. One of the agencies that SEA has worked with most closely is EPA's Office of Strategic Environmental Analysis, Region 5, and Office of Federal Activities. Chapter 5 of this Final EIS describes SEA's interactions with all Federal agencies, including EPA. In addition to consulting on the development of this EIS, EPA reviewed and commented on this EIS. EPA's comments and SEA's response to those comments can be found in Chapter 3 of this Final EIS. SEA has encouraged CN to consult with all appropriate Federal and state agencies, including EPA.

Relevant Expertise and Stakeholder Meetings

One commenter stated that the Forest Preserve District of DuPage County was well suited to participate and engage in the environmental review and assessment of potential effects that may affect the forest preserves in the county. This commenter also stated that the Draft EIS did not adequately describe the stakeholder process, including a list of stakeholder groups.

Response

As noted in Chapter 9 of the Draft EIS (Outreach and Coordination), the Forest Preserve District of DuPage County (and similar organizations in other affected counties) was specifically invited by SEA to participate in the environmental review process. The stakeholder meetings and participants are described in Section 9.3.3 of the Draft EIS. Recent stakeholder group meetings held during the formal Draft EIS comment period are documented in Chapter 5 of this Final EIS.

CN's Attitude

One commenter stated that a CN representative's comments at a stakeholder meeting were "derisive" and showed a "poor attitude" to those who would experience the adverse effects of increased rail traffic. Another commenter said that CN was not being truthful.

Response

SEA is not responsible for comments made by CN during public meetings. SEA representatives strived to demonstrate their appreciation and understanding of the public's concerns and issues during all public meetings on the Draft EIS. Throughout the EIS process, SEA collected and verified environmental information from CN, consulting agencies, other interested parties, and the general public; conducted unbiased environmental analysis; developed appropriate environmental criteria and methodologies for analyzing particular environmental issue areas; and prepared environmental documentation and mitigation options. SEA made its own evaluation of the environmental issues and is responsible for the scope and content of the EIS.

3.4.1.3 Scope of the Draft EIS

Summary

One commenter stated that comments presented during scoping were not addressed in the Draft EIS.

Response

The Board published a Draft Scope of Study of the EIS in the Federal Register (Federal Register, December 21, 2007), and, in accordance with public and agency comments and further analysis, published a Final Scope of Study of the EIS (Federal Register, April 28, 2008). The Draft EIS was prepared in accordance with the Final Scope of Study and reflects the comments received during the scoping process to the fullest extent possible.

Socioeconomics

A commenter stated that the scope of the EIS should address socioeconomic effects on the community.

Response

The Draft EIS (Section 4.6 in Chapter 4) addressed socioeconomic issues such as employment, labor revenue, tax revenues, property values, community cohesion, community facilities, and public services. This Final EIS provides further analysis of these issues in Chapter 2.

Future Double-tracking

A commenter stated that, as a "minor EIS," the scope of the EIS was narrowed and did not address CN's future plans to construct double track a large percentage of the EJ&E rail line.

Response

The "minor" designation is based on the likelihood of potential transportation-related effects on competition. In Decision No. 2, the Board made it clear that a full EIS would be prepared, notwithstanding the "minor" designation, and SEA has taken a hard look at the potential environmental effects of the Proposed Action during the EIS process. However, railroads have the ability to construct double track and to generally add or reduce capacity as needed to respond to

market forces without the need to obtain Board approval. The extent to which CN may elect to construct additional double track in the future is beyond the construction included in the Proposed Action.

Analysis Period

A commenter stated that the EIS should analyze effects of the increase in freight rail traffic for as long as effects would be felt. Other commenters stated that the EIS should look at the long-term effects of the Proposed Action rather than focusing on short-term effects. Some commenters stated that the Draft EIS analysis only "projects out for 3 years" and that the Final EIS should "extend to 2015." Other commenters stated that the EIS should look beyond 2015.

Response

As explained in the Draft EIS, SEA decided that it would be appropriate to examine the potential environmental effects of increased rail traffic along the EJ&E rail line and decreased traffic along CN subdivisions to the year 2015. SEA recognizes that the effects of an increased number of freight rail trains would be felt in the community for the period of time in which the trains operated. The EIS does not suggest that the effects would lessen over time. However, an analysis of effects beyond 2015, 3 years beyond the 3-year expected time frame for implementation of the Proposed Action (assuming that the Board should approve the Proposed Action in 2009) would be speculative.

Indiana Impacts

Commenters stated that impacts in Indiana were not adequately addressed. One commenter stated that effects on emergency response facilities in Dyer, Indiana in particular were not addressed. Other commenters specifically mentioned potential effects on commuter rail traffic in Indiana.

Response

The EIS considered potential environmental effects in areas along the EJ&E rail line and CN subdivisions, including those rail line segments that are located in Indiana. Effects that could occur in Indiana were assessed and described to the same extent and in the same level of detail as effects that could occur in Illinois. Emergency response facilities in Dyer, Indiana, are described in Section 3.3.2.36 of the Draft EIS. Effects on emergency services are described in Section 4.3.3. SEA has performed additional analysis to assess potential effects on commuter rail traffic in Indiana. The additional analysis is presented in Chapter 2 of this Final EIS.

Impact of the Entire CN System

One commenter stated that the maps should show the entire CN system to understand the economic impact of the Proposed Action. The rail line would be used to transport Asian goods to Latin America.

Response

The entire CN system is shown in Figure 2.1-2 of the Draft EIS. The EIS addresses the potential environmental effects that could occur as a result of the Proposed Action. CN proposes to redirect existing rail traffic from its existing subdivisions through Chicago to the EJ&E rail line. SEA analyzed the extent to which freight rail traffic could exceed CN's estimates and concluded that, based on system constraints, the number of freight rail trains identified in CN's Application was reasonable. The origin and destination of the goods that would be transported along the EJ&E rail line would not change the potential environmental effects.

Ports and States

One commenter asked how the EIS addressed effects on U.S. ports and states.

Response

The EIS does not address effects on U.S. ports or states other than Illinois and Indiana because the Study Area is limited to Northeastern Illinois and Northwestern Indiana.

Ecological Impacts

One commenter stated that the Draft EIS should accurately assess the effects on ecological resources along the EJ&E rail line.

Response

Chapter 4 in the Draft EIS addressed effects on land use, biological resources, and water resources along the EJ&E rail line. The analysis included an assessment of effects on public lands, plants, wildlife, natural areas, groundwater, floodplains, streams, surface water bodies, and wetlands. SEA collected and verified environmental information from CN, consulting agencies, other interested parties, and the general public; conduct unbiased environmental analysis; develop appropriate environmental criteria and methodologies for analyzing particular environmental issue areas; and prepare environmental documentation and mitigation options. Additional analysis of ecological resources is contained in Chapter 2 of this Final EIS.

Capacity

Commenters stated that the Draft EIS should analyze "the full right-of-way capacity" along the EJ&E rail line rather than the rail traffic described in CN's Operating Plan.

Response

SEA analyzed the projected effects of the Proposed Action and the Applicants' plan for operating freight rail traffic along the EJ&E rail line if the Proposed Action were approved. In its Operating Plan, CN states that it intends to redirect freight rail traffic from its five subdivisions onto the EJ&E rail line. As part of its analysis, SEA examined whether CN's projected train numbers along the EJ&E rail line were reasonable and if higher levels of rail traffic might occur in the future along that line. SEA's analysis showed that, given the track construction and Operating Plan proposed by CN, as well as the physical constraints and other uses of the EJ&E rail line that CN does not propose to change, the EJ&E rail line would be at or near its practical train volume capacity if CN chose to operate the number of trains proposed in the Operating Plan. SEA's analysis and conclusions regarding future rail traffic is contained in Chapter 4 (Section 4.1) of the Draft EIS. The extent to which future track upgrades might increase rail capacity and the extent to which demand for rail capacity may increase in the future are speculative and were not analyzed.

Economics

One commenter stated that the Board should examine the economics of the Proposed Action.

Response

Section 4.6 of the Draft EIS examined the potential socioeconomic effects of the Proposed Action. These effects included effects on employment, labor revenue, tax revenues, property values, community cohesion, community facilities, and public services. The economics of the Proposed

Action are beyond the scope of the EIS. However, as part of its decisionmaking on CN's Application, the Board must determine whether 1) there is likely to be substantial lessening of competition, creation of a monopoly, or restraint of trade in freight surface transportation in any region of the United States; and 2) the anti-competitive effects of the transaction outweigh the public interest in meeting significant transportation needs (49 USC 11324(d)).

Regional Perspective

One commenter stated that the transportation merits and the environmental effects of the Proposed Action should be addressed on a regional, not a local, basis.

Response

The Draft EIS examined the potential environmental effects in the area that would be affected by the Proposed Action. The Study Area of the Proposed Action consists of the Chicago metropolitan area, which includes the City of Chicago and approximately 60 smaller communities in Lake, Cook, DuPage, Grundy, Will, and Kendall counties in Illinois and Lake County in Indiana. The analysis includes air quality and socioeconomic effects on the Chicago region. Other effects, such as those on land use and biological resources, are generally limited to the area immediately adjacent to the EJ&E rail line and CN subdivisions.

"Minor" Action

Commenters questioned how the Board could classify the Proposed Action as a "minor" action given the extent of its potential environmental effects and the extent of the effects on the Chicago regional rail system.

Response

The "minor" designation is based on the likelihood of potential transportation-related effects on competition. In Decision No. 2, the Board made it clear that a full EIS would be prepared, notwithstanding the "minor" designation, and SEA has taken a hard look at the potential environmental effects of the Proposed Action during the EIS process.

Impact Assessment Area

One commenter stated that the Draft EIS improperly aggregates beneficial and adverse effects for the entire Study Area.

Response

The Study Area for the Proposed Action consists of the Chicago metropolitan area, which includes the City of Chicago and approximately 60 smaller communities in Illinois and Indiana. The Study Area includes the communities potentially affected by the proposed changes to rail operations, both beneficially (an expected reduction in freight rail traffic) and adversely (an increase in freight rail traffic). SEA analyzed the potential effects on all communities. For example, SEA analyzed effects on specific highway/rail at-grade crossings and effects on specific, named resource areas such as parks and natural areas. SEA also conducted a site-specific noise analysis, developing noise contours along the entire EJ&E rail line.

Mitigation

Commenters stated that SEA's analysis would be "grossly incomplete and negligent" if it did not include "real mitigation solutions" and guaranteed funding sources. Another commenter said that the Draft EIS includes "very little tangible mitigation" and that asking affected communities to work with CN on mitigation is not mitigation. One commenter stated that there was no enforceable mitigation plan and that the Final EIS should address the effects on local communities if the mitigation measures were not implemented.

Response

The Draft EIS addressed the environmental effects of the Proposed Action without mitigation measures. SEA then described the voluntary mitigation proposed by CN as well as its own preliminary environmental mitigation strategies in Chapter 6 of the Draft EIS. SEA sought public and agency comment on CN's offered mitigation and its preliminary environmental mitigation strategies. Based on public comment and input received, SEA developed final mitigation recommendations for the Board, which are described in Chapter 4 of this Final EIS. SEA's final mitigation recommendations address the timing and financing of mitigation measures.

Construction Impacts

Commenters stated that "the construction impacts are non-existent" in the Draft EIS. They ask when construction impacts will be studied and when affected communities will be able to comment on those impacts.

Response

SEA addressed the impacts of constructing the proposed connections and double track segments throughout the Draft EIS. Section 2.2.2 of the Draft EIS states that, as a result of the Proposed Action, CN would construct new connecting tracks at six locations on the EJ&E rail line and would add capacity to the EJ&E rail line by installing approximately 19 miles of double track. In addition, for each resource area discussed in Chapter 4 of the Draft EIS, there is a section that specifically describes the impacts of the proposed construction activities.

Effects Outside the EJ&E Arc

One commenter asked whether effects on communities beyond the EJ&E arc were studied.

Response

SEA analyzed the effects of the Proposed Action, including effects associated with the construction and operation of rail connections and five segments of double-tracking. These effects are discussed in Chapter 4 of the Draft EIS; updated information and analyses are provided in Chapter 2 of this Final EIS. The analysis shows that most of the effects would occur in communities along the EJ&E rail line, which would experience an increase in freight rail traffic, and along CN rail lines, which would experience a decrease in freight rail traffic under the Applicants' Operating Plan. To the extent that effects such as vehicle delays could affect those in communities outside the EJ&E arc, but not along the EJ&E rail line, they were addressed in the EIS.

3.4.1.4 NEPA Process

Summary

Commenters urged the Board to seriously evaluate the concerns raised by the public. Some commenters believed they had no say in the process. Others asked for additional information regarding the Board's decision-making process and how public comments and concerns would be considered.

Response

SEA has undertaken extensive outreach efforts, described in Chapter 9 of the Draft EIS and in Chapter 5 of this Final EIS, to obtain public input throughout the EIS process. On July 25, 2008, the Draft EIS was made available to the public for a 60-day comment period, during which SEA held eight public meetings in communities in the Chicago metropolitan area. SEA has considered all of the public comments received on the Draft EIS. This Final EIS responds to the comments received, provides updates and corrections to data provided in the Draft EIS and additional analysis as necessary, and incorporates final environmental mitigation requirements.

The Board will weigh the potential environmental effects discovered during the course of the environmental review process in deciding whether to authorize the Proposed Action as proposed, deny the proposal, or approve it with conditions, including environmental conditions (see 49 CFR 1105.10(a) and (f)).

Expedited Decision

Commenters both supported and opposed CN's request to bifurcate the proceeding and expedite a decision on CN's Application.

Response

On September 8, 2008, the Board issued Decision No. 14 in which it denied CN's request for an expedited decision, and on November 9, 2008, the D.C. Circuit Court denied a request that the court issue a so-called writ of mandamus to compel the agency to complete its process by the end of December, 2008. Accordingly, after issuance of the Draft EIS (consistent with CEQ regulations), the Board is issuing this Final EIS ahead of its earlier determination in Decision No. 13 (July 25, 2008) to follow a schedule that targets completion of this Final EIS for between December 1, 2008, and January 31, 2009. Decision No. 13 indicates that the Board intends to issue a final decision on the Proposed Action merits as soon as possible after issuance of this Final EIS, consistent with CEQ regulations.

EIS Timing and Major/Minor Action

One commenter stated that the "normal Draft EIS process is 18 months but through pressure from CN this one has taken only 4-5 months" and asks why this is the case and "why cut the process so short for this acquisition?" This commenter also asked why CN refers to the Proposed Action as a "minor deal" and asked for "things to be hurried along?"

Response

Depending on the proposal and the extent of potential environmental effects, completion of the environmental review process can take from several months to several years. In its Decision No. 2 (November 26, 2007) in this proceeding, the Board determined that preparation of an EIS would be and that issuance of a final decision on the merits of CN's Application would not occur until the

completion of the NEPA environmental review process. At that time, the Board indicated that no determination could be made regarding the time preparation of the EIS would require, but that, in the past, the EIS process has ranged from less than18 months to several years.

The Board, through SEA and with the assistance of a third-party contractor, has proceeded to prepare the Draft EIS in an expeditious manner, recognizing the uncertainty and concerns of the affected communities and recognizing CN's business need for a decision. As a result, the Board issued the Draft EIS on July 25, 2008, seven months after the issuance of the Notice of Intent to prepare an EIS, which began the environmental review process for CN's Proposed Action.

The Board also issued Decision No. 13 on July 25, 2008, addressing CN's May 13, 2008, Request for Establishment of Time Limits for NEPA Review and Final Decision. Claiming that failure to complete the transaction by December 31, 2008, could jeopardize the Stock Purchase Agreement between CN and EJ&E and, ultimately, the transaction as a whole, CN had requested that the Board set time limits for the EIS in accordance with 40 CFR § 1501.8 of the CEQ/NEPA implementing regulations. The Applicants proposed a schedule that they asserted was fair and reasonable under the circumstances of the case; this schedule contemplated the issuance of a final decision by December 1, 2008.

In Decision No. 13, the Board set out a schedule that projects completion of this Final EIS between December 1, 2008, and January 31, 2009, with issuance of a final decision subject to the time periods in the CEQ regulations at 40 CFR 1506.10(b)(2). With this schedule, the Board plans to complete the EIS process in less time than the NEPA review has taken in other cases with similar issues. .

SEA has used its best efforts to analyze and document both the adverse and beneficial effects of CN's Proposed Action in the Draft EIS. Although CEQ regulations dictate a minimum 45-day comment period on a Draft EIS, the Board instituted a 60-day comment period for the Draft EIS. SEA has considered all of the public comments submitted on the Draft EIS and, as a result, has made changes to the Draft EIS that are reflected in this Final EIS.

The "minor" designation is based on the likelihood of potential transportation-related effects on competition. In Decision No. 2, the Board made it clear that a full EIS would be prepared, notwithstanding the "minor" designation, and SEA has taken a hard look at the potential environmental effects of the Proposed Action during the EIS process.

Sufficiency of the EIS

Commenters stated that the Draft EIS was insufficient, was "flawed and incomplete," or used "unsubstantiated and unsourced data," but provided no additional explanations. While some commenters stated that they questioned the analysis of specific resources such as traffic delays, noise, or effects on emergency services, they did not provide specific details. Some commenters stated that the number of "sensitive forest preserves" through which the trains would pass "has not been adequately studied." Other commenters stated that the Draft EIS failed to fairly address alternatives or did not address cumulative impacts.

Response

SEA analyzed and documented both the adverse and beneficial effects of the Proposed Action in the Draft EIS. As detailed in Chapter 4 of the Draft EIS, SEA analyzed the potential effects of the Proposed Action on the operation of existing freight and passenger rail traffic on the EJ&E rail line, rail safety, regional transportation systems (including delays to passenger and emergency vehicles), hazardous waste sites, land use (including forest and nature preserves), socioeconomics, environmental justice, energy use and transport of energy resources, air quality and climate change, noise and vibration, biological resources (including Federal, state, and local conservation and natural

areas), water resources, and cultural resources. To ensure that all reasonably foreseeable effects were identified, SEA analyzed not only the number of trains that would be redirected to the EJ&E rail line from CN rail lines under the Applicants' proposed Operating Plan, but also the maximum number of trains that could use the EJ&E rail line given current constraints. SEA analyzed the direct, indirect, and cumulative impacts that could occur as a result of the Proposed Action.

SEA also analyzed alternatives to the Proposed Action—the No-Action Alternative and the Approval with Conditions Alternative. SEA considered several other alternatives, but did not analyze them because they did not meet the Applicants' Purpose and Need.

SEA has considered all of the public comments submitted on the Draft EIS and, as a result, has made changes to the Draft EIS that are reflected in this Final EIS. SEA is also providing specific responses to specific questions and concerns raised during the public comment period.

Board Decision-Making Authority

Commenters stated that the interests of people in the community should come before the interests of a railroad. Other commenters stated that citizens have no recourse regarding the number of trains using a particular rail line. Another commenter stated that the Board was required to look at the major environmental problems that could occur 1 to 2 years after the Proposed Action and impose mitigation for effects that might not be felt for 10 to 12 years.

Response

Public outreach provided an opportunity for potentially affected people to learn about proposals that require Board approval, and that might raise concerns. This is one of the primary purposes of the Board's environmental review process. As part of that process, the Board evaluates the potential effects of the Proposed Action and develops tailored mitigation to eliminate or reduce the effects of the Proposed Action, where appropriate, if the Board's thresholds for mitigation are met.

Even where mitigation would not be appropriate, SEA must analyze potential changes resulting from the Proposed Action and must identify and disclose, for both the public and the decisionmakers, potential environmental effects that those changes would cause. However, railroads have the flexibility to operate via their most efficient routings to meet their shippers' needs. Existing railroads ordinarily can make improvements to their rail lines or rail facilities; add trackage to better serve their shippers; and reroute, increase, or decrease their level of operations on particular rail lines without Board approval or an environmental review. Therefore, in railroad acquisition cases, SEA generally only performs environmental impact analyses for effects from traffic changes that would not occur but for the approval of the Proposed Action within a reasonably foreseeable time. The Board can impose conditions to mitigate potential environmental effects, however, any conditions that the Board imposes must relate directly to a specific transaction, must be reasonable, and must be supported by the record before the Board. The Board's practice has been to mitigate only those effects that result from a Proposed Action, and not to impose mitigation for pre-existing conditions.

EIS and the Presidential Election

Commenters suggested that a decision on CN's Application should be delayed until after the presidential election and new members of the Board are in office. Others stated that CN and the Board want to expedite the process to have a decision before a new administration takes office.

Response

It would be unreasonable and inappropriate to base the timing of a final decision on any external factors such as the presidential election, the appointment of new board members, and confirmation of

new members by the U.S. Senate. The Board issued Decision No. 13 on July 25, 2008, addressing CN's May 13, 2008, Request for Establishment of Time Limits for NEPA Review and Final Decision. In Decision No. 13, the Board set out a schedule that projects completion of this Final EIS between December 1, 2008, and January 31, 2009, with issuance of a final decision subject to the time periods in the CEQ regulations at 40 CFR 1506.10(b)(2).

Independent Review

Commenters suggested that the Draft EIS had been prepared by CN or at CN's direction. Others stated that the Draft EIS should have been prepared by an independent third party.

Response

All information provided by the Applicants was reviewed and verified by SEA before being used in the Draft EIS. SEA's preparation of the Draft EIS was supported by HDR Engineering, Inc. (HDR), a third-party contractor selected by SEA. HDR functioned as an extension of SEA staff and worked under SEA's direction to collect and verify environmental information from CN, consulting agencies, other interested parties, and the general public; conduct unbiased environmental analysis; develop appropriate environmental criteria and methodologies for analyzing particular environmental issue areas; and prepare environmental documentation and mitigation options. SEA independently reviewed and evaluated all of the environmental issues and conclusions, and it is responsible for the scope and content of the Draft EIS.

Definition of "Impact"

A commenter asked for a specific definition of "impact."

Response

In the context of NEPA compliance, environmental effects are changes that may occur to ecological, aesthetic, historic, and cultural resources as a result of the implementation of the Proposed Action or alternatives to the Proposed Action. Environmental effects also include changes to public health and safety and to socioeconomic conditions such as population, housing, public services, and employment. NEPA requires Federal agencies to analyze direct, indirect, and cumulative environmental effects of the Proposed Action and all reasonable alternatives. Environmental effects may be beneficial or detrimental. NEPA does not require Federal agencies to reach a particular outcome, or even to choose the environmentally preferable course of action, but it does require that Federal agencies consider environmental effects in decisionmaking.

Board Involvement

A few commenters perceive that the Board takes no interest in local problems, one asking "why the three [Board] decisionmakers did not attend this meeting."

Response

Under NEPA, the Board must consider the potential environmental effects of a Proposed Action (e.g., approval of the CN Application) before making a decision. SEA is the office within the Board that gathers and analyzes the environmental record, prepares the NEPA documentation, and provides technical advice and recommendations to the Board on environmental matters. SEA staff members have attended all of the public meetings related to the Proposed Action as representatives of the Board. The three Board members themselves have made site visits to the area to see firsthand how the communities along the EJ&E and CN rail lines might be affected by the Proposed Action.

Negotiating with CN

A commenter opposed the Proposed Action because the Board is not negotiating with CN to protect the interests of families, taxpayers, and companies.

Response

The Board encourages communities to negotiate directly with the Applicants to develop mutually acceptable agreements addressing the community's concerns. The Board recognizes that these agreements could be more far reaching that the mitigation that the Board may impose.

Board Decision-Making Process

A commenter questioned how "the degradation of the air, water, and soil along with the negative impact on the communities' economic viability be figured into the analysis?" Other commenters asked why the Proposed Action is still being considered if the studies have "concluded that this purchase would be detrimental to the communities involved and endanger the citizens of the communities?" Some commenters asked that SEA address the issues raised in public comments and report on the "true negative impact that the CN acquisition will have" in the Final EIS.

Response

CN filed an Application with the Board seeking the Board's approval of the Proposed Action. By law, the Board must issue a decision regarding the Application. The proceeding will remain open and the Application under consideration until such a decision is made.

SEA prepared the Draft EIS to examine the potential environmental effects associated with the Proposed Action and other related actions such as the construction of connections and double track segments. The Draft EIS examined both the adverse environmental effects and the potential benefits of the Proposed Action.

This Final EIS responds to the comments received, provides updates and corrections to data provided in the Draft EIS as necessary, and incorporates final environmental mitigation requirements. The Board will weigh the potential environmental effects discovered during the course of the environmental review process in deciding whether to authorize the Proposed Action as proposed, deny the proposal, or approve it with conditions, including environmental conditions (see 49 CFR 1105.10(a) and (f)).

Consideration of Comments

Commenters urged the Board to fully consider their comments and the effects on their communities in their decisionmaking.

Response

The Board will weigh the potential environmental effects discovered during the course of the environmental review process in deciding whether to authorize the Proposed Action as proposed, deny the proposal, or approve it with conditions, including environmental conditions (see 49 CFR 1105.10(a) and (f)).

Current Rail Traffic Increase

One commenter stated that there was already increased freight traffic along the EJ&E rail line.

Response

As common carriers, railroads continually adjust traffic levels in response to market forces and operational issues. To the extent that there may be an increased number of freight trains using the EJ&E rail line at this time, it is not as a result of the implementation of CN's proposed Operating Plan. The Board will make a determination regarding the Proposed Action, including increased freight traffic on the EJ&E rail line, soon after this Final EIS is issued.

What if the EIS is Incorrect?

One commenter asked what recourse citizens had if the EIS is incorrect.

Response

SEA analyzed and documented both the adverse and beneficial effects of the Proposed Action in the Draft EIS. As detailed in Chapter 4 of the Draft EIS, SEA analyzed the potential effects of the Proposed Action on the operation of existing freight and passenger rail traffic on the EJ&E rail line, rail safety, regional transportation systems (including delays to passenger and emergency vehicles), hazardous waste sites, land use, socioeconomics, environmental justice, energy use and transport of energy resources, air quality and climate change, noise and vibration, biological resources, water resources, and cultural resources. To ensure that all reasonably foreseeable effects were identified, SEA analyzed not only the number of trains that would be redirected to the EJ&E rail line from CN rail lines under the Applicants' proposed Operating Plan, but also the maximum number of trains that could use the EJ&E rail line given current constraints.

Some information in the Draft EIS was incorrect. Chapter 2 and Appendix A of this Final EIS identify the changes and corrections to the Draft EIS.

Based on independent environmental analysis, extensive consultations with appropriate agencies and stakeholders throughout the EIS process, and input from the public, the information in the EIS accurately describes the Proposed Action and its anticipated environmental effects. SEA is recommending mitigation that would require quarterly reports for 5 years, or any period the Board imposes, detailing the Applicants' progress in implementing the Proposed Action. This would allow the Board to take appropriate action should any significant new information become available after the Board's decision.

No Approval for New Tracks

One commenter stated that if CN proposed to construct a new rail line where the EJ&E rail line is now, it would not be approved. Thus, CN's Application to use the existing EJ&E rail line should not be approved.

Response

It is unknown whether a new rail line would be approved. SEA acknowledges that the effects of the construction of a new rail line through established communities would likely impose other environmental effects. However, the Application pending before the Board is the Proposed Action. As a result of the Proposed Action, CN would redirect freight rail traffic from its subdivisions to the EJ&E rail line. The increase in freight rail traffic would result in some adverse effects on the communities along the EJ&E rail line and could result in beneficial effects on the communities along CN subdivisions.

As part of its environmental review responsibilities, SEA must analyze potential changes resulting from the Proposed Action and must identify potential environmental effects that those changes would

cause. However, railroads have the flexibility to operate via their most efficient routings to meet their shippers' needs. Existing railroads ordinarily can make improvements to their rail lines or rail facilities; add trackage to better serve their shippers; and reroute, increase, or decrease their level of operations on particular rail lines without Board approval or an environmental review.

Reconsider Draft EIS

One commenter asked SEA to reconsider some of the conclusions in the Draft EIS so that a decision on the Proposed Action could be made or mitigation imposed before the Proposed Action would be approved. Other commenters asked that the Draft EIS be amended to address the concerns raised and to suggest means for resolving them.

Response

SEA has considered all of the public comments received. This Final EIS responds to the comments received, provides updates and corrections to data provided in the Draft EIS as necessary, and incorporates final environmental mitigation requirements. The Board will weigh the potential environmental impacts discovered during the course of the environmental review process in deciding whether to authorize the Proposed Action as proposed, deny the proposal, or approve it with conditions, including environmental conditions (see 49 CFR 1105.10(a) and (f)).

Sufficient Information

A commenter criticized CN for not providing sufficient information for the EIS.

Response

SEA has been able to obtain the information necessary to prepare the EIS and to assess the potential impacts of the Proposed Action. A record of the Applicants' responses to SEA's requests for information during the EIS process is available on the Board's website (www.stb.dot.gov).

Misuse of the NEPA Process

One commenter objected to the use of the environmental review process to try to defeat the Proposed Action. Another commenter stated that SEA's environmental review process should not be used "to undo or otherwise prevent rail capacity enhancing transactions in the national interest."

Response

SEA analyzed potential changes resulting from the Proposed Action and identified potential environmental effects that those changes would cause. These were documented in the Draft EIS. SEA has considered all of the public comments received on the Draft EIS. This Final EIS responds to the comments received, provides updates and corrections to data provided in the Draft EIS as necessary, and incorporates final environmental mitigation recommendations. The Board will weigh the potential environmental effects discovered during the course of the environmental review process in deciding whether to authorize the Proposed Action as proposed, deny the proposal, or approve it with conditions, including environmental conditions (see 49 CFR 1105.10(a) and (f)). The Board will make a determination regarding the Proposed Action soon after this Final EIS is issued.

Due Process

One commenter stated that the Board's capitulation to CN was a violation of due process.

Response

SEA has prepared the EIS in accordance with NEPA and other applicable regulations. SEA analyzed potential changes resulting from the Proposed Action and identified potential environmental effects that those changes would cause. These were documented in the Draft EIS and revised, as necessary, in this Final EIS. In addition, SEA received over 9,500 comment documents raising nearly 55,000 issues or concerns. This Final EIS responds to the comments received. The Board will weigh the potential environmental effects discovered during the course of the environmental review process in deciding whether to authorize the Proposed Action as proposed, deny the proposal, or approve it with conditions, including environmental conditions (see 49 CFR 1105.10(a) and (f)). Although CN asked the Board for an expedited decision, the Board declined to do so and stated that it will make its determination regarding the Proposed Action after this Final EIS is issued.

Rail Congestion

One commenter suggested that the Board look at the global issue of rail congestion.

Response

The action pending before the Board is the approval, disapproval, or approval with conditions of the Proposed Action. SEA, on behalf of the Board, prepared the Draft EIS to examine the potential environmental effects of implementing the Proposed Action. SEA did not examine the extent to which the Proposed Action would relieve rail congestion in the Chicago metropolitan area, nationally, or internationally. However, CN states that approval of the Proposed Action would 1) improve the fluidity of intermodal and other CN traffic that must move into, from, or through Chicago; 2) result in more efficient rail operations; 3) decrease the traffic density on CN and other rail lines in Chicago's urban core; and 4) reduce congestion and provide for faster movement of shipments on CN rail lines. CN maintains that shippers would benefit from shortened transit times through the Chicago Terminal District. Historically, the Board's has not developed strategies to address rail congestion.

Compliance with NEPA

Commenters stated that the Draft EIS failed to comply with NEPA and applicable regulations. The Final EIS should address local, site-specific effects of the Proposed Action in adequate detail. In addition, the Final EIS should address the alternatives of a new rail line and the Chicago Environmental and Transportation Efficiency (CREATE) program.

Response

SEA analyzed and documented both the adverse and beneficial impacts of the Proposed Action in the Draft EIS. As detailed in Chapter 4 of the Draft EIS, SEA analyzed the potential impacts of the Proposed Action on the operation of existing freight and passenger rail traffic on the EJ&E rail line, rail safety, regional transportation systems including delays to passenger and emergency vehicles, hazardous waste sites, land use, socioeconomics, environmental justice, energy use and transport of energy resources, air quality and climate change, noise and vibration, biological resources, water resources, and cultural resources. To ensure that all reasonably foreseeable impacts were identified, SEA analyzed not only the number of trains that would be redirected to the EJ&E rail line from CN rail lines under the Applicants proposed Operating Plan, but also the maximum number of trains that could use the EJ&E rail line given current constraints.

With respect to alternatives, SEA discussed but dismissed from further consideration alternatives that did not meet the Applicants' Purpose and Need. CN gives three primary purposes for seeking to acquire control of the EJ&E rail line assets: 1) to improve the Applicants' operations in and beyond

the Chicago Metropolitan area by providing CN with a continuous rail route around Chicago, under CN's ownership, that would connect the five CN rail lines radiating from Chicago; 2) to make EJ&E's Kirk Yard (near Gary, Indiana), as well as smaller facilities at Joliet, Illinois, and Whiting, Indiana, available to the Applicants, thus enabling them to consolidate rail car classification work at Kirk Yard and East Joliet Yard and to reduce the use of the BRC Clearing Yard (near Bedford Park, Illinois); and 3) to enable the CN system to benefit from an important supply line provided by EJ&E for North American steel, chemical, and petrochemical industries, as well as for Chicago-area utilities and others, thereby allowing the Applicants to develop closer and more extensive relationships with companies serving those industries.

As stated in Section 2.5 of the Draft EIS, alternatives that would not meet these three primary purposes are not reasonable and feasible. Constructing a new rail line would not satisfy the Purpose and Need for the Proposed Action because the Applicants would not gain access to Kirk Yard, one of the primary purposes of the Proposed Action. In addition, a bypass would be costly in terms of land acquisition and rail construction, and would add route miles. Finally, a bypass would not avoid or minimize environmental effects, rather it would simply move them to an area around a bypass, and in the process would directly affect more land area, thus potentially increasing the environmental effects. For these reasons, the construction of an outer bypass was eliminated from further consideration.

The CREATE Program was also considered but dismissed. Given that CREATE could only partially satisfy the first purpose of the Proposed Action (that is, providing CN with a continuous rail route around Chicago under CN ownership) and could not satisfy the second and third purposes of the Proposed Action (that is, giving CN access to Kirk, East Joliet and Whiting yards and allowing CN to benefit from the EJ&E rail line for important industries and Chicago-area utilities or bypass the congested Chicago Terminal District, respectively), CREATE was not considered to be a reasonable alternative to the Proposed Action and was eliminated from detailed study.

Reissue Draft EIS

Commenters stated that the Draft EIS should be revised and reissued to address deficiencies in the discussion of the Purpose and Need, alternatives, mitigation; the analysis of safety, transportation, environmental justice, energy, air quality and climate, noise and vibration, and biological resources; and the analysis of indirect and cumulative effects of the Proposed Action. One commenter stated that the Draft EIS should be reissued to include materials that were provided at the publicly held meetings.

Response

The public comments submitted on the Draft EIS were considered and, as a result, changes have been made to the Draft EIS that are reflected in this Final EIS. To the fullest extent possible, SEA is also providing specific responses to specific questions and concerns raised during the public comment period, including comments relating to purpose and need, alternatives, mitigation, analysis of particular resource areas, and indirect and cumulative impacts. The changes made to the Draft EIS do not warrant its re-issuance for public review and comment. SEA prepared materials for the public meetings on the Draft EIS based on material and information that is contained in the Draft EIS. The public meeting materials are available for additional review on the Board's project website. Materials at the public meetings were developed from the Draft EIS or were materials used by SEA in preparing the Draft EIS. For that reason, there is no reason to reissue the Draft EIS.

Negotiated Agreements

Commenters stated that the EIS mistakenly assumes that affected communities know what can and should be mitigated and that they have negotiating power against CN. One commenter stated that "it is unreasonable to oversimplify the task of identifying mitigation projects in each of our communities without considering the effects on the entire region and without input from all residents and businesses likely to be affected by changes in travel patterns."

Response

These comments relate to SEA's encouragement of negotiations between the Applicants and potentially affected communities to reach mutually acceptable solutions to the parties' concerns. The Board encourages negotiated solutions because they can be more far reaching than mitigation the Board could unilaterally impose. Negotiated agreements can be with neighborhoods, communities, cities, counties, regional coalitions, states, and other entities. The Board's practice is to require compliance with the terms of any negotiated agreements submitted to SEA as environmental conditions in any final decision approving a proposed action. These negotiated agreements would supersede any environmental conditions for that particular community or other entity that the Board otherwise would impose.

Sometimes it can be difficult for a railroad and a community to come to terms. Nevertheless, SEA encourages the Applicants and other parties to continue to see if mutually acceptable solutions can be reached. Negotiated agreements between the Applicants and affected communities may be reached and submitted to SEA at any time while the proceeding is pending before the Board.

Cost-Benefit Analysis

Commenters questioned the lack of a cost-benefit analysis in the Draft EIS. One commenter stated that the Draft EIS "lacks a thorough cost-benefit analysis to weigh the impacts of this sale relative to its potential benefits," and that the Final EIS should include such an analysis.

Response

SEA did not prepare a cost-benefit analysis for the Draft EIS. In this Final EIS, SEA presents an analysis of property values of residences within 300 feet of the EJ&E rail line and property tax revenue impacts. SEA also discusses the number of residences along the CN rail lines that would experience a decrease in freight train traffic, although SEA found no information regarding whether property values would increase if train traffic decreases. Further, if other trains use the CN rail lines, then residents along those rail lines would still experience the adverse effects of rail traffic.

Benefits of the Proposed Action

Commenters stated that the Draft EIS "seemed to lack a review and understanding of the benefits this transaction will have on the inner arc communities." Some commenters stated that purported benefits to the region were not outlined in the Draft EIS and that there are no "long term guarantees that traffic on the current tracks will not increase at a later date."

Response

The EIS addresses both the beneficial and adverse impacts of the Proposed Action. With the expected reduction in freight rail traffic, the Proposed Action would potentially benefit some communities along the CN rail line segments within the EJ&E arc. The Proposed Action would have adverse effects on communities along the EJ&E rail line with the proposed increase in freight rail traffic.

In its Operating Plan, CN states that it intends to redirect freight rail traffic from its five subdivisions onto the EJ&E rail line. The extent to which the CN subdivisions may experience rail traffic above that which is currently planned is speculative and was not analyzed.

Prince Rupert Phase 2

Commenters stated that the Draft EIS should address additional rail traffic that could be made possible by the operation of Phase 2 of the Port of Prince Rupert (Canada) expansion.

Response

In the Draft EIS, SEA included the full development of future rail traffic from Port of Prince Rupert Phase 1 in its estimate of the reasonably foreseeable rail traffic that the Applicants would operate over the EJ&E rail line. In response to the comments received on the Draft EIS, on September 30, 2008, SEA submitted information request No. 6 to the Applicants requesting additional information concerning the potential for increased rail activity from the Port of Prince Rupert's proposed Phase 2 development. The Applicants supplied additional information concerning the Port of Prince Rupert and the current development plans for Phase 2 of the port's Fairview Container Terminal in both the Applicants' September 30, 2008, comment letter on the Draft EIS and in a letter to SEA dated October 21, 2008. The Applicants described the current uncertainty of the environmental review process, global port competition, global intermodal demand, and the funding decisions associated with the Phase 2 development.

SEA evaluated the information provided by the Applicants and contacted staff of the Port of Prince Rupert to confirm that the environmental review process for Phase 2 of the port's Fairview Container Terminal is currently underway, but is not complete. SEA notes that unlike the existing Phase 1 development, which involved the adaptation of *existing* port infrastructure for intermodal container traffic, the Phase 2 development would require substantial expansion of port infrastructure, including filling in a portion of Chatham Sound/Hecate Strait. Both national and global economic conditions have reduced the international intermodal market rate of growth, and there is substantial competition among the ports on the West Coast. SEA concludes that its determination in the Draft EIS was correct and that it would be too speculative to include future Port of Prince Rupert Phase 2 traffic in the rail traffic projections used in this Final EIS.

3.4.1.5 Time Extension Requests

Summary

Commenters requested that the 60-day comment period be extended for further public review and comment. Suggested extensions were up to 120 days.

Response

The comment period for the Draft EIS opened July 25, 2008, when the Draft EIS was released. To provide adequate time for all stakeholders to review the Draft EIS and provide comment, the Board set a comment deadline of September 30, 2008.

A typical comment period is 45 days for stakeholders to review a Draft EIS. To allow stakeholders ample time to comment on these proceedings, the Board felt that providing more than the 45 days was appropriate; it extended the comment period to 60 days from the EPA publication of Notice of Availability of the Draft EIS in the Federal Register. The Notice of Availability was published August 1, 2008. The extended comment period was provided to ensure stakeholders the opportunity to review the Draft EIS prior to the public meetings held in the Chicago metropolitan area in late

August and early September 2008, as well as to have time to submit comments after all public meetings had concluded.

3.4.1.6 Other Comments on Purpose and Need

Compliance with Canadian Law

One commenter questioned whether CN was in compliance with Canadian law "and also in relation to this purchase?"

Response

The extent to which CN is in compliance with Canadian law is outside the scope of this proceeding. To the best of SEA's knowledge, CN is in compliance with U.S. laws and regulations. There are no domestic legal restrictions that prevent a Canadian company from acquiring assets in the United States.

3.4.2 Comments on the Proposed Action

3.4.2.1 Changes in Train Traffic Volume

Changes to Number, Length, and Weight of Trains

Many people within the Study Area expressed concerns about the number and length of trains that would use the EJ&E rail line under the Proposed Action. These comments were generally accompanied by more specific concerns regarding the potential effects of increased train volumes on their communities, and identifying existing rail congestion and current highway/rail crossing delays. Numerous commenters noted current heavy traffic congestion on local roads, one stating that even without the Proposed Action, "traffic is a problem." Another stated that the "increase in train traffic in the Plainfield [Illinois] area would be a tremendous problem for vehicle traffic on our already congested & undersized roads." Commenters frequently raised concerns about the veracity or accuracy of both existing figures (train volumes, lengths, and speeds) as well as those projected under the Proposed Action.

Response

A large amount of public concern has been raised regarding the proposed increase in freight rail traffic along the EJ&E rail line and its potential adverse effects on adjacent communities. SEA collected available data on train lengths and volumes and used them to analyze and document the potential effects of the Proposed Action. SEA independently reviewed and verified rail operations data supplied by the Applicants, including train lengths.

Details of the analysis data can be found in the Draft EIS. Figure 2.2-1 of the Draft EIS shows Proposed Changes to Rail Traffic Volumes for both EJ&E and CN rail lines. Table 2-8 summarized proposed changes in train traffic volume on CN rail lines for each rail line segment of the five affected subdivisions (Waukesha, Freeport, Joliet, Chicago, and Elsdon). Table 2-7 identified proposed changes in train traffic volume on each EJ&E rail line segment.

Under the Proposed Action, average train length would increase from the current 2,590 feet to 6,321 feet, with an average train consisting of 104 rail cars with a total weight of 7,868 gross tons. SEA's analysis of operations under the Proposed Action included several trains longer than the 6,321-foot average length and indicates that, under some conditions, 8,000-foot and 10,000-foot trains could operate on the EJ&E rail line without serious effects on at-grade crossings, either highway/rail or rail/rail. However, these scenarios are not necessarily indicative of how train operations may

actually occur. With respect to concerns about very long trains, SEA's analysis methods, which used the Rail Traffic Controller rail-operations simulation tool and other common rail-industry analysis methods, indicated capacity constraints on the EJ&E rail line at several locations, such as Joliet. Trains substantially longer than the Applicants' average projected train length would reduce operational flexibility and could reduce total train volume capacity, thus SEA does not consider them to be likely on the EJ&E rail line, as stated in Chapter 4.1 of the Draft EIS. CN stated that no more than two trains per day (one in each direction) of the maximum length of 10,000 feet would move on the EJ&E rail line.

For a more detailed explanation of how SEA verified the Applicants' estimates of train volume and frequency, see Appendix B of the Draft EIS. Attachment B4, Maximum Train Length Analysis, discussed the effects of longer trains on highway/rail and rail/rail at-grade crossings.

Metra Blockages

Commenters noted that Metra is already experiencing blockage due to freight activity in the Chicago metropolitan area.

Response

Existing rail congestion in the Chicago metropolitan area is due to many factors outside the scope of this EIS. Metra's operations on existing CN rail lines would potentially benefit from the Proposed Action as CN freight volume is shifted to the EJ&E rail line. Section 2.2 of the Draft EIS describes current Metra operations within the Study Area.

Section 4.1.7.3 of the Draft EIS described SEA's analysis methods and results concerning potential impacts that the Proposed Action might have on commuter rail service. SEA concluded that CN's Operating Plan under the Proposed Action would not adversely affect existing and proposed Metra trains operating on rail lines that cross the EJ&E rail line at several at-grade rail/rail crossings. A new analysis of the four EJ&E/Metra interlockings (Barrington, Spaulding, West Chicago, and East Joliet-Rock Island Tower), is included in Chapter 2 of this Final EIS. In addition, CN's voluntary mitigation measures (see Chapter 4 of this Final EIS) state that the Applicants would give priority to passenger trains at West Chicago and Barrington and maintain any curfew agreements now in effect that would restrict operations on the EJ&E rail line that could adversely affect passenger or commuter rail service at rail/rail at-grade crossings. Those curfews minimize freight traffic on the EJ&E rail line across the rail/rail interlockings at Rondout, Barrington, Spaulding, West Chicago, and East Joliet during morning and evening peak periods.

Trains are Slow Due to Infrastructure Deficiencies

Commenters stated that trains today move through certain EJ&E rail line segments of the at lower speeds than those identified in the Draft EIS. Several commenters attribute the slower speeds to infrastructure deficiencies or design, and note that slower train speeds translate to longer vehicle delays at crossings.

Response

Delays experienced by vehicles at highway/rail at-grade crossings are a function of several operational factors and local conditions. Infrastructure improvements on the EJ&E rail line under the Proposed Action are detailed in Section 2.2 of the Draft EIS.

Train speeds for the EJ&E rail line under the No-Action and Proposed Action alternatives are shown in Table 4.3-5 in the Draft EIS. These are average speeds, meaning that some trains would be faster and some slower than the speeds shown in the table. However, in all but one instance (South Rowell

Avenue, near Joliet, Illinois) analysis indicates that motorists would see increases in train speeds through highway/rail at-grade crossings on the EJ&E rail line. The delays associated with the Proposed Action are shown in the Draft EIS in Table 4.3-4 (EJ&E) and Table 4.3-6 (CN). The methodology for calculating these estimates is explained in Section 4.3.1.1.

Draft EIS Inconsistency Regarding EJ&E Rail Line Capacity

Commenters stated that SEA reached contradictory conclusions in the Draft EIS Executive Summary and Appendix B regarding the analysis of interference of the Proposed Action with other railroads and commuter service. Commenters cited statements that on the one hand describe the Proposed Action as operationally feasible, and on the other, say that CN would be operating on the EJ&E rail line "at or very near to capacity." Further, "even with the EJ&E operated under circumstances most favorable to the EJ&E system itself" and with the improvements as proposed, the EJ&E rail line is "unlikely to be able to accept the total number of trains that CN proposed in its Operating Plan, even with a significant increase in horsepower per ton."

Response

The conclusion (Executive Summary) that CN would be "operating at or very near to capacity" on the EJ&E rail line assumes that only those infrastructure improvements included in the Applicants' Operating Plan are constructed.

Both the line occupancy index (LOI) and rail traffic controller (RTC) analyses indicate that the number of trains CN plans to operate is practical. The EJ&E rail line can accommodate CN's proposed Operating Plan volumes without creating adverse effects on other *existing* freight and passenger rail operations, or causing blockage of highway/rail at-grade crossings beyond the effects captured in the RTC model (see Chapter 4 and Appendix B of the Draft EIS for additional details). Additional traffic, over and above that specified in the Applicants' Operating Plan, would likely require improvements in track and train-control infrastructure.

DuPage County Forest Preserve Proposed Action Concerns

The DuPage County Forest Preserve stated that "no appreciable shift in rail traffic" is realized on CN's Freeport or Joliet subdivisions. The commenter stated that "only four CN subdivision rail lines are not connected to the EJ&E rail line," and suggested that CN could use the existing Munger connection. In addition, the commenter is concerned that the Proposed Action would result in a lack of regulatory oversight for either freight or future STAR Line passenger service.

Response

The major reduction in train volumes on CN's existing subdivisions occurs within the EJ&E arc on the Waukesha, Elsdon, and Chicago subdivisions, and on the easterly segment of the Joliet Subdivision.

The Applicants' proposed connections between its existing rail lines and the EJ&E rail line are designed to increase the Applicants' operational efficiency. To accomplish the proposed movement to and from the Freeport Subdivision onto the EJ&E rail line, without constructing a new connection in the southwest quadrant at Munger, would require reverse movement around a curve, on a grade, and across two busy highway/rail at-grade crossings. CN's Proposed Munger Connection would not require the acquisition of any land from the Forest Preserve District of DuPage County.

With respect to regulatory oversight, the Board typically establishes an oversight period for mergers.

Train Volumes near DuPage Forest District Resources

Commenter noted that the DuPage County Forest Preserve District's resources are along CN rail lines that do not benefit substantially from reductions in train volumes under the Proposed Action. Further, the District's Pratt's Wayne Woods Preserve at Munger would experience volume increases that are higher than some other locations on the EJ&E rail line. Commenter stated that freight train traffic volumes west of Munger on the CN rail lines are not provided.

Response

Effects on biological resources from changes in train volumes are discussed in Section 4.11 of the Draft EIS. According to SEA's analysis of the Applicants' train operations, there is presently an average two trains per day on the CN rail line (Freeport Subdivision) west of Munger.

3.4.2.2 Other Changes in Rail Line Operations

Proposed Action Rail Infrastructure Improvements

Commenter asked what rail improvements will be included as part of the Proposed Action.

Response

CN's Operating Plan proposes approximately $100 million of new construction along the EJ&E rail line to accommodate increased train volumes, including new rail connections, double track, and yard improvements. SEA identified and discussed CN's infrastructure improvements in Chapter 2 of the Draft EIS.

3.4.2.3 New Double Track

Summary

Commenters expressed concern that the amount of double track identified in the Proposed Action would be exceeded; one commenter opposed all double track. Other commenters are concerned about when and where the double-tracking would occur, what that would do to adjacent property, and whether CN would be physically able to accommodate double track within the existing EJ&E rail line ROW. Commenters also cited their concern that CN (or any railroad) could upgrade or revise its infrastructure without Board approval after the Proposed Action is approved, as long as it is in their existing ROW.

Response

Railroads, including the EJ&E, may add or modify trackage within existing ROW without Board approval at any time to better serve their customers. As stated in the Draft EIS (Section 2.2.2.2), the Applicants propose to install a double track along 19 miles of the EJ&E rail line. Construction of the double track would occur within or near the existing EJ&E ROW at five locations, within the following three rail line segments:

- Diamond Lake Road to Gilmer Road
- East Siding to Walker, Illinois
- East Joliet to Frankfort, Illinois

However, EPA requested that SEA evaluate extending the length of the proposed double track to better accommodate the longer trains proposed by the Applicants. SEA evaluated the proposed double track locations and potential suitable train holding locations (locations where a train can be

stopped without blocking a highway/rail at-grade crossing). After review of documents and field inspections, it was concluded that the train-holding locations proposed by the Applicants would be adequate to handle the train traffic in the Applicants' Operating Plan. The double track locations are part of the environmental review because they would not occur but for the Proposed Action. Section 4.5.3 of the Draft EIS identifies land use and ROW impacts of the proposed double-tracking. Double-tracking the East Siding to Walker and East Joliet to Frankfort rail line segments would be entirely within the existing EJ&E ROW.

SEA conducted a bottleneck analysis—a qualitative analysis of capacity factors and constraints—to address concerns of residents along the EJ&E who believed CN would want to double track the entire EJ&E rail line to expand capacity. A rail line segment between Walker and Rock Island (Illinois) Junction was chosen as the location to conduct the bottleneck analysis because it includes several constraints that ultimately limit EJ&E rail line capacity and would require expansion to achieve additional increases in total system train volume. From this analysis, the most-constrained bottleneck in the system was identified at or near East Joliet, Illinois. The Draft EIS determined that it was possible for CN to operate in accordance with its Operating Plan, but that CN would be unlikely to double track the entire EJ&E rail line without first addressing the East Joliet bottleneck.

As part of its analysis, SEA examined whether CN's projected EJ&E rail line train estimates were reasonable or if higher levels of rail traffic might occur in the future along that line, thereby creating economic demand for greater train volumes and increases in the total amount of double-track. SEA's analysis showed that, given the foreseeable demand for freight rail transportation services, the Operating Plan proposed by the Applicants reasonably captures the likely future volume of freight rail transportation service demand that the Applicants might seek to accommodate on the EJ&E rail line. SEA's analysis and conclusions are in Chapter 4 (Section 4.1) of the Draft EIS. The extent to which the individual CN subdivisions may experience rail traffic above or below levels projected in the Applicants' Operating Plan could vary depending upon other factors.

Phasing of Proposed Double-Tracking

Commenter asks about the phasing of CN's proposed double-tracking along the EJ&E rail line.

Response

According to the Applicants' Operating Plan, CN would begin to construct the double track segments soon after approval of the Proposed Action. Construction would occur over the course of 3 years. CN would begin installing double track at Frankfort during the first full construction season, and would complete double-tracking during the second full construction season. SEA outlines the planned phased integration of the Operating Plan in Section 2.2.1.4 of the Draft EIS.

3.4.2.4 Changes in Yard Operations

Summary

Commenters indicated skepticism about CN's expressed intent to reduce operations in certain rail yards (unspecified by the commenter, but near Park Forest) and questioned why Matteson Yard would remain open when the Markham Intermodal Yard was so close. One commenter was concerned with whether Markham Yard would be expanded.

Response

SEA has no independent information to assess claims that CN intends not to follow its own Operating Plan with respect to reductions or changes in rail yard use, as described in the Draft EIS, Section 2.2.3. Changes in yard operations involve rail car classification and switching, and the repair

of locomotives and rail cars. CN's planned modifications to Markham Yard would not be a result of the Proposed Action (See Section 4.3.2.2).

Matteson Yard and Markham Intermodal Yard serve two different purposes. Markham Intermodal is a yard where long-distance trains are sorted for further movement. The primary function of Matteson Yard is to support local industries and switching.

Terminal at Hoffman Estates

Commenter is concerned that CN may "have its eye on" property rumored to be available for development as a rail terminal in the vicinity of Hoffman Estates, Illinois.

Response

Development of a rail terminal in the vicinity of Hoffman Estates was not proposed by the Applicants in their Application.

3.4.2.5 Other Comments on the Proposed Action

Right-of-Way Use and Adjacent Property

Commenter was concerned about general effects on ROW along the EJ&E rail line, including adjacent land uses.

Response

The EJ&E rail line ROW is an active rail corridor that has historically been used for freight. The continued use of the EJ&E rail line is consistent with existing and future land-use plans. SEA analyzed the consistency of the proposed changes in rail operations with local municipalities' approved land use plans for areas adjacent to the EJ&E rail line and construction sites. None of the existing or future land-use plans reviewed assume that the EJ&E rail line would be removed. Region-wide transportation plans by the State of Illinois, City of Chicago, the rail industry, and Metra have been developed to upgrade and improve the Chicago metropolitan area's rail transportation network to improve current freight mobility and plan for anticipated growth. The proposed improvements are consistent with this region-wide transportation plan (MPC 2004).

Although the majority of new construction associated with the Proposed Action is within the existing ROW, there are some rail line segments where that is not the case and others where there are proximity impacts. For instance, several residential areas within the community of Barrington Hills currently back up to the EJ&E rail line. See Section 4.5 of the Draft EIS and Chapter 2 of this Final EIS for additional details on land-use impacts.

Who Will Pay for CN Move & Upgrade

Commenter wants to know who will pay for CN's move to the EJ&E rail line, and who will pay for the identified infrastructure improvements to the EJ&E rail line.

Response

CN would pay $300 million to purchase EJ&E and would invest $100 million to upgrade the track to facilitate implementation of its Operating Plan, which is the foundation for the Proposed Action.

3.4.3 Comments on the Alternatives

3.4.3.1 No-Action Alternative

Opposition to the Proposed Action

Many commenters stated their opposition to the Proposed Action and asked the Board to select the No-Action Alternative. Although some commenters did not provide specific reasons for their opposition, others stated that the increase in freight rail traffic that would occur along the EJ&E rail line as a result of the Proposed Action would adversely affect the quality of life in the communities along that rail line. In particular, commenters voiced general concerns regarding noise, safety, property values, and traffic delays, including delays to emergency vehicles and school buses. Commenters also stated that they opposed the Proposed Action because it would only benefit CN.

Response

The Draft EIS fully considered the No-Action Alternative. Under the No-Action Alternative, the Applicants would not acquire control of EJ&E's land, rail, and related assets. Instead, the Applicants would continue to make connecting movements through the Chicago Terminal District as they do now. No CN trains would operate on the EJ&E rail line, except for those that could be accommodated through a combination of existing and expanded trackage rights agreements. None of the construction identified as part of the Proposed Action would occur. No changes in the operations of rail yards would occur. CN would continue to use the St. Charles Air Line in Chicago.

According to the Applicants, the Proposed Action would provide needed regional transportation benefits by improving efficiency and reducing rail congestion in the Chicago metropolitan area, a rail hub of national importance. The availability of a continuous CN route around Chicago and connection of the five CN rail lines radiating from Chicago would greatly improve the fluidity of intermodal and other CN traffic that must move into, from, or though Chicago. In addition, communities along CN subdivisions would experience a decrease in freight rail traffic under CN's proposed Operating Plan.

As detailed in Chapter 4 of the Draft EIS, and earlier in this Final EIS, SEA analyzed the potential impacts of the Proposed Action on the operation of existing freight and passenger rail traffic on the EJ&E rail line, and on rail safety, regional transportation systems (including delays to passenger and emergency vehicles), hazardous waste sites, land use, socioeconomics, environmental justice, energy use and transport of energy resources, air quality and climate change, noise and vibration, biological resources, water resources, and cultural resources. An important part of SEA's analysis was to focus on potential effects on schools, emergency response, and property values. To ensure that all reasonably foreseeable impacts were identified, SEA analyzed not only the number of trains that would be redirected to the EJ&E rail line from CN rail lines under the Applicants' proposed Operating Plan, but also the maximum number of trains that could use the EJ&E rail line given current constraints.

SEA also analyzed the potential impacts of the Proposed Action on the communities along current CN rail lines. SEA concluded that a decrease in freight rail traffic would result in a reduction of adverse impacts such as noise and traffic delays in communities along CN subdivisions which have a higher population density than that which exists along the EJ&E rail line. Further, to the extent that reduction in rail congestion in Chicago may make shippers less likely to shift from rail transportation to the inherently less safe truck transportation, the proposed redirection of freight traffic could enhance overall safety, particularly in the transportation of hazardous materials.

Implementation of the Proposed Action would result in adverse effects on some communities along the EJ&E rail line. However, many of these communities already face vehicle delays and other

quality of life issues that result from the way they have developed. SEA's analysis shows that the Proposed Action would exacerbate existing problems in some communities along the EJ& E rail line, but that the impacts generally would not be severe. Where appropriate, SEA recommends mitigation to minimize potential impacts. SEA's recommended mitigation, found in Chapter 4 of this Final EIS, addresses, among other things, emergency vehicle response, quiet zones, and regional and local highway systems.

The Board will weigh the potential environmental effects discovered during the course of the environmental review process in deciding whether to authorize the Proposed Action as proposed, deny the proposal, or approve it with conditions, including environmental conditions (see 49 CFR 1105.10(a) and (f)).

Dismissing No-Action Alternative

One commenter states that the Draft EIS dismisses the No-Action Alternative.

Response

The Draft EIS addresses the potential environmental effects of the Proposed Action and also addresses the impacts of the No-Action Alternative, as required by CEQ regulations (40 CFR 1502.14(d)). Other alternatives were dismissed from consideration because they did not meet the Applicants' Purpose and Need. The Board has not made a decision regarding CN's Application. The Board will weigh the potential environmental effects discovered during the course of the environmental review process in deciding whether to authorize the Proposed Action as proposed, deny the proposal, or approve it with conditions, including environmental conditions (see 49 CFR 1105.10(a) and (f)).

3.4.3.2 Approval with Conditions Alternative

Summary

Commenters stated that the Proposed Action should not be approved unless conditions are imposed to mitigate the expected adverse effects, especially along the EJ&E rail line. Some commenters stated that CN should not be allowed to increase the level of freight rail traffic along the EJ&E rail line until all mitigation issues are resolved.

Response

An alternative to the Proposed Action is to approve the Proposed Action with conditions, including environmental mitigation measures designed to eliminate or minimize potential environmental effects. The Board can to impose conditions to mitigate potential environmental effects under 49 USC 11324(c); However, any conditions the Board imposes must relate directly to the specific transaction before the Board, must be reasonable, and must be supported by the record before the Board. The Board's practice has not been to mitigate existing conditions.

SEA presented its preliminary recommended environmental mitigation in the Draft EIS (Chapter 6). In developing these preliminary mitigation measures, SEA considered a wide variety of interests, including those of communities, Federal and state agencies, tribal, local and regional governments, forest preserve districts, regional planners, environmental organizations, and the public. CN also proposed voluntary mitigation measures that were presented in the Draft EIS. SEA sought public and agency comment on the preliminary environmental mitigation measures. Based on public comments and input received, SEA developed final mitigation recommendations to the Board, which are described in Chapter 4 of this Final EIS, along with the Applicants' voluntary mitigation. The Board will weigh the potential environmental effects discovered during the course of the environmental

review process in deciding whether to authorize the Proposed Action as proposed, deny the proposal, or approve it with conditions, including environmental conditions (see 49 CFR 1105.10(a) and (f)).

Reduction in Truck Traffic

A commenter stated that the Proposed Action should not be approved unless it resulted in a decrease in truck traffic in the region.

Response

Rail traffic would be redirected from the CN subdivisions to the EJ&E rail line, but it is not expected that existing truck traffic would be diverted to rail lines.

Limit Number or Length of Trains

Commenters stated that the Board should limit the number and length of trains that CN could run along the EJ&E rail line. Some commenters stated that the number of trains should be limited unless it can be proven that there would not be an impact to traffic. Some commenters suggested that the Board should condition its approval by limiting CN's freight capacity on the EJ&E rail line to what CN proposed in its Operating Plan.

Response

SEA analyzed the projected effects of the Proposed Action and CN's plan for operating freight rail traffic along the EJ&E rail line if the acquisition were approved. In its Operating Plan, CN states that it intends to redirect freight rail traffic from its five subdivisions onto the EJ&E rail line. As part of its analysis, SEA examined whether CN's projected train numbers along the EJ&E rail line were reasonable or if higher levels of rail traffic might occur along that line in the future. SEA's analysis showed that, given the track construction and Operating Plan proposed by CN, and the physical constraints and other uses of the EJ&E rail line that CN does not propose to change, the EJ&E rail line would be at or near its practical train volume capacity if CN chose to operate the number of trains proposed in their Operating Plan. SEA determined that CN's Operating Plan is reasonable and provides an appropriate basis for the environmental evaluation. SEA's analysis and conclusions regarding future rail traffic is contained in Chapter 4 (Section 4.1) of the Draft EIS.

SEA conducted a bottleneck analysis—a qualitative analysis of capacity factors and constraints—to address concerns of residents along the EJ&E rail line who believed CN would want to double track the entire EJ&E rail line to expand capacity. From this analysis, SEA determined that the most-constrained bottleneck in the system was located at or near East Joliet, Illinois. The Draft EIS determined that CN would be unlikely to double track the entire EJ&E rail line without first addressing the East Joliet bottleneck.

If CN were to undertake future actions that required STB approval, the Board would be required to assess the potential environmental effects that could occur as a result of those actions in compliance with NEPA and applicable regulations. However, railroads have the flexibility to operate using their most efficient routings so as to meet the needs of their shippers. Existing railroads ordinarily can make improvements to their rail lines or rail facilities; add additional trackage to better serve their shippers; and reroute, increase, or decrease their level of operations on particular lines without STB approval or an environmental review.

Grade Separation

Commenters stated that the Proposed Action should not be approved unless CN agreed to pay for underpasses and overpasses where necessary along the EJ&E rail line. Some commenters were particularly concerned about highway/rail at-grade crossings in Barrington, Illinois.

Response

Based on public comments and input received, SEA developed final mitigation recommendations to the Board, which are described in Chapter 4 of this Final EIS. This Final EIS contains all of the mitigation options that SEA recommends the Board impose should the Proposed Action be approved, including the extent to which CN would be required to pay for mitigation measures such as infrastructure upgrades. The Board will weigh the potential environmental effects discovered during the course of the environmental review process in deciding whether to authorize the Proposed Action as proposed, deny the proposal, or approve it with conditions, including environmental conditions (see 49 CFR 1105.10(a) and (f)).

Condition Approval on Mitigation Completion

Commenters stated that, if the Proposed Action were to be approved, the Board should condition the approval to prohibit CN from increasing the number of trains using the EJ&E rail line until mitigation agreements were in place, or were constructed and in operation.

Response

SEA's mitigation recommendations address the timing and financing of mitigation measures. SEA sought public and agency comment on the preliminary environmental mitigation strategies described in Chapter 6 of the Draft EIS and encouraged mutually acceptable negotiated agreements between the Applicants and the affected communities. Based on public comments and input received, SEA developed final mitigation recommendations to the Board, which are described in Chapter 4 of this Final EIS.

The Board will weigh the potential environmental effects discovered during the course of the environmental review process in deciding whether to authorize the Proposed Action as proposed, deny the proposal, or approve it with conditions, including environmental conditions (see 49 CFR 1105.10(a) and (f)).

Impose Mitigation as a Condition of Approval

Commenters stated that mitigation for adverse impacts, particularly at highway/rail at-grade crossings, should be imposed as a condition of Board approval because citizens' ability to require mitigation after approval was limited. Some commenters suggested that the Board retain authority to impose additional mitigation if the number of trains using the EJ&E rail line exceeded that which CN proposes in its Operating Plan.

Response

See Chapter 4 for SEA's recommended mitigation conditions, including oversight periods.

Conditions to Preserve Passenger Rail Service

One commenter stated that the Board must impose the conditions necessary to preserve and expand passenger rail service in the Chicago metropolitan area.

Response

The Applicants proposed several voluntary mitigation measures to address potential effects on passenger rail service. The following are from the list of voluntary measures listed in Chapter 4 of this Final EIS:

- The Applicants shall abide by the commitment made to Amtrak in a letter dated March 10, 2008, concerning Amtrak's use of the St. Charles Air Line (Air Line). In general, the commitment allows Amtrak to remain indefinitely on the Air Line after CN's trains are re-routed from the Air Line onto the EJ&E rail line should the Proposed Action be approved and implemented, thereby preserving Amtrak's access to Chicago's Union Station and Amtrak's ability to continue to provide service to and from points such as Champaign and Carbondale, Illinois. The Applicants shall abide by the commitment to capping the cost to Amtrak for maintaining the Air Line at the current level, indexed for inflation (Applicants 2008p).
- The Applicants shall operate the key interlockings at West Chicago and Barrington, Illinois, according to the current agreements under which EJ&E operates. Those agreements require EJ&E to give priority to passenger trains over either UP or EJ&E freight trains (Applicants 2008k).
- The Applicants shall work with Metra to explore all options for service on the proposed STAR Line, including use of the EJ&E rail line. The timing and implementation of STAR Line service remains subject to numerous variables, including securing government funding, but the Applicants are committed to continuing discussions with Metra on the STAR Line (Applicants 2008j).
- During and after construction, the Applicants shall maintain the pedestrian tunnel from the Metra Park-n-Ride lot to the Metra train station on the east side of the Chicago Subdivision at Matteson (Applicants 20081).
- The Applicants shall comply with any written and executed curfew agreements that are now in effect regarding operations affecting passenger or commuter train service.

In addition, based on public comments and input received, SEA developed final mitigation recommendations to the Board, which are described in Chapter 4 of this Final EIS. The Board will weigh the potential environmental effects discovered during the course of the environmental review process in deciding whether to authorize the Proposed Action as proposed, deny the proposal, or approve it with conditions, including environmental conditions (see 49 CFR 1105.10(a) and (f)).

3.4.3.3 Alternatives at Munger

Munger Connection – UP Alternative

One commenter stated that the Munger Alternative–UP Connection was not proposed by the Forest Preserve District of DuPage County, contrary to what is in the Draft EIS. This commenter also asked that this alternative be rejected because it would "disproportionately and unacceptably increase the risk to human health, safety, and environment, relative to any other options."

Response

This Final EIS notes that the Munger Alternative–UP Connection was proposed by SEA, not the Forest Preserve District of DuPage County, as one possible alternative rail connection between the CN Freeport Subdivision and the EJ&E rail line. The environmental effects of constructing this alternative were addressed in the Draft EIS.

3.4.3.4 Alternatives at Joliet

I&M Canal

One commenter stated that the proposed Joliet Connection would adversely affect the Illinois and Michigan Canal Heritage Corridor and that the original alignment should be adopted.

Response

SEA notes that the proposed alignment, while near the trail, would not encroach on trail system near the historic canal. That alignment was proposed because the original alignment would require the acquisition of potentially contaminated land. SEA independently investigated and examined the Applicants' proposed rail connections to determine if alternative locations or configurations would meet the Purpose and Need for the Proposed Action while minimizing environmental effects.

3.4.3.5 Alternatives at Matteson

Suggest Choices for the Matteson Alternative

One commenter stated that, if the Proposed Action were to be approved, the No-Build Alternative or the Matteson Alternative – Southwest Quadrant Alternative should be selected. The commenter stated that these alternatives would allow CN to make the turning movements they require and would not seriously affect the existing neighborhoods within Matteson, Illinois.

Response

As noted in the Draft EIS (Section 2.4.3), SEA considered the No-Build Alternative and described the rail movements that would be required between the CN Chicago Subdivision and the EJ&E Eastern Subdivision. Because no yard currently exists at Matteson on CN's Chicago Subdivision, it would be necessary to configure trains in a small industrial yard located on the south side of the EJ&E rail line should the Proposed Action be approved and implemented without the construction of a new connection at Matteson.

After the publication of the Draft EIS the Applicants provided SEA with a revised design for the Matteson Connection. The revised Matteson Connection is intended to minimize traffic delays at several highway/rail at-grade crossings in the Matteson area. In Chapter 2 of this Final EIS, SEA evaluated the revised Matteson Connection and concludes that it is the environmentally preferred alternative.

3.4.3.6 Alternatives at Kirk Yard

Summary

Commenters stated that CN could acquire Kirk Yard without acquiring the EJ&E rail line or could offer priority service to satisfy the needs of importers. Some commenters stated that the Draft EIS does not discuss or analyze any options other than purchase with respect to Kirk or East Joliet yards.

Response

CN gives three primary purposes for seeking to acquire control of the EJ&E rail assets: 1) to improve the Applicants' operations in and beyond the Chicago metropolitan area by providing CN with a continuous rail route around Chicago, under CN's ownership, that would connect the five CN rail lines radiating from Chicago; 2) to make EJ&E's Kirk Yard (near Gary, Indiana), as well as smaller facilities at Joliet, Illinois and Whiting, Indiana available to the Applicants, thus enabling them to consolidate rail car classification work at Kirk Yard and East Joliet Yard and to reduce the use of the

BRC Clearing Yard (near Bedford Park, Illinois); and 3) to enable the CN system to benefit from an important supply line provided by EJ&E for North American steel, chemical, and petrochemical industries, as well as for Chicago-area utilities and others, thereby allowing the Applicants to develop closer and more extensive relationships with companies in and serving those industries. As stated in Section 2.5 of the Draft EIS, alternatives that would not meet these three primary purposes are not reasonable and feasible. Acquiring only Kirk Yard – if that were possible – or offering priority service to certain customers would not meet CN's need to improve its operations in and beyond the Chicago metropolitan area.

Because CN is the proponent of the Proposed Action, SEA believes it is appropriate to focus on CN's Purpose and Need for the Proposed Action.

3.4.3.7 Additional Alternatives

Summary

Commenters asked SEA to consider other, unspecified alternatives to the Proposed Action. Some commenters stated that other existing rail routes around and outside of Chicago should be used to redirect freight rail traffic, rather than the EJ&E rail line. Commenters suggested an alternative distribution of freight rail traffic on existing routes and, in particular, that hazardous materials be routed along existing, less environmentally sensitive routes. Commenters also stated that CN should improve its existing infrastructure.

Response

CN filed an Application with the Board seeking the Board's approval to acquire control of EJ&E West Company and its assets, including the EJ&E rail line and three rail yards (Kirk Yard, East Joliet Yard, and Whiting Yard). Although some of the alternatives suggested by commenters could meet some of CN's purposes, they would not meet all three and thus were eliminated from detailed analysis. As discussed more fully in Chapter 2 of the Draft EIS, SEA examined expanded trackage rights for CN, implementation of the Chicago Region Environmental and Transportation Efficiency (CREATE) Program in lieu of Proposed Action, acquisition of a different rail line within the Chicago metropolitan area, and construction of a bypass outside of the EJ&E rail line in northern Illinois. In general, SEA found these alternatives to be unreasonable because they would not give CN full ownership and use of a continuous rail route around Chicago, the Applicants could not gain access to EJ&E rail yards, or the alternatives would be more expensive or more environmentally damaging than the Proposed Action. SEA evaluated the risks of hazardous materials transportation in Sections 3.2.3 and 4.2.5 in the Draft EIS. Additional information is contained in Section 2.7 of this Final EIS.

As part of its environmental review responsibilities, SEA must analyze potential changes resulting from the Proposed Action and must identify potential environmental effects that those changes would cause. However, railroads have the flexibility to operate via their most efficient routings to meet their shippers' needs. Existing railroads ordinarily can make improvements to their rail lines or rail facilities; add trackage to better serve their shippers; and reroute, increase, or decrease their level of operations on particular rail lines without Board approval or an environmental review.

Government Purchase

Commenters stated that the government should purchase the EJ&E railroad and use money from the rail freight rates to fund mitigation projects that would be needed to minimize impacts.

Response

It is not the Boards practice to purchase the rail lines. Such an acquisition would need to be approved by the Federal, state, or local government entity seeking to make the purchase.

More Use of Trucks

One commenter stated that more truck transportation of unitized containers should be used to move freight.

Response

The Applicants seek to improve freight rail operations. The mode of transportation on which shippers choose to transport freight is beyond CN's control. Further, the use of trucks, rather than rail, to transport freight is beyond the scope of this EIS and outside of the Board's jurisdiction. Finally, SEA notes that transportation of freight by truck is far less energy efficient than transportation by rail and adds to traffic congestion on roads and highways.

3.4.3.8 Expanded Trackage Rights

Summary

Commenters suggested that CN's acquisition of expanded trackage rights on the EJ&E rail line could be an alternative to the Proposed Action.

Response

The expanded trackage rights are not a reasonable and feasible alternative to the Proposed Action, for the reasons explained in the EIS. In this case, CN filed an Application with the Board seeking the Board's approval to acquire control of EJ&E West Company and its assets, including the EJ&E rail line and three rail yards (Kirk Yard, East Joliet Yard, and Whiting Yard). The Applicants gave three primary purposes for seeking to acquire control of the EJ&E rail assets. As stated in Section 2.5 of the Draft EIS, alternatives that would not meet these three primary purposes are not reasonable and feasible. Expanded trackage rights is one alternative that was considered but not fully analyzed because it would not meet all three components of the Applicants' Purpose and Need.

EJ&E, as an independently-owned company, would have no incentive to invest the substantial capital required for the capacity and connection improvements needed to provide CN with a continuous rail route around Chicago. Expanded trackage rights would not allow CN to control and increase its use of Kirk and East Joliet yards, or to decrease the use of CN's Glenn, Hawthorne, and Markham yards and the BRC Clearing Yard. CN would not be able to consolidate rail car classification activities at Kirk Yard under an expanded trackage rights alternative.

Finally, separate ownership and control of the CN and EJ&E rail lines would make the necessary coordinated operations of the regional system difficult, thus impeding the ability to maximize overall efficiency for customers using both railroads.

Prohibit Leasing

One commenter stated that CN should not be allowed to lease the EJ&E tracks. Another commenter asked whether CN could lease EJ&E track without mitigation.

Response

An effort by CN to lease the EJ&E rail line is not part of the Proposed Action.

3.4.3.9 CREATE

Summary

Commenters stated that the CREATE Program should be fully analyzed as an alternative or that the CREATE Program would be a better alternative than the Proposed Action.

Response

As described in Section 2.5.2 of the Draft EIS, the CREATE Program is a partnership designed to implement critically needed improvements within the regional rail infrastructure and improve the quality of life in the Chicago metropolitan area. During scoping, several commenters suggested that a fully funded CREATE Program could provide an alternative to the Proposed Action. In Section 2.5.2 of the Draft EIS, SEA fully evaluated the CREATE Program and concluded that it is not a reasonable alternative and would not meet the Applicants' Purpose and Need.

The CREATE Program intends to restructure, modernize, and expand the freight and passenger rail facilities and highway/rail at-grade separations around the City of Chicago, improving the fluidity and velocity of freight rail traffic while reducing freight/passenger rail conflicts. Approximately 78 projects have been identified within five rail transportation corridors.

The CREATE Program would not provide CN with ownership of a continuous rail route through the congested Chicago Terminal District. Moreover, the CREATE Program would not give CN access to Kirk, East Joliet, and Whiting yards and would not allow CN to benefit from the EJ&E rail line for important relationships with industries and Chicago-area utilities. Thus, this alternative could only partially satisfy the first purpose of the Proposed Action and could not satisfy the second and third purposes of the Proposed Action. For these reasons, SEA does not consider the CREATE Program to be a reasonable alternative to the Proposed Action.

CREATE Funding

One commenter stated that the Proposed Action would direct funds from the CREATE Program.

Response

Funding for CREATE is coming from many different Federal, state and regional sources, including some from regional Class I railroads. CN is a participant in CREATE and has already contributed to funding of several CREATE projects. The largest portion of funding, which has not yet been realized, is slated to come from the Federal government.

3.4.3.10 Acquisition of a Different Rail Line

Summary

Commenters suggested that the Applicants consider acquisition of a different rail line, or acquire trackage rights on other rail lines, within or outside of the Chicago metropolitan area.

Response

Because these actions would essentially maintain the status quo, they would not satisfy the Applicants' Purpose of and Need for the Proposed Action. Additionally, acquisition of alternative rail lines is either infeasible or unworkable (several rail lines suggested could not provide the additional capacity or flexibility afforded by the Proposed Action). Further, none of these alternatives would allow CN the full use of the EJ&E rail line, or the desired access to Kirk Yard. For these

reasons, SEA does not consider acquisition of a different rail line to be a reasonable and feasible alternative and eliminated this suggested approach from detailed study.

3.4.3.11 New Alignments

Summary

Commenters suggested that the Applicants construct a new rail line bypass outside the EJ&E rail line and well outside the Chicago metropolitan area. No specific routes were suggested, other than at a distance of "50 miles."

Response

CN filed an Application with the Board seeking the Board's approval to acquire control of EJ&E West Company and its assets, including the EJ&E rail line and three rail yards (Kirk Yard, East Joliet Yard, and Whiting Yard). CN gave three primary purposes for seeking to acquire control of the EJ&E rail assets. As stated in Section 2.5 of the Draft EIS, alternatives that would not meet these three primary purposes are not reasonable and feasible. Constructing a new rail line would not satisfy the Purpose of and Need for the Proposed Action because the Applicants would not gain access to Kirk Yard, one of the primary purposes of the Proposed Action. In addition, a bypass would be costly in terms of land acquisition and rail construction, and would add route miles. Finally, a bypass would not avoid or minimize environmental effects, rather it would simply move them to an area around a bypass, and in the process would directly affect more land area, thus potentially increasing the environmental effects. For these reasons, SEA eliminated the construction of an outer bypass from further consideration.

3.4.3.12 Requests for Conditions

Summary

Commenters suggested alternatives involving the construction of additional underpasses or overpasses at highway/rail at-grade crossings, an underground passage, and a lowered track along the entire route of the EJ&E rail line.

Response

An alternative to the Proposed Action is to approve the Proposed Action with conditions, including mitigation measures designed to eliminate or minimize potential environmental effects. Chapter 6 in the Draft EIS presented SEA's preliminary recommended environmental mitigation measures, including voluntary mitigation measures submitted by CN. SEA considers the alternatives suggested by commenters as conditions to mitigate the potential adverse environmental effects relating to the Proposed Action.

SEA sought public and agency comment on the preliminary environmental mitigation measures. Based on public comments and input received, SEA developed final mitigation recommendations to the Board, which are described in Chapter 4 of this Final EIS. SEA's mitigation recommendations include the extent to which CN should be financially responsible for their implementation.

Legislation

One commenter favored legislation that would restrict the number of rail cars and the speed of trains operated by CN in the U.S.

Response

Comment noted.

3.4.3.13 Alternatives Development

Summary

Commenters stated that SEA either did not analyze, or should analyze, alternatives to the Proposed Action. No specific alternatives were identified.

Response

As described in Chapter 2 of the Draft EIS, SEA analyzed alternatives to the Proposed Action—the No-Action Alternative and the Approval with Conditions Alternative. SEA considered several other alternatives, but did not analyze them because they did not meet CN's Purpose and Need and thus were not reasonable or feasible. The potential environmental effects of the Proposed Action and Alternatives are described in Chapter 4 of the Draft EIS. Conditions that could be imposed under the Approval with Conditions Alternative are described in Chapter 6 of the Draft EIS and in Chapter 4 of this Final EIS.

Alternatives to Reduce Congestion

Commenters stated that SEA did not analyze alternatives that would reduce rail congestion in the Chicago metropolitan area or consider existing alternatives and places.

Response

CN filed an Application with the Board seeking the Board's approval to acquire control of EJ&E West Company and its assets, including the EJ&E rail line and three rail yards (Kirk Yard, East Joliet Yard, and Whiting Yard). CN gave three primary purposes for seeking to acquire control of the EJ&E rail assets. As stated in Section 2.5 of the Draft EIS, alternatives that would not meet these three primary purposes are not reasonable and feasible. Although some of the alternatives suggested by commenters could meet some of CN's purposes, none would meet all three and, thus, they are not reasonable and feasible.

West Coast Ports

One commenter suggested that, as an alternative, CN should continue using the West Coast ports.

Response

Use of West Coast ports would not address CN's three primary purposes for seeking to acquire control of the EJ&E rail line assets: 1) to acquire a continuous rail route around Chicago, under CN's ownership, that would connect the five CN rail lines radiating from Chicago; 2) to make EJ&E's Kirk Yard (near Gary, Indiana), as well as smaller facilities at Joliet, Illinois and Whiting, Indiana available to the Applicants, thus enabling them to consolidate rail car classification work at Kirk Yard and East Joliet Yard and to reduce the use of the BRC Clearing Yard (near Bedford Park, Illinois); and 3) to enable the CN system to benefit from an important supply line provided by EJ&E for North American steel, chemical, and petrochemical industries, as well as for Chicago-area utilities and others, thereby allowing the Applicants to develop closer and more extensive relationships with companies in and serving those industries.

3.4.3.14 Other Comments on the Alternatives

Second Main Line

One commenter questioned why CN cannot put in a second main line within the existing ROW.

Response

SEA assumes that the commenter is asking why CN cannot put in a second main line within the existing CN ROW. Because CN is seeking to acquire the EJ&E rail line, SEA did not analyze the extent to which the existing ROW along CN rail lines might be sufficient to allow the construction of additional, parallel rail lines. Even if there were sufficient ROW along the existing CN rail lines, that alternative would not meet the Applicants' Purpose and Need for a continuous route around Chicago that would connect the five CN rail lines, to make Kirk Yard available to the Applicants, and to enable the CN system to benefit from the rail transportation services provided by EJ&E.

To the extent that the comment is related to the existing EJ&E ROW, Section 2.2.2 of the Draft EIS states that, as a result of the Proposed Action, CN would add capacity to the EJ&E rail line by constructing approximately 19 miles of double track.

3.4.4 Comments on Rail Operations

3.4.4.1 Regional Rail Systems

Summary

Commenters noted that the communities potentially affected by the Proposed Action live with both passenger and freight trains daily. Some commenters acknowledged the importance, history, and need for freight and passenger rail service in the region. They also pointed to local and regional bottlenecks and noted they are "at capacity" with respect to trains in their neighborhoods. One commenter observed that many railroads use the EJ&E rail line as a bypass to avoid the congested Chicago Terminal District. Commenters also observed that the freight rail industry has been accommodating to passenger rail service, with one commenter noting that trains are sometimes "parked for three to six hours, requiring re-crewing at considerable expense, to allow Metra trains to run on time."

Commenters noted an upward trend in both number ("significant increase in trains") and length of freight and passenger trains in recent years. A West Bartlett commenter stated, "In all the years that we have lived here, we have noticed a marked increase in freight train traffic on both these lines since 2007. We have also noticed that, on the weekends when Metra has a decreased volume of commuter trains, the freight traffic increased their use on the weekends, which now disturbs our quiet side of town." A Schererville commenter stated that "Train traffic has already increased by 4 times in the past year." The president of the Village of Elmwood Park stated that, "In 1989 we had 40 trains coming through [town] and in 2008 it was 127."

Commenters from other areas, such as a New Lenox resident, noted that currently, trains are "infrequent" and the impacts are tolerable.

A commenter from Frankfort wrote, "I'd like to comment on the train, the trains right now currently run through my backyard, many times they are just stopped and they sit there for no purpose, sometimes for the whole weekend."

Response

Many of the commenters' observations were noted in Section 3.1 of the Draft EIS. Chicago, the nation's preeminent rail hub, includes 2,800 miles of rail network. The most recent data available from the Chicago Region Environmental and Transportation Efficiency Program (CREATE) indicate that 37,500 rail cars per day travel through the Chicago hub, with this number expected to increase to 67,000 daily rail cars by 2020. Over the next 20 years, demand for freight rail service through Chicago is expected to nearly double. The existing system experiences motorist, passenger, and freight rail delays and congestion on a daily basis, as has been documented by CREATE (2005). These trends in existing conditions have been corroborated by many commenters.

Chicago is the only city in the country where six major North American railroads meet to interchange freight. Many other smaller railroads also traverse Chicago. Seven of the rail lines entering Chicago are part of the Strategic Rail Corridor Network—rail lines that are critical to national defense. Chicago today is the busiest rail gateway in the United States, handling one-third of the nation's freight rail traffic, according to CREATE.

As mentioned in the Draft EIS, freight railroads use the EJ&E rail line as a bypass around Chicago. Without the EJ&E rail line, these carriers would need to bring their trains through the city center, which often takes as long as 40-48 hours.

On the EJ&E rail line, trains currently stop for both routine and unexpected reasons. In many locations, trains are sometimes stored on the tracks waiting for other trains to pass. These train "staging" locations are depicted in Section 3.1 of the Draft EIS, in Figures 3.1-2 through 3.1-7. Potential train staging locations under the Proposed Action are shown in Figure 3.1-8.

Train Speed and Crossing Blockage Potential

Commenters disputed average train speeds identified in the Draft EIS, noting that trains frequently run slowly through town, create blockages for long periods of time, and at times stop completely.

Response

Delays experienced at at-grade crossings are a function of many factors, including train speeds and length, as well as the number of trains at each crossing. The train speeds for the EJ&E rail line, under the No-Action and Proposed Action alternatives are shown in Table 4.3-5 of the Draft EIS. These are average speeds, meaning that some trains will travel at speeds greater than the average, and some will travel below the average speeds identified in the table. Analysis of effects on highway crossings of the EJ&E rail line is contained in Section 4.3 of the Draft EIS. See Chapter 2 of this Final EIS for revisions and new analysis on traffic delays and congestion, and Chapter 4 of this Final EIS for identified mitigations.

Analysis of UP/EJ&E Intersection

A commenter wanted to know if the intersection of the Union Pacific Railroad with the EJ&E rail line has been studied and evaluated.

Response

As explained in the Draft EIS (Section 4.1.7), SEA evaluated the rail/rail at-grade crossings of the Union Pacific Railroad and the EJ&E rail line using Rail Traffic Controller (RTC, an industry standard dispatch modeling program). Train volumes for the UP/Metra line were supplied by Chicago-area railroad operating personnel and represent an estimated 2008 average. The analyses, which included the EJ&E/UP interlocking, assumed that Metra's commuter trains and freight trains

crossing the EJ&E rail line at rail/rail at-grade crossings were given precedence over trains on the EJ&E rail line. This assumption is based on the Applicants' voluntary mitigation measures outlined in Chapter 4 of this Final EIS. SEA concluded that under the Applicants' Operating Plan, and with the infrastructure improvements included in the Proposed Action, the EJ&E rail line would have very little spare capacity, but could operate under the conditions described.

Commuter Train Access at Franklin Park, Illinois

Commenter is concerned about possible effects on commuter train access at Franklin Park.

Response

Communities along CN routes inside the EJ&E arc, including the Franklin Park area, would see a reduction in freight trains from 19.1 to 2.0 average trains per day as shown in Figure 4.1-1 of the Draft EIS. This reduction would improve access to commuter train stations and parking lots. Diverting approximately 17 trains per day to the EJ&E rail line would also improve Metra's on-time performance and reduce potential conflicts with Metra North Central commuter trains operating on CN's Waukesha Subdivision.

Rail Congestion in South Holland

Commenter is concerned about rail congestion in South Holland, Illinois.

Response

CN routes inside the EJ&E arc, including those that run through the South Holland area, will see a reduction in freight trains on both the Chicago Subdivision and the Elsdon Subdivision, as shown in Figure 4.1-1 of the Draft EIS.

Existing CN Train Volumes West of Munger

Commenter requested information on the number of trains currently on the CN rail line west of Munger.

Response

SEA believes that currently there are two trains per day on the CN rail line west of Munger.

Spring Switches near Mokena

Commenter asked about malfunctioning switches that require eastbound trains on the EJ&E rail line to stop and manually throw the switch, near his home in Mokena, Illinois.

Response

EJ&E uses "spring switches" (a type of switch that allows trains to move through in one direction without stopping) near Mokena because they expedite the flow of trains under current operations. Trains moving in the opposite direction must stop and manually align (throw) the switch. These switches require occasional maintenance and so manual operation frequently occurs. As part of the Proposed Action, the spring switches will be replaced with power-operated remote-control switches as the rail line segment is converted to centralized traffic control. This would eliminate most instances of trains stopping to manually align the switches.

3.4.4.2 Freight Rail Operations

Existing Rail Operations

Commenters noted that current freight rail operations are moderate to minimal on the EJ&E rail line, and that this has been the case for many years. Commenters observed that the Plainfield, Illinois predates the railroads.

Other commenters said their towns are already "train heavy" or that the volume and length of trains has been increasing, or that their communities "do not need any more trains coming through." Commenters stated the need for more efficient freight rail operations in the central Chicago area. One commenter stated that current train congestion at Western Avenue will be reduced by the Proposed Action. Commenters also noted, however, that trains tend to move slowly through the area, in some cases taking so long that drivers have been observed falling asleep as they wait at highway/rail at-grade crossings.

Response

Comment noted. Plainfield is one of the older communities in the area and predates the EJ&E rail line by many years.

Trains Stop for Long Periods of Time, Block Passenger Trains

Commenter is concerned about impacts of trains stopping for "up to 45 minutes" in the middle of communities. Another commenter observed that freight trains stop to make repairs (repairing broken hoses, etc.) due to lack of ongoing maintenance, which threatens on-time passenger rail service.

Response

Freight trains stop on rail lines for several reasons, both planned and unplanned. Planned freight train stops occur to accommodate operational needs, such as changing crews, waiting for other trains to pass, or switching rail cars to local industrial customers. Unplanned stops are infrequent, and may occur as a result of maintenance needs or other unforeseen events that would prevent safe travel or potentially cause unsafe conditions to occur.

Stopped trains create problems for traffic if they block crossings while stopped, or, if stopped clear of the crossing, if they extend the normal blockage time due to the slower speeds associated with the trains' accelerating and decelerating. To minimize those occurrences when trains block crossings, CN has proposed a voluntary mitigation measure that would obligate CN to operate under its U.S. Operating Rule No. 526, requiring that trains not block public crossings for more than 10 minutes unless the blockage cannot be avoided. If the blockage is likely to exceed 10 minutes, then the train shall be promptly cut (separated in two and opened across the highway/rail at-grade crossing) to clear the blocked crossing or crossings. CN has additionally committed to developing and submitting to SEA a report on the frequency and duration of train delays at crossings for the first 3 years of operational changes.

See Chapter 4 of this Final EIS for the complete list of recommended mitigations.

West Chicago, Illinois Congestion

Commenter noted EJ&E's explanation for trains stopping near his house as related to railway congestion in West Chicago.

Response

At present, trains using the EJ&E rail line stage (temporarily stop) on the rail line while waiting for gaps in rail traffic prior to entering the UP rail line at West Chicago, or when going from the Union Pacific rail line to the EJ&E rail line. Railroads often stage trains at intermediate points because train flows fluctuate.

Time it takes for Trains to Pass a Crossing

Commenters reported personal observations of the range of time it takes under existing conditions for trains to pass through an at-grade road crossing.

Response

As discussed in the Draft EIS, highway/rail at-grade crossings on the EJ&E rail line are blocked by train traffic under existing traffic levels. SEA considers this to be an existing condition. Delays experienced by vehicles at many highway/rail at-grade crossings are a function of several factors, including train speeds, length, tonnage, track gradient, and number of trains at each crossing. The train speeds for the EJ&E rail line, under the No-Action and Proposed Action alternatives are shown in Table 4.3-5 of the Draft EIS. These are average speeds, meaning that some trains will travel at higher or lower speeds than those identified in the table. A range of train lengths and weights, as well as acceleration and deceleration speeds were accounted for in SEA's analysis, details of which are included in Section 4.1 and Appendix B of the Draft EIS.

To provide a frame of reference, a 6,321-foot train (the average train length under the Proposed Action) traveling 10 mph would take about 8 minutes to pass a signaled crossing equipped with warning devices (bells, gates, and flashers). This includes the time when the gates are lowered and the train has not yet reached the crossing, as well as the time after the train has left the crossing and the gates are rising. At 25 mph, that same train would take 3.5 minutes to pass the crossing, and at 40 mph, that train would take 2.5 minutes to pass the crossing.

EJ&E Rail Line Already Used as a Bypass

Commenter noted that the EJ&E rail line is already used as a bypass by several Class I railroads, and suggests that CN wants the property solely to avoid building anything.

Response

CN's stated purpose and need in the Application as well as Section 2.2 of the Draft EIS identifies proposed new construction that is part of CN's Proposed Action. These include rail connections, double track, yard expansion, and upgrades at some locations that would greatly improve CN's ability to operate through Chicago.

Even the Distribution of Region's Freight Trains

Commenters supported the idea of balancing the distribution of trains in the region. Some commenters supported the Proposed Action; others ask for a slightly different balancing of traffic between the EJ&E and CN rail lines, with CN existing lines retaining some of CN's existing traffic.

Response

The Proposed Action responds to the Applicants' purpose and need; the suggestion to "split the traffic" between existing CN and the EJ&E rail lines does not serve the stated business and operational goals contained in CN's Operating Plan.

Observation of Trains Early in Morning

Commenter noted that lately, trains are running at 1 a.m. and 2 a.m.

Response

Railroads generally operate 24-hours per day. In some cases, it is typical for freight trains to run at night to avoid interfering with rush hour car traffic and commuter rail traffic.

Ability of 2-Mile Train to Speed Uphill

Commenter questioned the ability of a train that is 2 miles long to travel uphill at 45 mph.

Response

With sufficient power and adequate track conditions, long trains can travel at speeds of 45 mph, even on an ascending grade. SEA notes, however, that 10,000 feet is the maximum length of an intermodal train moving to or from the Port of Prince Rupert, British Columbia, that CN expects to move over the Waukesha Subdivision should the Proposed Action be approved. The train lengths and weight that SEA used in the operational analysis are identified in Appendix B of the Draft EIS.

Public Expectations for Future EJ&E Rail Line Train Volumes

Commenters noted existing levels of traffic on the EJ&E rail line, some describing it as tolerable, and others saying that it is already too much. Some commenters have observed increases in recent years. Others expressed surprise that a rail line could be permitted to substantially increase its activity after a long period of relatively low-volume traffic.

Response

In general, railroads have the ability to adjust train volumes in response to market forces. Nationally, rail freight traffic is increasing. The Applicants' Operating Plan proposes a shift in rail traffic, from CN to the EJ&E rail line. SEA inspected EJ&E's infrastructure and noted that it appeared adequate to accommodate EJ&E's desired speed limit of 45 mph.

Commuter Trains Impeded at Lake Zurich, Illinois EJ&E Rail Line Crossing

A commenter noted that speeds of 40 mph on the EJ&E rail line assessed in the Draft EIS are not always maintained, and that trains in the Lake Zurich area are staged on the EJ&E rail line, and then move slowly through the center of town as they accelerate. Concerns included the impact to commuter trains crossing the EJ&E rail line.

Response

SEA notes that trains on the EJ&E rail line are at times temporarily held north of Lake Zurich Road to allow commuter trains to operate without delays on the UP District Northwest line. SEA performed an analysis using the Rail Traffic Controller (RTC) computer model of train movements, and determined that commuter traffic can be accommodated under the Proposed Action. See Section 4.1 and Appendix B of the Draft EIS for the details of that analysis.

Concerning acceleration/deceleration of freight and passenger trains, the RTC model used by SEA in the Draft EIS reliably depicted the performance of each train, incorporating parameters such as number of locomotives, the horsepower of each locomotive, and the length and tonnage of each train. The operation of each train was then superimposed on the characteristics of the physical plant, which

includes track velocity, velocity through diverging routes, locations of highway/rail at-grade crossings, ascending and descending grades, and method of operation. The performance of each train was then assessed and factors such as acceleration and deceleration were presented in the Train Performance Calculation graphs produced as an output from the RTC model (See Draft EIS Appendix B, Figure B5-1).

Existing Train Volumes

Commenters noted the significant increase in the amount of train traffic, both freight and passenger, now coming through their communities. One commenter noted that capacity congestion and constraints on the EJ&E rail line currently constitute an existing environmental condition as a direct result of the effect of current railroad operations. Commenters assert that rail congestion will continue to worsen with the expected continued growth in rail traffic nationwide, irrespective of any proposed merger or transaction.

Response

SEA notes that current studies indicate that vehicular congestion will continue to increase, reflecting continued community growth, and expansion of national rail traffic. SEA recognizes the potential benefits that the Proposed Action would bring in reducing rail and vehicular congestion inside the EJ&E arc. Existing conditions are discussed in Chapters 2 and 3 of the Draft EIS, and constitute the baseline for analyses in Chapter 4 of the Draft EIS, as well as for the new information in Chapter 2 of this Final EIS.

Train through Des Plaines, Illinois, Not Counted

Commenter observed that trains "running north and south through Des Plaines" do not appear to be counted in SEA's analysis.

Response

Current Metra traffic on the Waukesha Subdivision has not been included in the CN traffic counts. Trains on existing CN and EJ&E rail lines, and trains that pass through interlockings on the EJ&E rail line were included in operational analyses and other evaluations contained in the Draft EIS. Under the Proposed Action, CN train volumes on the Waukesha Subdivision in the Des Plaines area would be reduced from 19.1 to 2.0.

Railroads' Financial Resources are Limited

Commenter stated it is an error to assume that "freight railroads have unlimited financial resources for merger-related mitigation projects."

Response

The Draft EIS notes that freight railroads do not have unlimited financial resources for mitigation.

Manual Switches Cause Delays

Commenters observed that freight trains near Franklin Park and Hoffman Estates stop to throw manual switches. A commenter from Hoffman Estates noted that "We have trains sit here for sometimes 10, 15, even 20 minutes while they manually switch tracks. Many times the trains are left blocking Shoe Factory Road while someone moves the switch."

Response

As part of the Proposed Action, track warrant control operations would be converted to centralized traffic control, and all manual switches on the main track would be replaced with remotely-operated power switches. The replacement would eliminate the delays associated with manual switches

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BNSF Freight Train Horns at Gated Crossings

Commenter objected to train horn noise and asks why BNSF freight trains sound their horns, particularly at night, even though working gates are present at the highway/rail at-grade crossings.

Response

BNSF trains, as well as all trains operated on the North American rail network, are subject to Federal safety regulations administered by FRA, as well as state safety regulations. Federal law 49 CFR 222 requires all trains to sound the locomotive horn when approaching and entering public highway/rail at-grade crossings if the train speed is 15 mph or greater and the railroad does not provide train crew or flag persons on the ground to warn motorists, at all times. Highway/rail at-grade crossing warning devices such as bells, flashing lights, and gates do not relieve this requirement to sound the train horn—except in established quiet zones where supplemental safety measures have been instituted. Procedures in 49 CFR 222 and 49 CFR 229 allow communities to establish quiet zones. Refer to Chapter 4 of this Final EIS for the final voluntary mitigation measures and SEA's recommendations to the Board for noise mitigation.

3.4.4.3 Passenger Rail Operations

Summary

One Commenter noted that many Metra trains add to area rail congestion. Another commenter asked whether the Metra STAR Line plan was considered; another stated that potential effects on the proposed STAR Line were minimized in the Draft EIS. One commenter provided extensive background information on development of the STAR Line, noting that "Metra's proposed STAR Line route, through Chicago's western suburbs, was in serious trouble long before Canadian National made their offer in September 2007 to purchase the Elgin, Joliet & Eastern Railway." The commenter quoted from Metra's own report which stated that the EJ&E rail line's lack of capacity to add passenger trains due to rail freight operations was a major issue and concern.

A commenter wondered whether "Sperry Car" testing of the EJ&E rail line had occurred since 1999.

Response

Comments noted. SEA has conducted additional analysis of the STAR Line and discussed its findings in Chapter 2 of this Final EIS. Metra operates on rail line segments controlled by CN, including six weekday trains (the Heritage Corridor) between Joliet and Chicago, 22 weekday peak trains, and two midday roundtrips (Metra's North Central Service) between Chicago and Antioch, Illinois. Additionally, Metra trains operate on four corridors that cross EJ&E rail line segments at grade. This existing Metra passenger train traffic, along with STAR Line impacts, has been included in the analysis of potential environmental effects detailed in Chapter 4 of the Draft EIS. As stated in the Draft EIS, SEA's initial assessment that the STAR Line will not be precluded by the Proposed Action is supported by the additional analysis.

Details about commuter and intercity passenger rail service in the Study Area, including service area maps, are provided in Section 3.1.3 of the Draft EIS.

EJ&E currently conducts "Sperry Car" testing three times per year. A Sperry Car is the industry name for a rail vehicle with specialized equipment used to detect internal rail flaws. Non-destructive testing of rail and rail joints must be performed by railroads in accordance with 49 CFR Part 213. For a rail line such as the EJ&E, this testing must occur at least twice annually.

Current Freight/Passenger Train Conflicts

One commenter noted that Metra trains are already affected. Another noted that commuter service from Palos Park, Illinois to Chicago was often affected by freight conflicts.

Response

Descriptions of existing conditions are found in Section 3.1 of the Draft EIS. Note that in the case of Palos Park, reduction of CN trains on the Elsdon Subdivision in the vicinity of Palos Park will reduce the freight rail traffic in this area and could potentially benefit commuter rail operations.

Cumulative Impacts of Metra and Proposed Action

Commenter stated that the environmental analysis must include cumulative impacts of Metra's trains plus those CN trains that will be added from the Proposed Action.

Response

SEA has analyzed the cumulative effects of the Proposed Action. This analysis was presented in Chapter 5 of the Draft EIS. Further, SEA has analyzed the impacts of additional CN trains on the EJ&E rail line for Metra routes that cross the EJ&E rail line. Updated analysis of the duration of train occupancy for those interlockings is found in Chapter 2 of this Final EIS. Analysis of potential impacts on the STAR Line is also included in Chapter 2 of this Final EIS. SEA concluded that Metra service, including the STAR Line, can be accommodated under the Proposed Action. In addition, CN's voluntary mitigation measures give priority to passenger trains at West Chicago and Barrington, and require the Applicants to work with Metra to explore all options for service on the proposed STAR Line, including use of the EJ&E rail line. However, the environmental effects associated with the implementation of Metra's STAR Line are Metra's responsibility and would be addressed when that project is advanced.

Passenger Rail and Priority Agreements

Commenters were concerned about perceived priority for freight trains in the Study Area.

Response

Passenger rail trains generally have priority over freight trains at interlockings through specific negotiated agreements between the railroads. CN would operate West Chicago and Barrington interlockings according to EJ&E's current agreements, giving priority to passenger trains and then UP or freight trains. The Applicants' voluntary mitigation measures are presented in Chapter 4 of this Final EIS.

3.4.4.4 Number/Frequency and Length of Trains

Concern about Number, Length, and Weight of Trains

SEA received a substantial and varied number of comments concerning the related issues of changes in train volumes, lengths, and weights expected on the EJ&E rail line if the Proposed Action is

approved. Commenters were also concerned about the increased weight and carload volume carried by the longer trains.

Commenters identified existing rail congestion locations and noted current instances of delay while waiting for trains to pass a rail/roadway crossing. Numerous commenters noted current heavy congestion on local roads in communities on the EJ&E rail line; one stated that even without the Proposed Action, roadway "traffic is a problem." Another stated that the "increase in train traffic in the Plainfield area would place a tremendous problem for vehicle traffic on our already congested & undersized roads."

Comments about the number and length of trains were generally accompanied by more specific concerns regarding the full range of impacts discussed in the Draft EIS. In addition, many of the commenters expected that train volumes and lengths would be substantially greater than what was reflected in the Draft EIS, if the Proposed Action is approved.

Response

SEA notes the many expressions of public concern regarding the Proposed Action and the potential for adverse effects on the communities along the EJ&E rail line. In response to commenters questioning the projected increases in trains on the EJ&E rail line as a result of the Proposed Action, SEA analyzed the Applicants' proposed Operating Plan and concluded that the projected train volumes are reasonable. SEA analyzed the potential effects of the Proposed Action on the operation of existing freight and passenger rail traffic on the EJ&E rail line and determined that, in general, rail traffic on the EJ&E rail line would increase by approximately 15 freight trains per day from Leithton (near Mundelein, Illinois) to West Chicago and by an average of 15 to 24 freight trains per day from West Chicago, Illinois, to Gary, Indiana. Traffic on CN's five subdivisions inside the EJ&E arc would be reduced by as many as 19 trains per day on some rail line segments. Even in areas where train reductions would not be as large, the net projected trains per day would be fewer than three on all but one rail line segment (see Section 2.2.1.1 of the Draft EIS).

SEA obtained data, reviewed the Applicants' Operating Plan, and used various analytical tools (see Appendix B of the Draft EIS) to assess the reasonableness of the Applicants' proposed train volumes. The estimate of the Proposed Action on train volumes provides the basis for SEA's analysis of many of the potential effects. In consideration of the public comments submitted on the Draft EIS relating to expanded or new passenger rail traffic, SEA has conducted additional analysis of the proposed Metra STAR Line and NICTD's West Lake Corridor. A recalculation of the EJ&E/Metra and EJ&E/Amtrak crossings is included in Chapter 2 of this Final EIS.

Many commenters noted concern with average and maximum train length on the EJ&E rail line if the Proposed Action is approved and implemented. As stated in Section 2.2 and 4.1 of the Draft EIS, under the Proposed Action, average train length would increase from the current 2,590 feet to 6,321 feet, with an average train consisting of 104 rail cars. In its April 21, 2008, letter responding to SEA's request for additional information on train traffic from the developing Port of Prince Rupert, CN stated that the relevant Prince Rupert traffic "ranged between two and four trains per week in 2008. The Operating Plan is designed to accommodate all expected growth in that traffic from the full utilization" of Phase 1 of the Port of Prince Rupert development. Even at full capacity, this would generate no more than two trains per day (one in each direction) of the maximum length of 10,000 feet that could move on the EJ&E rail line. These data were incorporated into the Applicants' Operating Plan and are therefore part of SEA's review.

CN Can Add Trains, Making Benefits Temporary

Commenters questioned the upper limit of the projected impacts, pointing to the potential for CN to increase trains on the existing CN routes inside the EJ&E arc, as well as on the arc itself.

Commenters said it is inevitable that traffic on CN rail lines would slowly increase, then eventually surpass current train volumes, giving all benefits a relatively short life span.

These commenters noted that there is nothing preventing CN from increasing rail traffic, or even adding infrastructure improvements beyond those contemplated in the Proposed Action, to accommodate levels of train movements on the EJ&E rail line far in excess of volumes projected in the Draft EIS for year 2015.

Commenters continued to question SEA's time frame for projected train volumes (2015). Several commenters point to the fact that the Port of Prince Rupert Phase 2 will be generating rail traffic that would not be captured in the current analytical time frame.

Finally, commenters stated that SEA failed to calculate benefits to the region or failed to calculate the benefits correctly. Specifically, some commenters asserted that the total regional net change in vehicle delays is inaccurate because the reductions in delays on rail lines previously occupied by CN may be overstated and temporary.

Response

SEA evaluated the analysis horizon for the Proposed Action and determined that 2015 was appropriate. Section 2.2.1.5 of the Draft EIS discussed the reasons for this decision. SEA analyzed the Applicants' Operating Plan and the existing infrastructure and concluded that there are bottlenecks in the system that would constrain CN's ability to increase the number of trains on the EJ&E rail line.

SEA also evaluated the Applicants' plans to partially relinquish use of CN rail lines within the EJ&E arc, thus reducing operating costs and increasing reliability of service by avoiding rail congestion in Chicago. There is no evidence for SEA to predict that CN would reverse its position in that regard within the foreseeable future, thereby subjecting itself to the same congestion it now seeks to avoid.

In response to concern that other railroad freight would fill up the capacity released on existing CN lines inside the EJ&E arc, it is important to understand that the average length of a rail freight haul is 900 miles (U.S. Bureau of Transportation Statistics 2005). SEA concluded that it is speculative to predict whether any future long-distance freight moves would include the existing CN rail lines.

CN has not provided information on, nor is SEA aware of any sources of, substantial increases projected for train demand for local customers or switching operations on existing CN rail lines operating in and out of Chicago.

Support or Reference to System-Level Efficiency Resulting from Proposed Action

Some commenters (including U.S. Congressman Jesse Jackson, Illinois State Representative David E. Miller, and rail-dependent businesses, such as Iowa Mold Tooling Company) expressed support for the potential increase in rail operating efficiency at the local, regional, and even national/international levels, should the Proposed Action be approved. The associated benefits of improved service to rail-dependent industries, and lower transportation costs to shippers and consumers were also noted.

Response

According to CN, and as described in the Draft EIS, approval of the Proposed Action would 1)improve the fluidity of intermodal and other CN traffic that must move into, from, or through Chicago; 2) result in more efficient rail operations by reducing the uncertainty caused by CN trains waiting to be classified at the BRC Clearing Yard within the arc; 3) decrease the traffic density on CN and other rail lines in Chicago's urban core; and 4) reduce congestion and provide for faster movement of shipments on CN rail lines.

SEA recognizes that approval of the Proposed Action would be of direct benefit to CN. However, the Proposed Action could also provide needed regional transportation benefits by improving efficiency and reducing rail congestion in the Chicago metropolitan area, a rail hub of national importance.

CN Collaboration with Metra and Others

Commenters expressed concern that reliance upon past CN agreements to collaborate with Metra is an insufficient guarantee of future behavior. In its September 29, 2008, comment letter, Metra also expressed concern that CN would be "aggressive in pushing their freight agenda" in negotiations with Metra, and indicated that the Board "review and monitoring is necessary to assure that this Project is able to be implemented."

Response

Railroads—even direct competitors—frequently negotiate with each other to facilitate optimal use of the rail system as a whole, and to make use of other rail properties' infrastructure when appropriate. These collaborative agreements are based on trust, which if violated, subjects the violator to business consequences. There is strong reason to believe that the tradition of industry cooperation across owners will continue. As noted in Chapter 4 of this Final EIS, CN has committed to negotiate, communicate, and collaborate with Metra to ensure ongoing safe and efficient passenger-rail service along lines that will be acquired under the Proposed Action.

Train Speeds on the EJ&E Rail Line

Many commenters noted that the train speeds they have observed in their communities differ from average train speeds cited in the Draft EIS. The commenters also noted a wide range of time periods taken by trains to clear crossings. Several commenters noted that trains appear to be traveling more slowly. For example, one commenter said, "Train traffic crossing Western Avenue in Park Forest averages no more than 5-8 mph, at best." Commenters stated that speeds in that location routinely drop below 5 mph. Commenters also raised concerns about increasing roadway blockages should the Proposed Action be approved.

Response

Delays experienced by vehicles at many highway/rail at-grade crossings are a function of several factors, including train speeds, length, tonnage, track gradient, and the number of trains at each crossing. The train speeds for the EJ&E rail line, under the No-Action and Proposed Action alternatives are shown in Table 4.3-5 of the Draft EIS. These are average speeds, meaning that some trains would travel at speeds higher and some lower than those identified in the table. A range of train lengths and weights, as well as acceleration and deceleration speeds were accounted for in SEA's analysis, the details of which are included in Section 4.1 and Appendix B of the Draft EIS. These data were folded into the analysis of vehicle delays in the Draft EIS (Section 4.3) and Chapter 2 of this Final EIS, which revises some of that analysis by using recently updated traffic volumes and train volumes for certain locations. Subsequent to the issuance of the Draft EIS, CN improved the design of the Matteson connection to one that would result in a higher average speed through the crossing.

Switching operations, which occur as railroads serve local industries, account for a good part of the existing congestion at Western Avenue, where commenters have observed particularly slow speeds. For example, rail traffic slows when EJ&E brings a train off the UP rail line onto the EJ&E rail line, and another train arrives from Detroit via the CN Line at Griffith. These and other normal switching movements in the Matteson vicinity combine with through traffic, creating present-day congestion.

The Proposed Action would increase rail traffic from about 8.6 to 31.6 trains at Matteson, Illinois, in the area between Western Avenue and the new proposed signal for the Matteson interlocking, where there is only 4,700 feet. Approximately 10 of the new trains would be making turning movements at the new proposed interlocking at Matteson, and would therefore be traveling slower across Western Avenue. The net impact on speeds of the increase in traffic, taking into account the capacity-expanding effects of infrastructure improvements at Matteson, would be to raise average speeds to about 15-25 mph from the current 5-8 mph.

SEA notes that the underpass at Orchard Drive, approximately 0.50 mile west of Western Avenue, would assist in minimizing vehicular traffic delays.

Regional Benefits Methodology

In addition to the longevity of rail traffic reductions on CN rail lines inside the EJ&E arc, the methodology for, and results of, determining potential regional benefits is a topic for many commenters. Commenters pointed to CN's investment in the growing Port of Prince Rupert, with Phase 2 facilities that would quadruple the container traffic to that port. Again, the time horizon, potential EJ&E rail line capacity expansion, and potential resurgence of traffic on CN lines were topics of concern. The Draft EIS places too much emphasis on "offsetting benefits" and should more properly look at the impacts at the localized level. Also, the Draft EIS missed an opportunity to include a careful analysis of how the public—and not just the private sector—stands to benefit significantly from infrastructure improvements that preserve and create jobs in rail, trucking, warehouse, and other industries. Other commenters stated that shifting freight from one area to another does not constitute a benefit.

Response

With respect to the inclusion of Prince Rupert Phase 2 freight in the regional benefits analysis, SEA has addressed this issue summary in comment and response titled "Concern about Number, Length, and Weight of Trains," above.

The Draft EIS discusses potential impacts at a national and international level. SEA concluded that the project would benefit the national and regional economies by improving the efficiency of freight shipping. The Draft EIS found that the expected effects on the local communities and affected interests would be an increased nuisance from traffic delays and increased noise, air emissions, and vibration from train traffic. The Draft EIS concluded that while the Proposed Action would benefit consumers throughout North America, the costs of the Proposed Action, including increased noise, dust, and vibration, would be borne entirely by people who live and work along the EJ&E rail line. CN has proposed a number of voluntary mitigation measures to avoid, reduce, or mitigate off-site environmental effects, including adverse effects on communities along the EJ&E rail line. SEA has made additional recommendations to the Board which, if it approves the acquisition of the EJ&E rail line, may include those mitigation measures to better balance potential benefits and costs.

West Chicago, Illinois Interlocking Traffic

Commenter stated that with all the activity (including non-CN trains) from the West Chicago junction, there will be 200 trains a day, with associated impacts.

Response

It is possible that, given the existing UP trains and Metra commuter trains, there could be 180 or more trains per day moving through the West Chicago area under the Proposed Action. During Metra's peak periods, EJ&E rail line freight movements are held to a minimum, and during non-peak hours,

EJ&E gives priority to Metra commuter trains to operate through the interlockings. Similarly, at West Chicago, EJ&E operators give precedence to UP and Metra trains according to agreements with those railroads. As the Draft EIS states, under existing conditions, delays to UP trains can cascade through the system, and can delay Metra trains operating in the same corridor. The "performance" of the ten rail/rail interlockings between Leithton and Kirk Yard, including West Chicago, was analyzed as part of the overall RTC evaluation of the EJ&E rail line with the added CN rail traffic as a result of the Proposed Action. No undue delays were noted at these ten interlockings with the addition of the CN rail traffic and proposed infrastructure improvements.

Need for Local Business Access to Rail Service

Commenter said that "Local businesses will be locked out of transporting materials on these trains."

Response

CN's Operating Plan (p. 210) indicates "essential continuity of current operations" and, initially, no planned changes for local traffic. The Operating Plan (p. 211) also states that "Customers now served by EJ&E would potentially benefit by single-line access to the extensive CN system as well as a wider range of service options as CN train plans are overlaid over those of EJ&E's….In addition, Chicago area customers of CN and other Class I carriers would potentially benefit from reduced demand on the capacity of BRT, IHB and CN's lines through the central Chicago terminal area."

Full Capacity Analysis

Commenters asked whether the Draft EIS analyzed a "full capacity line" or just the CN rail traffic being shifted to the EJ&E rail line as part of the Proposed Action and CN's Operating Plan. Commenters stated that the analysis should include "a full Right-of-Way capacity review" that would eliminate the potential for volumes on the EJ&E rail line beyond those estimated in the Draft EIS. One commenter suggested that the Draft EIS should have analyzed a full double-tracked EJ&E rail line.

Commenters noted that CN's Operating Plan would mean that the EJ&E rail line would operate at or near capacity by 2015, and thus the threat of additional trains beyond CN's current projects is unlikely. However, other commenters stated that it is unclear whether the projected volumes assume that $100 million in infrastructure improvements is all that CN will ever implement.

Commenters also cited CREATE and several American Association of Railroads (AAR) studies showing a projected doubling of freight traffic through Chicago over the next 20 years, and stated that it is reasonable to assume some of it would likely be directed to the EJ&E rail line. Commenters said it is unreasonable not to include additional, capacity-adding infrastructure that they presume CN would build to handle new demand.

Related comments include the time frame for the analysis; many commenters asked for evaluation horizons that would extend as long as a typical Regional Transportation Plan.

Response

SEA analyzed the projected impacts of the Proposed Action and the Applicants' plan for operating freight rail traffic along the EJ&E rail line if the Proposed Action were approved. In its Operating Plan, CN states that it intends to redirect freight rail traffic from its five subdivisions onto the EJ&E rail line. As part of its analysis, SEA examined whether CN's projected train numbers along the EJ&E rail line were reasonable and if higher levels of rail traffic might occur in the future along that line. SEA's analysis showed that, given the track construction and Operating Plan proposed by CN, as well as the physical constraints and other uses of the EJ&E rail line that CN does not propose to

change, the EJ&E rail line would be at or near its practical train volume capacity if CN chose to operate the number of trains proposed in the Operating Plan. SEA's analysis and conclusions regarding future rail traffic is contained in Chapter 4 (Section 4.1) of the Draft EIS. The extent to which future track upgrades might increase rail capacity and the extent to which demand for rail capacity may increase in the future are speculative and were not analyzed.

Port of Prince Rupert Traffic Must be Analyzed

Some commenters noted that the Port of Prince Rupert Website described the status of their proposed Phase 2 buildout and stated that the Phase 2 development would generate significant amounts of traffic through Chicago, exceeding the growth expectations SEA used in the Draft EIS. Other commenters simply noted that the Port of Prince Rupert (regardless of phase) was generating trains through the Chicago region. Some commenters questioned the methodology or assumptions used in developing the projected train volumes under the Proposed Action, especially trains that might be generated from the Port of Prince Rupert, Phase 2. One commenter noted growth expectations beyond those included in the Draft EIS on CN's website. Other commenters stated their belief that eventually the traffic on the EJ&E rail line would surpass the Draft EIS estimates, regardless of their source.

Response

In the Draft EIS, SEA included the full development of future rail traffic from Port of Prince Rupert Phase 1 in its estimate of the reasonably foreseeable rail traffic that the Applicants would operate over the EJ&E rail line. In response to the comments received on the Draft EIS, on September 30, 2008, SEA submitted information request No. 6 to the Applicants requesting additional information concerning the potential for increased rail activity from the Port of Prince Rupert's proposed Phase 2 development. The Applicants supplied additional information concerning the Port of Prince Rupert and the current development plans for Phase 2 of the port's Fairview Container Terminal in both the Applicants' September 30, 2008, comment letter on the Draft EIS and in a letter to SEA dated October 21, 2008. The Applicants described the current uncertainty of the environmental review process, global port competition, global intermodal demand, and the funding decisions associated with the Phase 2 development.

SEA independently evaluated the information provided by the Applicants. SEA also contacted staff of the Port of Prince Rupert and confirmed that the environmental review process for Phase 2 of the port's Fairview Container Terminal is currently underway, but is not complete. SEA notes that unlike the existing Phase 1 development, which involved the adaptation of *existing* port infrastructure for intermodal container traffic, the Phase 2 development would require substantial expansion of the port infrastructure, including filling in a portion of Chatham Sound/Hecate Strait. SEA also recognizes that both national and global economic conditions have reduced the international intermodal market rate of growth, and that there is substantial competition among the ports on the West Coast. SEA concludes that its determination in the Draft EIS was correct and that it would be far too speculative to include future Port of Prince Rupert Phase 2 traffic in the rail traffic projections used in this Final EIS.

Current economic conditions have resulted in significant declines in rail car loadings, intermodal container volumes, and port activity in North America. A recalculation of Draft EIS forecasts for 2015 EJ&E rail line volumes, based on current trends, would likely produce significantly lower forecasts than those provided by the Applicants in October 2007 when information for the Draft EIS was collected. Finally, energy costs and the reconstruction of the Panama Canal (now underway to handle larger ships) will have unpredictable impacts on North American shipping patterns and modes potentially affecting West Coast rail traffic patterns that, in turn, could dramatically affect rail traffic flow in the Chicago metropolitan area.

Given the multiple risk factors and uncertainties about future demand, SEA included a reasonable increment of Phase 1 in the analysis contained in the Draft EIS and stands behind the Draft EIS figures as the only rail traffic data that can be assumed, based on the Applicants' proposed Operating Plan.

CN Refusal to Honor Trackage Agreements

A commenter was concerned that CN might refuse to honor trackage rights agreements now in place.

Response

Trackage rights agreements are legal documents binding all signatories per the language of the specific agreement. SEA cannot speculate on whether CN would cancel or abandon existing agreements.

Contradictory Statements Regarding Capacity

Commenters stated that there were contradictions between the Draft EIS and Executive Summary with respect to at-capacity conditions on the EJ&E rail line or at interlockings. Commenters also raised concerns about the Draft EIS, Appendix B statement that, even after the proposed construction, CN may not be able to handle the number of trains it proposes in its Operating Plan. Further, commenters were concerned that the Proposed Action benefits only the railway industry, and that if there is congestion in the area, it is because the system "has reached its saturation point."

Response

SEA concluded from its RTC modeling analysis that the EJ&E rail line has sufficient capacity to fulfill the intent of the Applicants' Operating Plan. SEA analyzed the occurrence of delays to determine if the EJ&E rail line had significantly greater train-operating capacity than would be consumed by CN's Operating Plan. SEA determined that the EJ&E rail line would not have significant unused or spare capacity if CN were to implement its Operating Plan.

SEA believes the RTC model shows that the EJ&E rail line can accommodate the CN's proposed Operating Plan without creating adverse effects on other freight and passenger rail operations, or causing blockage of highway/rail at-grade crossings beyond the effects captured in the RTC model. Handling of foreign trackage-rights trains, Metra, and foreign railroad trains that cross the EJ&E rail line at rail/rail at-grade crossings, and blockage of highway/rail at-grade crossings are all subject to outstanding agreements between EJ&E and other interested parties. SEA is recommending that CN comply with its commitment to continue these agreements at West Chicago and Barrington. In addition, SEA is recommending that CN comply with its commitment to maintain any written and executed curfew agreements now in effect regarding operations affecting passenger or commuter train service. Those curfews minimize freight traffic on the EJ&E rail line across the rail/rail interlockings at Rondout, Barrington, Spaulding, West Chicago, and East Joliet (Rock Island Junction) during morning and evening peak periods.

No Economic Benefit from Port of Prince Rupert Operations

A commenter stated that COSCO ships docking at Port of Prince Rupert will realize no time savings, and said there is no "general economic good" to be had.

Response

Comment noted. SEA's economic analysis is detailed in Attachment B3 of the Draft EIS Appendix B, and is based on reasonably available information, using a risk analysis framework.

Limits on CN Train Lengths or Numbers

A commenter asked if there are limits on train lengths or numbers on CN rail lines today.

Response

There are no limits placed on the length or volume of CN's trains currently. The Board does not traditionally impose operating restrictions.

Analysis of Freight on Rail Lines Crossing the EJ&E Rail Line

A commenter stated that the Draft EIS did not address rail operations "interference with freight routes crossing EJ&E."

Response

SEA used the RTC analysis, a rail industry-standard evaluation tool to analyze all rail/rail crossings incorporating freight operations on lines that cross the EJ&E rail line. While delays did occur at each rail/rail crossing, the modeling results did not indicate any extraordinary delays. Additional information is provided in Appendix B of the Draft EIS.

Net Train Volume Misrepresents Benefits

U.S. Representative Melissa Bean, in her comment on the Draft EIS, compared the number of communities along existing CN rail lines where train decreases would occur with the number of communities where net increases would occur. Further, Representative Bean also compared median increases and decreases in potential train traffic, noting that the median increase on the EJ&E rail line would be 19 freight trains per day, and the median decrease on the CN rail lines would be 5.6 trains per day.

Aurora, Illinois, made a different argument in its comment letter. According to Aurora, the "slight decreases" experienced by most communities on CN rail lines, do not balance effects on communities that would experience increases on the EJ&E rail line, even accounting for substantial decreases between Harvey and Markham, Illinois, between Harvey and Griffith, Indiana, and Leithton and Schiller Park, Illinois,.

Response

SEA's analysis of potential environmental effects and benefits resulting from the proposed increase and decrease in train traffic was based on industry-standard computer models and techniques. The use of the "number of communities affected" and "median" as opposed to average number of trains is not appropriate for analysis of total net impact of the Proposed Action on the number of freight trains per day. The Proposed Action would reroute trains from existing CN rail lines that enter and travel through downtown Chicago to the EJ&E rail line that runs around Chicago. The socioeconomic analysis conducted for the Draft EIS evaluated potential adverse effects on the local economy and did not identify any adverse effects on the regional or national economies.

SEA recognized that traffic and safety issues currently exist at many highway/rail at-grade crossings. In some communities along CN rail lines, rail traffic would decrease. In communities along the EJ&E rail line, rail traffic would increase, potentially exacerbating pre-existing conditions in those communities. CN has proposed a number of voluntary mitigation measures to avoid, reduce, or mitigate off-site environmental effects, including adverse effects on communities along the EJ&E rail line. SEA has made additional recommendations to the Board so that, if the Proposed Action is

approved, those measures would help mitigate adverse impacts resulting from the Proposed Action. See Chapter 4 of this Final EIS for those recommended measures.

Proposed Action Doesn't Support Regional Planning

A commenter stated that the Proposed Action doesn't support the CREATE plan. Another commenter stated that it doesn't solve regional problems, while yet another noted the need for "comprehensive and regional planning" to address rail issues in the Chicago metropolitan area.

Response

SEA evaluated the CREATE Plan as a possible alternative to the Proposed Action, and determined that it does not meet the Purpose and Need. SEA also determined that the Proposed Action does not conflict with CREATE's goals of increasing system fluidity in the Chicago metropolitan area.

SEA agrees with the need for continued long-term regional planning. The Chicago Region Environmental and Transportation Efficiency (CREATE) Program was established several years ago for this purpose. CN is, and will continue to be, a partner in this program. The Proposed Action does not conflict with or preclude the efforts associated with CREATE's regional rail planning effort. CN's desire to use the EJ&E rail line in no way lessens the importance of the CREATE Program. CN's purpose and need for the Proposed Action would increase the fluidity of all trains operating in and around the Chicago metropolitan area, thus benefiting regional transportation conditions.

Region-wide transportation plans by the State of Illinois, City of Chicago, the rail industry, and Metra have been developed to upgrade and improve the Chicago region's rail transportation network to improve current freight mobility and plan for anticipated growth; therefore, the proposed improvements are consistent with this larger region-wide transportation plan (MPC 2004).

The regional rail network is already part of comprehensive multi-modal regional planning documents. The next regional transportation plan will most likely include changes to the rail network and shifts in volumes as the region evolves and adapts to the impacts and opportunities of changes in travel and freight demand.

Induced Rail Demand

A commenter stated that the Draft EIS does not consider "induced demand on regional rail lines" or the potential for "reasonably foreseeable" truck-to-rail modal shifts in freight transportation. Commenter stated that the Draft EIS "does not assess bottlenecks and time-space RTC modeling on inner Chicago routes (only the EJ&E was evaluated for such purposes). The commenter asserted the projections in the Draft EIS "likely are too low and therefore deficient."

Response

Induced rail demand could occur on rail lines that have the capacity for growth and are on corridors on which that growth might occur. Many of the rail lines inside the arc over which CN now operates could certainly accommodate additional rail traffic but are on corridors over which regional or national rail traffic is not likely to be routed. In the Draft EIS, SEA examined the propensity for freight now moving by truck to be diverted onto rail and noted that this shift would be minor (see page 4.3-1 of the Draft EIS). CN has not provided information on, nor is SEA aware of any sources of, substantial increases in train demand for local customers or switching operations on existing CN rail lines.

Freight and Passenger Train Conflicts Not Considered

A commenter noted that from study of the scheduling constraints, the Union Pacific line currently has substantial commuter train traffic at the interlocking in Barrington, particularly during peak hours. The commenter pointed out that the Line Occupancy Index analysis (LOI) projects that under the Applicants' Operating Plan, four different segments of the EJ&E rail line will have an LOI value greater than 70, indicating a rail line segment has exceeded its practical capacity. While this has several implications, in terms of rail operations, the lack of EJ&E rail line flexibility in the Joliet area will limit the scheduling flexibility further north in the Barrington area. Either freight through the Barrington area will be expedited to accommodate scheduling constraints further south near Joliet and cause major effects on the Metra system, or freight trains will be delayed to accommodate commuter rail causing scheduling disruptions along the EJ&E rail line. Neither result is considered in the Draft EIS.

Response

SEA analyzed several operational scenarios based on train volumes as provided by CN in its Application and Exhibit A furnished to SEA on February 15, 2008, in a response to Information Request No. 1. Given the number of trains anticipated by CN to operate over the EJ&E rail line, signal infrastructure as described by CN in their Application, and subsequent correspondences with SEA, there is little capacity for additional train volumes whether these are passenger or freight trains.

As explained in the Draft EIS (Section 4.1.7), SEA evaluated the rail/rail at-grade crossing of the Union Pacific Railroad and the EJ&E rail line using RTC. Train volumes for the UP/Metra line were supplied by Chicago-area railroad operating personnel, and represent an estimated 2008 average. The RTC analysis, which included the EJ&E/UP interlocking, assumed that Metra's commuter trains and freight trains crossing the EJ&E rail line at rail/rail at-grade crossings were given precedence over trains on the EJ&E rail line. SEA concluded that under the Applicants' Operating Plan, the EJ&E rail line would have very little spare capacity given the infrastructure improvements included in the Proposed Action, but could operate under the conditions described. SEA evaluated CN's Operating Plan, including operations in the Barrington area as part of its analysis.

No-Action Alternative Would Still Leave Efficient Routing Options

A commenter stated that adoption of the No-Action Alternative would not leave CN without efficient routing options in and through Chicago. The commenter cited the freight rail practices of the Wisconsin Central Ltd., which owned the Waukesha Subdivision prior to CN's acquisition of that rail line.

Response

Under the No-Action Alternative, CN would continue to operate as it does today.

Will County Rail Operational Feasibility

Will County expressed concern that reduction of train volumes on CN rail lines inside the EJ&E Arc could be short term, and requested an extended time frame for analysis. Commenters also noted specific capacity constraints at the verticaql lift bridge over the Des Plaines River and at East Joliet Yard, located in Will County.

Response

SEA shares concerns about potential bottlenecks at the Des Plaines River Bridge and at East Joliet Yard. Specifically, SEA is aware that:

1. The yard layout at East Joliet is awkward for through-train operations.
2. The yard operation have to "tail" across the diamond at Rock Island Junction (at the south end of the yard) to perform the majority of their switching operations.
3. Because of the spacing of the numerous highway/rail at-grade crossings between Frankfort and East Joliet, Illinois, there is no place to hold a 5,000 or more foot-long train between Frankfort (at School House Road) and Rock Island Junction.

While SEA is aware of these issues, CN could, in fact, operate 5,000 ft trains if they encounter operational problems while they attempt to ramp up. CN would be relocating nearly all the rail cars now being held in the yard for various nearby customers served by the EJ&E rail line.

The RTC model has accounted for the Des Plaines River lifts, as described by the commenter. In SEA's analysis, an average of 20 lifts per day were used instead of 17, because SEA's investigation of lift patterns revealed that there was no particular schedule for lifts and they varied broadly. See Appendix B of the Draft EIS for additional information on the bottleneck analysis, Line Occupancy Index analysis, and the RTC methodology.

According to CN's Application and in discussions with CN's operating personnel, CN has mapped out a 3-year implementation schedule that would slowly begin to divert trains onto the EJ&E rail line. The principal factor in their diversion schedule, in addition to the time it takes to secure the necessary permits and to construct the connections and double track sections, would be to develop the yard capacities and acceptable operations performance levels at East Joliet and Kirk yards. Until this is accomplished, CN would continue to use the BRC Clearing Yard to classify their trains. During this ramp up schedule, CN would learn the characteristics of the EJ&E rail line and adjust their operations accordingly.

Conflict between Metra Curfew and EJ&E Rail Line Operations

A commenter stated that, even with CN's proposed infrastructure improvements, the additional volume of trains could not respect the Metra curfews without "serious consequences" in the form of train congestion, which would lead to slower moving trains and thus longer crossing blockages for roadway vehicles.

Response

CN's Operating Plan and voluntary mitigations state CN will comply with existing curfew agreements with Metra, and incrementally increase train quantities on the EJ&E rail line after the Proposed Action to avoid overtaxing the EJ&E rail line infrastructure. SEA conducted additional analysis (see STAR Line analysis in Chapter 2 of this Final EIS) and determined that, if the STAR Line were constructed, there would be a slight degradation of operations with the curfews accounted for, compared with the original analysis indicated in Section 2.2 of the Draft EIS.. The Applicants' voluntary mitigation measures are presented in Chapter 4 of this Final EIS.

Trains Stored and Switched Near School in Naperville, Illinois

Commenters were concerned about plans to add "a third track near Peterson Elementary School for storage." Commenters asked about plans for train storage and switching in proximity to the school.

Response

Double track is not planned for the rail line adjacent to Peterson Elementary School. The proposed double track segments would be constructed approximately 0.50 mile north and south of the school. SEA noted that the same commodities are transported now as would be transported should the

Proposed Action be approved, and concluded that a train standing on a private ROW does not pose a special risk. This subject is further addressed in the Hazardous Materials Transport Safety section later in this chapter of this Final EIS.

In Chapter 4 of this Final EIS, the Applicants have offered voluntary mitigation that would provide fencing along the ROW where schools are within 0.25 mile of the EJ&E rail line. Voluntary mitigation also includes identifying elementary, middle, and high schools within 0.50 mile of the EJ&E rail line and making available Operation Lifesaver programs. CN has also stated that they would provide railroad safety materials to schools, and cooperate with school and park districts to identify at-grade crossings where additional pedestrian warning devices may be warranted.

Freight Volume Projections for Illinois River Line

A commenter stated that the Draft EIS does not include projections for future freight rail traffic on the Illinois River Line, which is a spur off of the EJ&E main line.

Response

The Applicants have not included operational changes on the Illinois River Line as part of the Proposed Action.

Washington Street/EJ&E At-Grade Crossing Issues in Joliet, Illinois

A commenter stated that the Washington Street-EJ&E rail line highway/rail at-grade crossing is located approximately 100 feet west of a Washington Street-UP West rail/rail at-grade crossing, and less than 40 feet from the EJ&E-UP West rail/rail at-grade crossing. The commenter was concerned about increasing frequency and length of blockages and vehicular delays at those locations.

Response

The traffic analysis presented in Table 4.3-4 of the Draft EIS states that the Proposed Action would result in an average delay per delayed vehicle of 2.4 minutes at the Washington Street/EJ&E rail line highway/rail at-grade crossing, which is an increase of 0.7 minutes (42 seconds) over the No-Action alternative (see Table 4.3-4, p. 4.3-12 of the Draft EIS). The total vehicle traffic delay in a 24-hour period was calculated and did not exceed the vehicle delay thresholds of substantial effect.

Additionally, as stated in Chapter 4 of this Final EIS, CN has voluntarily agreed to operate under its U.S. Operating Rule No. 526 (Public Crossings), which provides that a public crossing must not be blocked longer than 10 minutes (voluntary measure).

Ethanol Shipping on CN Lines

A commenter asked about shipping ethanol on the EJ&E rail line.

Response

There are ethanol producers on CN's existing rail lines; therefore, an occasional train carrying ethanol may use the EJ&E rail line.

Impact of U.S. Freight Hauled via Canada

A commenter asked what would happen if CN decided to move the majority of its U.S. freight through Canada.

Response

This would represent a business decision on CN's part, and is not subject to Board oversight.

Railroad Employees Hazmat Training

A commenter asked how railroad employees are trained to respond to spills. Commenter stated that the growth in hazmat carloads is a serious concern, and that the Board "must ensure that the CN's safety programs can effectively manage any hazardous materials issues."

Response

Railroad workers receive extensive training in a wide variety of operational issues including response to accidental spills of hazardous materials. In the unlikely event of a release involving hazardous materials, railroads work very closely with the chemical industry to train emergency responders on how to handle these releases. Either in conjunction with the American Chemistry Council's (ACC's) Transportation Community Awareness and Emergency Response (TRANSCAER) program, or on their own, railroads train over 20,000 emergency responders a year in the response methods associated with rail transportation of hazardous materials. CN is an active participant in the TRANSCAER program. To assist local response agencies in preparing for rail transportation emergencies, railroads provide, upon request, a list of the top 25 hazardous commodities transported through their community.

As discussed in the Draft EIS, CN has begun a new emergency response outreach program designed to enhance preparedness and foster partnerships with the response community through REACT (Responder Education Assistance and Certification Training). CN provides three phases of training for the response community.

Run-Through Track

A commenter is concerned that CN will "put a run-through track, a main line, right through the center of our yard, and send it straight through up through the [Rock Island Line] and up into Frankfort. I feel this is not feasible. There is no way that they can do this without being affected by the Rock, as well as coming up the steep grade into Frankfort."

Response

CN's infrastructure improvements are described in Section 2.2 of the Draft EIS, and effects of the Proposed Action are addressed in Chapter 4 of the Draft EIS.

Train Volume Seasonal Variation

Commenters expressed concern that by using averages, SEA did not capture the seasonal variability of demand caused by shippers, such as national big-box retailers, who generate a pronounced four-month, fall peak in rail volumes.

Response

SEA's analysis was based on an annual shipping cycle and therefore accounted for peak demand periods as well as off-peak times. To ensure that all reasonably foreseeable impacts were identified, SEA analyzed not only the number of trains that would be redirected to the EJ&E rail line from CN rail lines under the Applicants proposed Operating Plan, but also the maximum number of trains that could use the EJ&E rail line given current constraints, or would use them, given foreseeable rail

freight demand in North America. This would account for seasonal variability in the analysis of operational feasibility.

SEA also notes that, relative to seasonal railroad peak traffic volumes experienced on North American railroads in the 2000-2005 period during the July-November time frame, those peaks have declined relative to average annual volumes in the 2006-2007 period to produce almost no fall peak, and in 2008, rail traffic in the July-November time frame actually declined from the preceding months.

Train Traffic Expectations

A commenter said that while people should have known there was a railroad running through EJ&E communities, people moved in expecting Class II or minor railroad operations, not a "Class 1 Rail Superhighway."

Response

Under present statutory authority, the Applicants could increase trains without Board review on both existing CN rail lines and on EJ&E routes it would acquire under the Proposed Action, should it be approved. In addition, both EJ&E and CN rail lines would be able to add more double track or other infrastructure within their existing ROW, beyond that identified in the Proposed Action, without Board review.

3.4.4.5 Intercity Passenger Rail Service

Potential Impacts of Proposed Action on Inter-City Passenger Rail (Amtrak)

Commenters expressed concern that CN might sell the St. Charles Air Line ROW, or generally not live up to agreements in support of Amtrak. Commenters were concerned about the feasibility of Amtrak service under the Proposed Action.

Commenters also wanted assurance that CREATE plans are considered in the EIS, and that Amtrak service would not be affected. Others noted that the Proposed Action actually supports and accelerates approved goals of the CREATE plan.

Response

SEA evaluated the potential effects of the Proposed Action on existing and future passenger rail operations, including intercity passenger trains operated by Amtrak. SEA concluded that the Proposed Action would not adversely affect existing Amtrak service operating on the CN Chicago Subdivision. This conclusion was based on assurance from CN to Amtrak that it would allow Amtrak to operate on the St. Charles Air Line at current operating costs (adjusted for inflation), and the fact that freight volumes on that rail line segment will decrease as a result of the Proposed Action. In addition, in Chapter 4 of this Final EIS, CN has offered voluntary mitigation to preserve Amtrak's service to Chicago's Union Station.

The Chicago Region Environmental and Transportation Efficiency Program (CREATE) Program was established several years ago for this purpose. CN has indicated that it is now, and will continue to be, a partner in this program. The Proposed Action does not conflict with or preclude the efforts associated with CREATE's regional rail planning effort. CN's intention to acquire the EJ&E rail line does not undermine CREATE. CN's Purpose and Need indicates that the Proposed Action would increase the fluidity of CN and all trains operating in and around the Chicago metropolitan area, thus providing a benefit to regional transportation conditions.

3.4.4.6 Commuter Capacity and Passenger Rail Service

Potential Impacts on Commuter Passenger Rail (Metra and Northern Indiana Commuter Transportation District)

Commenters expressed concern about possible conflicts between freight and existing and proposed commuter rail service on or crossing the EJ&E rail line. Commenters felt the effects on local roadways caused by increased freight trains could deter rail commuters, or block their entrance to stations, noting that this is already occurring because of existing congestion on local roadways. Many commenters mentioned that they are already delayed on their commuter train routes by trains on the EJ&E rail line or other freight trains. The Regional Transportation Authority (RTA) mentioned existing congestion, and voiced concern that additional train volumes added by the Proposed Action would push the system too close to capacity for efficient operations.

Commenters also stated that the Draft EIS "downplays impacts" to affected commuter rail service, and that increased traffic on the UP was not sufficiently addressed. Numerous comments cited potential effects on Metra's ability to maintain schedules, which, according to many commenters, already are affected by freight trains. Several commenters felt that the STAR Line would be precluded by the Proposed Action and questioned whether commuter trains would continue to be given priority. Finally, these commenters wondered whether Metra STAR Line service would become "null and void" and whether NICTD's planned West Lake Corridor service would be threatened under the Proposed Action.

Response

In response to comments on the Draft EIS relating to expanded or new passenger rail traffic, SEA conducted additional analyses of the proposed Metra STAR Line and NICTD's West Lake Corridor. SEA evaluated the potential effects (delays or other service impacts) of the Proposed Action on existing and future passenger rail operations. The analyses included commuter passenger trains operated by Metra and NICTD. SEA studied effects on existing and reasonably foreseeable additional passenger service on CN and EJ&E rail lines affected by the Proposed Action, including rail line segments shared by freight and passenger rail, or where passenger lines crossed the CN or EJ&E rail lines.

The results of SEA's analyses of train occupancy times at rail/rail at-grade crossings indicated that it would be physically possible for CN to operate the increased train numbers proposed in its Operating Plan without adversely affecting existing and proposed Metra trains at the four critical locations evaluated: Barrington, Spaulding, West Chicago, and Joliet-Rock Island. However, SEA also concluded that CN would need to work closely with Metra to ensure that increased freight traffic on the EJ&E rail line is operated efficiently while a high level of on-time performance for existing and proposed Metra trains is maintained. The results of SEA's analysis are presented in Section 2.3 of this Final EIS.

SEA concluded that the Proposed Action would not preclude development of the Metra STAR Line. Chapter 4 of this Final EIS presents SEA's recommended mitigation measures.

Future of the STAR Line under Proposed Action

Many commenters believed the Proposed Action would render the STAR Line unfeasible. In response to SEA's conclusion in the Draft EIS that the STAR Line would not be precluded under the Proposed Action, Metra officials commented that SEA's "statement is not entirely correct." Metra based its comment on the potential cost of the additional capacity improvements that would be required and on the nature and history of Metra's working relationship with CN, which they do not believe guarantees cooperation.

Some commenters expressed the opinion that sufficient rail capacity exists and Metra would not need to add rail infrastructure to implement STAR Line service. For example, one commenter questioned whether sufficient right-of-way exists on the EJ&E rail line to accommodate both CN's plans for freight expansion and the planned eventual double-tracking to accommodate the STAR Line, and said, "There is not enough space by law to allow for a minimum 25 feet separation between track centerlines between a freight train and a passenger train." The commenter feared this would constitute a legal basis on which CN could refuse to grant Metra STAR Line trackage rights.

On the other side, several commenters stated that the STAR Line has many technical and financial obstacles to overcome and said SEA should not have considered it reasonably foreseeable. Other commenters noted that EJ&E had not reached any agreement with Metra on how to accommodate the STAR Line.

Response

In response to comments on the Draft EIS, SEA has conducted a more in-depth analysis of the potential effects that the Proposed Action would have on STAR Line implementation. The analysis included RTC modeling of the EJ&E rail line segments between Hoffman Estates and Joliet. SEA also performed a field visit to the EJ&E alignment to reconfirm its ability to physically accommodate the STAR Line, and found that, despite constraints in some segments, it is feasible to implement STAR Line. SEA acknowledges that the Proposed Action would increase the cost and difficulty of STAR Line implementation, but would not preclude it. Details of this analysis can be found in Chapter 2 and Appendix A of this Final EIS.

SEA also analyzed potential effects on the proposed Metra South East Service commuter trains operating at the Chicago Heights interlocking, and determined that it would be physically possible for CN to operate increased train traffic foreseen as part of the Proposed Action without adversely affecting Metra commuter trains. SEA noted, however, that Metra and CN would have to work together to ensure efficiency of increased CN freight operations while maintaining a high level of on-time performance for the proposed Metra trains at that location.

Expansion of NICTD Routes

Commenters stated that expansion of NICTD commuter rail was insufficiently considered, on the basis of SEA's error finding in the Draft EIS that the proposed service "was not reasonably foreseeable." Commenters stated that NICTD's proposed West Lake Corridor service is "reasonably foreseeable" and should have been analyzed. Potential effects of more CN trains at Dyer, they said, "would also affect West Lake's Lowell alignment along the CSX corridor where it crosses the EJ&E at grade." Commenters asked for more analysis of potential impacts of the Proposed Action.

Response

When SEA made the finding that NICTD's proposed commuter service expansions including the West Lake Corridor to Lowell and to Valparaiso was not reasonably foreseeable, it was not concluding that this service would never be implemented. SEA simply was concluding that the Draft EIS did not need to include an analysis of potential effects on these projects to be complete. Key decisions on whether to implement the West Lake Corridor commuter service will be made by the appropriate levels of government in Indiana and the Federal Transit Administration under the rules governing Major Capital Investment Projects (49 CFR Part 611).

To address commenters' concerns about this issue, SEA has analyzed the West Lake Corridor commuter service rail alternatives as reasonably foreseeable commuter rail service. Based on the results of the analysis, SEA concluded that the Proposed Action would not preclude NICTD from operating the maximum number of trains it has proposed for the West Lake Corridor commuter

service rail alternatives. See Chapter 2 of this Final EIS for the complete text of SEA's additional analysis of potential impacts of the Proposed Action on planned NICTD service.

Metra Park and Ride at Matteson

A commenter was concerned that the construction of the proposed new rail connection at Matteson could obstruct access to the tunnel that connects to the Metra Park-n-Ride lot.

Response

The Applicants shall maintain ADA access to the pedestrian tunnel from the Metra Park-n-Ride lot to the Metra train station on the east side of the Chicago Subdivision rail line at Matteson during and after construction. This means that any proposed construction by CN will not interfere with public access along Front Street. The Applicants shall include Metra in preliminary and ongoing discussions regarding tunnel access, track construction, impacts, and pedestrian safety. SEA's recommended mitigation and the Applicants' voluntary mitigation measures are presented in Chapter 4 of this Final EIS.

Review and Analyze CREATE

A commenter asked that the EIS review and analyze CREATE plans.

Response

In Section 2.5.2 of the Draft EIS, SEA evaluated CREATE as a potential alternative to the Proposed Action. SEA determined that CREATE would not meet the purpose and need of the Proposed Action and found that it would not be a reasonable alternative. Therefore, SEA eliminated the CREATE Program from further study.

3.4.4.7 Infrastructure Improvements

Infrastructure Improvements

A commenter asked where double-tracking would be implemented.

Response

SEA identifies areas of double-tracking in the Draft EIS, Section 2.2.2.2.

Railroad Infrastructure

A commenter asked how rail infrastructure integrity and safety will be maintained as train volume increases. Other commenters said there is insufficient railroad infrastructure to support additional trains on the EJ&E rail line. This situation is aggravated, some commenters said, by a failure to invest in improvements for the past several decades. The rail system was "never designed to absorb hourly freight" trains. One commenter stated that EJ&E rail line has not made "major improvements" for 25 years, and said this could have safety implications. Another stated that the Draft EIS fails to evaluate existing rail infrastructure, such as the ballast and crossings, to determine if additional freight traffic can be accommodated structurally.

Response

SEA visually inspected the EJ&E track and found that it was generally in good condition and appeared to be in compliance with current Federal Railroad Administration (FRA) standards for Class

4 tracks. For more information on this subject, see Section 3.2 of the Draft EIS. SEA also reviewed and verified the Applicants' proposed Operating Plan (See Section 4.1 of the Draft EIS).

CN would be required to maintain the tracks included in the Proposed Action to Federal Railroad Administration (FRA) track-safety standards, which are found at 49 CFR Part 213. FRA Class 4 standards, which permit freight operations at speeds up to 60 miles per hour, require CN to conduct twice-weekly inspections with at least one calendar day between inspections. FRA conducts occasional unannounced inspections of track and at the same time reviews the carriers' track inspection records to ensure compliance with FRA track safety standards. In addition, EJ&E inspects each bridge structure annually in accordance with FRA regulations.

Under the Proposed Action, CN would be investing in infrastructure improvements as described in Section 2.2 of the Draft EIS, to implement its Operating Plan. CN has said that it plans to spend $100 million on improvements should the Proposed Action be approved. CN would be required to maintain the tracks included in the Proposed Action to FRA track-safety standards, which are found at 49 CFR Part 213. For Class 4 tracks, which permit freight train operations at speeds up to 60 mph, CN is required to conduct twice-weekly inspections, with at least one calendar day interval between inspections.

Maximum Trains with Double-Tracking

A commenter asked the maximum number of trains operable with full double-tracking, and whether CN intends to double track the entire EJ&E rail line.

Response

Section 2.2.2.2 identifies the locations of proposed double-tracking, which does not include the entire right-of-way. The volume of trains under the Proposed Action will be reached only if the proposed infrastructure improvements are made, including, but not limited to, the approximate 19 miles of double-tracking. CN's Operating Plan does not call for specific additional infrastructure, though some minimal amount of construction beyond that identified in their Application is proposed in the East Joliet Yard.

Phased Approach

Commenters asked how phasing will be implemented and how the EJ&E rail line will be able to accommodate the new traffic. Commenter is concerned about Kirk Yard.

Response

According to CN's Application and in discussions with CN's operating personnel, CN has mapped out a 3-year implementation schedule that will gradually divert trains to the EJ&E rail line. The principal factor in the diversion schedule, in addition to the time it takes to secure the necessary permits and to construct the connections and double track sections, would be to develop the yard capacities and acceptable performance levels at East Joliet and Kirk yards. Until this is accomplished, CN will continue to use the BRC's Clearing Yard to classify their trains. During this ramp-up, CN will learn the characteristics of the EJ&E alignment.

CN's phased approach to implementation is described in Section 2.2.1.4 of the Draft EIS.

Matteson Connection Speeds Overstated

One commenter stated that Matteson track connection speeds are overstated, that the potential to stop on the tracks is understated, and that actual train speeds and operations would cause more blockages at highway/rail at-grade crossings than is estimated in the Draft EIS.

Response

CN has indicated that the track connection speeds will be 15 mph. SEA used this speed to analyze and calculate the delays at nearby highway/rail at-grade crossings, including Cicero, Main Street, and Western Avenue. While these crossings are somewhat affected, SEA determined that the potential delays under the Proposed Action do not warrant mitigation.

Crossings Will Require More Repair

A commenter stated that increased numbers of trains will require more track repair and thus more "down time" at highway/rail at-grade crossings.

Response

Gates and crossing safety and signal equipment require regular maintenance, but maintenance does not typically vary with the number of trains. Repair of highway pavement at highway/rail at-grade crossings is related primarily to the number and weight of vehicles crossing over the tracks.

Suggests Double Track between Frankfort, Illinois and Cicero Avenue in Matteson, Illinois

A commenter suggested that double-tracking between Frankfort and Cicero Avenue would reduce the potential for trains slowing as the track transitions from one track to two, and vice versa.

Response

SEA's RTC analysis indicated that train delays occur in the Matteson/Frankfort area as a result of the approximately six-mile section of single track. However, the Applicants have not proposed any double track in this area. The Applicants are planning on a 3-year ramp-up period during which they would construct the double track sections as described in their Application and begin diverting rail traffic from the existing routes through Chicago onto the EJ&E rail line.

Rail Yard Move Feared

A commenter was concerned that rail yard operations could move to the Bartlett/Wayne/Elgin area.

Response

CN has not informed SEA of any such plan, nor is SEA independently aware of CN's intention to move a rail yard to the Bartlett/Wayne/Elgin area.

3.4.4.8 Construction Impacts on Rail Operations

Construction Impacts are Ignored

One commenter asserted that the Draft EIS did not discuss potential construction effects. The commenter asked when the communities where double-tracking would occur would have an opportunity to comment.

Response

SEA addressed the potential effects of constructing the proposed interconnections and proposed double track segments throughout the Draft EIS. Chapter 2 states that, as a result of the acquisition, CN would construct new connecting tracks at six locations on the EJ&E rail line and would add capacity to the EJ&E rail line by installing approximately 19 miles of double track (see Section 2.2.2).

With respect to specific construction sites, the work windows, noise levels, construction truck routes will all be specified by the building permit that CN would apply for in each community.

In addition, for each resource area discussed in Chapter 4, there is a section that specifically describes potential effects of proposed construction activities. SEA considers the proposed construction to be actions that are connected to the acquisition of the EJ&E rail line and for that reason included an analysis of potential effects in the Draft EIS.

Specific Construction Effects at 119th to 111th Streets in Naperville, Illinois

One commenter noted that additional tracks are being added between 119th and 111th Streets, which are very close to residential neighborhoods. The commenter asked what specific construction plans CN has, and how SEA will hold CN accountable.

Response

CN plans to install a second track between 119th and 111th streets in Naperville as it intends to extend Normantown Siding to the south. The likelihood that a train would be held or staged for any appreciable time at or near the 119th Street vicinity would reduce because they would be held at the Normantown siding south of 119th Street. With respect to specific construction sites and potential effects associated with the construction phase, work windows, noise levels, and construction truck routes would be specified in the building permit that CN would apply for in each community.

3.4.4.9 Rail Operations Methodology

RTC Methodology

Commenters criticized the use of average train speeds, lengths, and volumes because they believe they obscure peak impacts. Also, SEA's rail operation scenarios were not realistic because they did not include longer trains, with acceleration and deceleration periods. Commenters stated that SEA did not sufficiently or correctly analyze operational effects on many communities, including Barrington, Illinois. Nor, they said, did SEA sufficiently or correctly address conflicts between commuter and freight trains at interlockings. USDOT stated that the Draft EIS finding "depends to some degree upon unrealistic assumptions, and thus may understate the likely extent of rail congestion on the EJ&E and its consequences." Commenters asked if SEA has simulated how the trains go through town.

Response

SEA's response to USDOT comments contains additional information on the rail operations methodology and is presented in detail in Section 3.3.2 of this chapter. SEA's analysis was based on data provided by CN, and used methods and techniques that are standard to the rail industry, and concluded that the Applicants' proposed Operating Plan is reasonable. SEA agrees with the USDOT that given: 1) the number of trains anticipated by CN to operate over the track ; 2) the signal infrastructure as described by CN in their Application; and 3) subsequent correspondences with SEA, there is little capacity for additional train volumes whether these trains are passenger or freight.

The Rail Traffic Controller (RTC) modeling that SEA performed to evaluate potential operational effects made several conservative assumptions with respect to train volumes, lengths, and network constraints. SEA analyzed highway/rail at-grade crossing blockages in all the communities along the EJ&E and CN rail lines. See Appendix B of the Draft EIS for additional detail on the model methodology, assumptions, and results.

Rail Operational Feasibility Analysis

Commenters asserted that the analysis should have covered a longer time period, and assumed that all or most of the Prince Rupert Phase 2 freight would be transported on the EJ&E rail line. Commenters stated that SEA's analysis draws "contradictory capacity conclusions" with respect to the ability of non-CN freight railroads and passenger trains to be accommodated on or pass over the EJ&E rail line, since the EJ&E will be operating at or near capacity under the Proposed Action.

Commenters questioned the operational feasibility of more trains on the EJ&E rail line, and noted conflicts with freight and passenger trains crossing the EJ&E rail line. Several commenters were concerned about regional rail system operations, and question whether SEA sufficiently analyzed that issue. Commenters stated that "the only potentially realistic RTC cases will entail unacceptable operational delays" and that the Draft EIS "does not consider the potential impacts of delays along the EJ&E based on limitations from the East Joliet Yard to the proposed single track segment between Frankfort and Matteson." Commenters stated that there are no staging locations for opposing trains in that segment. Other commenters asked whether additional double track will be required after 2015, and suggested that if this is the case, they should be discussed as "cumulative impacts." Commenters stated that SEA's analysis does not satisfy NEPA's "hard look" requirement. In addition to questioning RTC methodology, commenters said SEA's modeling assumptions in the Draft EIS were "overly optimistic."

As part of commenters' scrutiny of SEA's train volume projections, many objected to the "short-term analysis timeframe for EJ&E," and stated that 3 to 5 years beyond Board approval is not adequate. CMAP, for example, recommends a 10-year analysis horizon. Many commenters stated that since global and national freight projections typically predict a doubling of freight in the next 20 years, that SEA should be able to estimate EJ&E rail line traffic for the next 20 years. The issue of the robustness and time frame of SEA's analysis is connected, in many commenters' views, to the issue of regional benefits. A commenter said, "Given the projected growth in freight traffic in Chicago [in general], it seems inevitable that at least a portion of that increase will end up as backfill on the current CN lines." Commenters stated that the Draft EIS failed to consider this, and that this constitutes a "fatal flaw" in SEA's analysis, because "negative environmental impacts will actually be compounded, rather than just shifted" as a result of the Proposed Action.

A commenter contended that the Draft EIS does not recognize that "the projected volumes along the EJ&E rail line will result in several segments being above practical capacity by 2015," and referenced the LOI analysis. The commenter stated that constraints on capacity along the EJ&E rail line will inevitably cause CN to move traffic back to CN rail lines inside the arc.

Response

Standards for the railroad industry are continually evolving, based on a variety of safety, technological, market demand, and regulatory factors. What these factors may be over the next 20 years is unclear and outside the window of "reasonably foreseeable" events that are included in the Draft EIS.

SEA has evaluated the analysis horizon for the Proposed Action and determined that 2015 is appropriate. Section 2.2 of the Draft EIS discusses the reasons for this decision. SEA also understands that while global 20-year freight projections have been high, there is no guarantee that

the projected increases would in fact materialize, or if they did, that the resultant traffic would flow through Chicago on the EJ&E rail line or that CN would garner more than its share of the volume to be transported.

Under the Proposed Action, CN would be investing in infrastructure improvements as described in Section 2.2, to enable it to implement its Operating Plan. SEA evaluated EJ&E's rail line capacity and confirmed that CN's train traffic numbers in the Operating Plan are reasonable. See Appendix B of the Draft EIS for detail on the industry-standard Rail Traffic Controller (RTC) analysis. Additional information is presented in SEA's responses to comments titled "Regional Benefits Methodology" and "RTC Methodology" later in this section. Also refer to comment summaries and SEA responses titled "Time Horizon," "Concern about Number, Length, and Weight of Trains," and "RTC Methodology."

Faulty Analysis of Metra Operations

Commenters pointed out apparent contradictions where the Draft EIS notes in Chapter 2 (page 2-14) that there are six at-grade crossings where Metra trains will intersect with freight trains on the EJ&E rail line. These are listed as Rondout, Leithton, Barrington, Spaulding, West Chicago, and Rock Island. However, in Chapter 4 where the Draft EIS provides its methodology for the analysis of environmental consequences, only four are included in the written summary while the referenced chart (Table 4.1-4) actually lists five Metra/EJ&E at-grade rail crossings. Commenters also said that these apparent inconsistencies must mean that SEA's analysis of potential effects of the Proposed Action on existing and future Metra service is flawed.

In addition, commenters reference another apparent contradiction in SEA's analysis and conclusions, saying on one hand that CN would be able to accommodate Metra service (existing and proposed STAR Line) but also that, on some relevant segments, "there is little capacity beyond the train numbers reflected in the Applicants' Operating Plan, for the Applicants or other railroads to coordinate trackage rights operations or to ensure non-interference of the Applicants' trains" with trains of other railroads, whether passenger or freight.

Response

In response to these comments, SEA has clarified the text and associated tables, which were unclear in places.

The Draft EIS correctly states on page 2-14 that the EJ&E rail line crosses Metra lines at six locations: Rondout, Leithton, Barrington, Spaulding, West Chicago, and Rock Island Junction in Illinois. As noted in Table 2-7 of the Draft EIS, freight train volumes on the EJ&E rail line at Rondout will not change as a result of the Proposed Action; therefore, SEA did not analyze this location in Section 4.1 of the Draft EIS. The existing Leithton interlocking was not analyzed because, under the Proposed Action, a new connection would be configured to avoid any increase of freight traffic crossing the rail diamond at Leithton. Thus, SEA did include these interlockings in Table 4.1-4 of the Draft EIS. Chicago Heights was shown in that table. Because Metra's Southeast Service, which crosses the EJ&E rail line at Chicago Heights, is a proposed, rather than current service, SEA discusses it in a separate section, the analysis of which is summarized in Table 4.17, on page 1-47 of the Draft EIS.

SEA has recalculated train occupancy times for EJ&E and Metra at rail/rail crossings. This new analysis is found in Chapter 2 of this Final EIS.

Proprietary Traffic Numbers Requested

A commenter asked for information about CN's business decision to pursue the Proposed Action.

Response

As a private business, CN's internal information is proprietary, and not subject to the environmental review process. SEA believes it is appropriate to focus on CN's purpose and need for the Proposed Action. Moreover, it is not appropriate for SEA to examine CN's business operations and decisions.

Time Horizon

Commenters stated that cutting off the analysis at 2015 serves to exclude the Port of Prince Rupert Phase 2 train volumes. Regional planning commenters suggested analysis timeframes that correspond more closely to the long-range planning framework.

Response

SEA has evaluated the analysis horizon for the Proposed Action and determined that 2015 is appropriate. Section 2.2.1.5 of the Draft EIS discusses the reasons for this decision.

Crew Changes Will Slow Operations

A commenter stated that crews will have to follow Federal law that prohibits working for periods longer than 12 hours. Commenter stated that "the trains coming from Canada will be just about 12 hours trying to get to Griffith or to Kirk Yard, which means that most of the trains will have to change crews somewhere in Northwest Indiana, which is still going to cause some congestion waiting for them to change crews."

Response

The Applicants' Operating Plan states that they will adjust train operations to achieve the best possible operating efficiency. SEA does not take exception to the Applicants' plans to optimize operating efficiency.

3.4.4.10 Other Comments on Rail Operations

Trial Simulation

A commenter asked for a "trial day" that would simulate train operations.

Response

The RTC model is, essentially, a week-long trial simulation of operations on the EJ&E rail line. See Draft EIS, Appendix B. Delay results generated by the RTC model were then based on a 4-hour period within the week sample interval.

Engineer Sleep Deprivation

Commenter stated that engineer sleep deprivation could cause safety issues.

Response

In the U.S., CN operates and maintains its railroads according to Federal Railroad Administration (FRA) regulations. The principal regulation governing the hours of service of railroad employees, including train crews, dispatchers, signal maintainers, and other employees whose actions or inactions may affect railroad safety, is 49 CFR Part 228. A large part of its purpose is to ensure that those responsible for operating and maintaining railroads are rested, alert, and capable of presenting and responding to any unusual or emergency situations. Railroad employees' hours of service may be

further restricted by rules written by the FRA to conform to the intent of H.R. 2095, the Railroad Safety Act of 2008, enacted October 16, 2008.

Congestion is a Problem for Local Business

Commenter noted that rail congestion in general "makes it difficult for Chicago area businesses, especially those adjacent to congested rail yards, to move their products. This adds time and money to their costs."

Response

If the Proposed Action is approved, its implementation would improve operational efficiency by reducing transit time through Chicago. By moving rail operations out of the Chicago Terminal District, the existing rail capacity is made more readily available to local businesses.

Opposition to South Shore Line Extension

Commenter opposed the extension of the South Shore Line to "our communities."

Response

Extension of the South Shore Line is not part of the Proposed Action; therefore, SEA did not address it in this EIS.

Heavy Coal Trains in Barrington, Illinois

Commenter expressed concerned that coal trains would be too heavy for the bogs in Barrington, Illinois.

Response

SEA's inspection of the EJ&E rail line revealed that in general, the infrastructure is in good condition, and CN has said that it plans $100 million in improvements. EJ&E's current track structure throughout its 120-mile system is rated to handle 286,000 pounds per car, the nominal weight of coal trains now operating along the EJ&E rail line in the Barrington area.

The EJ&E rail line's track structure is currently engineered and maintained to accommodate regular movement of coal trains. The EJ&E rail line is rated to accommodate four-axle freight cars weighing 286,000 pounds gross, the standard North American size for heavy freight cars. The Applicants' Operating Plan does not contemplate significant additional coal train traffic.

3.4.5 Comments on Rail Safety

3.4.5.1 Freight Rail Safety

Effects from Poor Operating and Maintenance Practices

Commenters expressed concern about the Proposed Action's potential to impact the safety of communities and properties along the rail lines due to poor railroad operating and maintenance practices. They were also concerned about the lack of planned improvements at crossings that do not have crossing gates and worried about the railroad infrastructure's ability to safely support the planned increase in traffic.

Response

FRA regulations specify minimum safety requirements for rail cars and engines, track, signals, and operating practices. FRA's safety requirements address the design and inspection of railroad cars, tracks, and signal systems. Under FRA rules, train crews are required to follow safe and appropriate operating rules. FRA regulations require that railroads inspect regularly, on a schedule determined by the maximum allowable track speed. FRA requires that freight cars be inspected every time they are connected to a train and before the train leaves the terminal. FRA also requires that both train signals and highway/rail signals be inspected periodically. FRA reviewed and approved the Applicants' Safety Integration Plan (SIP), which is presented in Appendix D of the Draft EIS.

States are responsible for determining the adequacy of warning devices at highway/rail at-grade crossings and for planning upgrades or improvements. Warning devices include passive signs, automatic flashing light signals, and automatic roadway gates. Most public highway/rail at-grade crossings are protected with automatic flashers and gates.

Both CN and EJ&E maintain their rail lines to comply with FRA's Track Safety Standards. Maximum speeds allowed are not always the same for an entire subdivision. Both permanent and temporary speed restrictions are in effect at some locations due to track curvature, crossing diamonds, grade crossings, and other physical or operating conditions.

With the exception of a 2.2-mile length of track through the East Joliet Yard, which consists of medium weight (112-pound to 121-pound) rail, the EJ&E rail line consists of heavy weight (131 pounds per yard or heavier), continuously welded rail on hardwood timber crossties and ballast consisting of crushed rock or slag. The track structure conforms to industry standards for heavy duty main track. Bridges and structures are constructed and maintained to the same set of industry standards and requirements.

The majority of reportable train accidents occur within rail yards at low speed. The rate of train accidents per million train miles for CN is comparable to other major railroads operating within the U.S. CN's rate, based on the last 5 years of data, is 4.2 reportable accidents per million train miles as compared to 3.9 accidents per million train miles for the major (Class I) railroads as a group. EJ&E's rate, on the other hand, is higher than its peer group's. EJ&E's rate, based on the same 5-year period, is 18.2 accidents per million train miles, versus 4.9 accidents per million train miles for its peers. This higher rate could be attributed to the EJ&E's role as a "switching" railroad; that is, a railroad that performs a large number of rail car switching assignments. Accident rates for switching railroads are historically higher than other railroads that do not perform this function. SEA believes that the rate of accidents under the Proposed Action would be more representative of CN's historic rates than the historic EJ&E rates. Management practices, strategies, and philosophies regarding safety have historically had a larger influence on a particular railroad's results than geographic or management histories.

CN's Canadian Safety Record

Commenters are concerned about CN's safety record in Canada. Many commenters indicated that SEA should incorporate Canadian accident statistics into the safety analysis in the EIS.

Response

Because of the different report requirements, the different regulatory approaches to safety, and the differences in the definition of what constitutes an "accident" SEA concluded that a meaningful comparison between CN's safety record in Canada and CN's safety record in the U.S. could not be made. SEA determined that using safety information from CN's U.S. operation is appropriate and reasonable in the EIS. For additional discussion please see Appendix A of this Final EIS.

New Information

Many commenters provided observations on general safety, especially the safety of children, if the Proposed Action were approved.

Response

SEA shares the public's concern about the potential effects of the Proposed Action on freight and commuter rail, vehicle, and pedestrian safety. The remainder of this subsection is devoted to responding to the public's concerns over these issues.

Need for Additional Grade Separations

Commenters expressed a need for additional grade separated highway/rail crossings at unspecified locations.

Response

Chapter 4 of this Final EIS describes SEA's recommended mitigation and CN's voluntary mitigation. Mitigation is based on SEA's analysis and includes recommendation for the Applicants to pay a percentage of the cost of new grade separations at two locations: Lincoln Highway and Ogden Avenue.

Concern Regarding Track Condition and Safety

A commenter was concerned about the condition and safety of the track and wondered who had responsibility to monitor this.

Response

All common carrier freight railroad operations in the United States, including all of EJ&E and CN's rail lines involved in the Proposed Action, are subject to the safety and security oversight of the Federal Railroad Administration (FRA). The track must be maintained to meet the standards set by FRA, which monitors and makes periodic inspections of the track to ensure that it is maintained to those standards.

Rough Highway/Rail Crossings

A commenter was concerned about the condition of existing highway/rail at-grade crossings located on CN's South Bend Subdivision east of Griffith, Indiana.

Response

The condition of the crossings along CN's South Bend Subdivision east of Griffith is an existing condition and the Applicants have not proposed to change the level of freight traffic on this line. As such, SEA does not consider mitigation to be appropriate under the Proposed Action.

BACOG –Inclusion of CN's Safety Record in Analysis

The Barrington Area Council of Governments expressed concern of CN's Canadian safety record and CN's ability to contain hazardous materials spills.

Response

SEA has conducted further evaluation of CN's safety record in Canada, as discussed above. Issues concerning hazardous materials spills are addressed later in this section.

U.S. Oversight of CN Safety

Commenters were concerned that the FRA, DOT, and Homeland Security would lack regulatory authority over Canadian National's safety and operations.

Response

All common carrier freight railroad operations in the United States, including all of CN's lines involved in the Proposed Action, are subject to the safety and security oversight of the Federal departments of Transportation and Homeland Security in the same manner as all other common carrier freight railroads.

Comment Noted

Commenters expressed a general concern regarding freight rail safety.

Response

SEA's analyses on freight rail safety are presented in Section 4.2 of the Draft EIS. In Chapter 4 of this Final EIS, SEA has recommended mitigation that addresses this issue.

Responsibility for Accident Costs

A commenter expressed a concern that the public would be left with the cost for cleanup and property damage resulting from accidents.

Response

In the event of an accident, the railroad is generally responsible for the cost of rerailing cars, cleanup, and property restoration, both for damage on its property and also on property of others.

Safety Proximate to Schools and Parks

A commenter had safety concerns about the location of the railroad tracks near or close to school grounds and parks and an increased potential for accidents involving children.

Response

The issues associated with concern of the proximity of schools to the tracks are related to exposure due to train accidents (including derailments), children and others that may cross the tracks traveling to and from school, and delay of emergency response providers should they be blocked or delayed by a train. These concerns were addressed in the Draft EIS under the specific sections related to these topics, and further analysis related to schools is provided in this Final EIS.

SEA concludes that this issue is of concern, but that the risks associated with schools close to active rail lines exist today. The Proposed Action would exacerbate the issue along those line segments that will see additional train traffic, but is unlikely to create conditions that do not already exist. SEA further determines that although the risk along the EJ&E rail line will increase, there would be offsetting reductions in those locations along the CN lines that would see fewer trains. CN's voluntary mitigation measures commit CN to provide fencing along the EJ&E ROW where schools or

parks are within 0.25 mile of the EJ&E rail line, and to make Operation Lifesaver Programs available. The Final EIS contains that mitigation and additional mitigation that SEA recommends the Board impose should the Proposed Action.

Locations of Accidents

According to commenters, the Draft EIS did not predict specific accident locations.

Response

The Draft EIS predicted the number of accidents along the EJ&E rail line based on past accident history and CN's operation plan. It is not possible to accurately predict when and where a specific accident or derailment will occur; similarly, it is not possible to predict the extent of any specific derailment.

Disaster Scenario

Commenters felt that the EIS should present rail disaster scenarios that predict how many people and children in the communities would be affected if there is a train derailment.

Response

SEA thoroughly analyzed the potential for an incident (a spill or unexpected release of a hazardous material) to occur in this EIS. SEA did not attempt to analyze the results from any specific spills as the results would be wholly dependent on the circumstances of the incident and the response of emergency service providers. From the data provided in Attachment C5 to Appendix C of the Draft EIS, SEA determined that there were between 12 and 23 incidents per year (85 total) over the 5-year period 2003-2007; six of those incidents (four on CN and two on EJ&E) were categorized as "serious." Based on the analysis in the Draft and Final EI, SEA determines that, under the Proposed Action, the hazardous materials that would be transported on the EJ&E rail line would be in the same Association of American Railroads (AAR) chemical commodity groups as the hazardous materials currently transported on the EJ&E rail line—only the volumes change—and the emergency responders would deal with the same issues as today, albeit potentially more often.

Include DuPage County in the Emergency Responders Table

DuPage County requested that their emergency contact information be included in this Final EIS.

Response

The information was added to Appendix A of this Final EIS.

Merger Safety Results

A commenter expressed concern with the assumptions about safety should the Proposed Action be approved.

Response

The safety analysis of the operation of the EJ&E rail line under the Proposed Action reflects the experience gleaned from other mergers when a strong management team merged with a smaller property with a good management team.

SEA considered the 20-year history of train accident rates for major mergers in the U.S., as shown in Table 3.4-1, below, and noted that while accident rates per million train miles have fluctuated, the constant downward trend in improved safety has continued. The shaded boxes are the years that mergers occurred: 1995 was Burlington Northern and Atchison Topeka & Santa Fe; 1996 was Union Pacific and Southern Pacific; 1999 was the acquisition of Conrail by NS and CSX and also the merger of CN and Illinois Central; 2001 was CN merging with Wisconsin Central; and 2004 was CN acquiring Great Lakes Transportation. The UP/SP derailments in San Antonio, which occurred while the Conrail Draft EIS was being prepared, immediately preceded the issuance of the SIP requirement. The FRA data combines merged railroad data into one after the merger. For example, the 1995 BNSF data includes the pre-merger BN and ATSF data.

Table 3.4-1. Train Accidents Per Million Train Miles

	CN	CSX	NS	UP	BNSF	EJ&E
1987	6.3	5.3	3.8	5.2	3.1	13.6
1988	6.4	4.7	3.1	6.5	3.7	11.6
1989	7.4	6.1	2.7	6.3	3.3	6.0
1990	8.3	4.6	2.6	6.3	4.3	6.3
1991	9.1	2.7	2.6	5.8	4.3	8.3
1992	10.7	2.4	2.3	4.7	3.6	11.8
1993	9.6	2.3	1.8	4.7	4.5	7.8
1994	9.6	1.7	1.7	4.0	3.6	17.5
1995	9.0	1.6	1.5	3.8	3.9	20.3
1996	8.0	2.0	2.4	3.9	3.1	24.4
1997	5.8	3.1	2.6	3.5	2.8	18.3
1998	6.0	3.7	2.2	4.6	2.7	20.8
1999	5.5	4.0	2.9	4.1	3.0	22.2
2000	6.0	4.2	2.9	4.2	3.6	15.4
2001	4.9	3.6	2.7	5.2	3.8	17.2
2002	5.4	3.2	2.5	4.4	3.3	24.4
2003	4.8	4.8	3.4	4.2	3.4	13.5
2004	4.1	4.9	3.4	5.0	3.6	24.4
2005	3.0	4.5	3.3	4.8	3.5	22.2
2006	4.6	3.6	2.4	4.3	3.2	10.5
2007	4.4	2.9	2.4	3.7	3.1	20.5

Based on comments on the Draft EIS, additional information on the Applicants' safety record is provided in this Final EIS. Moreover, the Applicants have prepared a detailed Safety Integration Plan in accordance with FRA and Board regulation. Based on all of the available information and FRA's acceptance of CN's SIP, SEA believes that it has prepared an adequate analysis of all safety-related issues in this EIS.

SIP Response

Commenters questioned if CN's safety program can effectively manage hazardous material issues that could occur along the proposed routes.

Response

CN submitted a Safety Integration Plan (SIP) as part of its initial application package to the Board on December 28, 2007. The SIP was also filed with the Federal Railroad Administration at the same

time. A revised SIP was submitted by CN on June 27, 2008 and included in Appendix D of the Draft EIS. Based on its review of the revised SIP as stated in their letter of September 12, 2008, FRA found that "CN has now satisfactorily addressed each of the SIP elements required as per 49 CFR 244.13. If CN's Application were to be approved by STB, "FRA will monitor CN's implementation of the SIP during the operations integration period." FRA would also consult with the STB at all appropriate stages of implementation and would advise the STB of CN's status implementing the SIP, as appropriate.

Derailment Estimate Calculation

Commenters were concerned that the safety records had not been properly used to project safety estimates and that there were inconsistencies.

Response

The accident rates shown in Tables 3.2-3 and 4.2-1 of the Draft EIS are main track accidents per million train miles and are based on data provided by FRA. As stated in Section 4.1.1.1 of the Draft EIS, SEA considered main track and yard accidents separately.

Main track miles is not a statistic used in the development of Table 4.2-1 of the Draft EIS; as to the ability to replicate the calculations in Table 4.2-2 based on the number of accidents per million train miles, SEA notes that the FRA used accidents on mainline divided by train miles minus yard switching miles.

CN Compliance with Regulations

A commenter requested that the STB not allow the proposed acquisition to occur until CN has disclosed its plans for compliance with the Federal regulations governing the transportation of hazardous materials.

Response

As shown in the Draft EIS Section 6.2, in its voluntary mitigations, CN has agreed to comply with all applicable regulations. SEA will recommend that the Board make compliance with the VM measures mandatory in their final decision, with Board oversight of the implementation continuing for some time after approval, typically 5 years. The requirements in 49 CFR Parts 172, 174, and 209 require the studies to begin January 1, 2009, using data compiled from freight movements between July 1, 2008, and December 31, 2008.

CN Infrastructure Improvement Program

A commenter felt that CN's operational equipment should be checked for proper operation.

Response

CN has announced that it would spend approximately $100 million for improvements to the EJ&E rail line if the Proposed Action is approved. CN has outlined its improvement program in general terms, and SEA believes that CN's staged implementation and developing capital program would ensure that the infrastructure is safe. As stated in Section 3.2.1.1 of the Draft EIS, SEA notes that its on-site inspections showed that infrastructure is generally in good condition.

Passenger Safety at Rail/Rail Crossings

A commenter felt that the Final EIS should conduct a detailed evaluation of the potential adverse impacts of the large increases of freight rail traffic on the EJ&E rail line as a result of the Proposed Action on the safety of thousands of passengers using Metra's existing commuter service, as well as on the safety of the commuters who would be using the STAR Line in the future.

Response

For more details, see Section 4.2.1.2 Rail/Rail Crossings. SEA's analysis shows that passenger rail accidents at rail/rail crossings are rare; SEA believes that Metra can continue to provide service safely.

Border Inspection Procedures

A commenter stated that it has been reported that all of the inspections to be done on this railroad will be done in Canada. "Without the precaution of additional inspections taking place in the U.S., do we really know what is being shipped?"

Response

The statement that all of the inspections will be done in Canada is not true. There will be no change in the current border customs inspections as to specific contents, packaging and placarding requirements, and safety of rolling stock equipment.

National Need for Railroad Freight Capacity

A commenter expressed concern for developing more railroad freight capacity on the national level, especially given the relative safety records of rail and truck.

Response

SEA agrees with your comments concerning the importance of railroad freight in the national transportation system and the importance of adequate railroad capacity. SEA also notes your concern about the relative safety of rail and truck modes, and concurs.

3.4.5.2 Commuter and Passenger Rail Safety

General Passenger Train Safety

Commenters provided general observations and concerns regarding passenger train safety issues.

Response

Comment noted. The occurrences of FRA-reportable accidents involving passenger trains (which are rare) is discussed in 3.2.2 of the Draft EIS, and in the additional analysis prepared for this Final EIS.

Passenger Safety at Rail/Rail Crossings

Commenters were concerned about safety at rail/rail at-grade crossings where passenger rail lines cross the EJ&E rail line, creating the possibility of a passenger/freight train accident.

Response

In Draft EIS Section 4.2.1, and in this Final EIS, SEA concludes that passenger rail accidents are rare, accidents at rail/rail at-grade crossings are rare, and that a high level of safety at the rail/rail at-grade crossings already exists within the Study Area. The Proposed Action would remove freight trains from the existing shared corridors and, as the EIS explains, there would likely be an overall reduction in the number of potential accidents between passenger and freight trains on those lines. The analysis in the Draft EIS and Final EIS also shows that Metra and other commuter lines could continue to provide service safely if the Proposed Action is approved.

Number of Trains Crossing Commuter Tracks

Commenters felt that there will be multiple smaller freight trains (less than 25 cars) used to cross the commuter train tracks and were concerned that this increase in number would result in an increase in the likelihood for accidents.

Response

The Draft EIS describes the effects of an increased volume and length of trains on the EJ&E rail line. The Applicants have also agreed to work within Metra curfews on freight rail operations during peak commuter hours, which would reduce the exposure between freight and commuter trains.

Safety of Passenger Train Operations

A commenter was concerned about passenger train collisions and cited the recent collision in Chatsworth, California, between a MetroLink passenger train and a Union Pacific freight train. The accident was caused when the MetroLink engineer failed to stop for a signal. The accident resulted in several fatalities.

Response

In the aftermath of that tragic collision, FRA has issued an emergency order banning use of inappropriate electronic devices, and Congress has passed an extensive rail safety and improvement bill that the President has signed. The Applicants are subject to this legislation and would update equipment, facilities, and procedures, accordingly. Under the Proposed Action, CN would be required to reduce freight traffic on the CN rail line, currently used by Metra, which would reduce the potential for a passenger and freight train collision.

Passenger Train Safety

A commenter was concerned about passenger train safety.

Response

Establishing standards to assure the safety of passenger train operation is the responsibility of the Federal Railroad Administration (FRA). CN has prepared a Safety Integration Plan that outlines how it would integrate the EJ&E rail line and operations into the CN system. This plan was submitted to the FRA, which approved it without exception. CN has also agreed to work within Metra's curfews on freight rail operations during peak commuter hours. SEA's mitigation is discussed in Chapter 4 of this Final EIS.

3.4.5.3 Hazardous Materials Transport

List of Categories of Hazardous Material Carried

Commenters wanted to know what chemicals are being routinely transported through the area and if the chemicals are flammable or toxic.

Response

A summary list of hazardous materials carried by CN in the Chicago area is provided in Chapter 2 of this Final EIS. SEA noted that in general, the hazardous materials that would be transported on the EJ&E rail line are similar to those materials that are currently transported on the CN rail lines.

New Hazardous Material Safety/Security Regulations

Commenter was concerned that the Applicants' proposed increase in hazardous material freight would result in an increase in hazardous material risks due to accidental or intentional chemical releases. "The chemical release from even one rail car in an urban area would be an unprecedented toxic gas disaster for any community, whether the release is accidental or intentional, and this risk is unacceptable."

Response

The types of hazardous materials that would be transported by the Applicants over the EJ&E rail line are similar to those now being transported by EJ&E. Hence, the consequences of an accidental release are the same under both the No-Action and Proposed Action alternatives. What changes under the Proposed Action is the probability of a release. The EJ&E route is longer than the CN routes, so there would be more car miles of materials being shipped along the EJ&E rail line under the Proposed Action. In the Draft EIS SEA analyzed this probability and concluded that "there would be a potential increase in the possibility of a release because of increased train miles…and more carloads of hazardous materials" on the EJ&E rail line, but that "the possibility of a hazardous materials release would remain remote because of the regulatory and other safeguards already in place" (Draft EIS, Section 4.2.5, page 4.2-38). However, as stated in Section 4.2.5 of the Draft EIS, the hazardous materials would pass through less densely populated areas because the population along the EJ&E rail line is approximately 340,000 while the population along the CN rail lines is approximately 900,000. The transportation of hazardous materials along the CN subdivisions would decrease under the Proposed Action because less hazardous materials would be transported over those lines. Accordingly, the chances of an accidental release along the CN lines also would decrease.

Railroad Safety Oversight

A commenter had concerns regarding who would provide oversight of the expanded operations by CN on the EJE.

Response

The safety of railroad operations, including maintenance of infrastructure (track, structures, and signal systems) is subject to oversight by the FRA. Periodic inspections and documentation of those inspections is required.

Material Distributed Along Right-of-Way

A commenter stated concern about dumping (barrels and bags) taking place next to train tracks.

Response

Based on on-site inspections and discussion with EJ&E personnel, SEA believes that the barrels and bags are railroad parts being used by EJ&E for replacing rail, not garbage.

Water Contamination Issues

Commenters felt that the projected increase in the volume of hazardous materials being transported on the EJ&E rail line would result in an increased risk of toxic spills into the water supplies, underlying aquifer (water wells), hiking and biking trails, wildlife areas, and other sensitive environments along the routes.

Response

In response to public comments, SEA conducted additional analysis of the potential effects from a hazardous materials spill in sensitive areas. SEA determined that the environmental consequences would be the same for the No-Action and Proposed Action, but the likelihood of a spill would increase for the Proposed Action due to increased rail traffic. The results of SEA's analysis are presented in Section 2.7 of this Final EIS.

In the Draft EIS, SEA identified the change in the amount of hazardous materials that would move on the EJ&E and CN rail lines. Under the Proposed Action, there would be a substantial decrease in shipments on CN rail lines and a corresponding increase on the EJ&E rail line. SEA also calculated the change in the risk of a release of a hazardous material on the CN and EJ&E rail lines.

The Draft EIS, Section 4.12.3.1, provided the results of an examination of the susceptibility of local groundwater supplies to a hazardous material spill. In the Study Area, groundwater is used for public and private water supplies and for industrial uses. There are 54 public water supply wells near the EJ&E rail line. Available information indicates that a majority (62 percent) of these use the shallow (less than 500 feet) bedrock aquifer.

SEA considered the proximity of drinking water wells to the right-of-way, direction of groundwater flow, and potential for contamination as determined by the thickness, permeability, and other properties of the geologic materials. This analysis identified one location (in Plainfield, Illinois) where an existing public water supply well could be affected by a hazardous material spill, and also identified several rail segments with greater potential for a spill that could impact private wells and/or natural areas. SEA undertook additional investigation since the publication of the Draft EIS and identified areas, primarily along the Des Plaines River in Will, Cook, and DuPage Counties, where the geologic materials overlying the bedrock are thinner and/or more permeable than along most of the right-of-way. The shallow bedrock aquifer is more susceptible to contamination from the surface in these areas.

SEA has determined that the Proposed Action does not create any new threats to wells or water supplies. Effects from the Proposed Action on groundwater take the form of increased possibilities for spills, which increase existing risks. Statistics on the current and the Proposed Action release intervals are included in Table 4.2-23 of the Draft EIS. As explained in the Draft EIS, if a spill were to occur, CN would be required by law to mitigate the impacts by remediating the groundwater resource and/or providing an alternate supply of water to the property owner. Mitigation measures would be negotiated with governmental agencies.

Not all spills result in groundwater contamination. Because groundwater velocities are very low, there is time to react to contamination before public or private water supplies are affected. Because hazardous material spills are rare and containment and cleanup are generally prompt, the overall potential impact of the Proposed Action to groundwater supplies is very low. In general, SEA

concluded that the likelihood of a release is remote, therefore the chance of a release in a sensitive area is also remote.

Compliance with Existing and Proposed Regulations

Commenters asked if CN would comply with proposed hazardous material transportation regulations.

Response

The Board expects that CN would comply with existing regulations and new regulations as they are promulgated. As analyzed in the Draft EIS, some rail segments on the EJ&E rail line would have increased amounts of hazardous material shipments, while some of the CN rail line segments would have decreased amounts. CN is required to comply with all regulations controlling the transport of hazardous materials. The USDOT's interim final rule on "Enhancing Rail Transportation Safety and Security for Hazardous Material Shipments" took effect, June 1, 2008. These rules are intended to ensure that railroads use routes with the fewest overall safety and security risks to transport security-sensitive hazardous materials, with specific application to poison inhalation hazard (PIH) materials such as chlorine and ammonia.

On April 1, 2008, the Pipeline and Hazardous Materials Safety Administration (PHMSA) published a proposed rule titled, "Hazardous Materials: Improving the Safety of Railroad Tank Car Transportation of Hazardous Materials." This proposed rule would have a positive effect on reducing the number of hazardous materials releases through improvement of tank cars that transport PIH materials, along with reduced operating speeds for trains that include PIH shipments. The tank car performance standards in the rule would increase by 500 percent, on average, the energy that must be absorbed during a train accident before a catastrophic failure would occur. This rule would require the replacement of the entire fleet of tank cars used to transport PIH materials within 8 years from the final rule's effective date.

The proposed rule would also establish a maximum operating speed for trains transporting PIH materials to a maximum of 50 miles per hour (mph), a measure already voluntarily adopted by the rail industry for the majority of PIH shipments. Additionally, the proposed rule would require an interim maximum operating speed of 30 mph for tank cars that do not meet the new performance standards as these older tank cars are being replaced.

The Association of American Railroad's (AAR) Tank Car Committee recently implemented a standard for tank cars carrying toxic inhalation hazard (TIH) that reduces the probability of a release due to an accident involving a tank car carrying a TIH. In addition, Dow Chemical, Union Tank Car, and Union Pacific Railroad, in cooperation with FRA have been researching ways to make tank cars carrying TIH even safer. That project is called the Next Generation Tank Car project. PHMSA has issued a notice of proposed rulemaking that proposes to use the research produced by the Next Generation Tank Car Project to make additional improvement in tank car performance.

Availability of Hazardous Materials Manifests

Commenters felt that because of a large percentage increase in the volume of hazardous materials transported on the EJ&E rail line, the expected percentage increase in reportable hazardous materials release would also increase. Commenters stated, "We have made numerous requests to CN for information regarding the types and quantities of hazardous materials they intend on shipping on the EJ&E with no response as of this date." This information is critical for the preparation and training of emergency response personnel and presents high-risk challenges for first responders who would be mandated to respond with little to no additional resources. Local emergency service responders must receive a detailed manifest of all hazardous materials being transported through our communities.

Response

A summary list of hazardous materials carried by CN in the Chicago area is provided in Section 2.6 in this Final EIS. SEA noted that the hazardous material categories currently carried on the EJ&E rail line are the same as the hazardous material categories that CN anticipates carrying if the Proposed Action is approved; the quantities would change, but the materials would be similar.

Effectiveness of CN's Emergency Response Program

Commenters questioned whether CN's emergency response program can effectively manage hazardous material spills that could occur along the proposed routes. Commenters were concerned that the probability of hazardous materials spills is not properly addressed.

Response

Railroads work very closely with local communities to train emergency responders on how to handle releases in the unlikely event of a release that involves hazardous materials. Either in conjunction with the American Chemistry Council's (ACC) Transportation Community Awareness and Emergency Response (TRANSCAER) program, or on their own, railroads train more than 20,000 emergency responders each year in the response methods associated with rail transportation of hazardous materials. CN is an active participant in the TRANSCAER program. To assist local response agencies in preparing for rail transportation emergencies, railroads provide, upon request, a list of the top 25 hazardous commodities transported through their community. When an accident occurs, railroads provide the emergency responders with a full train consist so they can manage the accident.

As discussed in the Draft EIS, CN has begun a new emergency response outreach program designed to enhance preparedness and foster partnerships with the response community through Responder Education Assistance and Certification Training (REACT). CN provides three phases of training for the response community.

As noted in the Draft EIS, CN has a system-wide plan for handling emergencies. The CN Emergency Response Plan (ERP) is reviewed annually, and local ERPs are prepared for individual yards and facilities. The ERPs include extensive training requirements, response plans, and location of response supplies.

CN's rail traffic control centers play an important role in the emergency response process; local operations are handled out of CN's Homewood rail traffic control center, which is located in Markham Yard in Homewood, Illinois. The Markham Yard center coordinates all response efforts within CN and with outside agencies and responders. SEA reviewed CN's emergency response process and determined that it is reasonable.

CN Safety Programs

Commenters questioned if CN's safety program can effectively manage hazardous material issues that could occur along the proposed routes.

Response

CN submitted a Safety Integration Plan (SIP) as part of its initial application package to the Board on December 28, 2007. The SIP was filed with FRA at the same time. A revised SIP was submitted by CN on June 27, 2008, and was included in Appendix D of the Draft EIS. Based on its review of the revised SIP as stated in its letter of September 12, 2008, FRA found that "CN has now satisfactorily addressed each of the SIP elements required as per 49 CFR 244.13." If CN's Application is approved

by the Board, "FRA will monitor CN's implementation of the SIP during the operations integration period." FRA would also consult with the Board at all appropriate stages of implementation and will advise the Board of CN's status implementing the SIP, as appropriate.

CN would provide information about hazardous material being transported and would work with emergency response organizations as explained in the voluntary mitigation in Section 4.3 of this Final EIS. The list of hazardous materials carried is provided in Chapter 2 of this Final EIS.

Reconciliation of Numbers

Commenters expressed concern that "the numbers don't add up" with respect to the movement of hazardous materials cars.

Response

In their Operating Plan, submitted as part of their Application, the Applicants provided current and Proposed Action data for the number of hazardous material rail cars that would be expected to move on individual rail line segments. As described in the Draft EIS, SEA reviewed and verified the Applicants' Operating Plan, including the numbers of hazardous material cars moved on each line segment. Some rail line segments would see a decrease in hazardous material movement and some rail line segments would see an increase under the Proposed Action.

Compliance with NTSB Standards

Commenters stated that the Draft EIS does not comply with the National Traffic Safety Board's (NTSB) standards for hazardous materials emergency response plan coordination with local communities and, as a result, the Draft EIS fails to satisfy NEPA

Response

The NTSB has long been concerned about the emergency response management of railroad accidents involving hazardous materials. The NTSB, in its 1991 safety study on transporting hazardous materials by rail, discussed how the lack of coordination between the railroads and communities on emergency response planning had presented major safety problems in nine accidents and incidents investigated between 1977 and 1987. The NTSB subsequently issued the following recommendation to the Class I railroads:

> R-91-15 – Develop, implement, and keep current, in coordination with communities adjacent to your railroad yards and along your hazardous materials routes, written emergency response plans and procedures for handling releases of hazardous materials. The procedures should address, key railroad personnel and means of contact, procedures to identify the hazardous materials being transported, identification of resources for technical assistance that may be needed during the response effort, procedures for coordination of activities between railroad and emergency response personnel, and the conduct of disaster drills or other appropriate methods to test emergency response plans.

SEA believes that CN is in compliance with the above recommendations.

Nuclear Material Transportation

A commenter was concerned about the future shipment of nuclear waste from Westinghouse and Commonwealth Edison.

Response

Shipment of certain high-level radioactive materials is conducted under the requirements of a recent rule from the PHMSA that took effect June 1, 2008. In the interim final rule and proposed rule for "Hazardous Materials: Enhancing Rail Transportation Safety and Security for Hazardous Materials Shipments; Railroad Safety Enforcement Procedures" (49 CFR Parts 172 and 174), released April 16, 2008, and effective June 1, 2008, PHMSA required all rail carriers to:

- Compile annual data on certain shipments of explosive, toxic by inhalation, and radioactive materials.
- Use the data to analyze safety and security risks along rail routes where those materials are transported.
- Assess alternative routing options.
- Make routing decisions based on those assessments.

Rail carriers transporting the specified hazardous materials must use the data they compile and relevant information from state, local, and tribal officials regarding security risks to high-consequences targets along or in proximity to a route to analyze the safety and security risks for each route used and practicable alternative routes to the route used. Rail carriers must select the safest and most secure practicable route for the specified hazardous materials.

Beginning January 1, 2009, rail carriers must compile information on the commodities they transport and the routes they use for the 6-month period from July 1, 2008, to December 31, 2008. Rail carriers must complete their data collection by March 1, 2009. By September 1, 2009, rail carriers must complete the safety and security analyses of routes currently utilized and available alternatives and select the safest, most secure routes for transporting the specified explosive, PIH, and radioactive materials. Beginning January 1, 2010, and for subsequent years, rail carriers must compile information on the commodities they transport and the routes used for the previous calendar year and complete route assessments and selections by the end of the calendar year. For each primary route, one commercially practicable alternative route must be identified and analyzed using, at a minimum, 26 rail risk analysis factors.

Access to Remote Areas

Commenters were concerned about the lack of access to remote areas by emergency responders in the event of a release of hazardous materials.

Response

Access to potential incidents involving hazardous material that are inaccessible by public roadways would occur along railroad ROW in special cases.

Probability of Release Versus Impact of Release

Commenters were concerned with emergency responses associated with the increased probability of a release.

Response

SEA analyzed the change in the probability of an accident or a spill of hazardous materials in Section 4.2.5 of the Draft EIS. The probable results from such an accident or spill are a function of the specific circumstances of the accident and response. Chapter 2 of this Final EIS provides additional information on the types of impacts that would occur if a release were to take place. As

discussed in the Draft EIS, CN has a system-wide plan for handling emergencies in coordination with local emergency responders.

Merit of Rerouting Hazardous Materials

A commenter noted that CN plans to use the EJ&E rail line as the primary route through Chicago for hazardous materials. The commenter said CN should be required to disclose whether it wants the EJ&E rail line for the primary route for transport of the hazardous materials through Chicago before the Final EIS is prepared to allow for review and comments on these plans.

Response

As stated in the Draft EIS, CN desires to improve operations, consolidate switching, and improve service to local Chicago-area rail freight customers. CN's Proposed Operating Plan, discussed and analyzed in the Draft EIS, would reroute many of its trains—including those transporting hazardous material—from their current routes to the EJ&E rail line to create a more efficient transportation network. Some communities would experience an increase in hazardous material shipments and some would see a decrease. Chapter 2 of this Final EIS provides a summary list of the types of materials that would be transported.

Staging Trains with Hazardous Materials

Commenters expressed concern that staging trains next to schools would pose an unnecessary risk to children.

Response

In its voluntary mitigation measures, CN has committed to working with communities, school districts, and park districts (including forest preserves) to provide fencing along the EJ&E ROW where schools or parks are within 0.25 mile of the ROW. SEA noted that loading and unloading hazardous material accounts for over half of bulk hazmat incidents, but concluded that a train standing on a private right-of-way does not pose a special risk.

Hazardous Materials Currently Transported Through Neighborhoods

Commenters expressed various concerns related to the transport of hazardous materials in their communities, such as Lake Zurich and Frankfort, Illinois; and Griffith, Indiana.

Response

Hazardous materials are currently transported on the EJ&E rail line. Local emergency service providers are trained and qualified to deal with the infrequent accidents that currently occur and can be expected to occur in the future, and CN has implemented training for local providers. SEA has determined that, while quantities would change, the groups and classes of hazardous materials that are currently transported on the EJ&E rail line would not change if the Proposed Action is approved and that; therefore the Applicants plans and precautions are reasonable and appropriate. SEA's recommended mitigation measures for hazardous materials transport are discussed in Chapter 4 of this Final EIS.

Recent Legislation

Commenters inquired as to CN's compliance with recently enacted legislation regarding transportation of hazardous materials.

Response

CN is required by the FRA and USDOT to comply with all regulations controlling the transport of hazardous materials.

Hazardous Materials and Communities

With the number of train cars hauling hazardous materials projected to increase on the EJ&E rail line as a result of the Proposed Action, commenters questioned the safety of these shipments going through their communities and near their homes, schools, and parks. Commenters expressed concern about what CN's response plan would be if an accidental spill were to occur in a highly populated area.

Response

SEA considered emergency response capabilities in the project area, and as discussed in Sections 3.2.3.3 and 3.2.3.4 of the Draft EIS, SEA believes that the capabilities for response to a hazardous materials incident in and around the Chicago area are extensive. In addition to the emergency management and response capabilities of CN (and EJ&E), communities along the EJ&E rail line have Local Emergency Planning Committees (LEPCs) that are trained and prepared to respond to hazardous materials incidents. A summary of CN's hazardous materials response capabilities is provided in Section 3.2.3.4 of the Draft EIS, and a table providing the response capabilities of local communities is provided in Appendix C4 of the Draft EIS. SEA believes that CN's response plan is reasonable.

Hazardous Materials Categories Do Not Change

A commenter was concerned about additional hazardous materials being transported by CN on the EJ&E rail line.

Response

The Applicants propose to shift rail freight involving hazardous material shipments from the CN rail lines (through Chicago) to the EJ&E rail line. The EJ&E rail line currently carries hazardous material shipments. SEA has determined that the classes of hazardous materials currently transported on the EJ&E rail line are the same as those CN would transport if the Proposed Action is approved. While the quantities would substantially increase on the EJ&E rail line, because the same classes of materials currently move on the line, SEA believes that the necessary emergency response resources and training are in place to ensure public safety if the Proposed Action is approved.

Key Trains Versus DOT Regulations

A commenter stated that the imposition of the key train concept would be arbitrary and would conflict with well-established regulations.

Response

The key train concept is not an arbitrary imposition. The key train concept is industry-sponsored guidance from AAR Circular OT-55 that is accepted by Class I Railroads. Adherence to Circular OT-55 would not obviate the requirement for CN to comply with all FRA regulations. CN would comply with the new PHMSA regulations effective in 2008.

Growth Estimates

Commenters expressed concern that SEA "drastically underestimated" future rail traffic, and stated that the Draft EIS should have greater detail regarding the anticipated operational characteristics of trains (such type of rail car, hazardous materials loading, origin and destination analysis, and so forth).

Response

SEA conducted an extensive analysis of the Applicants' Operating Plan, and verified that the plan was reasonable. This analysis is discussed in Chapter 4 and Appendix B of the Draft EIS. SEA conducted further analysis of the types of hazardous materials that could be expected, as is explained in Chapter 2 of this Final EIS.

Windows for Hazardous Materials Transport

The time of day that hazardous materials are moved was raised by some commenters, suggesting that not moving hazardous materials during the day when children are in school could decrease the potential exposure of the children to an accidental spill.

Response

SEA reviewed the history of rail-related spills, USDOT hazmat regulations including 49 CFR Parts 172, 174, and 209, and concluded that the current regulations provide reasonable protection from hazardous material spills. SEA also noted that the Board has not historically imposed this type of operating restriction and that the condition would not be reasonable. In addition, the FRA has Federal regulatory oversight of all freight rail safety.

Spill and Release Information

A commenter stated that the Final EIS should clearly identify the circumstances under which accidents and hazardous material releases are most likely to occur or are not likely to occur and why.

Response

Attachment C5 to Appendix C of the Draft EIS contained detailed information about hazardous material releases from rail transportation. SEA included that information in its analysis that led to the conclusions in the Draft EIS. A more detailed breakdown of causes of past hazardous materials releases is presented in Chapter 2 of this Final EIS.

Analysis in Densely Populated Areas

Commenters were concerned that inadequate analysis was performed for movement of hazardous material in a densely populated area.

Response

SEA used proven analytic procedures to evaluate the movement of hazardous material and the changes in that movement that might result if the Proposed Action is approved and CN's Operating Plan is implemented. SEA notes that the analytic procedures were used in prior NEPA documents, including the acquisition of Conrail, which involved changes in hazardous material movement in the majority of the urban areas in the eastern U.S. CN would be required to comply with the new PHMSA regulations effective in 2008.

Incident Cost Responsibility

Commenters wanted to know who is responsible for costs incurred as the result of a derailment or other railroad accident.

Response

In general, railroad companies are responsible for the cost resulting from derailments, regardless of cause. Local emergency responders are responsible for containing any materials spilled and for protecting the public from potential adverse effects of the spilled material. In Chapter 4 of this Final EIS, CN has committed to voluntary measures related to hazardous material transportation that provide for training, cooperation, coordination, communication, and funding of training.

Hazardous Materials Transport Routes

A commenter expressed concern that hazardous materials would be transported on more routes if the Proposed Action is approved.

Response

As shown in Table 4.2-20 of the Draft EIS, 24 line segments currently carry hazardous materials. Only 19 line segments would carry hazardous materials if the Proposed Action is approved.

Insight on CN Customers

A commenter identified a need to have detailed information about EJ&E rail line freight customers.

Response

In Chapter 2 of this Final EIS, SEA provides additional information on the types of hazardous materials that would be shipped on the EJ&E rail line. Information specific to any one shipper is proprietary and confidential between the railroad and the industrial company. All of CN's future customers (if the Proposed Action is approved) on the EJ&E rail line are existing EJ&E customers.

Clarification of Federal Regulations

A commenter stated that Federal regulations would not allow movement of the volume of hazardous materials CN wants to move unless the residences were more than 0.50 mile from the rail line.

Response

Federal and railroad industry hazardous material rules and regulations generally prescribe only packaging and handling methods. The Office of Hazardous Materials Safety (OHM) formulates, issues and revises Hazardous Materials Regulations (HMR) under the Federal Hazardous Materials Transportation Law (49 CFR 100-185). The HMR cover hazardous materials definitions and classifications, hazard communications, shipper and carrier operations, training and security requirements, and packaging and container specifications.

With responsibility for compliance with the HMR, other than those regulations applicable to a single mode of transportation, OHM places emphasis on packaging manufacturers, retesters and reconditioners, and multimodal shippers of hazardous materials. OHM uses risk management principles and security threat assessments to understand, communicate, and reduce dangers inherent in hazardous materials transportation. The hazardous materials that the Applicants propose to move

on the EJ&E rail line are the same materials that are currently moving on the CN rail lines through more densely populated areas.

Terrorist Threat to Hazardous Materials Transport

A commenter was concerned that CN's proposed increase in hazardous materials cargos will result in an increase in hazardous material threats due to accidental or intentional chemical releases. "The chemical release from even one rail car in an urban area would be an unprecedented toxic gas disaster for any community, whether the release is accidental or intentional, and this risk is unacceptable."

Response

The railroad industry and Federal agencies have responded to terrorist threats and ordinary risks through voluntary changes in operating practice by railroads and implementation of proposed rules from the Pipeline and Hazardous Materials Safety Administration (PHMSA), issued in 2006 in coordination with FRA, and 2008.

In December of 2006, with FRA and TSA, PHSMA proposed a rule to increase current requirements for safe and secure transportation of hazardous materials by rail. TSA proposed security regulations focused on prevention of a catastrophic release or explosion near densely populated areas or events with large attendances. The TSA proposal would make rail carriers responsible for reducing risks related to en route storage and delays in transit, and would require rail carriers to inspect hazardous materials rail cars for tampering or suspicious items.

Effective June 1, 2008, PHMSA and FRA require all rail carriers to:

- Compile annual data on certain shipments of explosive, toxic by inhalation, and radioactive materials from July through December 2008
- Use the data to analyze safety and security risks along rail routes where those materials are transported, and assess alternative routing options
- Make routing decisions based on those assessments by September 1, 2009.

Beginning January 1, 2010, and for subsequent years, rail carriers must compile information on the commodities they transport and the routes they used in the previous calendar year. They must make the safest route selections for the next year by the end of each calendar year, using at least 26 rail risk analysis factors.

In April of 2008, PHMSA published a proposed rule that would reduce the number of hazardous materials releases by increasing fivefold the strength of tank cars transporting poison inhalation hazard (PIH) materials and by slowing down trains that carry such shipments. This rule would require replacement of the entire fleet of tank cars used to transport PIH materials within eight years of the final rule's effective date, and reduced speeds for older cars that do not yet meet the new strength standards. Dow Chemical, Union Tank Car, and Union Pacific Railroad have cooperated with FRA in researching improvements to TIH-carrying cars as part of their Next Generation Tank Car project. PHMSA's proposed rule would adopt the results of this voluntary industry research.

Finally, the Association of American Railroad's (AAR's) Tank Car Committee recently implemented a standard for tank cars carrying toxic inhalation hazard (TIH) materials, which reduces the probability of release during an accident.

Although the risk of accidental or intentional releases can never be reduced to zero, SEA believes that these voluntary and mandated improvements to rail cars and operations are reasonable efforts toward that end, and CN is and will continue to be required to comply with all existing regulations and new ones as they are promulgated.

Affected Populations

Commenters stated that the substantial increase in the quantity of hazardous materials being transported near residential areas will mean a greater likelihood of a catastrophic release. Commenters indicated that the Draft EIS downplays this threat by reducing the analysis to a simple consideration of the likely releases per year instead of the number of persons affected in developed areas.

Response

As shown in the Draft EIS, SEA determined that almost three times as many people are exposed to the current routings as would be exposed if the Proposed Action is approved.

History of Hazardous Materials Releases

A commenter was concerned about the rising number of hazardous material incidents on freight rail lines.

Response

The PHMSA Hazardous Materials Information System reports that there were 509 railroad accidents involving hazardous materials during the 10-year period 1998-2007. The two largest number of incidents occurred in 1999 and 2000, respectively. The number of accidents has not risen above 54 since then, despite increasing volumes of freight movement.

3.4.5.4 Vehicle Safety

Current Accident Levels are Too High

Commenters felt that the level of accidents at highway/rail at-grade crossings is already too high and that blocked rail crossings are causing congestion and traffic jams that place people in dangerous situations. As an example, commenters cited Frankfort, Illinois, which has six at-grade crossings that could present public safety problems from a traffic flow standpoint.

Response

The incident rates for vehicle/train accidents along the CN and EJ&E rail lines are discussed in Chapter 4 and Appendix C of the Draft EIS and include a listing of all highway/rail at-grade crossings potentially affected by the Proposed Action. There are 177 public highway/rail at-grade crossings on the EJ&E rail line, including the six crossings in Frankfort, and 155 on the CN lines. Using the FRA's database and comparing the last 5-year period, there have been 56 reported accidents at 46 different crossings. This is a historic average of 4.2 accidents per year along the EJ&E rail line and seven along the CN lines for a total of 11.2 accidents per year.

SEA calculated the risk of accidents at highway/rail at-grade crossings using the FRA accident prediction model. The method, which is consistent with the Board's past practices, calculates the risk of an accident at a highway/rail at-grade crossing based on the characteristics of the crossing and statistical information on historical accident experience. The historical data is based on FRA records of accidents, along with the inventory of relevant characteristics of the crossings. Appendix C of the Draft EIS contains details of the accident prediction formula as well as a crossing-by-crossing analysis. Updated information is provided in Chapter 2 of this Final EIS.

Using the FRA model under the No-Action alternative, SEA calculated an estimated 4.5 accidents per year along the EJ&E rail line segments and 6.3 accidents per year along the CN rail line segments, for

total of 10.8 accidents per year. This is a close approximation to the historic 11.2 accidents per year, which tends to validate the model.

Under the Proposed Action, and using the same model to calculate results, there would be an overall net reduction of approximately 1.0 accident per year. This overall reduction is based on an increase of 1.5 highway/rail accidents per year on the EJ&E rail line, and a decrease of 2.5 accidents per year on the CN lines. Overall accidents would decrease from 10.9 to 9.9 accidents per year. The findings predict that the expected accidents or incidents at crossings would increase from 4.5 to 6.0 accidents per year on the EJ&E rail line segments and decrease from 6.3 to 3.8 on the CN line segments. The increase in predicted accidents along the EJ&E rail line is offset by a decrease in predicted accidents along the CN lines. This analysis reflects the Proposed Action without mitigation. SEA includes recommended mitigation listed in Chapter 4 of this Final EIS that it believes will improve vehicle safety.

SEA concluded that full implementation of the Applicants' Operating Plan would have no significant adverse effect on overall annual accident rates and is likely to result in a net decrease of 1.0 accident per year.

Vehicles Striking Stopped Trains

A commenter was concerned about vehicles running into the sides of trains at crossings. The commenter cited two cases within Griffith, Indiana, in the recent past in which this was the case.

Response

The adequacy of warning devices at highway/rail crossings including those (Lake Street and Miller Streets in Griffith) with passive signs is determined by the Indiana Department of Transportation. SEA's analysis of predicted vehicular accidents at these crossings indicated that they would be affected by the Proposed Action and that mitigation may be warranted. Chapter 4 of this Final EIS includes both voluntary and SEA-suggested mitigations that should be considered for these locations if the Proposed Action were to be approved.

Safety in General

Several commenters provided their observations and opinions on issues related to general safety, especially children, regarding the Proposed Action.

Response

In response to the many concerns about the potential effects of the Proposed Action on freight and commuter rail, vehicle, and pedestrian safety, SEA conducted additional safety analysis for this Final EIS. The Draft EIS discussed all of these safety issues. Some communities on the CN rail line segments would have fewer freight trains, thus reducing safety concerns. Communities along the EJ&E rail line would have more freight trains and a corresponding increase in safety concerns. The Applicants voluntary and SEA's recommended mitigation are discussed in Chapter 4 of this Final EIS.

School Bus Safety

Commenters were concerned that the projected increase in rail traffic will increase dangerous conditions at school bus crossings. "Community School District 95 buses cross [highway/rail] at-grade crossings 233 times per day, which means an increase in train/school bus conflicts."

Griffith, Indiana expressed concern about schools near the EJ&E rail line, noting that "School buses cross the EJ&E tracks dozens of times a day." Griffith believes it is imperative for the safety of the students that a thorough analysis of the safety issues be addressed in a Final EIS, because such an analysis was missing from the Draft EIS.

Response

SEA has conducted additional analysis regarding school bus safety and the potential threats to children as they walk to and from school, and is presented in Chapter 2 of this Final EIS. In Chapter 4 of this Final EIS, the Applicants have offered voluntary mitigation that would provide fencing along the ROW where schools are within 0.25 mile of the EJ&E rail line. Voluntary mitigation also includes identifying elementary, middle, and high schools within 0.50 mile of the EJ&E rail line and making available Operation Lifesaver programs. CN has also stated that upon request it would provide railroad safety materials to schools and would cooperate with school and park districts to identify at-grade crossings where additional pedestrian warning devices may be warranted.

SEA agrees that this issue is of concern, but notes that the risks associated with student populations crossing the tracks, and the proximity of schools to the tracks, exists today. While the Proposed Action would exacerbate these issues along those line segments that would see additional trains, it is unlikely to create conditions that do not already exist. SEA further determined that although the risk along the EJ&E rail line would increase, there is an offsetting reduction in those locations along the CN lines that would see a reduction in the number of trains if the Proposed Action is approved.

SEA's analysis predicted the number of expected highway/rail at-grade crossing accidents using the FRA's accident prediction model. The accident-prediction formula includes anticipated train traffic as well as average daily traffic. Of all types of motorized vehicles that routinely cross railroad tracks, including cars, trucks, buses, motorcycles, and any other motorized roadway users. The prediction formula does not provide analysis by specific vehicle type. Because trains are unable to stop or take evasive action that would prevent most highway/vehicle collisions, safety is primarily a function of providing a driver with adequate warning of the approach of a train and sufficient distance to bring their vehicle to a controlled stop once the warning is recognized. It is the responsibility of the bus driver to respond appropriately to the warning provided. Proper training of school bus drivers requires that they understand the size, weight, and operational characteristics of their vehicle to allow them to stop before extending the track zone or an adjacent roadway intersection. School bus drivers are screened, hired, and trained by the schools they serve and have special licensing from the state that qualifies them to operate the school bus.

As mentioned above, the Applicants have offered, as voluntary mitigation, to provide informational materials concerning railroad safety and to make Operation Lifesaver programs available to schools located along the affected line segments. SEA's final recommended mitigation in Chapter 4 of this Final EIS should minimize the risk of the Proposed Action on school bus safety.

Safety of School Children

Many commenters expressed concern about how the anticipated increase in rail traffic may affect the safety of school-age children. Children of all ages walk to school and cross the tracks each day. Commenters stated that it would be inevitable that a fraction of the group would try beating a train through a crossing rather than wait in inclement weather or being late for school.

Response

SEA's analysis included pedestrian, bicycle, and vehicular safety and considered all age groups. Some of the issues that SEA considered, but which were not specifically addressed in the Draft EIS, are briefly discussed below.

Where students are expected to cross the tracks, there should be a clear walking or cycling surface without tripping or slipping hazards. This allows pedestrians and cyclists to approach the tracks with their attention focused on the possibility of approaching trains instead of navigating the surface. Pedestrians and cyclists should also be provided with a combination of audio (bells and horns) and visual (signs and flashing lights) warnings, and clear sight lines down the tracks.

Where students are required to wait for a train to pass, there should be a safe area where they can stand that is free from other hazards such as the passing train itself, highway traffic, driveway approaches, and adjacent tracks. The dimensions of this safe waiting area are dependent upon the number of students that are expected to be required to wait.

Once the train has passed, the students need a clear understanding that the train has passed and it is safe to cross. Where two or more tracks are running through the crossing, there should be sufficient visual sight lines and/or audio warning for students to make the appropriate decision that a second train is not approaching following the passage of the first train.

Once adequate warning and a sufficient safe waiting zone are provided, the primary concern becomes students making the appropriate decision to wait for the train(s). This issue must be addressed through both education and enforcement. Students should be educated to understand the risks and the appropriate responses, and this training should be accompanied by a certain level of enforcement and/or monitoring to reinforce appropriate behavior.

SEA concluded that this issue is of concern and that the risks associated with students crossing the tracks is not new and exists today. The Proposed Action would exacerbate the existing issue along those line segments that will see additional trains, but is unlikely to create conditions that do not already exist. SEA further determined that although the risk along the EJ&E rail line will increase, there is an offsetting reduction in those locations along the CN lines that will see a reduction in the number of trains.

The Applicants have offered, as voluntary mitigation, to provide fencing along the EJ&E ROW where schools are within 0.25 mile of the ROW; to identify elementary, middle, and high schools within 0.50 mile of the EJ&E rail line; to provide informational materials concerning railroad safety; and to make Operation Lifesaver programs available to schools located along the affected line segments. SEA's final recommended mitigation in Chapter 4 of this Final EIS should minimize the risk of the Proposed Action on the safety of school children.

Impatient Student Drivers

Commenters were concerned about school-age drivers crossing the tracks each day in their vehicles. Commenters stated that some portion of the school age drivers will risk either speeding through a crossing or driving around crossing gates to beat a train through the intersection, adding that it would be unrealistic for SEA to think that as the train traffic increases they would not see a linear increase in high school students in accidents involving train track crossings. The commenters point out that fatalities from train/vehicle accidents have already been experienced in Barrington and Hoffman Estates. "Most students will leave at their normal time and will be anxious when they see a train coming; they will try to beat the train," wrote one commenter.

Response

In response to this important issue, SEA has conducted additional analysis that is presented in Chapter 2 of this Final EIS. SEA's analysis shows that the risks associated with student populations crossing the tracks is not a new phenomenon. While the Proposed Action would exacerbate the existing issue along those line segments that will see additional trains, it is unlikely to create conditions that do not already exist. SEA further determined that although the risk along the EJ&E rail line would increase, there would be a reduction in risk at those locations along the CN lines that would see a reduction in the number of trains.

As the analysis in the EIS explains, the concern with young drivers is that they tend to be less experienced and less attentive than other drivers. Young drivers may be more easily distracted from seeing warning devices, or may ignore warning devices and take inappropriate risk by attempting to beat a train and/or drive around lowered crossing gate arms. SEA evaluated the predicted risks associated with drivers of various age groups. As with student pedestrians and cyclists, SEA found that the primary issue with student drivers is education and enforcement. Student drivers should be educated to understand the risks and the appropriate responses and this training should be accompanied by a certain level of enforcement and/or monitoring to reinforce appropriate behavior. The Applicants have offered, as voluntary mitigation, to provide informational materials concerning railroad safety and to make Operation Lifesaver programs available to schools located along the affected line segments. If the mitigation recommended in this Final EIS is imposed and implemented, SEA believes that the potential safety risks to school-age children crossing the tracks would be minimized.

Impatient Drivers

Several commenters felt that an increase in train traffic and wait times would raise driver tempers and brazenness to unsafe levels unless measures are taken to make train crossings safer. Commenters said unsafe situations would arise when motorists accustomed to current levels of train traffic get frustrated or surprised by the additional trains and take inappropriate risks such as ignoring traffic signals or driving around lowered crossing gates in an attempt to beat the train through the intersection.

Response

The concern with impatient drivers is legitimate. More than 50 percent of all highway/rail accidents nationwide, including the Chicago metropolitan area, occur at crossings that have active warning devices including flashing lights and/or gates. Most accidents are caused by impatient or inattentive motorists who ignore warning devices and take inappropriate risks by attempting to beat the train and/or drive around lowered crossing gate arms. SEA evaluated the predicted highway/rail accidents associated with drivers. Because most of the highway/rail at-grade crossings are already equipped with warning devices, the most effective means of reducing the risky behavior of inattentive or impatient drivers is through education and enforcement.

While this issue is of concern, SEA concluded that the risks associated with impatient or inattentive drivers crossing the tracks exist today. The Proposed Action is likely to exacerbate the issue along those line segments that would see additional trains but is unlikely to create conditions that do not already exist. SEA further determined that although the risk along the EJ&E rail line will increase, there is an offsetting reduction in those locations along the CN lines that would see a reduction in the number of trains.

In an effort to educate and inform drivers of the risks associated with highway/rail crossing safety, the Applicants have offered as voluntary mitigation to make Operational Lifesaver programs available to communities, schools, and other organizations located along the affected EJ&E rail line segments.

The Applicants would also be required to provide public service announcements and to post signs at all public at-grade crossings prior to increasing the number of trains. Chapter 4 of this Final EIS explains the mitigation measures recommended for this concern.

Fatalities at Crossings

Commenters were concerned that there would be an increase in the number of drivers trying to beat lengthy trains to the intersection, resulting in a large increase in the number of train accident fatalities.

Response

Chapter 4 and Appendix C of the Draft EIS included an analysis that identified highway/rail crossings that were expected to experience adverse effects due to the Proposed Action. The accident prediction formula predicts accidents, but not fatalities. Chapter 6 in the Draft EIS presented SEA's preliminary recommended mitigation measures, including voluntary mitigation measures submitted by CN. This Final EIS contains all of the mitigation options that SEA recommends the Board impose should the Proposed Action be approved.

Barrington/Lake Zurich Area Concerns

Commenters were concerned about CN's acquisition of the EJ&E rail line and that the resulting increase in train traffic would cause increased traffic congestion and safety situations resulting in crossing accidents.

Response

Chapter 4 and Appendix C of the Draft EIS include an analysis that identified highway/rail at-grade crossings that were expected to experience adverse affects due to the Proposed Action. Chapter 6 in the Draft EIS presented SEA's preliminary recommended mitigation measures, including voluntary mitigation measures submitted by CN. This Final EIS contains all of the mitigation options that SEA recommends the Board impose should the Proposed Action be approved, including the extent to which CN would be required to pay for mitigation measures.

Insufficient Fatality Analysis

Commenters wanted to know the projection for annual fatalities resulting from the increase in train traffic along the EJ&E rail line.

Response

The Draft EIS methodology, as outlined in Chapter 4 and Appendix C, estimated train and highway/rail accidents as a result of the Proposed Action but did not include fatalities. Accidents resulting in fatalities are a relatively small subset of accidents. During the last 5-year period, the FRA's data base on highway/rail crossing accidents indicates that there were 35 accidents along the CN line segments that resulted in five fatalities and 17 injuries. Along the EJ&E rail line segments that would see changes, there were a total of 18 accidents resulting in one fatality and six injuries.

116th Street in Mokena Does Not Have Gates

A commenter expressed safety concerns pertaining to the lack of crossing gates at 116th Street in Mokena, Illinois, and said that the increase in the number of trains will lead to an increase in safety issues as everyday, children ride buses across the EJ&E rail line to get to and from school. The Draft

EIS does not indicate that CN would have to upgrade this crossing so that children can safely get to and from school.

Response

The highway/rail crossing of 116th Street does not include automatic gates and SEA's analysis recognized this. This crossing is within an area where the Applicants would propose to construct double track. The addition of a second track at a crossing that does not include gates is a concern. The Applicants recognized this and have included within their Safety Integration Plan (SIP) a commitment to add gates to this crossing as part of the track construction. Should the Board approve the Proposed Action, commitments made within the SIP would be mandated.

Shoe Factory Road

Commenters felt that train accidents will increase at the Shoe Factory Road Hill highway/rail intersection at Shoe Factory Road Hill.

Response

SEA evaluated the predicted highway/vehicle accidents at this crossing in Draft EIS Chapter 4 and Appendix C. The potential increase in accidents at this crossing due to the Proposed Action did not show a substantial adverse effect, and SEA is not recommending specific mitigation for this location.

Warning Devices

Commenters were concerned over the lack of CN commitment to fund construction of overpasses, underpasses, and highway/rail crossing gates to safely support the additional train traffic. The additional trains would cause vehicle backup and traffic congestion at the crossings, they said.

Response

Chapter 4 of the Draft EIS included analyses that identify those highway/rail crossings that would be expected affected by the Proposed Action. Chapter 4 of this Final EIS contains the mitigation measures that SEA recommends the Board impose should the Proposed Action be approved, including the extent to which CN would be required to pay for mitigation measures.

Mail Carrier

A commenter was concerned that mail carriers cannot safely travel along Route 30, Route 59, and Wolf's Crossing. Every time a train backs traffic up, a mail carrier who delivers on a main road must sit and wait at each mailbox for all traffic to pass. Three mail carriers have been hit just on Wolf's Crossing.

Response

SEA recognizes that traffic and safety issues currently exist at many highway/rail at-grade crossings. In some communities along the CN rail line segments, rail traffic would decline. In some communities along the EJ&E rail line, rail traffic would increase, potentially exacerbating the issue. SEA analyzed risk to vehicles at highway/rail at-grade crossings as well as predicted delays for drivers waiting for trains. The hazards noted by the commenter exist, and SEA has identified crossings where substantial adverse effects from the Proposed Action would occur and has recommended mitigation as appropriate. SEA's recommended mitigation is discussed in Chapter 4 of this Final EIS.

CN's Attempt to Reduce Highway Rail Accidents

CN's website states it is trying to reduce the number of highway/rail accidents on its system. The commenter specifically wanted to know what CN is doing to reduce these numbers.

Response

SEA reviewed CN's statement and considered it to be a general comment on the part of CN management that acknowledges the FRA's efforts and commitment to reducing the number of highway/rail accidents that occur each year. The Safety Integration Plan and proposed Operating Plan that CN has submitted reinforce a commitment to this goal. CN has offered several voluntary mitigation measures that support this position.

Double Track Areas

Commenters were concerned that the possibility for crossing accidents will increase in areas designated for construction of double tracks.

Response

Chapter 4 of the Draft EIS included analysis of those highway/rail crossings that were expected to experience an adverse affect due to the Proposed Action, including the installation of the second track. Chapter 4 of this Final EIS contains SEA's recommended mitigation measures that would be imposed on CN should the Proposed Action be approved, including the extent to which CN would be required to pay for mitigation measures.

Lack of Gates at Gary/Hammond Crossings

A commenter felt that the projected rise in rail traffic will mean an increased likelihood of crossing/rail accidents in the Hammond and Gary areas where a significant number of crossings do not have crossing gates or other safety features.

Response

SEA evaluated the predicted highway/vehicle accidents at crossings within the Hammond and Gary areas in Chapter 4 and Appendix C of the Draft EIS. The potential increase in accidents at this crossing due to the Proposed Action indicated a small effect and SEA is not recommending specific mitigation for this location.

School Bus Crossings at Gouger, Cedar, and Nelson Roads

Commenters were concerned that the projected rise in rail traffic would increase dangerous conditions at Gouger, Cedar, and Nelson roads school bus crossings.

Response

SEA evaluated the predicted highway/vehicle crossing accidents at these crossings within Chapter 4 and Appendix C of the Draft EIS. The potential increase in accidents at these crossings due to the Proposed Action indicated a small effect, and SEA is not recommending specific mitigation for these locations.

West Chicago Crossings

Commenters were concerned that the projected rise in rail traffic will increase dangerous conditions at at least two EJ&E highway/rail line at-grade crossings in West Chicago that are not equipped with crossing gates.

Response

SEA evaluated the predicted highway/vehicle crossing accidents at these crossings within Chapter 4 and Appendix C of the Draft EIS. The potential increase in accidents at these crossings due to the Proposed Action indicated a small effect, and SEA is not recommending specific mitigation for these locations.

Plainfield, Illinois School Bus Crossing Concerns

One commenter was concerned that Plainfield has several roads on which school buses cross the tracks at non-gated crossings. Other commenters were concerned about the safety of the many school buses that travel Lake Cook Road each day.

Response

SEA's analysis in this EIS predicted the number of expected highway/rail at-grade crossing accidents that would result from the Proposed Action using the FRA's accident prediction model. The accident prediction formula includes anticipated train traffic as well as average daily vehicular traffic. This vehicular traffic includes all types of motorized vehicles that routinely cross railroad tracks, including cars, trucks, buses, motorcycles, and any other motorized roadway users. The prediction formula does not analyze by specific vehicle type. SEA determined in its analysis that because trains are unable to stop or take evasive action that would prevent most highway/vehicle collisions, safety is primarily a function of providing a driver, including a school bus driver, with adequate warning of the approach of a train and sufficient distance to bring their vehicle to a controlled stop once the warning is recognized. It is the responsibility of the bus driver to respond appropriately to the warning provided. Proper training of school bus drivers already requires that they understand the size, weight, and operational characteristics of their vehicle to allow them to be able to safely control and stop their vehicle prior to fouling the track zone or an adjacent roadway intersection. School bus drivers also are screened, hired, and trained by the schools that they serve and have obtained special licensing from the state which qualifies them to operate the school bus.

Based on its analysis, SEA concluded that while this is an issue of potential concern, the risks associated with student populations crossing the tracks, and the proximity of schools to the track, exist today. The Proposed Action would exacerbate these issues along those line segments that will see additional trains, but it is unlikely to create conditions that do not already exist. Concurrently, these conditions would be reduced along lines inside the arc where rail traffic would be substantially reduced.

The Applicants have offered, as voluntary mitigation, to provide informational materials concerning railroad safety to and make Operation Lifesaver programs available to schools located along the affected line segments. SEA's final recommended mitigation in Chapter 4 of this Final EIS should minimize the risk of the Proposed Action to school bus safety.

Fox River Grove Incident

Commenters were concerned that the nearly 300 percent increase in trains that is projected, along with school bus traffic, creates potentially dangerous situations. One such situation that is very familiar to the Barrington area occurred in October 1995 when seven students were killed when a

Metra train hit a school bus in Fox River Grove, Illinois. Other commenters were concerned that high school students must cross the EJ&E rail line twice and the Metra line once to get to the school. These issues, the commenters state, illustrate the need to complete detailed studies on at-grade crossings near major intersections.

Response

SEA is aware of the Fox River Grove incident and during the development of the EIS consulted with the Illinois Commerce Commission on grade crossing issues. In response to comments submitted on the Draft EIS, SEA has conducted additional analysis regarding school bus safety and the potential threats to the safety of children as they walk to and from school. That information is presented in Chapter 2 of this Final EIS. In Chapter 4 of this Final EIS, the Applicants have offered voluntary mitigation that would provide fencing along the ROW where schools are within 0.25 mile of the EJ&E rail line. The Applicants' voluntary mitigation also includes identifying elementary, middle, and high schools within 0.50 mile of the EJ&E rail line and making available Operation Lifesaver programs. The Applicants have also stated that it would provide railroad safety materials to schools and would cooperate with school and park districts to identify at-grade crossings where additional pedestrian warning devices may be warranted. To reduce the risk of any vehicle, including a school bus, stopping on the rail line, SEA is recommending a mitigation condition that would require the Applicants to identify potential signal intersections that are close to the rail line and that should be timed with at-grade crossing signals. With this mitigation, SEA believes that reasonable steps will have been taken to address the commenters' concerns should the Board approve the Proposed Action.

CN Safety Statistics

Commenters disagreed with the Draft EIS' projection that the number of train accidents on the EJ&E rail line would increase by 28 percent. If the projected number of trains increases from 5 per day to 20 per day, that's a 300 percent exposure increase. Accidents also should be expected to increase accordingly, the commenters said.

Response

Chapter 4 of the Draft EIS provided the methodology and analysis for prediction of the expected number of train accidents and highway/rail crossing accidents with or without the Proposed Action. The increase in the number of trains and the increase in predicted accidents are not linear, as explained within the methodology.

Hart Street in Barrington (UP)

Commenters were concerned about the increased danger to children due to the projected increase in rail traffic at Hart Street. There have already been several accidents at that location as children are often late for school and run around the gate to beat the train through the intersection.

Response

The crossing was not included in the analysis as it is on the Union Pacific Railroad line and not part of the Proposed Action. Nevertheless, the Applicants have offered as voluntary mitigation to provide informational materials concerning railroad safety and to make Operation Lifesaver programs available to schools located along the affected line segments.

Dangerous Crossings in Aurora and Naperville, Illinois

Commenters pointed out how they will be affected on a daily basis by the dangerous crossings at Diehl Road, Liberty Street, Ogden Avenue, and Montgomery Road. The commenters note that this area is near Waubonsie Valley High School and that there has already been a fatal accident involving students at the Ogden Avenue highway/rail at-grade crossing. Students travel from the Aurora and Naperville areas to attend Waubonsie Valley High School.

Response

In response to comments on the Draft EIS, SEA has conducted additional analysis regarding school bus safety and the potential threats to the safety of children as they walk to and from school. That information is presented in Chapter 2 of this Final EIS. In Chapter 4 of this Final EIS, the Applicants have offered voluntary mitigation that would provide fencing along the ROW where schools are within 0.25 mile of the EJ&E rail line. The Applicants' voluntary mitigation also includes identifying elementary, middle, and high schools within 0.50 mile of the EJ&E rail line and making available Operation Lifesaver programs. The Applicants have also stated that it would provide railroad safety materials to schools and would cooperate with school and park districts to identify at-grade crossings where additional pedestrian warning devices may be warranted. SEA is also recommending a grade-separated crossing at Ogden Avenue. SEA believes that its final recommended mitigation includes reasonable and feasible ways to minimize the risks associated with the Proposed Action in Aurora and Naperville.

Private Crossing in West Chicago, Illinois

A commenter was concerned about the safety of trucks entering and exiting the Northwestern Flavors Plant at the North Aurora Road crossing. The drivers must cross the EJ&E rail line twice and the Union Pacific tracks once at this access point.

Response

The crossing in question is a private crossing of the EJ&E Railroad used by Northwest Flavors. The crossing was identified in the Draft EIS Appendix C. This crossing exists by private agreement between Northwest Flavors and EJ&E. It is not a public crossing, and as such was not included within SEA's analysis.

Ogden Avenue in Aurora, Illinois

A commenter was concerned about the safety of vehicles at the Ogden Avenue crossing due to nearby condominiums blocking the line of sight and the increase in rail traffic through this intersection.

Response

SEA has recommended that the Applicants construct a grade separation at the Ogden Avenue highway/rail at-grade crossing; refer to Chapter 4 of this Final EIS.

Colfax Avenue in Griffith, Indiana, Crossing Safety Concern

A commenter opined that the Colfax Avenue crossing is already unsafe.

Response

The Colfax Avenue crossing is located east of Griffith, Indiana, outside of the EJ&E arc along CN's South Bend Subdivision, which extends from Griffith, Indiana to South Bend, Indiana. The

Applicants' Operating Plan does not include any changes in rail operations on this rail line segment. The condition of the Colfax crossing is considered an existing condition that would not be affected by the Proposed Action.

No Gates at Lake Street and Miller Street in Griffith, Indiana

A commenter from Griffith noted that both Lake and Miller streets are busy residential streets with vehicular traffic of approximately 5,000 cars a day. Lake Street has a public school, private school, and park that generate a substantial amount of pedestrian traffic. Neither roadway has crossing gates at the EJ&E highway/rail at-grade crossing.

Response

Chapter 4 and Appendix C of the Draft EIS included analysis that identified those highway/rail crossings that were expected to experience an adverse affect due to the Proposed Action. The crossings located at Lake and Miller streets in Griffith were shown to be seriously affected as a result of the Proposed Action, and SEA proposed mitigation for these two crossings. Chapter 4 of this Final EIS contains SEA's recommended mitigation measures, including the recommendation for Lake and Miller streets.

Elm Street in Griffith, Indiana, is Close to Schools

Commenters expressed concern that additional trains at the Elm Street crossing in Griffith, Indiana, would create greater risk to the large amount of pedestrian traffic that use this crossing.

Response

SEA conducted additional analysis for the safety of school children, as presented in Chapter 2 of this Final EIS. Chapter 4 of this Final EIS contains SEA's recommended mitigation measures should the Board approve the Proposed Action.

40th Place in Griffith, Indiana, Proximity to Schools, Lack of Student Crossing Safety

Commenters expressed concern that the Proposed Action would create safety issues for the many pedestrians and cars that use the highway/rail at-grade crossing on 40th Place in Griffith, Indiana.

Response

SEA conducted additional analysis of safety issues at highway/rail at-grade crossings, including 40th Place, for this Final EIS. This information is included in Chapter 2 of this Final EIS. Chapter 4 presents SEA's recommended mitigation measures should the Board approve the Proposed Action.

CN Grade Separations

A commenter stated that because of the increase in train traffic that CN should replace the at-grade crossing with grade separations before it is allowed to complete the purchase.

Response

SEA notes that safety and delay issues at highway/rail at-grade crossings are related to pre-existing conditions as well as the Proposed Action. Chapter 4 and Appendix C of the Draft EIS evaluated the predicted highway/vehicle crossing accidents at crossings as well as the effects of the Proposed Action upon transportation and emergency response. Chapter 4 of this Final EIS contains SEA's recommended mitigation measures should the Board approve the Proposed Action.

Barrington Line of Sight Issues

A commenter said that the EJ&E rail line intersection with Highway 14, Hough Road, Lake Cook Road, and the Union Pacific Railroad tracks does not have enough room to construct additional approaches or ROW that offer a clear line of sight to crossing trains.

Response

The existing number of roadway lanes and sight lines at public at-grade crossings is considered to be a pre-existing condition. The Board's practice has been to consider mitigation for only those impacts directly related to the transaction before it, and not for pre-existing conditions. Because trains are unable to stop or take evasive action that would prevent most highway/vehicle collisions, safety is primarily a function of providing a driver with adequate warning of the approach of a train and sufficient distance to bring their vehicle to a controlled stop once the warning is recognized. It is the responsibility of drivers to respond appropriately to the warning provided.

Will County Double Track Risk

The commenter acknowledged that the Draft EIS recognizes increased safety risks to vehicular traffic, cyclists, and pedestrians due to the increase in train traffic along the EJ&E rail line. However, there is no discussion of the increased safety risks at the crossings where double- tracking is proposed as part of the Proposed Action. Two-way train traffic passing at the crossings poses an increased risk.

Response

To promote pedestrian safety at the locations where CN would add additional tracks, CN has offered voluntary mitigation, and state law requires that they consult and work with agencies having jurisdiction over the configuration and type of warning devices at these crossings prior to construction. Prior to any construction, CN would be required to implement changes deemed appropriate and necessary to accommodate the proposed additional track(s).

Double Track Safety

The commenter believes that Draft EIS Table 2.16 should be revised to address the impacts from the proposed second track. The Draft EIS should recognize that the number of tracks is a factor within the crash prediction and quiet zone equations.

Response

As discussed in the Draft EIS, SEA's analysis did consider the installation of the second, or double, track in the calculation of highway/rail crossing accidents. The Applicants have proposed as part of the Proposed Action to install 19 miles of double track at various locations along the EJ&E rail line to allow for more fluid movement of trains and to improve their capacity. Where additional tracks are to be added through highway/rail intersections, these additional tracks were included within SEA's analysis.

3.4.5.5 Pedestrian and Bicycle Safety

Safety of Pedestrians When Crossing the EJ&E Rail Line

Commenters expressed concern about the potential danger to pedestrians and bicycles that cross the tracks at designated at-grade crossings and elsewhere along the railroad tracks where it is more convenient.

Response

These issues have been thoroughly assessed in the Draft EIS. Pedestrians, bicyclists, and other non-motorized travelers routinely cross the EJ&E and CN rail lines. A complete list of the official crossings is included in Appendix C of the Draft EIS. Unofficial crossings occur at multiple locations where individuals are trespassing onto and across railroad right-of-way. Additional analysis of pedestrian safety issues at schools adjacent to the EJ&E rail line is included in this Final EIS

As the analysis in the Draft EIS explains, the most common type of pedestrian crossing is a sidewalk that is located adjacent to streets or roadways that cross the track. Each of these crossings includes warning devices that provide pedestrians with a visible indication of the presence of a railroad track and warning of approaching trains. Crossings that include active warning devices provide an audible indicator (a bell), and a visual indicator (flashing lights and/or automatic gate arms) signifying the approach of a train.

Where there are high levels of pedestrian traffic, multiple tracks, or unusual circumstances, additional signs or devices may be employed to warn pedestrians. These may include: automatic pedestrian gates, swing gates, pedestrian flashing lights, special signing, walkway markings, tactile strips, channelization devices, and fencing. In addition, the walkway or trail may be reconfigured in the area near the rail line to alter the angle at which pedestrians cross the track to minimize the time it takes for them to safely cross, and avoid trapping pedestrians between tracks. In some situations, the crossing may be grade separated with either a bridge over the tracks or a tunnel beneath them. These crossings and warning devices are regulated by the Illinois Commerce Commission (ICC) in Illinois, and the Public Service Commission (PSC) in Indiana.

In addition to pedestrian crossings that are adjacent to vehicular crossings, there are locations on the EJ&E and CN rail lines where pedestrian crossings exist on their own dedicated path (i.e., not along a roadway). These are identified as public trail crossings; there are seven at-grade public pedestrian crossings along the EJ&E rail line and three along the CN lines, as shown in Chapter 3 of the Draft EIS. These pedestrian crossings are for non-motorized use only, and are primarily recreational. The crossings are not included within the ICC's or PSC's jurisdiction but are recognized as private crossings that are covered by an agreement between the railroad and the trail authority. Use of warning devices and signage at public trail crossings varies depending on the specific use and characteristics of the crossing, but it must be consistent with the guidelines for the use of active and passive devices for non-motorist signals and crossings as found in the Manual of Uniform Traffic Control Devices (MUTCD).

Both Illinois and Indiana maintain a listing of public trails within their respective states. A complete list of trails that cross the EJ&E and/or the CN rail lines is included in Appendix C of the Draft EIS.

Because moving trains take a considerable distance to stop (often as much as a mile from the time emergency brakes are applied) and locomotive engineers are unable to take evasive action, pedestrian safety is a function of providing sufficient visual, audible, and tactile warning of an approaching train, followed by an appropriate response from pedestrians and bicyclists (i.e., waiting until the train has passed and it is safe to cross the tracks). Concentrations of special groups of trail users such as school children or mobility-restricted pedestrians, and areas adjacent to high pedestrian populations, may require specialized attention.

Specific recommended mitigation related to pedestrian and bicycle safety can be found in Chapter 4 of this Final EIS.

Child Safety

Commenters were concerned about the safety of children of all ages playing alongside railroad tracks at sanctioned parks and playgrounds as well as at unsanctioned gathering areas. There was also a concern that children will cross the tracks at locations other than designated crossings.

Response

SEA recognizes that there are inherent risks associated with children playing adjacent to or crossing the tracks. These concerns are existing conditions, and although the Proposed Action would adversely affect those locations that will see additional train traffic, there would be a corresponding positive effect along those lines that will see a reduction in train traffic. Fencing, education, and enforcement are the most effective methods to control unauthorized activity on railroad property.

As voluntary mitigation, the Applicants have offered to:

- Provide fencing along the EJ&E ROW where schools or parks are within 0.25 mile of the rail line.
- Identify elementary, middle, and high schools within 0.50 mile of the EJ&E rail line.
- Provide, upon request, informational materials concerning railroad safety.
- Make Operation Lifesaver programs available to schools located along the affected line segments.

SEA believes that this mitigation would reduce the adverse effects of the Proposed Action on child safety.

Lack of Adequate Sidewalks and Pedestrian Gates at Crossings

Commenters pointed out that several track crossings do not have proper pedestrian crosswalks, gates, or sidewalks in place.

Response

The adequacy of sidewalks and warning devices that provide warning for pedestrians at highway/rail crossings with pedestrian access is the jurisdiction of, and responsibility of, the Illinois Commerce Commission (for crossings within Illinois) or the Indiana Department of Transportation (for those within Indiana). SEA's analysis considered the effects that the Proposed Action would have upon rail safety, and Chapter 4 Mitigation this Final EIS includes voluntary mitigation to be provided by the Applicants and additional conditions that SEA recommends should the Proposed Action be approved by the Board.

Pratt's Wayne Woods Pedestrian At-Grade Crossing

Commenters expressed concern that there is a pedestrian trail crossing within Pratt's Wayne Woods Forest Preserve that is not included in the pedestrian trail inventory in the Draft EIS.

Response

The Draft EIS shows there is a pedestrian crossing within Pratt's Wayne Wood Forest Preserve. It is shown in Table 3.2-13 of the Draft EIS and is listed as a pedestrian trail that crosses beneath the EJ&E rail line at milepost 34.83 on the Western Subdivision.

Additional Warning Devices at Trail Crossings

A commenter expressed concern that the pedestrian-only trail crossings have signs but not active warning devices such as flashers or gates.

Response

The adequacy of the existing warning devices at trail-only crossings is not the responsibility of the railroad but rather that of the trail authority and state agency that may have jurisdiction over that crossing. In Chapter 4 of this Final EIS, SEA has recommended mitigation that addresses this issue.

Pedestrian and Bicycle Safety

Commenters expressed concern about the rail line's proximity to bike paths and the fact that the increase in rail traffic would result in an increased risk of pedestrian and bicycle accidents.

Response

As the EIS explains, because moving trains take a considerable distance to stop (often as much as a mile from the time emergency brakes are applied) and locomotive engineers thus cannot take immediate action to react to a pedestrian that is crossing the tracks, pedestrian safety can be improved by providing sufficient visual, audible, and tactile warning of an approaching train to pedestrian and trail users followed by and leading pedestrians to wait until the train has passed and it is safe to cross the tracks. Safety is improved through application of what is often called the three Es: engineering, education, and enforcement.

1. Engineering works to mitigate, improve, or eliminate the potential for accidents through use of warning devices, pedestrian control, tactile, audible, and visual warning indicators, and in extreme situations, eliminating the crossing either by complete closure or grade separating the track from the trail.
2. Education informs pedestrians of the inherent risks associated with crossing the tracks and provides necessary training and/or educational materials outlining appropriate behaviors when crossing the track.
3. Enforcement reinforces the appropriate behaviors, and more specifically, punishes violations of rules where inappropriate behavior is observed.

Analysis of the impact that the Proposed Action would have on pedestrian and bicycle safety is difficult to quantify. Because a wide variety of factors can contribute to pedestrian hazards, there are no specified requirements or guidelines for control and warning devices at pedestrian crossings, as each may have unique circumstances. In this Final EIS, SEA has proposed reasonable mitigation to minimize the risks of the Proposed Action on pedestrian and bicycle safety. SEA's mitigation includes a condition that would require a diagnostic review of pedestrian crossings that would be affected.

Students Endangered When Crossing Tracks

Many commenters expressed concerns about the general safety of students attending schools near the railroad tracks. Several commenters added that the projected rise in rail traffic would increase dangerous conditions at school bus crossings and result in unsafe conditions for their children going to and from school. As train traffic increases, so will accidents involving school age students crossing the tracks. Residents of Barrington and Hoffman Estates have already experienced fatalities from train/vehicle accidents.

Response

SEA has taken a close look at this issue in the EIS. While this is an issue of concern, the risks associated with student populations crossing the tracks and the proximity of schools to the track exist today. Thus, SEA concluded that, while the Proposed Action would exacerbate these issues along those line segments that would see additional trains, it is unlikely to create conditions that do not already exist. SEA further determined that although the risk along the EJ&E rail line would increase, there would be a reduction in those locations along the CN lines that would see a reduction in the number of trains.

SEA conducted additional analysis regarding the many concerns relating to potential threats to the safety of children as they walk to and from school. Issues were raised in comments on the Draft EIS and that information is presented in Chapter 2 of this Final EIS. In Chapter 4 of this Final EIS, SEA presents final recommended mitigation to reduce the risks, including the Applicants voluntary mitigation that would provide fencing along the ROW where schools are within 0.25 mile of the EJ&E rail line. Mitigation would also include Operation Lifesaver programs providing railroad safety materials to schools and cooperating with school and park districts to identify at-grade crossings where additional pedestrian warning devices may be warranted. This mitigation should minimize the risks of the Proposed Action associated with pedestrian and bicycle safety.

Children Playing Near Tracks

Many commenters are concerned about the safety of children and teenagers at locations other than along designated walkways. Commenters cited cases of children walking and playing along the tracks, who, especially where there was no fence or barrier separating schools or parks from the tracks and in spite of repeated warnings, use the tracks as a cut-through to get to school or the park.

Response

Children playing close to the tracks or crossing the tracks at inappropriate locations is problematic along all rail lines where children are either attracted to the railroad right-of-way or choose to cut across the tracks at non-designated locations. Locomotive engineers are generally unable to stop a train in time to avoid serious accidents when children stand between or immediately adjacent to the rails. Children should be taught to avoid trespassing upon railroad rights-of-way and to keep an eye out for trains and avoid them when observed.

These conditions exist today. The Proposed Action is likely to provide greater exposure to children playing next to the tracks along lines that will see additional trains, but it is unlikely to create conditions that do not already exist. SEA determined that although the risk along the EJ&E rail line may increase, there is likely an offsetting reduction in those locations along the CN lines that will see a reduction in the number of trains.

The Final EIS contains reasonable mitigation to educate and inform children of the inherent dangers of trespassing upon railroad property. SEA's final recommended mitigation is set forth in Chapter 4 of this Final EIS.

Proximity of Tracks to Schools

Many commenters were concerned about the proximity of the railroad tracks to their schools.

Response

In response to comments received on the Draft EIS, SEA conducted additional analysis on the safety of school-age children. The issues associated with proximity of schools to railroad tracks are related

to exposure due to train accidents (including derailments), children and others who may cross the tracks traveling to and from school, and delay of emergency response providers should they be blocked or delayed by a train. These concerns were addressed in the Draft EIS under the specific sections related to these topics. Chapter 2 of this Final EIS combined these areas of concern and provides additional analysis regarding the number and location of schools along both the EJ&E and CN rail lines.

SEA concluded that while this issue is of concern, the risks associated with schools close to active rail lines exist today. The Proposed Action would exacerbate the issue along those line segments that would see additional train traffic, but it is unlikely to create conditions that do not already exist. SEA further determined that although the risk along the EJ&E rail line will increase, there is an offsetting reduction in those locations along the CN lines that will see a reduction in the number of trains. Chapter 4 of this Final EIS contains all of the mitigation options that SEA recommends the Board impose should the Proposed Action be approved.

Insufficient Analysis

The commenter felt that the acquisition should not be approved until a diagnostic review of pedestrian traffic is performed.

Response

Pedestrian safety was discussed within the Draft EIS, and pedestrian safety as it relates to school- age populations was presented within Chapter 2 of this Final EIS. Chapter 4 contains mitigation including voluntary mitigation to coordinate with communities, schools, and park districts regarding pedestrian warning devices.

Pedestrian Infrastructure Improvements

Some commenters were concerned that pedestrians would be at risk without improvement to the rail line infrastructure and crossings.

Response

SEA concluded that the risks associated with pedestrians crossing rail lines exist today. The Proposed Action would exacerbate the issue along those line segments that would see additional train traffic, but it is unlikely to create conditions that do not already exist. SEA further determined that although the risk along the EJ&E rail line will increase, there is an offsetting reduction in those locations along the CN lines that would see a reduction in the number of trains. Chapter 6 in the Draft EIS presented SEA's preliminary recommended mitigation measures, including voluntary mitigation measures submitted by CN. The Final EIS contains all of the mitigation options that SEA recommends the Board impose should the Proposed Action be approved.

Pedestrians Waiting in Inclement Weather

One commenter stated that "Our children and citizens who walk to work or school could be potentially standing in the cold and snow waiting for a two-mile long train to pass."

Response

The prospect of waiting for a train to pass in winter weather is one that exists today. While additional freight rail traffic may make it more likely that pedestrians would have to wait for a train in the cold, they should already be aware of the possibility. Because pedestrians are traveling out of doors, they should be dressed appropriately for the current weather, including cold or wet conditions. In the

majority of cases, the wait would be short. The traffic analysis presented in the Draft EIS states that the proposed project would result in a maximum delay of 5.3 minutes at any highway/rail at-grade crossing. SEA concluded that this delay would be a nuisance, but not a serious disruption to traffic or pedestrians. As stated in Chapter 4 of this Final EIS, CN would agree to operate under U.S. Operating Rule No. 526 (Public Crossings), which provides that a public crossing must not be blocked longer than 10 minutes.

Insufficient Analysis

Commenters stated that the Draft EIS did not quantify potential accidents involving pedestrians or bicycles and they were not able to identify any agencies that keep data on such incidents. The Draft EIS concluded that the consequences of increased train traffic would increase the risk of such accidents. Agencies are required to report an injury or fatal accident related to rail traffic to the Illinois Commerce Commission, which maintains data on such incidents, and these data are available to use in the Draft EIS.

Response

SEA evaluated accident history at highway/rail crossings. These accidents included all reportable accidents, including pedestrian accidents. The commenter is correct in that agencies, including the ICC and the FRA, include pedestrian accidents within their database and use this data to assist in planning and funding safety improvements. SEA found that although the Proposed Action would likely result in a slight increase in highway/rail crossing accidents along the EJ&E rail line, there was a corresponding reduction in accidents likely to happen along the CN lines.

Pedestrian Trail Crossings

The Will County Forest Preserve expressed concern about the safety of pedestrians and bicyclists using the various recreational trails that are located adjacent to and cross the railroad tracks. Specific issues were raised about the recreational trail crossings at the Lake Renwick Nature Preserve and the Joliet Iron Works Historic Site. The Washington Street connection of two regional trails, Old Plank Road Trail and Wauponsee Glacial Trail, would also be affected by increased train traffic. Commenters asked that these trails be identified in the EIS and evaluated for formal pedestrian crossings as trail users cannot travel alternate routes, experience long delays, and face reduced train/pedestrian safety as a result of the Proposed Action.

Response

SEA's methodology for pedestrian trail crossings was explained in Chapter 4 of the Draft EIS. The trails were those which the Illinois Department of Natural Resources listed within its data base. The Lake Renwick Nature Preserve recreational trail crossing passes beneath the EJ&E rail line on a grade-separated trail. The Joliet Iron Works Historic site trail as shown on its website is a parallel trail that does not cross the tracks (available at http://www.fpdwc.org/trailmaps.cfm), and Washington Street is not listed as a pedestrian trail. Reasonable mitigation for pedestrian trails as well as highway/rail crossings, which accommodate pedestrians, can be found in Chapter 4 of this Final EIS.

Trail Users' Non-Crossing Safety

The Will County Forest Preserve expressed concern about the safety of pedestrians and bicyclists using the various recreational trails that are located adjacent to and cross the railroad tracks.

The Lockport Prairie Nature Preserve, on Division Street, is limited to a single point of ingress/egress that is transected by a rail line. The Draft EIS does not sufficiently address the fact that the public

safety impacts will increase at the preserve. The public could be trapped in the preserve during an emergency, and emergency vehicle access would be restricted. Commenters asked that efforts be taken to reduce the amount of time that the public would encounter restricted access to and from the site due to train traffic.

Response

The concern for a single ingress/egress is an existing condition. Although the Proposed Action would result in additional trains and potentially additional blocking of the crossing, SEA did not consider this to be a substantial effect. SEA's final recommended mitigation in Chapter 4 of this Final EIS should minimize the risk of the Proposed Action to public safety. SEA's recommended mitigation for highway/rail at-grade crossings is shown in Chapter 4 of this Final EIS.

Trail Impacts

The Will County Forest Preserve expressed concern about the safety of pedestrians and bicyclists using the various recreational trails that are located adjacent to and cross the railroad tracks. With increased rail speeds, the safety of the adjacent trail users could be affected by potential projectiles from high-speed freight traffic and pedestrian/train collisions, and measures must be taken to protect them. No mitigation or efforts are proposed in the Draft EIS to increase the safety of trail users along the future Normantown Trail, Virgil Gilman Trail, the Joliet Iron Works and Heritage Trail, and the Wauponsee Glacial Trail.

Response

The Applicants do not intend to increase the maximum allowable speed of trains along this rail line segment as outlined in their Operating Plan. Potential projectiles would be extremely rare and in the event there were to be projectiles, they would be unlikely to extend beyond 25 feet from the centerline of the track and strike the trail or trail users. The condition exists today and SEA did not consider this to be a significant impact.

Illinois Commerce Commission Corrections

The Illinois Commerce Commission (ICC) provided several additions and corrections to data presented in the Draft EIS.

Response

SEA agrees with these corrections, and thanks the ICC for its comments.

ICC Definitions

The ICC believes that the Draft EIS Chapter 3-Affected Environment, Section 3.2.5, addressing the crossing of the EJ&EW and CN rail lines by pedestrians, bicyclists, and non-motorized travelers requires clarification. The ICC recommends that the following statement be added, as a note or text revision, to account for current ICC guidelines: "Illinois state law provides for pedestrian grade separations outside the right-of-way of a roadway, but does not address pedestrian-rail grade crossings located outside the right-of-way of a roadway. Therefore, the ICC views existing and proposed pedestrian-rail grade crossings not located within the right-of-way of a roadway to be private crossings. In Illinois, private crossings are not under the jurisdiction of the ICC."

Response

SEA concurs with the ICC in this matter and agrees with its stated jurisdictional authority.

Locomotive Horn

A commenter felt that the no-horn area (quiet zone) greatly increases the risk of a pedestrian or cars getting hit by trains. If the crossing warnings are not functioning at night, the no-horn areas could pose a big risk to pedestrians and cars.

Response

The Federal Railroad Administration (FRA) has established the rules and requirements under which quiet zones may be established and are to be maintained. Those rules require that alternative and/or supplemental safety improvements be made to one or more crossings within the quiet zone such that the calculated risk, or safety, for vehicular traffic without the sounding of horns is less than the risk with the sounding of horns. The design of crossing warning devices is what is known as a "fail safe" system. When there are malfunctions, the crossing warning devices automatically go into protective mode, flashers would flash, and the gates would come down.

Person Gets Pulled In

A commenter was concerned that someone standing too close to the tracks could get pulled into a high-speed freight train as it passes at an at-grade crossing.

Response

The Applicants do not intend to operate "high-speed" trains. The proposed maximum operating train speed is 45 miles per hour, which is similar to speed that the trains operate at now.

Limit Construction Periods

A commenter wanted to know if construction could be done at a time when the children are not in school and when residents are not sleeping.

Response

The Applicants are required to perform construction activities in accordance with all applicable construction permits. These permits would address "time-of-day" requirements as appropriate. SEA believes that these permits should dictate limitations on construction periods as warranted.

3.4.5.6 Quiet Zones

2015 Quiet Zones

The Draft EIS notes that the existing quiet zones would not be adversely affected up to the design year of 2015. Commenters noted that Plainfield, Illinois has completed a great deal of work to establish these quiet zones and the village believes that additional assurances should be provided so that Plainfield can retain their quiet zones well beyond the year 2015 .

Response

The establishment and maintenance of quiet zone status is the responsibility of the community that wishes to establish and maintain a corridor in which the routine sounding of locomotive horns is prohibited under the rules established by the Federal Railroad Administration (FRA). SEA's methodology for analysis was described in chapter 4 of the Draft EIS. This analysis considered the year 2015 and the FRA's existing Quiet Zone calculator to predict the impact of the Proposed Action upon the quiet zones. Analysis showed that Plainfield's quiet zone was not adversely affected

Future Quiet Zones

Commenter expressed concern over the potential impact that the changes to the EJ&E rail line would have on their communities' existing locomotive horn quiet zones.

Response

Quiet zones are segments of tracks along which the routine sounding of locomotive horns is prohibited. Railroads are required by the FRA to sound locomotive horns at highway/rail at-grade crossings unless a quiet zone has been established. The FRA has determined that the sounding of the horn is an important component in overall crossing safety. Communities may establish quiet zones by installing supplementary safety measures (SSMs) or alternative safety measures (ASMs) that bring the risk below that established by sounding of a horn.

The benefits from establishing a quiet zone are primarily a quality of life issue rather than a safety issue. The improvements made to crossing warning devices by installing ASM's and SSM's are primarily intended to replace the effectiveness of the (silenced) locomotive horns. In theory, the improvements made to the at-grade crossing provide an improvement in safety that replaces the sounding of the horn.

The EJ&E and CN rail lines include seven established quiet zones and one proposed zone in the process of being established. Four of the existing quiet zones are located on the EJ&E rail line. The zone currently in the establishment process is also on the EJ&E rail line. The remaining three established quiet zones are on CN's Waukesha subdivision. Appendix C of the Draft EIS contains tables that describe each quiet zone in detail.

SEA's analysis showed that the Proposed Action would not adversely affect the quiet zone status of any established or in-process quiet zones, with one exception; the Barrington quiet zone. Should the Proposed Action be approved, SEA has recommended mitigation requiring the Applicants to fund improvements necessary to allow Barrington to maintain its quiet zone.

Status of Warrenville Quiet Zone

Commenters were concerned that the Warrenville Quiet Zone, which includes the joint communities of Naperville and Aurora, will lose its existing status or be adversely affected by the Proposed Action. Analysis shows that its status is unchanged.

Response

SEA's analysis as found in Chapters 4 and Appendix C of the Draft EIS has shown that the status of the Warrenville Quiet Zone would be unchanged as a result of the Proposed Action.

Will County Quiet Zones

The existing quiet zone discussion in the Draft EIS used the 2015 vehicular traffic volumes with the projected 2015 train volumes for the analysis. Will County pointed out that the 2030 vehicular traffic projections are readily available and should be used to determine the risk levels for the existing quiet zones to see if the crossing would still qualify as a quiet zone.

Costs to the community would be incurred if the crossing needed to be modified to account for the higher risk level. There are additional at-grade crossings that are not within existing quiet zones; however, local entities may pursue a quiet zone due to the increase in noise associated with the Proposed Action. The increase in train traffic would increase the risk level for the crossing and consequently would increase the cost of upgrading the crossing to meet the quiet zone requirements. The impact of that incremental cost should be considered as an indirect impact.

Response

SEA considered 2015 vehicular traffic volumes to be appropriate for consideration of impacts under the Proposed Action. This methodology was discussed in Chapter 4 of the Draft EIS. The year 2015 was deemed to be appropriate due to the lack of reliable forecasts beyond that date for train traffic, and the shorter timeframe was consistent with past actions before the Board.

Quiet Zone Evaluation

SEA evaluated the effect of the No-Action alternative and the Proposed Action on the seven existing quiet zones located on the EJ&E rail line. Commenters were concerned that under the Proposed Action, six of the seven quiet zones would continue to meet FRA requirement, but the Barrington Quiet Zone would no longer qualify as a quiet zone without changes or mitigation. In some portions of the project area, locomotive horn use is audible.

Response

The FRA requires use of locomotive horns where trains cross public roadways at-grade. These same FRA safety regulations also provide guidance on how communities can create quiet zones, or locations where the routine sounding of horns is prohibited, by implementing alternative safety measures that effectively take the place of the sounding of locomotive horns at public grade crossings. Table 4.2-9 in the Draft EIS includes the details of the SEA's evaluation.

Naperville Quiet Zone Impacts

A commenter asked whether the Proposed Action would affect the Naperville Quiet Zone.

Response

In Section 4.2 of the Draft EIS, SEA examined quiet zones within the Study Area and determined that the Proposed Action would not affect the Naperville Quiet Zone.

3.4.5.7 Construction Impacts on Rail Safety

Double Track Construction Analysis

Commenters were concerned that the National Environmental Policy Act (NEPA) requires the study of construction impacts and such an analysis in this Draft EIS was missing. Commenters questioned when the communities where the addition of double tracks is planned would be able to comment. The construction of 19 miles of track will have an enormous, negative impact on the environment, and this issue appears to have been forgotten in the Draft EIS.

Response

SEA conducted a thorough evaluation of the construction impacts for both the double-tracking and the proposed new connections in the Draft EIS. Because the preponderance of the double tracking would be within existing ROW, the Proposed Action would have relatively few environmental effects. SEA notes that almost half of that double-tracking would use existing roadbed. SEA's recommended mitigation to minimize impacts from these constructions is discussed in Chapter 4 of this Final EIS.

3.4.5.8 Rail Safety Methodology

Schools Methodology

Commenters requested that SEA expand the scope of the Draft EIS methodology to better address the issues of the schools that are located in close proximity to the tracks.

Response

The analysis that SEA performed regarding issues associated with pedestrian and bicycle safety, as well as vehicular safety, included all pedestrians and drivers of all age groups. SEA received numerous comments that this issue be addressed as it relates specifically to school age children, school age drivers, and the proximity of schools to the track. SEA has included additional explanation and analysis within Chapter 2 of this Final EIS.

Insufficient Safety Analysis

Commenters requested that SEA expand the Draft EIS analysis to better address safety issues.

Response

Comment noted. SEA's recommended mitigation measures for safety are discussed in Chapter 4.

Insufficient Hazmat Analysis

Commenters stated that the increased hazardous material shipments and the likelihood of a spill are not provided enough analysis in the Draft EIS.

Response

CN submitted a Safety Integration Plan (SIP) as part of its initial application package to the STB on December 28, 2007. CN also filed a SIP with the Federal Railroad Administration (FRA) at the same time. CN submitted a revised SIP on June 27, 2008; it is included in Appendix D of the Draft EIS. Based on its review of the revised SIP as stated in its letter of September 12, 2008, FRA found that "CN has now satisfactorily addressed each of the SIP elements required as per 49 CFR 244.13. If CN's Application is approved by STB, FRA will monitor CN's implementation of the SIP during the operations integration period." FRA would also consult with the STB at all appropriate stages of implementation and would advise the Board of CN's status implementing the SIP, as appropriate.

CN would provide information about hazardous material being transported and would work with emergency response organizations as explained in Voluntary Mitigations in Chapter 4 of this Final EIS. The list of hazardous materials carried is provided in this Final EIS.

In the Draft EIS, as with all other environmental documents SEA has authored, SEA estimated the change in the probability of an accident or a spill of hazardous material. The probable results from such an accident or spill are completely a function of the specific circumstances and the accident and response and cannot be estimated with any usable certainty. The difficulty of estimating the results can be demonstrated by the material presented in Attachment C5 to Appendix C of the Draft EIS in the five-year period 2003-2007, 92 incidents resulted in six serious incidents by PHMSA criteria.

Accident Traffic Delays

A commenter felt that the Draft EIS did not address the average time required to investigate a train versus vehicle, pedestrian, or bicycle collision and the resulting traffic obstruction that would result from it.

Response

Train accidents are reported to and investigated by local law enforcement agencies. Railroad crews coordinate with and do not move their train without guidance and instruction from these investigators which can, depending upon the location, block crossings. SEA's analysis predicted that these accidents are relatively rare events.

DuPage County Mayors and Managers Conference

The DuPage Mayors and Managers Conference presented several safety comments regarding the Proposed Action.

The conference suggested that SEA evaluate and document CN's ability to respond to rail accidents in a safe and timely manner, particularly those involving hazardous materials, based on the historic evidence and plans presented in the Application.

The conference proposed that SEA evaluate and document the potential passenger rail accident risks where future service is planned. The group recommended that the vehicle safety data contained in Tables 4.2-12 through 4.2-16 be documented in the Draft EIS for every crossing in the study area.

The DuPage Mayors and Managers encouraged SEA not to finalize any conclusions regarding rail safety until CN has produced a final Safety Integration Plan (SIP) and it has been fully evaluated.

Response

Potential passenger service along the EJ&E rail line (Metra STAR Line) was not included in the passenger rail safety analysis in the Draft EIS, as the service is not yet defined, nor has the configuration of tracks and highway/rail intersections been determined. However, in response to the comments on the Draft EIS, this Final EIS contains an analysis of the STAR Line.

SEA obtained the vehicle safety data included within the Draft EIS from FRA's website. The formula used for prediction of highway/rail crossing accidents was described in Appendix C of the Draft EIS. SEA used the FRA's data as a basis and provided updates to the following fields:

- Trains per day obtained from the Applicants
- Projected 2015 average daily traffic numbers described in Chapter 4 of the Draft EIS
- Number of main tracks—field verified with additional tracks assumed as provided by the Applicants
- Types of warning devices and number of roadway lanes obtained from field verification

CN submitted a SIP as part of its initial application to the STB on December 28, 2007. CN also filed a SIP with the FRA at the same time. CN submitted a revised SIP on June 27, 2008; and it is included in Appendix D of the Draft EIS. Based on its review of the revised SIP as stated in its letter of September 12, 2008, FRA found that "CN has now satisfactorily addressed each of the SIP elements required as per 49 CFR 244.13. If CN's Application is approved by the Board, FRA will monitor the Applicants' implementation of the SIP during the operations integration period." SEA recommended that the Board impose conditions to ensure that the ongoing SIP process continues until FRA advises the Board that the Proposed Action has been safely implemented. In short, the EIS takes into account and addresses the commenter's concern.

Replicating Analysis

A commenter said the "Accident Prediction" formula in Draft EIS Appendix C applies a number of factors that are not defined in the Draft EIS. The Draft EIS needs to provide sufficient information

about the methodology to allow the reader to understand the basis for conclusions. As it stands, the reader is expected to simply accept a final "predicted" accident value under each scenario. Under Vehicle Exposure (pages 4.2-17 and 4.2-18), the text makes reference to "eleven factors" listed in Section 4.2.2.1, an apparent reference to the 11 conditions for possible grade separation, but fails to explain the relevance of those factors to the exposure analysis.

It is also unclear whether SEA's "Vehicle Exposure" measure is logically equivalent to that used for rail/rail crossings or another type of measurement. The Draft EIS further identifies a threshold of 1,000,000 "exposure factor" as suggested by FHWA guidelines, but fails to identify the actual origin of that figure, or explain the implications of exceeding it. Under the Accident Prediction subsection of 4.2.2.3 (page 4.2-17), as well as in the rail/rail crossing analysis, the combination of the EJ&E results with the CN results is irrelevant. Independent calculations of predicted accidents at highway/rail at-grade crossings lead to results that are substantially higher at some of the crossings within Barrington compared to the values included in the Draft EIS. The independent analysis utilized the same methodology indicated in the Draft EIS, as well as comparable traffic data.

Response

SEA's analysis used the FRA's accident prediction calculator to forecast the projected highway/rail accidents under the Proposed Action. Chapter 4 and Appendix C of the Draft EIS describe the methodology SEA used as well as the input fields within the FRA calculator. SEA used the data provided within the calculator except as modified by SEA based on input provided by the Applicants, roadway authorities, and field verification. With this input, SEA modified the following fields as appropriate: ADT, number of trains per day, number of main tracks, number of roadway lanes, and existing warning devices.

SEA considered impacts of the Proposed Action on public highway/rail at-grade crossings using the FHWA's "Railroad-Highway Grade Crossing Handbook, Revised Second Edition 2007, Chapter 5 (Selection of Alternatives)" as a basis for criteria under which existing public highway/rail at-grade crossings should be considered for construction of grade separations. Exposure (the number of trains per day multiplied by the number of vehicles per day) is one of the criteria that FHWA references and SEA used this in its analysis.

SEA's analysis compared the effects of the Proposed Action on the rail line segments that the Applicants' plan showed to existing conditions. This analysis included both the EJ&E rail line (which would see an increase in average daily number of trains) and CN lines (which would see a decrease in average daily number of trains). SEA believes the comparison between the two is necessary for evaluation of the likely impacts of the Proposed Action.

Capacity Accident Risk Analysis

Commenters pointed out the EIS states that "the EJ&E rail line would be at or near its practical train volume capacity if the Applicants chose to operate on it the number of trains proposed by the Applications in their Operating Plan." However, the EIS relies on historical aggregated data for all U.S. railroads to calculate environmental, safety, and human health risks (see, for example, p. ES-12). Commenters recommended that the EIS should break out historical data pertaining to rail transportation systems that were operated at capacity and account for an increased risk due to such conditions.

Response

SEA considered EJ&E's and CN's historic safety records and predicted the number of accidents that could be expected to occur based on those historic accidents. SEA's forecasts used the number, frequency, speed, and tonnage of trains as provided by CN, SEA verified to be reasonable. SEA's

analysis, which is consistent with past applications before the Board, assumes that the recent past is an appropriate means of predicting future events.

Anecdotal evidence suggests that when capacity utilization is high, things move more slowly. For a railroad, failure is trains waiting in sidings for several days, but this is not equivalent to an accident. Further, CN's ability to operate safely upon the infrastructure of the EJ&E rail line with the projected number of trains is addressed in its Safety Integration Plan (SIP). CN submitted this SIP to the Federal Railroad Administration (FRA), which has sole jurisdiction in the monitoring and enforcement of rail safety. FRA reviewed the SIP and found CN's integration of rail safety within the proposed Operating Plan to be acceptable.

3.4.5.9 Other Comments on Rail Safety

Homeland Security and Criminal Activity

Commenters were concerned that the additional CN trains operating along the EJ&E rail line would increase concerns for homeland security and also would invite criminal activity alongside the track.

Response

The concern of criminal and potential terrorist activities on and alongside freight railroads has always been of concern. However, since the terrorist activities of September 11, 2001, the U.S. Department of Homeland Security, working closely with the Federal Railroad Administration, the Association of American Railroads, and individual railroad carriers, including EJ&E and CN, has taken specific measures to reduce the likelihood of these criminal activities. SEA considers these agencies and their requirements and collective "best practices" to sufficiently address the issue.

CN Employee Training

The Draft EIS addresses train accidents along the EJ&E rail line and in EJ&E yards but does not discuss how the Proposed Action may impact railroad employee safety. The Illinois Commerce Commission (ICC) believes that the increased train volumes make it necessary for the Board to direct the Applicants to insure that employee safety is addressed at all rail facilities (CN and EJ&E), so that employee working conditions meet all current state and Federal rules and regulations.

Response

CN submitted a Safety Integration Plan (SIP), which specifically addresses integration of EJ&E and CN employee safety, as part of its initial application package to the Board on December 28, 2007. CN also filed the SIP with the Federal Railroad Administration (FRA) at the same time. CN submitted a revised SIP on June 27, 2008; it is included in Appendix D of the Draft EIS. Based on its review of the revised SIP, FRA found that CN addressed each of the SIP elements required as per 49 CFR 244.13. If CN's Application is approved by the board, FRA would monitor CN's implementation of the SIP during the operations integration period. FRA will also consult with the Board at all appropriate stages of implementation and will advise the Board of CN's status implementing the SIP, as appropriate.

3.4.6 Comments on Transportation Systems

3.4.6.1 Congestion and Traffic Delays in Regional and Local Highway Systems

Existing Traffic Congestion

SEA received numerous comments identifying existing congestion and traffic delays in communities with roadways crossing the EJ&E rail line at-grade. Commenters stated that trains on the EJ&E rail line currently cause queues and traffic congestion resulting in poor mobility within some communities.

Response

SEA's analysis of current roadway traffic conditions in communities that would be affected by the Proposed Action showed that while congestion is indeed a problem in many communities, it is not primarily a result of rail traffic. However, SEA does understand that at locations where roadways cross operating rail lines, rail traffic will delay some motorists. The length of the wait times is related to the speed and length of the train.

SEA analyzed the existing conditions at the EJ&E rail line highway/rail at-grade crossings affected by the Proposed Action. All but one of the existing at-grade crossings achieved a level of service (LOS) of "A" (LOS ratings range from A, the best, to F, the worst, with levels D and F considered unacceptable).

SEA also evaluated the flow of traffic on the roadways that cross the rail lines separately from the at-grade crossing analysis to 1) identify and evaluate roadways where the flow of traffic is at or over capacity (LOS D-F); and 2) broadly evaluate the overall ability of people to move about within their communities (mobility, as it relates to roadways potentially affected by the Proposed Action). SEA found that 41 of the 112 study roadways currently operate at a roadway LOS of D or worse, indicating congested operations. Certain communities are plagued by existing congestion on numerous streets at or below an LOS D. Summaries of the findings of these analyses are presented in Section 3.3 of the Draft EIS. More detailed discussions of analysis results are included in Appendix E of the Draft EIS.

Existing Aurora Congestion

Commenters noted that traffic congestion exists in Aurora on many of the major thoroughfares (for example, US 34/Ogden Avenue). Examples of concerns include:

- "Currently the traffic congestion along Eola Road and Rte. 59 corridors is gridlock at rush hour and moderately heavy at other times."
- "It is not unusual to sit for more than 10 minutes to wait for slow-moving trains to finish crossing over the roadway."

Response

Current traffic congestion on many of the major thoroughfares in Aurora is a result of roadways operating above capacity, independent of the Proposed Action. Current railroad operations may also contribute to travel delays. The 2007 roadway ADT and LOS for Aurora are provided in Appendix E of the Draft EIS. For example, the current LOS for US 34/Ogden Avenue is F.

Flooding at LaGrange Avenue Underpass

Commenters noted that flooding occurs at the LaGrange Avenue underpass during rain events, blocking the only grade-separated crossing in this area.

Response

Current flooding at the LaGrange Avenue underpass of the EJ&E rail line is a result of poor roadway drainage and not the EJ&E rail line, and is symptomatic of the generally overburdened condition of the regional highway system. This condition would continue regardless of whether or not the Board approves the Proposed Action.

Adverse Weather Impacts

Several commenters stated that they believed that adverse weather conditions combined with additional rail traffic would increase delays and would result in less safe conditions.

Response

Standard traffic engineering practice is to analyze "average" driving conditions. Over a long period of time, there will always be extreme occasions when traffic conditions are unusually better or unusually worse than the typical day. It is impractical to design transportation infrastructure in deference to these extreme situations. Furthermore, the Proposed Action has no effect on weather conditions or the existing roadway infrastructure, and thus traffic problems from flooding would exist regardless of the Proposed Action. For these reasons, the combination of extreme weather conditions and the Proposed Action has not been addressed in the Draft EIS.

Hough Street Crossing

Comments discussed the name of the Hough Street highway/rail at-grade crossing, stating that the reference to "Hough Street (IL 59&63)" was not correct as there is no IL 63 in that area.

Response

In the Draft EIS, SEA referred to this highway/rail at-grade crossing as "Hough Street (IL 59&63)" based on the naming convention used in the FRA database crossing inventory sheet referenced in the Draft EIS. In this Final EIS, this highway/rail at-grade crossing is referenced as "Hough Street (IL 59)."

Increased Delays and Congestion

Commenters were concerned that an increase in train traffic on the EJ&E rail line will substantially increase delays and congestion in the vicinity of highway/rail at-grade crossings. Several commenters questioned the results of the crossing studies, suggesting that more crossings should have been designated as potentially substantially affected.

Response

SEA identified 16 crossings in the Draft EIS that would be substantially affected and warrant the consideration of mitigation. As part of the preparation of this Final EIS, and as a result of public and stakeholder input, SEA has re-evaluted and modified the list of substantially affected crossings. Due to changes in train speeds and train volumes, SEA has reduced the number of seriously affected crossings to 13. Chapter 2 of this Final EIS presents the results of the re-evaluation. Mitigation actions are discussed in Chapter 4 of this Final EIS.

While vehicle delays and queues for at-grade crossings would increase along the EJ&E, SEA anticipates corresponding decreases in delays and queues along the CN. SEA prepared similar calculations for the highway/rail at-grade crossings along the CN radial rail lines; the EIS summarized these positive effects. The net result of the Proposed Action would be an increase of 356 hours per day in total vehicle delays over the entire region.

The analyses found severely congested roadways in many communities along the EJ&E rail line today. Train volume increases in these already congested areas would yield a relatively small increase in travel delays attributable to the Proposed Action.

Barrington Roadway Congestion and Traffic Conditions

Many respondents specifically mentioned existing traffic gridlock in and around downtown Barrington, Illinois, where the Union Pacific Railroad Northwest Line (UP-NW) and EJ&E rail line intersect IL 59/Hough Street, US 14/Northwest Highway, and Main Street/County Line Road/Lake-Cook Road at-grade. Commenters noted that the existing roadway infrastructure in Barrington is not equipped to handle additional rail traffic on the EJ&E rail line.

SEA also received numerous comments expressing concern with increased traffic congestion problems in Barrington and the surrounding area resulting from the Proposed Action, largely revolving around the highway/rail at-grade crossings at Hough Street (IL 59 & 63), Northwest Highway (US 14), and Main Street/County Line Road/Lake-Cook Road. Residents cited multiple blocked crossings and concluded that large scale and comprehensive mitigation is needed before the Proposed Action should be allowed.

Public meeting commenters expressed concerns about the interaction of the additional rail traffic with existing UP freight rail traffic, Metra commuter rail traffic, Barrington High School vehicular traffic, and existing roadway congestion.

Commenters noted that commuter trains are already responsible for vehicle delays at local crossings and stated additional rail traffic may increase delays for both motorists and rail commuters. Residents said increased congestion could have a significant negative impact on local commerce, school traffic, and emergency response times. Many residents contributed personal accounts of long delays attributed to current freight operations along the EJ&E rail line. Residents fear that frequently blocked crossings will leave their community in gridlock. Examples of concerns include:

> The analysis of impacts on regional and local highway systems in the Draft EIS uses HCM terminology, but the roadway and grade crossing level of service ("LOS") assessments do not employ the actual HCM methodology. The multiple HCM citations are misleading and imply a precision in analysis that is not there. The departure from HCM methodology means the Draft EIS does not accurately measure the impact of the Proposed Action on regional and local highway systems. In the case of Barrington, the inaccuracies are glaring. Barrington's own assessment (described below) shows much greater impacts than the Draft EIS analysis and provides a good illustration of why the Draft EIS analysis is not a hard look at the adverse regional and local highway impacts of the Proposed Action.
>
> Queue lengths on County Line Road will block the south entrance to Barrington High School, and queue lengths on Penny Road will block Route 59, constituting a serious effect; please refer to the submittal from the Village of Barrington Hills for detailed information regarding engineering.
>
> Currently, we already have mild traffic congestion at peak hours and when our commuter trains pass through. But the delays are manageable because only a few

> intersections are temporarily blocked, and the Metra train delays are short. This will not be the case with the
>
> Railroad [*sic*] line when every possible intersection in Barrington will be completely bottlenecked by the freight trains. There are NO alternate paths when the EJ&E train track is being used. School buses can't deliver our children to school, paramedics can't reach the hospital, police can't respond, local businesses will suffer.
>
> The crossing at Route 14 in Barrington was not included in Table ES-1. Why? The traffic volume at that at-grade crossing is significant during the morning and evening rush hours.

Response

Roadway congestion exists today in many of the communities along the EJ&E rail line, including the Barrington and Barrington Hills region, and traffic congestion exists in Barrington on all major roadways. Year 2007 traffic estimates show that Hough Street has LOS E, Northwest Highway has LOS D, and Lake Cook Road/Main Street has LOS D, showing that motorists in the community are already experiencing undesirable levels of delay. As travel in the area continues to grow with expected development (absent any roadway capacity improvements), congestion will increase. The close spacing of these above mentioned intersections compounds the effects of trains now moving along the EJ&E rail line.

Much of the congestion results from roadways operating above capacity and frequent commuter trains running along the UP-NW rail line, which bisects Barrington. These factors, including the commuter rail operations, contribute to the excessive vehicle queuing on all roadways through downtown. The convergence of the UP-NW and the EJ&E rail lines in downtown Barrington also contributes to the existing unacceptable roadway levels of service. Section 3.3 of the Draft EIS discusses the methodology and analysis results of existing conditions.

Two rail lines intersect near the Barrington village center. The UP rail line presently carries both freight rail service and commuter rail service. Effects of the existing freight rail service occur over various periods of the day and week. Effects of the Metra trains occur primarily during morning and evening work commutes. Proposed increases in rail traffic on the EJ&E rail line that crosses the existing UP line would most likely be spread over each day.

The EIS concludes that increases in rail traffic on the EJ&E rail line as a result of the Proposed Action would affect traffic and mobility in the Barrington region. Section 4.3 of the Draft EIS presents findings of the traffic delay analysis and discusses the methodology used to identify the substantially affected crossings. SEA identified Hough Street in Barrington as a roadway that would be substantially affected because of the potential for traffic to back up and block the Northwest Highway intersection. Chapter 6 of the Draft EIS discusses the options for mitigating effects on the Barrington community at Hough Street.

In response to comments, SEA conducted a more detailed analysis of the interaction of train movements and motorist travel; the findings are presented in Section 2.5 of this Final EIS. SEA's strategies for mitigation resulting from this analysis are reported in Chapter 4 of this Final EIS.

IL 60/83

Several comments submitted to SEA reflect concerns that IL 60/83 in Mundelein, Illinois will be substantially affected by the Proposed Action due to the rail line's proximity to the intersection of IL 60/83 and Diamond Lake Road. There is concern that IL 60/83 is beyond the 40-hour delay threshold cited in the Draft EIS, and thus should be considered substantially affected and mitigated appropriately.

Response

SEA evaluated the highway/rail at-grade crossing at IL 60/83 and found that, based on the train speeds used in the Draft EIS, vehicular delays would exceed the 40-hour delay threshold. However, on September 17, 2008, the Applicants provided SEA with a new design of the proposed double track connection at Leithton (near Mundelein, Illinois) that is intended to allow the Applicants to increase the speed at the connection, resulting in less delay at Allanson Road, IL 60/83, and Diamond Lake Road. Chapter 2 presents the results of SEA's additional analysis of traffic delays from the redesigned connection.

Stopped Trains

Many area residents asked why trains must stop and potentially block multiple crossings for significant amounts of time. Some expressed concern about existing trains not only stopping, but reversing. Stopped, reversing, or slowly moving trains were noted as causing increased traffic congestion and related travel delays. Blocked crossings were also noted as potentially causing life-threatening emergency-response delays.

Residents also complained that stopped trains cause unsafe pedestrian crossing activity, such as climbing under or between stopped rail cars. They noted that while stopped trains do not always block major or minor public roadways, they block private access to local residences for hours at a time. Roadway users expressed concern that increasing the number of trains will result in more frequent rail stoppage and subsequent blocked crossings. Examples of concerns about stopped trains include the following commenter quotes:

> In addition, these smaller communities, by moving this train to the outer fringes of Chicago, do not have the emergency services and support that [C]ity of Chicago and border communities have to take care of HAZ/MAT issues as well as disruptions when trains break down.
>
> The primary entrance in and out of the [V]illage is Western Avenue, which crosses the EJ&E Railroad. And at any point in time in any day, that entrance is blocked by a train. And sometimes the trains are simply sitting or traveling so slowly that the traffic gets backed up very much down on either side of Western Avenue."
>
> I used to work in Franklin Park, Illinois. Traffic there was horrible due to the freight trains, especially when they would stop at a crossing, back up, and eventually proceed at about 5 mph.

Response

Freight trains stop on main lines for several reasons, both planned and unplanned. Planned stops occur to accommodate operational needs, such as to change crews, to wait for other trains to pass, or for minor adjustments to the train, such as switching cars to local industrial customers. Unplanned stops are infrequent, and may occur as a result of maintenance needs, a red light directed by the regional dispatcher, or other unforeseen events that would prevent safe travel.

In general, freight trains stop intentionally while blocking highway/rail at-grade crossings for only one reason: to switch local industrial customers where the industry track crosses the same highway/rail at-grade crossing.

Stopped trains are an important traffic issue if they either block crossings while stopped, or, if stopped clear of the crossing, if they extend the normal blockage time due to the slower speeds associated with accelerating and decelerating. The EIS evaluated the locations available to CN to stop a train without blocking a highway/rail at-grade crossing and determined that there are sufficient

safe stopping areas to accommodate the proposed Operating Plan. As discussed in Section 4.3.3 of this Final EIS, CN has committed to operating under U.S. Operating Rule No. 526 (Public Crossings), which provides that a public crossing must not be blocked longer than 10 minutes. While the potential for unplanned stops would increase with the increased number of trains, the Applicants' voluntary mitigation addresses this concern. Therefore, in consideration of the Applicants' voluntary mitigation, SEA has determined that the potential blockage of highway/rail at-grade crossings would not increase as compared to the existing condition because the Proposed Action would not change service to local industrial customers.

Cut-Through Traffic

SEA received comments asserting that an increase in rail traffic will result in a noticeable increase in cut-through traffic and related problems. Commenters stated that blocking railroad crossings more often and for longer periods will lead greater numbers of roadway users to find alternate routes to their destinations through local neighborhoods. This cut-through traffic will bring increased traffic volumes and speeds, as well as aggressive driving behavior to local streets, resulting in increased potential safety hazards for residents, especially children.

Park Forest community residents specifically voiced concern with cut-through traffic between the Western Avenue at-grade crossing and the Orchard Drive grade-separated crossing. North Street, north of the EJ&E rail line, and Westwood Drive to the south provide direct access for motorists between Western Avenue and Orchard Drive. Residents fear an increase in cut-through traffic as a result of increased blockage of the Western Avenue crossing.

Response

Existing regional congestion has encouraged cut-through traffic in communities along the EJ&E rail line like Park Forest. The grid patterns in these communities were designed to accommodate local access trips, and as the communities have grown, cut-through traffic has gradually increased, reaching problematic levels in some areas. Additional cut-through traffic caused directly by the Proposed Action is expected to be relatively small in proportion to the increase in cut-through traffic anticipated by growth in regional travel demand.

Traffic Queues across the EJ&E Rail Line

SEA received comments identifying concerns about specific roadway intersections close to the EJ&E rail line where vehicle queue lengths could potentially extend through highway/rail at-grade railroad crossings. This was principally a concern in Lake Zurich, Illinois during peak rush hour periods and peak school rush hour periods.

Response

SEA analyzed the entire EJ&E arc to identify all signalized intersections that might queue vehicles across the EJ&E rail line. SEA examined intersections located within 1,000 feet of a highway/rail at-grade crossing to determine the potential to back traffic across the EJ&E rail line. The following six signalized intersections are located within the 1,000-foot range in the Lake Zurich area:

1. Old McHenry Road and Midlothian Road (970 feet from Old McHenry Road crossing)
2. Main Street and IL 22 (340 feet from Main Street crossing)
3. Main Street and Church Street (430 feet from Main Street crossing)
4. Old Rand Road and IL 22 (300 feet from Old Rand Road crossing)

5. Old Rand Road and Main Street (780 feet from Old Rand Road crossing)
6. Ela Road and South Rand Road (700 feet from Ela Road crossing)

Two of these intersections contain cantilevered flashing light signals at the at-grade crossing upstream from the intersection. The remaining intersections have flashing light signals on the side of the road at the railroad crossings upstream from the intersection. These warning devices provide an additional alert to drivers approaching the queue of the railroad crossing, so they can stop short of the tracks if necessary.

Shoe Factory Road

SEA received comments expressing concern that the stopping sight distance at the Shoe Factory Road at-grade crossing of the EJ&E rail line is inadequate and presents a safety problem for vehicles waiting for a train to pass.

Response

Shoe Factory Road is a two-lane undivided east/west collector. Vehicles heading westbound on Shoe Factory Road crest a hill approximately 1,000 feet east of the tracks. At this crest, drivers can see vehicles queuing for the EJ&E rail line. Because of increased train lengths, Shoe Factory Road would experience a calculated average vehicle queue length of approximately 600 feet under the Proposed Action (peak period), compared to 335 feet under the No-Action alternative.

The design speed on Shoe Factory Road is 45 mph, resulting in a stopping sight distance of approximately 360 feet. If the crest of the hill is approximately 1,000 feet east of the EJ&E rail line, and the Proposed Action queue length is 600 feet, then the resultant stopping sight distance is adequate for Shoe Factory Road.

Frankfort/Harlan and Aberdeen Streets

SEA received comments concerning the effect of the Proposed Action on Aberdeen Road in Frankfort. There is a concern that increases in train lengths and train traffic will result in inaccessibility to Aberdeen Road from Harlem Avenue. Aberdeen Road is currently the only access point to a neighborhood north of the EJ&E rail line, and the intersection of Aberdeen Road and Harlem Avenue is approximately 325 feet north of the Harlem Avenue highway/rail at-grade crossing. If the vehicle queue at Harlem Avenue crossing blocks Aberdeen Road, access to the neighborhood will be cut off.

Response

In response to public comments, SEA calculated that the maximum existing queue length on Harlem Avenue is about 15 vehicles, or approximately 375 feet, which extends beyond Aberdeen Road. SEA calculated that the maximum 2015 queue length under the Proposed Action would also be 15 vehicles, or approximately 375 feet. Harlem Avenue is planned to be widened from two lanes to four lanes by 2015. This widening was included in this Final EIS analysis and will result in a similar queue length for the Proposed Action as the existing conditions. With the widening, the No-Action queue length for Harlem Avenue is 11 vehicles, or 275 feet. Because vehicles already queue beyond Aberdeen Road, and the Proposed Action would only add four vehicles, SEA considers the effect of the Proposed Action to be minimal.

Furthermore, the calculated average delay per delayed vehicle at the Harlem Avenue highway/rail at-grade crossing is 1.5 minutes under the Proposed Action, approximately 24 seconds longer than the 1.1 minutes calculated under 2015 No-Action conditions. This means that, on average, any vehicle in

the queue would experience an extra 24 seconds of delay as a direct result of the Proposed Action. Correspondingly, the average blocked vehicle wishing to access Aberdeen Road would have to wait an additional 24 seconds under the Proposed Action.

Washington Road in West Chicago, Illinois

SEA received many comments from West Chicago expressing concerns that highway/rail at-grade crossings at Washington Road would experience adverse effects if the Proposed Action is approved.

Response

SEA evaluated the effects of the Proposed Action on area mobility, congestion, and emergency services. SEA found that a combination of conditions affect the Washington Street at-grade crossing, including railroad operations not included in the Proposed Action. SEA's analysis found the effects of the Proposed Action will not contribute to substantial increases in delays or congestion.

Alternative Routes to Avoid Blocked Crossings

A commenter stated that the Draft EIS suggests adjacent crossings may be used as alternatives to avoid congestion at blocked crossings. The commenter is concerned that these routes are not valid alternatives and have not been discussed with local and regional planning agencies.

Response

SEA recognizes that alternative routes may not always be available or accessible to drivers. However, it is reasonable to assume that, because the EJ&E rail line is currently in place and because train traffic currently results in blocked crossings, drivers are aware of the potential for blocked at-grade crossings and currently alter their routes to avoid congestion at crossings when possible, and will continue to do so in the future with or without an increase in rail traffic. Furthermore, an increase in rail traffic will likely encourage drivers to plan their routes such that they avoid frequently congested crossings.

SEA coordinated with regional, state, and local planning agencies by inviting them to comment on the draft scope of the analysis and the Draft EIS and to participate in the scoping process. In addition, SEA coordinated directly with state and regional transportation planning agencies to obtain traffic data and information concerning future planning efforts. Finally, SEA established a transportation agencies stakeholder group, consisting of local, state, and regional transportation agencies, meeting with them collectively twice during the EIS process.

Underestimate of Future Stearns Road Traffic

SEA received multiple comments emphasizing the significance of Stearns Road as a major artery that will carry traffic from the new Fox River Bridge, which is currently under construction. This has been identified as an issue for traffic in Kane and DuPage counties, as well as around Wayne and Bartlett. Commenters suggested that the analysis used in the Draft EIS underestimates the future traffic at the Stearns Road highway/rail at-grade crossing.

Response

In response to comments, SEA has reconsidered the new Fox River Bridge and its effects on Stearns Road traffic volumes. The *CC&P/Stearns Road Corridor Design Report* reflects the proposed

connection of McDonald Road from the west to IL 25, and the realignment of a section to directly connect IL 25 to Stearns Road approximately 0.50 mile west of the Stearns Road highway/rail at-grade crossing (IDOT 2006).[2] This new alignment provides a connection to Stearns Road for the area west of Fox River, via the new Fox River Bridge, as well as a more direct connection from IL 25 to Stearns Road. The projected traffic volumes from the roadway project are higher than those used in the crossing analysis for the Draft EIS. Therefore, SEA re-analyzed the crossing, and the new results are shown in Chapter 2 of this Final EIS.

143rd Street in Plainfield, Illinois

SEA received comments concerning data collection from Plainfield, Illinois. Commenters expressed concerns that the traffic data used in the Draft EIS analysis is outdated and does not reflect current traffic conditions resulting from recent changes in the local traffic network. Specifically, the commenters feel that current traffic volumes have increased significantly since the original data was collected.

Response

SEA has coordinated closely with Plainfield and the Illinois Department of Transportation (IDOT) regarding changes in traffic patterns in the Village. Through this coordination, SEA has obtained updated average daily traffic (ADT) counts for Plainfield to more accurately reflect current traffic conditions in the village. SEA has refined the corresponding analyses for the Village based on the updated traffic counts, and the results of the refined analyses are contained in Section 2.5 of this Final EIS. SEA also refined the corresponding analysis of crossings in Plainfield based on the updated traffic counts, and the results of the revised analysis are contained in Section 2.5.4 of this Final EIS. However, it should be noted that CN is not responsible for the increase in traffic on 143rd Street, nor would the Proposed Action affect the existing capacity of the roadway. Congestion issues caused by the increase of traffic on 143rd Street should be handled by the appropriate transportation agencies responsible for the re-designation of the roadway.

Matteson Connection

SEA received comments expressing concerns about the proposed connection in Matteson, Illinois. Commenters stated that real-life observations at the existing connection indicate that train speeds are much lower and train stoppages much more frequent than what is indicated in the Draft EIS. As a result, analyses of future conditions at this connection under proposed configurations, which are built on the Draft EIS's reported existing conditions, are inherently flawed. Consequently, the commenters claim, the negative impact of the Proposed Action at this location is understated in the Draft EIS.

Response

SEA acknowledges that existing train speeds at the Matteson connection are indeed lower than what was initially reported in the Draft EIS. As a result, the SEA has re-evaluated this existing connection as well as proposed future connections. The proposed Matteson connection alternatives have been redesigned to allow for higher train speeds. This Final EIS includes the redesigned connection alternatives as well as the corresponding revised analyses and results in Chapter 2.

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[2] IDOT. May 2006. *CC&P/Stearns Road Corridor Design Report*. Chicago, IL.

Traffic on Cicero Avenue

Matteson, Illinois, is concerned that the proposed Matteson connection will interfere with traffic on Cicero Avenue.

Response

Since the Draft EIS was published, the Applicants modified the layout of the proposed Matteson connection, referred to in this Final EIS as the revised Matteson connection, to specifically improve train operations through the connection and to reduce the effects on Cicero Avenue. Based on the Applicants' modifications, SEA conducted additional analysis of Cicero Avenue and determined that it would not be substantially affected. The results of SEA's analysis are presented in Section 2.5.4 of this Final EIS.

US 30 Bypass

A commenter expressed concern that the Proposed Action would disrupt IDOT's plans for the US 30 bypass.

Response

Based on SEA's research, IDOT has no documented plans for a US 30 bypass. The project is not included in the Regional Transportation Plan, and there are no plans to prepare a phase one study. Therefore, SEA found that the US 30 bypass is not reasonably foreseeable and did not consider the project in their analysis.

3.4.6.2 Emergency Response

Congestion and Emergency Response Time

Many commenters expressed their concern regarding current congestion impacts on emergency vehicle response times.

Response

SEA's analysis of current roadway traffic conditions in communities that would be affected by the Proposed Action showed that while congestion is indeed an existing problem in many communities, it is not primarily a result of highway/rail at-grade crossings. This congestion may impact the provision of emergency services today.

For this EIS, SEA analyzed the present conditions at the highway/rail at-grade roadway crossings of the EJ&E rail line used by the public affected by the Proposed Action. All but one of the existing at-grade crossings achieved a level of service (LOS) of "A," (LOS ratings range from A, the best, to F, the worst, with levels D and F considered unacceptable). SEA also evaluated the operations on the roadways that cross the rail lines independent of rail line crossing operations to 1) identify and evaluate roadways operating at or over capacity (LOS D-F) and 2) broadly evaluate the overall ability of people to move about within their communities (mobility, as it relates to roadways potentially affected by the Proposed Action). SEA found that 41 of the 112 study roadways currently experience traffic congestion represented by a roadway LOS of D or worse indicating congested operations. .Certain communities seemed to be plagued by roadway operations on numerous streets at or below a LOS D. Summaries of the findings of these analyses are presented in Section 3.3 of the Draft EIS. More detailed discussions of analysis results are included in Appendix E.

Emergency service response times will be affected by roadway operating conditions. Roadways that experience a LOS of C or less will likely impede emergency access.

Barrington Hills

Table 4.3-12 of the Draft EIS incorrectly identifies the emergency service provider facility in Barrington Hills as the Lake Zurich Rural Fire Protection District–Station No. 2 (correctly identified in Appendix E of the Draft EIS as Barrington Countryside Fire Protection District Station No. 2). Barrington Hills requests that this be corrected in this Final EIS, and that the analysis be re-examined to verify that any potential effect was not overlooked due to this error.

Response

Table 4.3-12 in the Draft EIS, Emergency Service Providers Potentially Affected by the Proposed Action, lists the potentially affected emergency service providers by the communities that they serve. The Lake Zurich Rural Fire Protection District–Station No. 2 was listed twice in this table; once under the community of Lake Zurich, and once under the community of Barrington Hills. This was to signify that this facility serves both of these communities.

The Barrington Countryside Fire Protection District–Station No. 2 was not listed in Table 4.3-12 in the Draft EIS because it is located less than 1 mile from a public highway/rail grade separation. (Specifically the Algonquin Road [IL 62] highway/rail grade separation is located approximately 900 feet east of the Barrington Countryside Fire Protection District–Station No. 2.) Therefore, SEA did not consider it to be potentially affected by the Proposed Action.

Delays to Emergency Response Vehicles

SEA received numerous comments stating that current congested conditions on the region's roadways, especially at highway/rail at-grade crossings, slow emergency service vehicles. Residents feel that the increase in rail traffic will create excessive delays at highway/rail at-grade crossings and will hinder the response time of emergency vehicles. Residents also feel that increased rail traffic and stopped trains at highway/rail at-grade crossings will create more frequent and longer delays for residents traveling to emergency service centers. Some residents mentioned specific illnesses such as asthma and diabetes and are concerned that if emergency response time is prolonged, serious harm or death may occur due to lack of medical care.

Response

SEA understands the importance of emergency services to local emergency service providers and to the public who depend on these services. During rush hours, the generally congested road conditions that now exist have caused problems to emergency service vehicles trying to navigate their way through traffic. In addition, SEA notes that the emergency service providers are currently faced with the possibility that a train could be crossing the roadway, and many have found ways to address this issue. For more information, see Section 2.6, Emergency Services, in this Final EIS.

As discussed in Section 4.3 of the Draft EIS, SEA's screening process determined that there will be emergency service facilities potentially affected by the Proposed Action. Those facilities located within 2.0 miles of the EJ&E rail line but that do not have a highway/rail grade-separated crossing within 1 mile of the facility were considered to be potentially affected (see Table 4.3-12, Emergency Service Providers Potentially Affected by the Proposed Action, in the Draft EIS). Of these facilities, 11 were identified in the Draft EIS as being potentially substantially affected. Results of this analysis are discussed in Section 4.3 of the Draft EIS; see Table 4.3-13, Emergency Service Providers Potentially Substantially Affected by the Proposed Action, for a listing of the affected facilities.

SEA conducted additional analysis for the 11 facilities listed in Table 4.3-13 of the Draft EIS. In preparing this Final EIS, SEA analyzed 10 other facilities identified in comments on the Draft EIS as important community resources but not identified as potentially substantially affected in the Draft

EIS. SEA's additional analysis included contacting local emergency service providers to discuss the findings in the Draft EIS and to review potential mitigation measures. Based on this analysis (see Section 2.6 of this Final EIS), SEA determined that 13 facilities would be potentially substantially affected by the Proposed Action and would warrant mitigation. Section 4.3 of this Final EIS contains the recommended mitigation conditions that SEA believes will reduce the potential adverse effects on these 13 emergency service providers.

Barrington Public Safety Building

SEA received comments from residents of Barrington who are concerned that the emergency response time for police and fire personnel will be in jeopardy as a result of the increase in rail traffic and length of trains along the EJ&E rail line. Citizens stated that Barrington is an unusual case because railroads run through both sides of the town, as well as intersect in the middle, which makes getting across town in a vehicle extremely difficult.

Response

SEA identified the Barrington Public Safety building, which houses the Barrington Police Department and the Barrington Fire Department—Station No. 1, as potentially substantially affected by the Proposed Action. SEA recommends specific mitigation measures for this facility; they are documented in Chapter 4, Section 4.3 of this Final EIS.

Blocked Crossings/Emergency Services

SEA has received many comments from residents concerned that the Proposed Action will result in increased blocked crossings throughout the community, causing conflicts with emergency vehicles. Residents are concerned that trains blocking at-grade crossings will significantly slow response times due to the need to find new routes or the responders' inability to circumvent the blocked crossing. Residents are concerned about loss of life or permanent injuries resulting from hindered emergency response providers.

Response

As discussed in the Draft EIS, the Proposed Action would not result in a new rail line, but rather it would shift existing rail traffic from the CN rail lines to the EJ&E rail line. Most communities and their emergency service providers have developed with the awareness that the EJ&E rail line exists. Emergency service providers have adopted practices and procedures accounting for this rail line and the possibility that a freight train may block a highway/rail at-grade crossing.

The Applicants have stated in their Voluntary Mitigation measures that they will notify emergency services dispatching centers for communities along the affected segments of all crossings blocked by trains that are stopped and may be unable to move for a period of time. Additionally, the Applicants shall work with affected communities to minimize emergency vehicle delays by 1) maintaining facilities for emergency communication with local emergency response centers through a dedicated toll-free telephone number; and 2) providing, upon request, dispatching monitors that allow emergency response center dispatching personnel to see real-time train locations.

Emergency response vehicles will experience reduced delays at highway/rail at-grade crossings along the CN rail lines. Crossings along the EJ&E rail line will experience greater opportunities for delays with some crossings experiencing more delays than others. Section 4.3.1, Regional and Local Highway Systems of the Draft EIS discusses vehicle delays for each highway/rail at-grade crossing. Section 4.3.3 of the Draft EIS discusses the potential impact to emergency service vehicle response times. SEA recognizes concerns regarding potential increased emergency service response times and

the need to minimize the effects from increased rail traffic. In Chapter 4 of this Final EIS, SEA recommends appropriate mitigation to address issues associated with highway/rail at-grade crossings in regards to emergency response.

Edward Hospital

SEA received comments from residents of Aurora and Naperville expressing concern that access to Edward Hospital in Naperville, Illinois, will be compromised as a result of the Proposed Action. Residents believe that emergency response and travel times to the hospital could be delayed due to blocked highway/rail at-grade crossing. Residents also stated that Edward Hospital is an important community resource that should receive further analysis.

Response

Public comments suggest that Edward Hospital is an important community resource that should receive further analysis. Therefore, further study has been conducted for Edward Hospital and is documented in Chapter 2 of this Final EIS.

Advocate Good Shepherd Hospital

SEA has received many comments from residents of Barrington concerned because Advocate Good Shepherd Hospital was not considered for further analysis in the Draft EIS. Many residents believe that Advocate Good Shepherd Hospital is a vital resource to the community and citizens will be greatly affected by the Proposed Action due to the inaccessibility of the hospital and lack of emergency response availability. Commenters also expressed concern about the ability of emergency response providers to respond to emergency needs because of existing community congestion. They are concerned that individuals and ambulances are often delayed getting to Advocate Good Shepherd Hospital.

Response

SEA identified emergency service facilities, including Advocate Good Shepherd Hospital, serving communities in the Study Area and listed them in Section 3.3.2, Emergency Response, of the Draft EIS. Facilities meeting the screening threshold were considered for further analysis of effects on emergency service vehicle delays. Advocate Good Shepherd Hospital did not meet the screening criteria and, therefore, did not receive specific analysis. Numerous public comments noted that Advocate Good Shepherd is an important community resource and that the Barrington area does not have a conveniently located grade-separated crossing. SEA therefore determined that Advocate Good Shepherd Hospital should receive further analysis. Further study has been conducted for Advocate Good Shepherd Hospital and is documented in Chapter 2, Section 2.6 of this Final EIS. SEA recommends specific mitigation measures for this facility; they are documented in Chapter 4 of this Final EIS.

Lake Zurich Rural Fire Protection District

SEA has received comments from Lake Zurich community members who have concerns the Proposed Action will separate part of the community from adequate fire response. Residents believe injuries and loss of life may occur as a result of inadequate emergency response time.

Response

The Lake Zurich Rural Fire Protection District operates out of four existing fire stations, two on either side of the existing EJ&E rail line. Headquarters/Station No. 1 and Station No. 4 are located

southeast of the EJ&E rail line. Stations No. 2 and 3 are located northwest of the EJ&E rail line. The Lake Zurich Rural Fire Protection District—Station No. 2 has been identified as potentially affected by the Proposed Action; however, it was not considered potentially substantially affected because Headquarters/Station No. 1 and Station No. 4 are located southeast of the rail line. In addition, IL 22 offers a direct route to the nearest grade-separated crossing on Rand Road (US 12). The Lake Zurich Rural Fire Protection District—Station No. 3 has been identified as potentially substantially affected by the Proposed Action. SEA recommends specific mitigation measures for this facility, which are documented in Chapter 4, Section 4.4.3.2 of this Final EIS.

West Chicago Emergency Services

SEA received comments regarding the West Chicago area, specifically the Washington Street at-grade crossing. Area residents are concerned that additional train traffic in this already congested railroad intersection will substantially affect their access to emergency services.

Response

The West Chicago Fire Protection District Headquarters/Station No. 1 was identified as potentially affected by the Proposed Action in Chapter 4 of the Draft EIS; however, because the District's Station No. 3 is on the opposite side of the EJ&E rail line, responders from Station No. 3 could respond even if a train blocked the Washington Street at-grade crossing. Public comments suggest that the District should receive further analysis because Station No. 3 is not fully operational and staffed at all times. Therefore, further study has been conducted for the West Chicago Fire Protection District and documented in Chapter 2, Section 2.6 of this Final EIS. SEA recommends specific mitigation measures for these facilities; they are documented in Chapter 4, Section 4.4.3.2 of this Final EIS.

Rush-Copley Medical Center

SEA received comments from residents of Aurora and Naperville expressing concern that access to Rush-Copley Medical Center in Aurora, Illinois, will be compromised as a result of the Proposed Action. Residents believe that emergency response and travel times to the medical center could be delayed due to blocked highway/rail at-grade crossings. Residents also stated that Rush-Copley Medical Center is an important community resource that should receive further analysis. Commenters also questioned results of the effects of the Proposed Action on emergency service access to the Rush-Copley Medical Center.

Response

Emergency service access to the Rush-Copley Medical Center was evaluated as discussed in Chapter 4 and Appendix E of the Draft EIS. The Rush-Copley Medical Center was identified as potentially affected by the Proposed Action; however, because Edward Hospital is east of the EJ&E rail line (approximately 4.5 miles east) in Naperville and could provide service to potentially affected areas, SEA evaluated this facility in the Draft EIS (Appendix E) and determined that the facility would not be substantially affected. Public comments suggest that Rush-Copley Medical Center is an important community resource that should receive further analysis. Therefore, SEA re-evaluated Rush-Copley Medical Center. Results of SEA's additional evaluation are documented in Chapter 2, Section 2.6 of this Final EIS.

Silver Cross Hospital/Silver Cross Replacement Hospital

Commenters from New Lenox and Joliet expressed concern that access to Silver Cross Hospital and Silver Cross Replacement Hospital will be compromised as a result of the Proposed Action. Citizens

believe emergency response and travel times to the hospital(s) will be hindered due to blocked highway/rail at-grade crossings.

Response

SEA identified emergency service facilities serving communities in the Study Area and listed them in Section 3.3.2, Emergency Response, of the Draft EIS document. Facilities meeting the screening threshold of being within 2.0 miles of the rail line were considered for further analysis of effects on emergency service vehicle delays. Silver Cross Hospital was not initially identified as being potentially affected because there is a grade-separated crossing at Jackson Street (US 6) approximately 0.50 mile southwest of this facility. Silver Cross Replacement Hospital, scheduled to open in summer 2011, will be located near the intersection of US Route 6 and I-355, approximately 4 miles north of the EJ&E rail line. Because this facility will be located more than 2.0 miles from the EJ&E rail line, it did not receive specific analysis; however, public comments suggest that Silver Cross Hospital is and Silver Cross Replacement Hospital will be an important community resource that should receive further analysis. Therefore, SEA has conducted further study for Silver Cross Hospital and Silver Cross Replacement Hospital; it is documented Chapter 2, Section 2.6 of this Final EIS.

Saint James Hospital and Health Center–Olympia Fields

Citizens of New Lenox and Joliet expressed concern that access to Saint James Hospital and Health Centers–Olympia Fields would be compromised as a result of the Proposed Action. Citizens believe emergency response and travel times to the hospital would be hindered due to blocked highway/rail at-grade crossings.

Response

The Saint James Hospital and Health Centers–Olympia Fields has been identified as potentially substantially affected by the Proposed Action. Further study has been conducted for Saint James Hospital and Health Centers–Olympia Fields and is documented in Chapter 2, Section 2.6 of this Final EIS. However, SEA does not recommend specific mitigation measures for this facility because there are three grade-separated highway/rail crossings within a 3-mile radius of this facility.

New Lenox, Illinois Emergency Services

SEA has received comments from residents of New Lenox concerned that the Proposed Action will separate part of the community from adequate emergency response. Residents are specifically concerned about the five north-south highway/rail at-grade crossings in New Lenox, Illinois (South Gougar Road, Nelson Road, Cedar Road, Spencer Road, and School House Road) being blocked at one time, cutting off north-south access for emergency responders (including police, fire protection, and ambulance services) within New Lenox and access to emergency medical care. Residents believe injuries and loss of life may occur as a result of inadequate emergency response time.

Response

The New Lenox Police Department was identified as potentially affected by the Proposed Action in Chapter 4 of the Draft EIS; however, police facilities are not considered potentially substantially affected because the police building itself is not essential to the protection and emergency services that the mobile patrol officers provide.

The New Lenox Fire District Headquarters/Station No. 1 and Station No. 3 were identified as potentially affected by the Proposed Action in Chapter 4 of the Draft EIS; however, they were not

identified as potentially substantially affected because they are on opposite sides of the EJ&E rail line. Public comments suggest that the New Lenox Fire District should receive further analysis. Therefore, SEA conducted further study for the New Lenox Fire District; it is documented in Chapter 2, Section 2.6 of this Final EIS. However, SEA does not recommend mitigation because the New Lenox Fire District operates out of four fire stations that are fully staffed 24-hour facilities. (Headquarters/Station No. 1, Station No. 2, and Station No. 4 are north of the EJ&E rail line while Station No. 3 is south of the EJ&E rail line.)

SEA identified emergency service facilities serving communities in the Study Area and listed them in Section 3.3.2, Emergency Response, of the Draft EIS document. Facilities meeting the screening threshold of being within 2.0 miles of the rail line were considered for further analysis of effects on emergency service vehicle delays. Silver Cross Hospital was not initially identified as being potentially affected because there is a grade-separated crossing at Jackson Street (US 6) approximately 0.50 mile southwest of the facility. Silver Cross Replacement Hospital, scheduled to open in summer 2011, will be located near the intersection of US Route 6 and I-355, approximately 4 miles north of the EJ&E rail line. Because this facility will be located more than 2.0 miles from the EJ&E rail line, it did not receive specific analysis; however, public comments suggest that Silver Cross Hospital is and Silver Cross Replacement Hospital will be an important community resource that should receive further analysis. Therefore, SEA has conducted further study for Silver Cross Hospital and Silver Cross Replacement Hospital, which is documented Chapter 2, Section 2.6 of this Final EIS.

Plainfield Fire Protection District

SEA received comments from Plainfield concerning the effects the Proposed Action would have on the relocation of the Plainfield Fire Protection District Headquarters/Station No. 1 to the intersection of 143rd Street and Van Dyke Road. The commenters are concerned that this relocated fire station would be potentially substantially affected by the Proposed Action.

Response

SEA did not identify the Plainfield Fire Protection District Headquarters/Station No. 1 as potentially affected by the Proposed Action in Chapter 4 of the Draft EIS because it is located within 1 mile of a public highway/rail grade-separated crossing (IL 59). Public comments suggested that the relocation of this fire station to its proposed location at 143rd Street and Van Dyke Road would now make this facility potentially substantially affected; however, this new location is still within 1 mile of the same public highway/rail grade-separated crossing (IL 59). Responders would have to travel south on Van Dyke Road, west over the Lockport Road highway/rail at-grade crossing along the Illinois River Line, and then north up IL 59 to utilize this grade separation. However, because traffic on the Illinois River Line would not change, the Proposed Action would not affect the Lockport Road highway/rail at-grade crossing mentioned above. Additionally, Plainfield Fire Protection District–Station No. 2 is located on the east side of the EJ&E rail line and would serve as the first responder in most cases. SEA does not consider this facility to be potentially substantially affected and will not recommend mitigation because of the situation above, and due to the fact that the Plainfield Fire Protection District operates out of three fire stations which are fully staffed 24-hour facilities. (Headquarters/Station No. 1 is west of the EJ&E rail line for both the existing and proposed locations, while Station No. 2 and Station No. 3 are east of the EJ&E rail line.)

Mutual Aid Response

The commenter was concerned that the Draft EIS did not address how the Proposed Action would affect mutual-aid responses from surrounding communities.

Response

In Section 4.3 of the Draft EIS, SEA evaluated the potential effects that the Proposed Action would have on emergency services in communities within the Study Area. SEA examined each community in the Study Area for police, fire protection, and emergency medical service facilities' proximity to the rail lines and the location of rail crossings. SEA included all emergency service facilities within 2.0 miles of the affected highway/rail at-grade crossings in its evaluation. SEA also considered mutual aid agreements between neighboring fire protection districts/departments in its evaluation of potentially substantially affected fire protection facilities; refer to Section 4.3.3 of the Draft EIS.

Flooding at Governor's Highway

Matteson, Illinois, commented that the Governor's Highway underpass of the EJ&E rail line often floods and closes a major north-south thoroughfare. This is the only crossing that Matteson emergency responders cause to get around blocked railroad crossings for several miles.

Response

Flooding at Governor's Highway is an existing local drainage issue as noted in Matteson's comment. It is not the Board's practice to require the correction of existing infrastructure problems.

3.4.6.3 Airports

Summary

SEA received comments expressing concern about potential effects on Gary/Chicago International Airport.

Response

As discussed in the EIS, the expansion at Gary/Chicago International Airport and the Proposed Action are separate and unconnected actions.

A non-binding four-party preliminary memorandum of understanding (PMOU) was signed by Gary/Chicago International Airport, EJ&E, CSX, and Norfolk Southern (NS) on June 27, 2008. The PMOU provides a framework to address relocation of the EJ&E rail line, construction of a bridge over the existing NS Gary Branch, and construction of a grade-separated crossing at Industrial Highway. The Applicants will be required to follow the terms of this agreement and by doing so eliminate any possibility of adverse effects on the airport due to the Proposed Action.

3.4.6.4 Construction Impacts on Transportation

Summary

Commenters referenced the need to address the effects that would accompany the construction of mitigation. They also voiced concerns that these effects would cause delays to motorists.

Response

Construction of mitigation measures would use traditional construction and traffic control methods that minimize traffic disruptions and other temporary effects during construction. The mitigation measures would provide more benefits in the long term than the relatively short term and limited additional delays that construction may cause.

3.4.6.5 Transportation Analysis Methodology

Summary

Commenters questioned the validity of the methodology used in developing the Draft EIS. Several stated that it did not adequately address delays, increasing traffic, longer trains, and slow-moving trains.

Response

As described in the EIS, SEA developed analytical means and methods to evaluate effects on local, regional, and national transportation systems. The intent of these techniques is to identify the effect of only the Proposed Action, not to characterize existing operating conditions of roadways crossed by the railroad under analysis. Analysis of existing conditions is performed only to establish a baseline for determination of effects.

SEA's methodology is an effective analytical approach that is based on methodology used by SEA in previous proceedings. In addition, SEA undertook an extensive scoping process and modified the methodologies to be responsive to case-specific concerns. The extent of development along the EJ&E rail line and resulting vehicle traffic congestion caused SEA to add other analyses to those used on previous studies to fairly evaluate the effects of the Proposed Action.

SEA and the Federal Highway Administration (FHWA) developed methods for determining the significance of calculated effects. SEA estimated the vehicle delays at highway/rail at-grade crossings using the level of service (LOS) concept developed for signalized intersections, as documented in the Transportation Research Board's *Highway Capacity Manual* (HCM) (2000). Use of HCM signalized intersection procedures is acceptable to estimate highway/rail at-grade crossing delays for the following reasons: 1) there is no similar measure of efficiency for highway/rail at-grade crossings, and 2) signalized intersection operations and highway/rail at-grade crossing operations are similar.

SEA determined roadway LOS by examining the vehicles per day (vpd) on the roadways that cross the rail lines via highway/rail at-grade crossings. The daily capacity per lane was derived from the methodology stated in the HCM (Transportation Research Board 2000). FHWA has published criteria in the *Railroad-Highway Grade Crossing Handbook* stating that highway/at-grade railroad crossings experiencing more that 2,400 minutes of total delay should be evaluated for grade separation (FHWA 2007). The FHWA thresholds were applied in at least one previous SEA study of the Bayport Loop connection in Harris County, Texas. These HCM and FHWA methods were combined to determine the effects of the Proposed Action and were used to identify the crossings evaluated for mitigation. Section 4.3 and Appendix E of the Draft EIS describe how these methods were used.

Appendix E of the Draft EIS describes analysis methods, the calculations prepared, and the results of those calculations. Data used in the analysis are the most up-to-date values available as of the date of publication of the Draft and Final EIS. Federal, state, and local agencies for the most recent traffic count data. SEA obtained existing roadway and railway crossing condition information from the FRA database and supplemented it with field visits by study personnel. SEA obtained data describing the number of trains, average train length, and average train speed from CN. SEA reviewed, verified, and, as appropriate, adjusted the CN train operation data. SEA believes that the rail operations data used in the EIS provides an appropriate basis of analysis.

The SEA analysis includes a forecast of future conditions to the year 2015 for the Proposed Action. During the scoping process, SEA determined after external public comments that 2015 was an appropriate time horizon.

SEA prepared year 2015 forecasts for the study highway/at-grade railroad crossings by factoring available traffic counts. The process used to factor counts is described in Section 4.3 and Appendix E of the Draft EIS.

SEA received a broad range of comments regarding the analysis methodology and results. Some commenters expressed concern that analysis results were too conservative and that more at-grade crossing locations should have been designated as substantially affected. Other commenters felt that the analysis was too rigorous and identified many more crossings for mitigation than typically justified.

Chapter 2 of this Final EIS lists the substantially affected crossings identified through this analysis, and Chapter 4 describes the mitigation actions required. SEA did not propose mitigation for every seriously affected crossing.

Design Vehicle Length

A commenter noted that there are several types of vehicles on the roads, including buses and trucks, that are much longer than the 25 feet assumed in the Draft EIS. The commenters were concerned that the lengths used to calculate the vehicle lengths were understated.

Response

A design vehicle is a single, imaginary vehicle of specified dimensions and properties that is used in design applications to include all vehicles on the road and to estimate real-life conditions in a simplified manner. The design vehicle can be thought of as "the average vehicle" found traveling on the road. The American Association of State Highway and Transportation Officials' (AASHTO) publication *A Policy on Geometric Design of Highways and Streets: 2004* classifies the overall length of the passenger car design vehicle as 19 feet. However, it is standard traffic engineering practice to assume a design vehicle length of 20 feet to be conservative. SEA assumed a design vehicle length of 20 feet for all queue length calculations.

Headway is defined in this application as the distance between the rear bumper of a leading vehicle and the front bumper of a trailing vehicle in a queue, or essentially the space between the two vehicles. It is standard traffic engineering practice to assume a headway of 5 feet in a stopped queue of vehicles. SEA assumed a design headway of 5 feet for all queue length calculations. Using a design vehicle length of 20 feet and a design headway of 5 feet, SEA multiplied the number of vehicles in each queue by 25 feet to estimate the total length of the queue.

Timing of Traffic Data Collection

A commenter stated that traffic counts at highway/rail at-grade crossings were undercounted and did not include rush hour traffic.

Response

SEA collected all of the data used in transportation system analyses from appropriate governmental sources, including FRA, IDOT, and local counties and towns. In response to comments, SEA collected supplemental IDOT data for the Barrington area in early September 2008.

Additional Study for Barrington

A commenter stated that a traffic simulation in Barrington was essential to come up with reasonable mitigation and that there should be more than one substantially affected crossing in Barrington. In addition, other traffic studies have been done for Barrington, and the EIS should use them.

Response

SEA used available studies and data to conduct its analysis; the studies referenced by the commenter were initiated after SEA finalized the scope of the EIS and after many of SEA's transportation studies were already complete. In response to comments on the Draft EIS, SEA has conducted additional traffic modeling to assist in the analysis of potential mitigation measures in Barrington. Results of this analysis are included in Chapter 2 of this Final EIS; SEA's recommended mitigation strategies are discussed in Chapter 4 of this Final EIS.

Peak Hour Vehicle Queues

A commenter stated that queue lengths shown in the Draft EIS should reflect peak hour traffic volume. The commenter felt that queue lengths shown in the Draft EIS were quite understated.

Response

Queue lengths were calculated using a projected peak-hour volume of 10 percent of daily traffic. Actual hourly traffic counts were not available for all of the highway/rail at-grade crossings; therefore, the 10 percent factor was applied to maintain uniformity in the analysis of all crossings. A peak hour estimate was generated to determine the potential of effects from traffic vehicle queues. The use of 10 percent for determining the peak hour traffic is based on decades of extensive traffic engineering observations throughout the country, including the Chicago area. Typical rates are between 8 percent and 10 percent; therefore, SEA used a more conservative approach. Also, this approach uses the average volume; therefore, it is expected that seasonal and daily variations would result in some observations of longer queues and some shorter queues than those expressed in the Draft EIS.

2015 Analysis Horizon

Commenters believed a longer planning horizon should be considered because the effects of the Proposed Action will last beyond 2015.

Response

During the scoping process, SEA evaluated the analysis horizon for the Proposed Action and, after considering all of the scoping comments, determined that 2015 is appropriate. Section 2.2.1.5 of the Draft EIS discusses the reasons for this decision.

Indiana Data Compilation

A commenter stated that the Draft EIS analysis didn't identify the study data and results in a meaningful way for the state of Indiana. Specifically, the commenter said, "The Draft EIS does not adequately separate and distinguish Illinois safety and vehicle congestion/delay impacts from those in Indiana."

Response

The data compilation and analysis as documented in Section 2.5 of this Final EIS was assembled by crossing location using the best available data from the Federal Railroad Administration (FRA) database, the state or the local area, and Indiana data. The data compilation and analysis were assembled by crossing location and not by state. Highway/rail at-grade crossing data for Dyer, Schererville, Griffith, and Gary, Indiana are presented in Tables 4.3-4 and 4.3-5 of the Draft EIS. Highway/rail at-grade crossing data for Munster, Highland, Griffith, and Merrillville, Indiana, are presented in Tables 4.3-6 and 4.3-7 of the Draft EIS.

Traffic Growth in Plainfield

A Commenter feels traffic in Plainfield is getting worse and that the ADT used in the Draft EIS does not reflect this growth.

Response

Based on comments on the Draft EIS, SEA obtained 2008 ADT from IDOT for highway/rail at-grade crossings in Plainfield. These numbers reflect the growth that has taken place in the area. SEA performed new analysis for delays at the crossings to reflect the 2008 ADTs from IDOT. The result of the delay analysis is shown in Chapter 2, Section 2.5, of this Final EIS.

EMS Response Methodology

SEA received comments from residents stating that the Draft EIS methodology for assessing emergency response impacts is vague, makes arbitrary assumptions, and does not reflect actual emergency response times and service routes when highway/rail at-grade crossings are blocked.

Response

To determine the potential effects the Proposed Action would have on emergency services in communities within the Study Area SEA established screening criteria. SEA looked at the geographic location of emergency service facilities within 2.0 miles of the rail line and reviewed vehicular delays at highway/rail at-grade crossings within 2.0 miles of each facility. SEA selected this 2 mile radius because the further distance away from the rail line a facility is located, the more alternate crossing opportunities there are likely available. A facility's proximity to the rail line relates to the proportional effect the Proposed Action would potentially have on that facilities emergency response time. For example, if a facility is located 500 feet from the rail line on a roadway with a highway/rail at-grade crossing, it is most likely going to use that crossing (if not blocked) to respond to incidents on the other side of the rail line. If the crossing is blocked and a responder from that facility must then travel parallel to the rail line to a grade-separated crossing, cross over the tracks, and then head back to the other side of the rail line, the proportional effect to that facility's response time typically would be greater than that of the facility that is located 3 miles from the rail line that would travel towards the grade separation from its original destination.

A facility was considered potentially affected if it met established screening criteria and was then considered potentially substantially affected if it met more stringent screening criteria. These screening criteria were established to differentiate those facilities that will see substantial effects as a result of the Proposed Action from the approximately 600 facilities initially identified in the Study Area. A full discussion of the methodology used to analyze the effects on emergency response is provided in the Draft EIS (Section 4.3.3). SEA considered a facility to be potentially affected if it was farther than 1 mile from a highway/rail grade separation. SEA also used an increase of 30 seconds or more in average delay per delayed vehicle and 30 minutes or more for the total time during every 24-hour period that the crossing would be blocked because SEA believes that longer delays can potentially seriously affect emergency service response time. While these two measures may not directly reflect the exact emergency response time delays, they are conservative measures that identify if an emergency service vehicle could be delayed by more than 30 seconds at a crossing within its service area. Because the time and location of emergency incidents are unpredictable, emergency service routes and response times can vary widely. In addition, because of the variability in calls for emergency services and the inexact nature of train crossing times, an analysis estimating the effect of the Proposed Action on individual emergency response times is impractical.

SEA eliminated potentially affected facilities from the substantially affected list if there is a similar facility on the opposite side of the EJ&E rail line within a reasonable distance. While this does not account for emergency response staffing levels at any given time, facilities with staffing issues at sub-stations were identified through the Draft EIS comments, and further studies were conducted and documented in Chapter 2, Section 2.6 of this Final EIS.

As discussed in the Draft EIS, the Proposed Action would not result in a new rail line, but rather it would shift existing rail traffic from the CN rail lines to the EJ&E rail line. Most communities and their emergency service providers have developed with the awareness that the EJ&E rail line exists. Emergency service providers have adopted practices and procedures accounting for this rail line and the possibility that a freight train may block a highway/rail at-grade crossing.

Cicero Avenue LOS

Matteson, Illinois, states that its records indicate Cicero Avenue is operating at LOS C while the Draft EIS states that this roadway is operating at a LOS E or F.

Response

For the Draft EIS, SEA based its analysis on 2015 estimated ADT. As discussed in Section 2.5 of this Final EIS, SEA revised the travel demand estimates for Cicero Avenue in Appendix A of this Final EIS based on updated ADT information. With a 2007 ADT of 21,500 the roadway LOS is calculated to be E. The 2015 ADT is estimated to be 23,281—also resulting in an LOS of E.

SEA's LOS calculations are based on ADT and roadway characteristics and are not affected by train operations.

3.4.7 Comments on Hazardous Waste Sites

3.4.7.1 Hazardous Waste Sites

West Chicago, Illinois Hazardous Waste Sites and Blackwell Forest Preserve Landfill

A commenter was concerned about the impact of the Proposed Action on hazardous waste sites in the West Chicago and Pioneer Park areas. Another was concerned about effects from the Proposed Action on the Blackwell Forest Preserve landfill and DuPage River.

Response

SEA identified hazardous waste and hazardous materials (including petroleum products) spill sites near proposed construction sites and the EJ&E rail line. As a general guide, SEA focused on the area within or adjacent to areas potentially disturbed by Proposed Action-related construction activities. Typical railroad construction activities and operations are unlikely to disturb soils located 500 feet from the rail line and 1,000 feet from construction sites. For the hazardous waste sites analysis, SEA identified those sites that lie within 500 feet of the existing EJ&E rail line (including Kirk Yard in Gary, Indiana, and East Joliet Yard in Joliet, Illinois). In instances where hazardous waste spills occurred, potentially resulting in a migrating groundwater plume, sites more than 500 feet away were included in the assessment as they could potentially affect railroad construction activities. Based on these review criteria, SEA concluded that the Proposed Action and associated construction would not adversely affect the West Chicago and Pioneer Park areas, nor would it adversely affect the Blackwell Forest Preserve and DuPage River areas.

Existing Hazardous Waste Sites

Several commenters were concerned about potential effects from increased train traffic on nearby hazardous waste sites.

Response

SEA concluded that increasing traffic would not impact nearby hazardous waste sites. The passing rail traffic would not cause any disturbances that would mobilize any of the hazardous substances within those sites.

3.4.7.2 Hazardous Waste Sites Methodology

Tri-County Landfill

A commenter was concerned that a cumulative or additive risk analysis was not performed to determine the effect of the combination of identified waste sites, in particular the Tri-County Landfill site, and the effects of the Proposed Action.

Response

The Tri-County Landfill was identified during SEA's review of hazardous waste sites in preparation of the Draft EIS. In November 2000, the U.S. EPA approved a completed remedial action for this site, saying, "A five year review was completed in August 2004 and found that the remedy at the site is protective of human health and environment, and exposure pathways that could result in unacceptable risks are being controlled as long as the institutional controls and operation and maintenance activities are maintained." SEA has determined that the Proposed Action would not result in substantial effects on this site.

3.4.7.3 Other Comments on Hazardous Waste Sites

Underground Pipelines

One commenter expressed concern regarding the impact of increased train traffic on underground gas pipelines and the toxic materials that they carry.

Response

SEA has determined that train vibration should not present any potential for damage to the pipelines. Underground structures such as pipelines and tunnels that are constrained by the ground around them are not particularly prone to damage from ground vibration. In fact, these pipelines can generally withstand substantially higher vibration than typical buildings (Dowding 2000) because the surrounding soil acts to limit deflections and strains in pipelines.

3.4.8 Comments on Land Use

3.4.8.1 Existing Land Use

Incompatible Land Uses

Many commenters said that residential land use directly backs up to the railroad tracks in some areas. According to the commenters, builders and community planners allowed homes to be built within yards of the rail line. They said that in one area houses are 300 feet from the rail line. In certain areas, development along the EJ&E rail line is primarily large, single-family residential homes.

Commenters stated that the land would not have been developed for residential use if developers had been aware of the Proposed Action.

Commenters stated that rail traffic should go through designated urban areas where infrastructure is already in place and the land use is primarily industrial. They said that communities along the EJ&E rail line are not designed to accommodate the additional freight traffic under the Proposed Action. For example, commenters noted that Barrington was not developed with this much freight train traffic in mind. In their minds, Barrington is a residential community and not a railroad yard. Their thought is that the communities along the EJ&E rail line are strong residential communities that provide safe havens for many families. In considering the current location of residential land use, the retail development is located on the opposite side of the tracks; therefore, the Proposed Action in their view, could potentially require new retail destinations.

Commenters in communities along the EJ&E rail line were surprised that communities along the CN lines in the area are supporting the shift in rail traffic, since their communities and economics are dependent upon the railroad infrastructure.

Response

The EJ&E rail line is an existing line that transports freight. Land use patterns for communities, such as Barrington, Illinois, have been established through zoning and land use plans that include the existing EJ&E rail line. The proposed increase in train traffic would not change the land use patterns currently outlined in the zoning or land use plans for the communities along the EJ&E rail line. Section 2.8, Property Values, of this Final EIS provides additional information about residential property affects, an important component of local land use.

Land Use Along CN Rail Lines

Commenters stated that the CN rail lines currently span Chicago's urban areas and extend through many suburbs and into rural areas outside of the EJ&E arc. Commenters understand that the railroad infrastructure currently exists because the EJ&E rail line is already in place, constructed, and currently used for freight rail transport, although they stress that the land use developed inside of the EJ&E arc is, for the most part, more compatible for railroad use.

Response

In Section 4.5 of the Draft EIS, SEA analyzed the consistency of the proposed construction and changes in rail operations with available and approved land use plans of local municipalities. None of the existing or future land use plans SEA reviewed assumes that the EJ&E rail line would be removed. Illinois, Chicago, the rail industry, and Metra have developed regional transportation plans to upgrade and improve the Chicago region's rail transportation network to improve current freight mobility needs and to plan for anticipated growth. Therefore, the proposed improvements are consistent with these larger, regional transportation plans. The EJ&E rail line ROW contains an active rail corridor that has historically been used for freight. The continued use of the EJ&E rail line is consistent with local and regional plans because the rail corridor is shown on the existing and future land use plans.

Barrington Area Existing Land Use

Commenters within the community of Barrington Hills, several residential areas are adjacent to the EJ&E rail line.

Response

Section 3.5.1 of the Draft EIS documented the existing land uses in Barrington Hills and other northwest Cook County communities. The EJ&E rail line ROW contains an active rail corridor that has historically been used for freight. The continued use of the EJ&E rail line is consistent in that the rail corridor is shown on Barrington Hills' land use plans.

Development near a Rail Line

Commenters said that "communities such as Barrington, Illinois, and Aurora, Illinois, developed into their current form and design with an expectation and understanding of what they could expect of the freight line traffic volumes on the EJ&E rail line." As these towns developed and adjusted toward the needs of the residents, these communities have dealt with the current freight train traffic volumes. Considering these towns are fully developed, relatively little notice or opportunity to adjust accordingly has been given to prepare for the Proposed Action.

Response

The EJ&E line ROW contains an active rail corridor that has historically been used for freight and communities have grown up around the rail line. The EJ&E rail line has been in existence for more than 120 years, and the communities along the EJ&E rail line have allowed the development of properties adjacent to the rail line for uses deemed consistent with a freight rail line. Land use patterns for development along the EJ&E rail line have been established through zoning and land use plans. Purchasing and developing land adjacent to a rail line is always subject to effects from a potential change in operations, such as an increase or decrease in rail traffic. In Section 4.5 of the Draft EIS, SEA determined that the continued use of the EJ&E rail corridor for rail operations contemplated by the Proposed Action is consistent with existing local and regional plans because the rail corridor is shown on the plans.

Existing Land Uses in Aurora, Illinois

Comments from residents of subdivisions adjacent to the rail line, specifically Aurora's Oakhurst subdivision, expressed concern that a "foreign" company was trying to move hazardous material and would cause more traffic delays. Residents said they have committed themselves to this area's growth, and suffered through past road construction and significant tax increases in the recent years.

Response

SEA researched land use in Section 3.5.1 of the Draft EIS and determined that a portion of the land adjacent to the EJ&E rail line in Aurora is residential. As part of the Proposed Action, the Applicants would construct additional double track within the existing EJ&E ROW. Residential land will not be taken and used for transportation uses. Section 3.5.1 of the Draft EIS reviews the existing land uses in Aurora, and Figure 3.5-4 in the Draft EIS illustrates the Aurora-designated residential, industrial, commercial, institutional, and open space land uses adjacent to the EJ&E rail line. Section 2.8.3 of this Final EIS includes estimates of the Proposed Action's effects on residential property values and property tax revenues.

3.4.8.2 Planned Development and Development Trends

Lack of Community Planning in Aurora, Illinois

Commenters from the "far western suburbs" in Aurora said they consider their community to have evolved and grown immensely without proper planning for any additional rail traffic.

Response

Aurora has steadily grown to become the second largest city in Illinois and has revised its General Land Use Interim Plan six times in the last nine years. Development trends indicate that growth and development will continue with or without the Proposed Action. Land use patterns have been established through zoning and land use plans that include the EJ&E rail line. The increased train traffic along the EJ&E rail line would not change zoning codes or land use plans that are the basis for growth and development. The Proposed Action would not require the Applicants to acquire any land outside of the EJ&E ROW in Aurora. Therefore, development could continue as planned in the General Land Use Interim Plan with residential land use adjacent to the rail line. The EJ&E ROW contains an active rail line corridor that has been historically used for freight. Section 3.5 of the Draft EIS discusses the growth in communities along the EJ&E rail line.

Barrington Development

Commenters generally mentioned development within the community of Barrington, Illinois and asserted that Barrington existed as a distinct town before the EJ&E rail line was built and that, in time, as the EJ&E rail line arrived, Barrington built its entire community, including its schools, its hospitals, and its access to emergency services, based on the current levels of rail traffic.

Response

The Chicago and Northwestern railroad was constructed in 1854. Barrington was incorporated in 1873, and the EJ&E rail line was constructed in 1890. Since that time, Barrington has developed around both rail lines, and there has always been some rail traffic in Barrington. Traffic volumes on the EJ&E rail line have varied over time, and there has been no guarantee that existing volumes would be maintained in the future.

New Lenox Growth

Residents from New Lenox, Illinois commented on the immense amount of growth south of the EJ&E rail line in the last 10 years.

Response

SEA addressed growth in Will County and New Lenox, Illinois in Section 3.5 of the Draft EIS.

Development Around the EJ&E Rail Line

Commenters said that towns located on the existing EJ&E rail line, such as Aurora, Illinois, would be irreversibly harmed by the Proposed Action, and certainly share the same concerns as many other communities regarding future development. Residential lots have been developed and homes have been sold, but many vacant lots remain unsold. The commenter stated that it is not possible to change the land plan or the future use of the property adjoining the railroad. Commenters suggested that the evaluation of the effects from this proposed increase in train traffic on planned land uses is not adequate and cited some specific examples where planned developments have been affected.

Response

SEA analyzed development trends to determine potential effects the Proposed Action would have on communities along the EJ&E rail line. Some developers may choose to re-evaluate or alter their projects, as would be the case in any market. However, development trends overall indicate that growth and development will continue with or without the Proposed Action. The EJ&E rail line has been in existence for more than 120 years and the communities along the rail line have allowed the

development of properties adjacent to the rail line for uses deemed consistent with a freight line. Land use patterns have been established through zoning and land use plans, and the increased train traffic along the EJ&E rail line would not change zoning codes or land use plans that are the basis for growth and development.

New Lenox, Illinois Growth Potential

Commenters stated that CN's purchase of the EJ&E rail line would sever the growth potential of New Lenox, Illinois. They expressed concern that the Proposed Action would negatively affect future land use.

Response

As noted in Section 3.5.2.4 of the Draft EIS, as regional growth continues to spread through Will County, rural areas, particularly those near small towns like New Lenox, will be under increasing development pressure. Therefore, SEA determined in Section 4.5 of the Draft EIS that the Proposed Action would not directly affect development or development trends. In addition, land use patterns have been established through zoning and land use plans; the increased train traffic along the EJ&E rail line would not change zoning codes or land use plans that are the basis for growth and development.

Matteson, Illinois Redevelopment

Commenters stated that the community of Matteson has been working to revive the area and the Proposed Action would make the community less desirable

Response

As noted in Section 4.5 of the Draft EIS, SEA determined that the Proposed Matteson Connection would not be consistent with Matteson's land use plans. Both the Revised Matteson Connection and the Proposed Matteson Connection would require the Applicants to acquire some industrial, residential, and vacant land and convert that land use for railroad use. However, because current land use in this area is generally industrial, conversion of land uses immediately adjacent to the Revised Matteson Connection to transportation use is not anticipated to decrease the potential for redevelopment within Matteson.

Process & Purpose of Determining Impacts

Commenters were concerned about future CN and EJ&E railroad expansion plans and the potential to affect communities in the future.

Response

The EJ&E rail line has been in existence for more than 120 years and communities along the rail corridor have allowed development of properties adjacent to the rail line for uses deemed consistent with a freight line. These communities will continue to regulate development in the areas adjacent to the railway as they always have. CN and other railroads may decide to change rail traffic volumes in the future outside of the Proposed Action.

Powers of Eminent Domain

Commenters inquired if eminent domain could be used to enforce CN's objectives if CN decides to expand.

Response

If the Proposed Action were approved, CN would be responsible for obtaining the land needed to construct the desired connection. If land necessary for a particular connection were not available to CN, then CN would have to select another alternative or forgo the connection. A railroad's ability to exercise its powers of eminent domain is specific to each situation or case. Railroads can and do modify their rail infrastructure in response to market demands. The Draft EIS evaluated the Proposed Action, including all reasonably foreseeable expansion plans.

3.4.8.3 Land Use Patterns

Commuter Parking Lot at the Proposed Matteson Connection

Commenters were concerned about the effects of the proposed Matteson connection on the commuter parking lot parcel.

Response

As discussed in Section 4.6 of the Draft EIS, SEA determined that the proposed Matteson connection would require the Applicants to acquire approximately 3 acres of Park Forest's commuter parking lot parcel at Metra's Matteson station. SEA determined that Park Forest and Metra will lose approximately 20 parking spaces based on proposed construction limits provided by the Applicants.

Sensitive Land Uses near the East Siding to Walker Double Track

Commenters noted that land uses along the East Siding to Walker double track consist of 20 percent residential and 20 percent parks and open space. These land uses are sensitive to the noise and vibration that would accompany increased rail traffic on the EJ&E rail line.

Response

In Section 3.5 of the Draft EIS, SEA noted that the land use at the northern end of the East Siding to Walker double track varies between vacant and open space uses. South of East New York Street, the west side of the EJ&E rail line is residential interspersed with open space and institutional uses.

Section 4.10 of the Draft EIS included SEA's analysis of noise and vibration effects associated with the Proposed Action. In accordance with the Board's environmental regulations, SEA's noise analysis identified noise-sensitive receptors predicted to experience a 3-decibel increase and an Ldn of 65 dBA or greater. Undeveloped lands are not included in the list of noise-sensitive land uses in the Board's environmental regulations. However, use of noise and vibration contour lines overlaid upon digital aerial photography in Appendix L of the Draft EIS, allows a visual confirmation of whether specific undeveloped lands are predicted to experience an Ldn of 65 dBA or greater or a vibration impact as defined by the Federal Transit Administration.

In response to public comments, SEA revised several of its noise analyses; the results are presented in Section 2.11 of this Final EIS. In addition, SEA performed a noise mitigation analysis to assess the potential reasonability and feasibility of mitigation. SEA's recommended mitigation measures are presented in Section 4.4 of this Final EIS.

Frankfort, Illinois Land Use

Commenters noted that Frankfort, Illinois has nine residential subdivisions located adjacent to the EJ&E rail line.

Response

SEA identified residential subdivisions in Frankfort, Illinois, as part of its research on the existing land uses in the Study Area. Residential areas along the EJ&E rail line in Frankfort are shown in Figure 3.5-6 of the Draft EIS.

Residential Areas in New Lenox, Illinois

Commenters in New Lenox, Illinois, near the proposed East Joliet to Frankfort double track stated that the Proposed Action would affect the adjacent residential land. When the residences were built, they were built under the assumption that the rail traffic would remain constant and not increase. The volume of rail traffic was minimal when homes were built along the rail line, and residents are concerned about the heavier volumes of trains on the EJ&E rail line.

Response

The Applicants are proposing an increase in rail traffic volume; however, the EJ&E rail line has existed as an active rail corridor during the development of land in New Lenox. The East Joliet to Frankfort double track would not involve construction outside of the EJ&E ROW; therefore, SEA determined that the double track would not directly affect adjacent land uses.

Land Uses at Naperville Highway/Rail At-Grade Crossings

The commenter stated that the land use under the grade crossings in Naperville is suburban industrial. The Haffenrichter, Wolf Crossing, and 111th Street highway/rail at-grade crossings were mistakenly included in the Plainfield area and should be revised in this Final EIS to include the above mentioned crossings and associated residential land use in the appropriate section when discussing Naperville.

Response

As shown in Figure 3.5-4 of the Draft EIS, SEA identified the land uses surrounding the East Siding to Walker double track, which includes the Haffenrichter, Wolf Crossing, and 111th Street crossings. SEA obtained land use data from CMAP, and updated the existing land uses to reflect existing conditions; the existing land uses are primarily residential, agricultural, and industrial. SEA recognizes that the municipal boundaries of rapidly expanding towns, such as Naperville and Plainfield, can change. Because the East Siding to Walker double track would not require the acquisition of new ROW, SEA chose to use the municipal boundaries CMAP provided.

3.4.8.4 Consistency with Existing Land Use Plans

Adjacent Land Uses

Commenters were concerned about the Proposed Action's potential effects on adjoining land uses. The tracks abut a wide variety of land uses, including residential areas, and commercial centers, and increased rail traffic is anticipated to adversely affect their physical characteristics as well as existing plans to improve these areas.

Response

Based on the information gathered for Section 3.5 of the Draft EIS, SEA analyzed the extent to which the Proposed Action would be consistent with existing and future land use plans of local municipalities. All of the plans reviewed assumed that the EJ&E rail line would continue to remain in use. Region-wide transportation plans by the State of Illinois, City of Chicago, the rail industry, and Metra have been developed to upgrade and improve the Chicago region's rail transportation

network, to improve current freight mobility needs, and to plan for anticipated growth in the future; the proposed improvements are consistent with this larger region-wide transportation plan. The EJ&E rail line ROW contains an active rail corridor that has been historically used for freight. The continued use of the EJ&E rail corridor is consistent in that the rail corridor is shown on the land use plans.

The new segments of double track would be constructed within the existing EJ&E ROW and would not physically change adjacent land uses. As described in Section 4.5 of the Draft EIS, SEA determined that construction of the new connections would change adjacent land uses in the following locations.

- Pratt's Wayne Woods Forest Preserve (Munger Alternative–Original Proposal and Munger Alternative–Northwest Quadrant)
- Unincorporated Kane County near Wayne (Munger Alternative–UP Connection)
- Matteson, Illinois (Revised Matteson Connection and Matteson Alternative–Northeast and Southwest Quadrants)

Potential for Residential Development

Commenters said that the projected increase in trains would adversely affect land uses adjacent to the EJ&E rail line. For example, they stated that areas planned or approved for residential and other land uses may not be viable any longer because of the increase in freight trains, as well as overall quality of life issues. Commenters stated that the Proposed Action would continue to adversely affect current and future land uses and the physical character of the adjoining land. They said the 400 percent increase in freight traffic would make areas planned or approved for residential and other uses no longer viable projects, "plus our current road infrastructure cannot handle the vehicular traffic congestion which will be created by this large of an increase in rail traffic."

Response

SEA analyzed the consistency of the proposed changes in rail operations under the Proposed Action, with available and approved land use plans of local municipalities. Region-wide transportation plans by the State of Illinois, City of Chicago, the rail industry, and Metra have been developed to upgrade and improve the Chicago region's rail transportation network to improve current freight mobility needs and plan for anticipated growth; therefore, the proposed improvements are consistent with this larger region-wide transportation plan. The EJ&E rail line ROW contains an active rail corridor that has been historically used for freight. The continued use of the EJ&E rail corridor is consistent in that the rail corridor is shown on land use plans. The EJ&E rail line has been in existence for more than 120 years and the communities along the EJ&E rail line corridor have allowed the development of properties adjacent to the rail line for uses deemed consistent with a freight line.

Development trends indicate that growth and development will continue with or without the Proposed Action. Land use patterns have been established through zoning and land use plans and the increased train traffic along the EJ&E rail line would not change zoning codes or land use plans that are the basis for growth and development.

Effects from Double Track Construction

One commenter noted that double track construction would reduce the existing space between tracks and home and would "destroy existing yards."

Response

As discussed in Section 2.2 of the Draft EIS, all double track construction would remain within the existing EJ&E ROW. Therefore, new segments of double track would not affect existing yards.

Consistency with Marquette Plan

One commenter stated that the Proposed Action would conflict with the Marquette Plan.

Response

In response to public comments, SEA reviewed the Marquette Plan to determine if the Proposed Action would be consistent. The Marquette Plan includes the U.S. Steel property, which contains Kirk Yard, and identifies the overall property as a "potential reuse opportunity" to augment public-access shoreline along Lake Michigan.

Within the vicinity of the Marquette Plan's study area, the Proposed Action includes improvements inside Kirk Yard. Because Kirk Yard is a currently functioning rail yard that does not border on Lake Michigan and the Proposed Action would not affect areas outside of Kirk Yard, SEA has determined that the Proposed Action would be consistent with the Marquette Plan.

Lack of Consistency with Matteson Planning

As noted in the EIS, the proposed Matteson connection is not consistent with Matteson's land use or zoning plans.

Response

As discussed in Section 4.5 of the Draft EIS, SEA determined that the proposed Matteson connection would not be consistent with the Matteson land use and zoning plans because the Applicants would acquire new ROW from residential and open space areas. In addition, SEA determined this alternative would not be consistent with Matteson's current zoning. SEA reevaluated the potential effects from this alternative based on the Applicants' Revised Matteson Connection involving modifications to the construction footprint and determined that, while the Revised Matteson Connection would not be consistent with the existing residential land use, it would be consistent with the existing industrial land use and Matteson's zoning. The results of SEA's analysis are presented in Chapter 2 of this Final EIS.

Consistency with Lake Zurich Planning

Commenters stated that the projected increase in trains would negatively affect the land uses adjacent to the rail line in Lake Zurich, Illinois. For example, areas planned or approved for residential and other land uses may not be viable any longer because of the significant increase in freight trains. Additionally, commenters stated that the Proposed Action would continue to adversely affect current and future land uses and the physical characteristics of the adjoining lands in their community.

Response

SEA analyzed development trends, land use plans, and current zoning to determine potential effects the Proposed Action or associated construction would have on communities along the EJ&E rail line. The EJ&E rail line has been in existence for more than 120 years and communities have allowed the development of properties adjacent to the rail line with uses that have adapted to a freight rail line. Development surrounding downtown Lake Zurich is considered well-established and fully developed. No construction would occur within Lake Zurich and adjacent properties could be developed

according to current zoning and land use plans. Therefore, SEA has determined that the Proposed Action would not affect Lake Zurich's land use plan, development, development trends, or zoning. Section 4.5 of the Draft EIS presents SEA's land use analysis.

3.4.8.5 Consistency with Existing Zoning Regulations

Existing Densities and Zoning

Commenters stated that, based on current residential and commercial densities and zoning, construction of the west-east portion of the rail line should not be allowed.

Response

Based on the information gathered for Section 3.5 of the Draft EIS, SEA analyzed the extent to which the Proposed Action would be consistent with zoning of local municipalities. The Proposed Action includes the construction of double track between East Joliet, Illinois, and Frankfort, Illinois, in Will County.

SEA analyzed the consistency of the proposed changes in rail operations with available and approved land use plans and zoning maps of local municipalities. Region-wide transportation plans by the State of Illinois, City of Chicago, the rail industry, and Metra were also analyzed. SEA determined that this segment of double track would not affect current zoning in Joliet, New Lenox, Frankfort, or Mokena, Illinois.

Consistency with Future Zoning

Commenters were concerned that the aggressive business plans of CN would lead to aggressive growth within communities within the region and that current zoning/building codes would not allow for this.

Response

SEA analyzed the consistency with available and approved zoning plans of local municipalities. The only construction sites that are not consistent with the existing zoning are Munger Alternative - UP Connection and Munger Alternative - Northwest Quadrant. Development trends were also analyzed to determine any potential effects the Proposed Action or associated constructions sites would have on any communities. In Frankfort, because the construction of the double track would not require any new ROW, the development and development trends would not be directly affected.

The Draft EIS evaluated the Proposed Action, including all reasonably foreseeable expansion plans. SEA is not able to speculate on future construction not associated with the Proposed Action or what the impacts of the Proposed Action on that construction may be.

Consistency with Zoning in Aurora, IL

Aurora, Illinois, commented that the area surrounding the EJ&E rail line includes a planned development district, residential development, and areas zoned as parks and open space. The residential and parks and open space areas are sensitive to rail operations, and Aurora requested mitigation to address potential effects.

Response

By establishing these zoning designations adjacent to the EJ&E rail line, cities have made a determination that these land uses will be compatible with the EJ&E rail line as an existing land use,

or that there is a reason for them to be adjacent. SEA's recommended mitigation measures for local parks are presented in Chapter 4 of this Final EIS.

3.4.8.6 Prime Farmland

Frankfort, Illinois Prime Farmland

Frankfort, Illinois stated that the Draft EIS "failed to identify, delineate, and consider farmland soils and soils of statewide significance."

Response

As discussed in Section 4.5 of the Draft EIS, SEA reviewed the soil types for areas potentially affected by the proposed construction, including the proposed double track near Frankfort, Illinois. SEA's research indicated that while soils classified as prime farmland are located within the proposed construction area, construction would remain within the existing EJ&E ROW. Because construction would remain in an area not committed for agricultural use, SEA determined that the proposed double track would not affect prime farmland soils or soils of statewide significance near Frankfort, Illinois.

Wayne, Illinois, Prime Farmland

Commenters from Wayne, Illinois, are concerned about effects on farmland resources due to construction footprints and proposed rail connections.

Response

As discussed in Section 4.5 of the Draft EIS, SEA evaluated potential effects from the Proposed Action on prime farmland. SEA determined that the Munger-UP Connection would be constructed on prime farmland. The soils are classified as prime farmland and a portion of the connection footprint is zoned for agricultural use (Kane County 2007). SEA does not expect that construction of this connection would impair the long-term agricultural productivity of the potentially affected area. However, based on additional analysis of this alternative presented in Section 2.14 of this Final EIS, SEA recommends that this alternative for the Munger connection not be implemented if the Board approves the Proposed Action.

In addition, SEA has determined that the Proposed Action would not affect existing or future farm access.

3.4.8.7 Public Lands

Parks Close to the EJ&E Rail Line

Comments were mainly focused on local parks adjacent to the tracks. Forest preserve districts were concerned with their properties, especially those that back up to or surround the EJ&E rail line. Commenters were concerned with the many areas where parks are located less than a mile from the EJ&E rail line.

Response

SEA researched properties adjacent to the EJ&E rail line and proposed construction sites to identify potentially affected state parks, forest preserves, nature preserves, natural areas, resource-rich areas, local parks, trails, greenways, scenic corridors, and Land and Water Conservation Fund sites. The criteria SEA used to evaluate public lands is described in Section 4.5 of the Draft EIS. SEA determined that 22 local parks would experience proximity effects, such as increased noise levels,

under the Proposed Action. Additional analysis of public lands is presented in Chapter 2 of this Final EIS; SEA's recommended mitigation measures are in Chapter 4.

Local Parks in Mundelein, Illinois

Commenters noted that approximately 21 parks are located within a 3-mile radius of the EJ&E rail line and proposed Leithton Connection in Mundelein, Illinois.

Response

SEA researched properties adjacent to the EJ&E rail line and the Leithton Connection to identify potentially affected state parks, forest preserves, nature preserves, natural areas, resource-rich areas, local parks, trails, greenways, scenic corridors, and Land and Water Conservation Fund sites. SEA included public lands adjacent to the tracks, not within a 3-mile radius, because only adjacent properties would experience direct or proximity effects. SEA determined that no parks would be affected by the Leithton Connection.

Reed-Keppler Park in West Chicago, Illinois

One commenter noted that Reed-Keppler Park has 500,000 visitors annually that use it for recreation and special events.

Response

Reed-Keppler Park is identified as Reed Park in Section 3.5.5.9 of the Draft EIS. SEA determined that this park would experience minor proximity effects under the Proposed Action. SEA's recommended mitigation measures for park districts are located in Chapter 4 of this Final EIS.

Manville Oaks Park

Commenters noted that Manville Oaks Park was excluded from the Draft EIS. Manville Oaks Park is a 184-acre site located east of the EJ&E rail line across from Fermi Lab. Park management recently completed a master redevelopment plan. Commenters stated that they would anticipate at least 250,000 visitors to the park to attend concerts, play disc golf, attend sporting events, walk, jog, and bike. The West Chicago Parks District stated that Wilson Street, which runs through Manville Oaks Park in West Chicago, was vacated by Winfield Township and is not the property of the park district.

Response

Public comments indicate that Manville Oaks Park in West Chicago, Illinois, is an important community resource. Therefore, SEA verified that the park is adjacent to the EJ&E rail line and included it in the analysis of public lands. SEA evaluated potential effects on Manville Oaks Park; results are included in Chapter 2 of this Final EIS. SEA's recommended mitigation measures for park districts are located in Chapter 4 of this Final EIS.

Cuba Marsh Forest Preserve Information Correction

The Lake County Forest Preserve District stated that the Cuba Marsh Forest Preserve is not part of the Forest Preserve District of Cook County, as stated in the Draft EIS. Cuba Marsh is part of the Lake County Forest Preserve District.

Response

The Draft EIS incorrectly identified the Cuba Marsh Forest Preserve ownership as Forest Preserve District of Cook County. SEA verified that the preserve is in Lake County and included the corrected ownership information in Section 2.14of this Final EIS.

Resource Rich Areas

The Lake County Forest Preserve District stated that the Chain O'Lakes-Fox River Resource-Rich Area (RRA) is not adjacent to the rail line, nor is it in Cook County. Additionally, Illinois Beach Resource Rich Area is not in Cook County.

Response

Chain O'Lakes-Fox River Resource Rich Area covers a 447-square mile area located in Lake, McHenry, Cook, and Kane counties in Illinois and portions of the Chain O'Lakes-Fox River Resource Rich Area are adjacent to the EJ&E rail line. Illinois Beach Resource Rich Area covers a 77-square-mile area located in Lake and Cook counties in Illinois.

Night Heron Marsh Preserve Acreage

The Forest Preserve District of DuPage County noted that the acreage of the Night Heron Marsh Preserve was not presented correctly in the Draft EIS.

Response

SEA obtained GIS data for Figures 3.5-3 and 3.5-4 in the Draft EIS from CMAP and updated the data to reflect current land use. SEA has updated this acreage to include an additional 23 acres of land south of Liberty Street in Aurora, Illinois.

Coastal Zone Management Boundary in Illinois

One commenter noted that Illinois does have a coastal zone management boundary, although it has not been adopted yet, and it should have been included in the Draft EIS.

Response

SEA noted in Section 3.5.5.12 of the Draft EIS that Illinois' coastal zone management program is expected to be approved in 2008. In response to public comments, SEA researched the status of Illinois' coastal zone management boundary and found that Illinois currently anticipates approval of its program in 2009.

Commissioners Park in Frankfort, Illinois

Commenters noted that Commissioners Park is part of the Frankfort Park District. The park, which was not included in the Draft EIS, has a large recreation area with many activities for its visitors.

Response

Public comments indicate that Commissioners Park in Frankfort, Illinois, is an important community resource. SEA researched the location of the park and found that Commissioners Park is not adjacent to the EJ&E rail line. Therefore, SEA determined that the Proposed Action would not affect Commissioners Park.

Consideration of Pioneer Park Future Development Plans

Commenters indicated that Pioneer Park, which is a major hub park for the south side of West Chicago, Illinois, has a master plan to redevelop the existing park amenities, as well as redevelop the land adjacent to the EJ&E rail line. The park is expected to experience an increase in usage after redevelopment occurs in 2009.

Response

SEA identified Pioneer Park in West Chicago, Illinois, as adjacent to the EJ&E rail line in Section 3.5 of the Draft EIS. In Section 4.5 of the Draft EIS, SEA determined that the Proposed Action would result in proximity effects on Pioneer Park. CN's voluntary mitigation measures related to parks near the EJ&E rail line are presented in Section 4.3 of this Final EIS.

Declining Trail Use

Commenters said that the area is one of the top 100 cities in the United States for its outdoor education and the amount of recreational walking paths and biking paths. They said that lots of money has been spent on new parks which will lose their character due to increased train volumes. The amount of recreation on walking paths and biking paths will go down if the Proposed Action is approved. Commenters are concerned about declining usage of potentially affected trails if grade separations are not considered.

Response

In Section 4.5 of the Draft EIS, SEA determined that the increase in rail traffic on the EJ&E rail line would contribute to proximity effects on adjacent public lands, existing trails, greenways, and scenic corridors. Proximity effects are typically adverse increases in ambient noise levels or delays at points of access or at-grade crossings. However, no park land would be acquired for the Proposed Action.

SEA has also found that the Proposed Action would potentially increase the risk at pedestrian and recreational trail at-grade crossings because of the increased number of trains. SEA's recommended mitigation measures are presented in Section 4.4 of this Final EIS.

Illinois Prairie Path Accessibility

Users and residents living near the Illinois Prairie Path were concerned that the Proposed Action would discourage the use of this path. Commenters stated that availability of local bicycle paths was a key factor in their choice of Warrenville as a desirable place to live. They said that the Illinois Prairie Path is a key asset in the region, and the crossing of the EJ&E rail line (both north and south of the I-88 Tollway) is a grave concern. They also stated that the increase in rail traffic will adversely affect Illinois Prairie Path users because of increased rail traffic at trail/rail at-grade crossings. Already, these are unprotected at-grade crossings that are dangerous to navigate.

Response

As discussed in Section 4.5 of the Draft EIS, SEA determined that the Proposed Action would result in proximity effects on four segments of the Illinois Prairie Path (Elgin and Aurora Branches, Geneva and Batavia Spurs). SEA has also found that the Proposed Action would potentially increase the risk at pedestrian and recreational trail at-grade crossings of the EJ&E rail line because of the increased number of trains. SEA's recommended mitigation measures for trails are located in Section 4.4 of this Final EIS.

Public Lands

Commenters stated that there are more than 30 parks close to the EJ&E rail line that will experience increased levels of noise and vibration in addition to decreased air quality.

Response

In Section 4.5 of the Draft EIS, SEA determined that 22 local parks would experience proximity effects, such as increased noise levels, under the Proposed Action. As part of the Applicants' voluntary mitigation, consultation with the appropriate state, county, forest preserve district personnel, and trail managers would take place prior to construction activities, along with flagging of the ROW boundaries.

In response to concerns about localized air quality effects due to locomotive emissions, SEA has performed additional air quality analysis during preparation of this Final EIS. The additional analysis, described in detail in Section 2.8 of this Final EIS, shows that the changes in local air quality from moving and idling trains are minimal in comparison to the NAAQS, which have been established by U.S. EPA to protect public health and welfare, including protection against damage to animals and vegetation. The additional analysis in Section 2.8 of this Final EIS also shows that there would be minimal effects due to emissions of mobile source air toxics (MSATs) from locomotives.

DuPage County Areas

Commenters said that the Pratt's Wayne Woods Forest Preserve is protected open space that belongs to the people of DuPage County and there is nothing in Illinois law that permits the Applicants to take this, or any other, public property through eminent domain. One commenter also stated that a new higher speed curve on the EJ&E rail line at Stearns Road will further destroy the DuPage County Forest Preserve, where land would be required for the curve's installation.

Response

If the Proposed Action were approved, CN would be responsible for obtaining the land needed to construct the desired connection. If land necessary for a particular connection were not available to CN, then CN would have to select another alternative or forgo the connection. A railroad's ability to exercise its powers of eminent domain is specific to each situation or cause. The Draft EIS evaluated the Proposed Action, including all reasonably foreseeable expansion plans.

The Applicants have not proposed a new curve installation at Stearns Road.

Utilization of Local Parks by Children

Commenters said that the Proposed Action would put children at risk because many parks are practically on top of the EJ&E rail line, and children play close to the tracks. Also, the area's children utilize the many major hiking and biking trails that go through forest preserves. The commenters would like measures to offset the potential safety issues.

Response

Safety is addressed in Section 4.2 of the Draft EIS. In Section 4.5 of the Draft EIS, SEA determined that the Proposed Action would result in proximity effects on 22 local parks that are adjacent to the EJ&E rail line. As part of its voluntary mitigation, CN will work with park districts to provide fencing along the EJ&E ROW where parks are within 0.25 mile of the ROW. CN's voluntary mitigation measures are presented in Section 4.3 of this Final EIS.

Adverse Effects on Community

Commenters said that if they don't object to the Proposed Action, which will bring additional train traffic to the community and adversely affect the trails and parks, they would be doing a disservice to the community they work for and the community they live in.

Response

In Section 4.5 of the Draft EIS, SEA found that the Proposed Action would potentially affect recreational trail at-grade crossings because of the increased number of trains. SEA recommends that CN participate with the local agencies and trail proponents in an on-site diagnostic review of the locations of designated pedestrian and recreational trail at-grade crossings along the EJ&E rail line that would see an increase in train traffic under the Proposed Action. The purpose of the diagnostic review would be to examine the adequacy of the existing warning devices, and to prescribe appropriate remedies to improve safety for pedestrians and recreational trail users. SEA's recommended mitigation measures are presented in Section 4.4 of this Final EIS.

SEA also determined that the Proposed Action would result in proximity effects on 22 local parks. As part of its voluntary mitigation, CN would work with park districts to provide fencing along the EJ&E ROW where parks are within 0.25 mile of the ROW. CN's voluntary mitigation measures are presented in Section 4.3 of this Final EIS.

Four Seasons Park in Shorewood, Illinois

Four Seasons Park in Shorewood, Illinois, is adjacent to the EJ&E rail line.

Response

Four Seasons Park is located adjacent to EJ&E's Illinois River Line and the Proposed Action does not include any construction or changes in operations along this segment of track. Therefore, SEA did not include Four Seasons Park in the Draft EIS.

Tot Park in Griffith, Indiana

A 23-year resident of Griffith, Indiana, stated that Tot Park is a children's park located in Griffith. Other commenters were concerned about the effects of the Proposed Action on Tot Park because children use this park and adjacent fields on a regular basis.

Response

Tot Park in Griffith, Indiana, is identified in Tables 3.5-10 and 4.5-3 of the Draft EIS as adjacent to the EJ&E rail line. As discussed in the Draft EIS, SEA determined that the Proposed Action would not require the acquisition of any land from Tot Park. However, SEA also determined that the Proposed Action would result in proximity effects on Tot Park such as increased noise and access delays. CN has agreed to work with park owners/districts to provide fencing along the EJ&E ROW where parks are within 0.25 mile of the ROW. CN's voluntary mitigation measures are presented in Section 4.3 of this Final EIS.

Pratt's Wayne Woods Information Corrections

Table 3.5-11 in the Draft EIS incorrectly places Pratt's Wayne Woods in Cook County; it is located in DuPage County. The area of the forest preserve where the Munger Connection would be developed was purchased in 1969 using grant money from the U.S. Housing and Urban Development Grant Contract No. ILL OSA-76 (G).

Response

SEA has corrected the Land and Water Conservation Fund table to reflect that Pratt's Wayne Woods is located in DuPage County; the updated table is located in Section 2.14 of this Final EIS. SEA is required to research properties funded under the Land and Water Conservation Fund Act (Public Law 88-578; 16 USC 4601-4 et seq.) because Section 6(f) of the Act requires the Secretary of the Interior's approval to convert LWCF properties to non-recreational uses. The portion of Pratt's Wayne Woods purchased with LWCF grant money is not in the vicinity of any of the connection alternatives.

Local Parks in Aurora, Illinois

Commenters stated that effects on Aurora parks are greater than those represented in the Draft EIS. Commenters were concerned that seven parks would be affected (Frontenac Park, Clearwood Park, Andover Park, Middlebury East Park, McCarty Park, South Spring Lake, and Oakhurst Wetlands) and that trail, trail users, and educational programs would be adversely affected.

Response

As discussed in Section 4.5 of the Draft EIS, SEA determined that the Proposed Action would potentially affect Frontenac Park, Clearwood Park, Andover Park, Middlebury East Park, Waubonsee Creek Park, South Spring Lake, and Oakhurst Wetlands. Because McCarty Park is not located adjacent to the EJ&E rail line, SEA determined that this park would not be affected. No park land would be required for the Proposed Action. CN has volunteered to work with park districts to provide fencing along the EJ&E ROW where parks are within 0.25 mile of the ROW. CN's voluntary mitigation measures are presented in Section 4.3 of this Final EIS.

Des Plaines River Trail

Commenters were concerned about a recreational trail that crosses the EJ&E rail line at Old School Forest Preserve and runs along the rail line between the Old School and MacArthur Woods forest preserves. The commenters suggested that while current proposed railroad operations do not call for increased traffic in this area, the EIS should address any possible effects from the Proposed Action.

Response

SEA researched trails in the vicinity of the Old School and MacArthur Wood Forest Preserves; the Des Plaines River Trail is the recreational trail that connects the two forest preserves. SEA identified potentially affected trails, greenways, and scenic corridors as those that intersect or parallel proposed construction sites or segments of the EJ&E rail line that would experience increased rail traffic under the Proposed Action. Because the EJ&E rail line segment parallel to the Des Plaines River Trail would not see an increase in rail traffic, SEA determined that the Proposed Action would not affect this segment of the recreational trail.

Summerlakes Park in Warrenville, Illinois

Among the 22 parks located within 500 feet of the tracks, commenters indicated that Warrenville's Summerlakes Park is bordered by the EJ&E rail line. This park is used regularly throughout the spring and summer, hosting baseball tournaments for children from all around the state.

Response

In Section 4.5 of the Draft EIS, SEA determined that Summerlakes Park would experience proximity effects under the Proposed Action. In Section 4.4 of this Final EIS, SEA recommends that the

Applicants 1) notify trail managers during final design of construction that would affect trails; 2) provide safe alternate routes in the event of temporary trail closures; and 3) flag the ROW boundaries so that the ROW line is clearly distinguished. As part of the Applicants' voluntary mitigation, CN has agreed to work with park owners/districts to provide fencing along the EJ&E ROW where parks are within 0.25 mile of the ROW. CN's voluntary mitigation measures are presented in Section 4.3 of this Final EIS.

Local Parks in West Chicago, Illinois

One commenter indicated that the West Chicago, Illinois, community would be negatively influenced by the Proposed Action, with adverse effects on the parks. The West Chicago Park District stated that SEA should have coordinated with it prior to publishing the Draft EIS. Plans for future parks were not included in the Draft EIS.

Response

SEA's analysis of potential effects of the Proposed Action on parks is discussed in Section 4.5 of the Draft EIS. SEA researched the location of West Chicago parks on the park district website, as well as online aerial maps and available county and regional databases. Through these efforts, SEA determined which parks are adjacent to the EJ&E rail line. In Sections 3.5 and 4.5 of the Draft EIS, SEA identified Reed-Keppler Park and Pioneer Park in West Chicago as meeting these criteria.

SEA also contacted the West Chicago Park District to obtain information on planned parks and evaluate them for potential proximity effects. CN has agreed to work with park owners/districts to provide fencing along the EJ&E ROW where parks are within 0.25 mile of the ROW. CN's voluntary mitigation measures are presented in Section 4.3 of this Final EIS.

Sufficiency of Proposed Plans for the Munger and East Siding Connections

The Forest Preserve District of DuPage County felt that the Proposed Action preliminary plans and estimates of the potential area of ground disturbance were not reasonable to properly assess environmental effects at the Munger Connection and East Siding double track.

Response

The proposed alignments and construction limits provided by the Applicants for the Munger connection are conceptual design plans. These plans are typical for analysis in an EIS. If the Board approves the Proposed Action, the Applicants would move into more detailed preliminary and final design. At that time, the Applicants would develop more precise plans of alignments and construction limits. The calculations for the proposed Munger connection and land use conversion, as presented in Chapter 4 of the Draft EIS, Table 4.5-6, are a conservative basis for assessing the environmental effects of the proposed Munger connection.

Process for Preliminary and Final Design Plans

The Forest Preserve District of DuPage County commented that the level of design detail in the Proposed Action, especially the lack of design plans for the Munger connection, was insufficient to allow for a proper review of the Draft EIS.

Response

As part of the Applicants' submittal to the Board, they provided conceptual design alignments and a drawing on the proposed Munger Connection. Preliminary and final design plans are not available for review and typically are not completed before a decision is reached during the environmental

review process. All information provided by the Applicants for the proposed Munger connection was available for review and comment in the Draft EIS.

Forest Preserve Analysis Concerns

The full extent of the environmental effects, especially on sensitive forest preserves along the EJ&E rail line, has not been adequately studied.

Response

In Section 4.5 of the Draft EIS, SEA evaluated public lands in the Study Area, including forest preserves, nature preserves, resource rich and protected areas, land and water reserves, Land and Water Conservation Fund properties, and local parks and also existing and proposed trails, greenways, and scenic corridors to determine potential effects of the increase in daily rail traffic along the EJ&E rail line.

The increase in rail traffic on the EJ&E rail line would contribute to proximity effects on adjacent public lands, existing trails, greenways, and scenic corridors. Proximity effects are typically increases in ambient noise levels or delays at points of access or at-grade crossings.

Construction would directly affect the following public lands:

- The Pratt's Wayne Woods Forest Preserve would be directly affected by two of the Munger connection alternatives. The original proposal alternative would require 0.58 acre of new ROW from the Forest Preserve District of DuPage County. The Northwest Quadrant alternative would require 2.42 acres of new ROW from the forest preserve district.
- The Brewster Creek Fen and Nature Preserve would be directly affected by the Munger Alternative-UP Connection. This connection would require 3.03 acres from the private owner.

SEA's recommended mitigation measures for public lands are presented in Section 4.4 of this Final EIS.

Joliet Iron Works Trail Safety

A recreational trail crosses the EJ&E rail line at the Joliet Iron Works Historic Site; increased train traffic would render this trail/rail at-grade crossing unsafe. The site should be identified and evaluated for official pedestrian crossings. Trail users would experience long delays and cannot travel to an alternate route. User safety is also threatened.

Response

SEA researched trails at the Joliet Iron Works Historic site. According to the Forest Preserve District of Will County's trail map of the Joliet Iron Works Historic Site (available at http://www.fpdwc.org/trailmaps.cfm), none of the designated trails intersect the EJ&E rail line.

Washington Street Trail Continuity in Joliet, Illinois

A street connection between Washington Street and two regional trails (Old Plank Road Trail and Wauponsee Glacial Trail) would be affected by increased trains. Trail users would experience long delays and cannot travel to an alternate route. Also, user safety would be threatened.

Response

Washington Street is addressed in a special community agreement between CN and the City of Joliet, signed August 25, 2008.

Proposed Munger Preliminary Design

Commenters suggested that the proposed Munger connection would purchase a small wedge of the Pratt's Wayne Woods Forest Preserve with a moderate-radius curve. Because the forest preserve district commissioner stated that they would not sell or exchange property, CN has planned to go forth with a different design that includes a minimum-radius curve. They are concerned that bulldozers and heavy equipment can cause much more damage to property in cleaning up a derailment than anything else.

Response

The proposed Munger Connection is designed with a minimum-radius curve that requires trains to limit their speed around this curve to 10 mph. This design meets FRA and AAR design standards for a minimum curve radius rail connection and is considered a safe design. One of the Munger alternatives proposed in the Draft EIS, the original proposed Munger Connection, was designed with a moderate-radius curve that still limits the speed to 25 mph. This design is also engineered to rail safety standards. The original Munger connection was redesigned to a tighter curve connection (the proposed Munger Connection) as a result of SEA's coordination with the Forest Preserve District of DuPage County. The forest preserve district did not agree to forest preserve land being taken for railroad ROW with the original connection proposal. CN would operate trains within the designated speed for all sections of the track to avoid derailments. Therefore, the need for cleanups or other actions that could involve the use of heavy construction equipment that could damage forest property should not be necessary.

Dunham Marsh Forest Preserve

The resources of Dunham Marsh Forest Preserve have not been adequately assessed for direct, indirect, and cumulative adverse impacts. The Dunham Preserve's Master Plan was not evaluated in the Draft EIS.

Response

As discussed in Section 3.5 of the Draft EIS, the Dunham Forest Preserve is approximately 1,500 yards north of the new crossover proposed as part of the Munger Alternative-UP Connection; therefore, SEA determined that this forest preserve would not be directly affected. In response to public comments, SEA verified that the preserve is adjacent to the UP Line, reviewed the Dunham Preserve's master plan, and undertook additional analysis of the Munger Alternative-UP Connection. The results are presented in Section 2.14 of this Final EIS. Based on the additional analysis, SEA recommends that this alternative for the Munger connection not be implemented if the Board approves the Proposed Action.

Riley's Run in Bartlett, Illinois

A Commenter was concerned that the Draft EIS did not include mitigation for Bartlett's newest park, Riley's Run, opening in the new Castle Creek subdivision in 2009.

Response

Public comments indicate that Riley's Run in Bartlett, Illinois, will be an important community resource when it opens in 2009. Therefore, SEA verified that the park is adjacent to the EJ&E rail line and included it in the analysis of public lands. SEA evaluated potential effects on Riley's Run; results are included in Section 2.14 of this Final EIS. SEA's recommended mitigation measures for park districts are located in Chapter 4 of this Final EIS.

3.4.8.8 Visual Impacts

Northwest Cook County Visual Concerns

Commenters said that constructing a rail line over the at-grade roads would have a negative visual effect on historic communities. They said that overpasses would "totally deface lovely communities" and adversely affect adjoining lands. Residents of Deer Park and Barrington in northwest Cook County, Illinois, are concerned that the Proposed Action would "damage their landscape, countryside, and village."

Response

Recommended grade separations are discussed in Section 2.5 of this Final EIS. It is understood that when designing a grade separation between a roadway and a rail line, constructing the roadway over the rail line is generally less expensive and more commonplace. In locations where grade separations would be constructed if the Proposed Action is approved, CN would work with the appropriate jurisdiction to decide what design is most feasible for the intersection.

Grade-Separation Design Considerations

Commenters were concerned that when the mitigation is being developed, a railroad would be placed over a road, therefore causing adverse visual effects on the community.

Response

Recommended grade separations are discussed in Section 2.5 of this Final EIS. It is understood that when designing a grade separation between a roadway and a rail line, constructing the roadway over the rail line is generally less expensive and more commonplace. In locations where grade separations would be constructed if the Proposed Action is approved, CN would work with the appropriate jurisdiction to decide what design is most feasible for the intersection.

3.4.8.9 Land Use Methodology

Compliance with NEPA Land Use Regulations

One commenter stated that the Draft EIS failed to report on the overall community effects and how they vary across communities of different types of land uses.

Response

SEA prepared the land use analysis in compliance with the National Environmental Policy Act of 1969, as amended (NEPA), Council on Environmental Quality (CEQ) regulations, and the Board's regulations and implementing guidance. Section 3.5 of the Draft EIS provides a summary of conditions within the Study Area to allow the reader to understand the area and to better ascertain effects related to the Proposed Action. Because the Proposed Action extends across two states, five counties, and more than 60 communities, SEA chose to characterize general land use trends around

the EJ&E arc and to focus on specific land use effects at each of the proposed construction sites. SEA land use analysis is presented in Section 4.5 of the Draft EIS.

Planning Horizon

The Draft EIS projects data out to 2015 instead of 2030. Some of the long-term residents of Frankfort, Illinois, said they have seen it grow from a "farm-town" to part of suburbia.

Response

SEA has evaluated the analysis horizon for the Proposed Action and determined that 2015 is appropriate. A future horizon of 15 or 20 years is too long to produce reliable market demand information that affects the number of freight trains required to meet that demand. A horizon of more than 15 years would far exceed any time horizons used in prior Board proceedings. SEA's Final Scope of Study indicated that SEA intended to use year 2015 projections to analyze the potential effects of increased train traffic. SEA chose to use year 2015 projections because the 3 year projections in the Application would not provide enough data to ensure thorough consideration of potential traffic increases under the Proposed Action. See Section 2.2.1.5 in the Draft EIS for further details.

Public Lands Methodology

Some commenters referenced public lands miles away from the EJ&E rail line. Commenters inquired why some parks were included or excluded in the affected environment section of the Draft EIS.

Response

SEA identified public lands adjacent to the EJ&E rail line as part of the affected environment and then evaluated those adjacent public lands for potential effects. SEA recognizes that many public lands (including local parks) are located in the communities along the EJ&E rail line. SEA researched state parks, forest preserves, nature preserves, natural areas, resource-rich areas, local parks, trails, greenways, scenic corridors, and Land and Water Conservation Fund sites to determine which parks are adjacent to the proposed construction sites. SEA included public lands adjacent to the tracks because only adjacent properties would experience direct or proximity effects.

Determined Trails, Greenways, Scenic Corridors

Some commenters questioned the methodology and sources. They asked why some trails, greenways, and scenic corridors were included and others (including on-street bicycle routes) were not.

Response

SEA researched trails, greenways and scenic corridors that were identified on the 1997 Northeastern Illinois Regional Greenways and Trails Plan or listed in various community land use plans, including the South Suburban Mayors and Managers Association Bikeway Plan. For the analysis in the Draft EIS, SEA included the trails, greenways, and scenic corridors near the EJ&E rail line.

3.4.9 Comments on Socioeconomics

3.4.9.1 Population Demographics

General Demographic Comments

Commenters noted that the population density is greater within Chicago than along the EJ&E rail line and that the population in the outlying areas has grown during the past 20 years (Plainfield was cited as a fast-growing community). Income is lower than average in the area that would potentially benefit from the Proposed Action.

Response

The Draft EIS provides a summary of Study Area conditions (see Section 3.6) to help the reader understand the area and better ascertain effects related to the Proposed Action. SEA used available data to describe the Study Area and to evaluate the effects of the Proposed Action.

Section 3.6 of the Draft EIS describes the areas with rapid population growth as well as areas with slower growth. Population demographics are based on information from Federal, state, and local sources. Some portions of the Study Area have experienced a great deal of growth over the past five years and, in some instances, demographic data obtained from the 2000 U.S. Census may not accurately reflect current conditions. In these instances, U.S. Census data were used due to the lack of more current information. The Draft EIS shows that rail traffic would be diverted from the more densely populated areas inside the EJ&E arc to less densely populated areas along the EJ&E rail line.

Homes Adjacent to EJ&E Rail Line

A commenter noted that there are many homes adjacent to the EJ&E rail line.

Response

This information is consistent with data provided in the Draft EIS. Section 3.6 describes the social and economic conditions in the Study Area. Table 3.6-1 in the Draft EIS lists the communities in the Study Area where the Northeastern Illinois Planning Commission expects populations to increase by more than 100 percent between 2000 and 2030. Communities with low rates of population growth (less than 0.5 percent per year) are listed in Table 3.6-2. Section 2.8 of this Final EIS identifies the number of residences within 300 feet of the EJ&E rail line and within 300 feet of the CN lines that would experience a decrease in train traffic if the Proposed Action is approved.

Existing Income Data

A commenter said that of the communities identified by the Board as needing mitigation, four communities were well below the Chicago metropolitan average for income.

Response

This information is consistent with the income data presented in the Draft EIS.

Population and Land Use Data

Commenters said that fewer people would be affected by the Proposed Action than are currently affected by CN operations, because the area along much of the EJ&E rail line is not densely populated.

Response

This information is consistent with the population and land use data presented in the Draft EIS. Chapter 2.8 of this Final EIS provides additional information on this topic.

Traffic Levels Predicted to Increase

Commenters noted that projected population growth will increase vehicle traffic levels in the region.

Response

This is consistent with SEA's conclusions in the Draft and Final EIS that traffic levels are expected to increase as population growth occurs, regardless of whether or not the Proposed Action is approved.

Halt Community Growth

Commenters state that the Proposed Action would stop community growth and cause homeowners to leave the area.

Response

Population growth trends vary among communities in the Study Area. Population growth factors include the availability of developable land, employment opportunities, ease of commuting, and the general attractiveness of the community to potential businesses and residents. The EJ&E rail line predates the majority of development in the Study Area, and new business and residential development continues next to the EJ&E rail line. The Proposed Action would not change the availability of land or employment opportunities. Minor effects on area communities would not affect population demographics or community growth, which would continue along current trends. No trend of homeowners leaving the area is anticipated. Existing traffic conditions in many Study Area communities are very congested, yet this congestion does not appear to have stymied growth.

Population Growth Estimates are Inaccurate

One commenter said that population growth in counties was underestimated in the Draft EIS. Another commenter stated that the Draft EIS fails to compare estimates out to 2015.

Response

SEA obtained population growth estimates from official government sources; these data are the same as those used by local officials in their planning efforts. Section 3.6 of the Draft EIS presents the population growth estimates for the Chicago metropolitan area; these growth rates estimate population changes through 2030.

Socioeconomic Effects

Many commenters were concerned that their communities will disintegrate as a result of an increase in rail traffic that will affect people's desire to stay.

Response

The primary socioeconomic concern for this Proposed Action is that the additional train traffic on the existing EJ&E rail line would cause traffic delays at highway/rail at-grade crossings, as well as air quality, noise, and vibration effects that could reduce economic activity, employment, property values, quality of life, or community cohesion. In Section 4.6 of the Draft EIS, SEA concluded that traffic delays related to the Proposed Action at highway/rail at-grade crossings would have only a

minor adverse effect on local businesses, and that the Proposed Action may have minor, localized, adverse effects on property values and quality of life. SEA's analyses indicate that the acquisition of the EJ&E rail line and the proposed track and rail improvements would not cause a large number of people to move out of the area.

3.4.9.2 Economics and Employment

Declining Economic Conditions

Commenters indicated that existing traffic congestion has caused a decline in business activity and that current economic conditions are poor. One commenter said he is strapped by current economic conditions. Others said the Proposed Action discourages investment and that the prospect of the Proposed Action has caused one developer to back out of a planned development in Barrington. A commenter said that he is hoping for a developer to build a new shopping center.

Response

The discussion of economics and employment in the EIS is intended to quickly provide readers with an overview of the existing economic conditions in the Study Area, including sources of employment and the demand for labor. The profile of economic conditions provided in Section 3.6 of the Draft EIS shows a weak local and national economy, including a lack of demand for commercial and residential properties that is consistent with these comments. Given this weak market, it is certainly possible that a developer might cancel plans to develop a property whether or not the Proposed Action is approved.

Current Conditions

The commenter said that existing families along the EJ&E rail line provide great economic benefits to the area.

Response

This information is consistent with data provided in the Draft EIS. However, the data also show that rapid growth has outpaced existing supporting infrastructure, leading to many of the traffic congestion problems along the EJ&E rail line as well as many other communities in the Chicago metropolitan area. Traffic congestion will continue, and traffic forecasts indicate it will get worse, regardless of whether or not the Proposed Action is approved.

Economic Effects

Some commenters said that the Proposed Action would generate activity in the Chicago economy and lower costs for consumers along with providing similar benefit to the overall economy of the U.S. Other commenters disagreed, saying that after the merger CN could deny local businesses and farmer's access to markets and could raise prices. The latter groups also said that the Proposed Action would not help the U.S. economically, but rather would help make CN more competitive and thus reduce employment in the U.S. and move jobs to Canada. Many commenters wanted to know how many jobs this Proposed Action would produce, while some were skeptical that it would not produce any jobs.

Response

As the EIS explains, the Proposed Action would have only minor effects on the socioeconomics of the Chicago metropolitan area, either beneficial or adverse. However, rerouting trains around

Chicago would reduce transit times for rail freight and increase the efficiency of the North American freight rail system overall. This may result in lower prices for consumers throughout North America

The Proposed Action would not remove any track lines, and industrial customers would still have access to the track. Part of the purpose of the Proposed Action is to provide the Applicants access to businesses located along the EJ&E rail line. Any effect on competition will be addressed by the Board when it considers the transportation merits.

Acquisition of the EJ&E rail line would result in the minor loss of a total of 280 positions (114 direct, the rest indirect and induced) in an economy with nearly 3 million jobs. The Applicants expect to increase their revenue by a total of $14.86 million as a result of the Proposed Action, and this increase in business is expected to come from other rail lines operating in the area. Given the size of the freight transport industry in the region, this loss of jobs would not be considered serious. As the Draft EIS explains, the Proposed Action would generate a relatively small number of jobs during construction of the connections, but these jobs would end shortly after construction is complete.

Ports

Commenters said that the Proposed Action would mean more jobs and income for Canadian workers and fewer jobs and less income for American workers. The Proposed Action would be detrimental to American railroads and west coast ports in favor of Prince Rupert. One commenter said that it would be a good thing for our country's economy to increase trade with Canada as a result of the Proposed Action.

Response

The major west coast ports (Los Angeles, Long Beach, and Oakland in California; Seattle and Tacoma in Washington; and Prince Rupert in British Columbia) are very competitive, and reducing transit time may improve a port's competitive position. Because of many other factors (port capacity, distance from markets, cost of fuel, and the time freight waits in a port before it can be shipped), it would be speculative for SEA to determine effects on ports. The Draft EIS notes that the Proposed Action would improve the efficiency of rail operations throughout North America, and the elimination of up to 114 positions with EJ&E would not be serious given the size of the freight transport industry in the region.

CN Profits

One commenter said that CN will pass its savings down to its employees, who will spend money in the Chicago area economy.

Response

The Draft EIS focused on jobs and wage income. What CN would do with any profits from the Proposed Action is speculative and, therefore, not applicable to SEA's analyses. The Draft EIS noted that the Proposed Action would generate a small number of jobs during construction of the connections, but that these jobs would end shortly after construction is complete.

Access to Rail

Commenters were concerned that CN could deny farmers and businesses access to the EJ&E rail line so that they would have to pay higher prices for other transportation. A commenter said that local shippers would be prohibited from using the EJ&E rail line. Commenters also said that increased train traffic would make it difficult to reach local businesses and would cause an economic hardship.

Response

The Proposed Action would not remove any track lines, and industrial customers would still have access to the track. Part of the purpose of the Proposed Action is to provide the Applicants access to businesses located along the EJ&E rail line. The Board will consider, as part of its review, any potential loss of access to transportation alternatives for businesses, farmers, or shippers. The Board will also evaluate the proposed sale for any adverse effect on the competitiveness of freight rail services.

The majority of community businesses located along the EJ&E rail line were established after the rail line started operation in 1893, and shopping patterns developed around the rail line and the rail crossings. SEA's research indicates that traffic congestion already exists in many of the affected communities.

Loss of Business

A commenter said that businesses are already leaving town because of the Proposed Action. One stated that a potential shopping center site was just sold to a developer who will have congested access because of the Proposed Action. Another commenter stated that CN profits would go to a foreign corporation. A comment was made that businesses are already moving out of Barrington; Barrington has also lost a senior living facility project in the downtown area.

Response

In Section 3.6 of the Draft EIS, SEA evaluated the potential for the Proposed Action to adversely affect economics and employment and concluded that any adverse effects would be minor within the regional economy of the Chicago metropolitan area.

SEA also described the current weakness of the local and national economies, including the lack of demand for commercial and residential properties. Given the weak market, it is certainly possible that a developer might cancel plans for developing a property, and the reasons for doing so may include concerns about future traffic congestion, along with other concerns.

Cost to Community

One commenter asked if there is a "trickle down benefit" from the Proposed Action to the CN proposal that will help mitigate the imposition of additional train traffic on the Barrington community. Another commenter said that the Proposed Action would be a financial hardship on his community.

Response

The economic analysis concluded that there would be minimal beneficial economic effects for the local communities; therefore, there would be little "trickle down benefit" to Barrington or other communities. SEA's analysis also indicated that property values and property tax effects, as discussed in Section 2.8 of this Final EIS, are expected to be minor.

Effects of Potential Mitigation in Park Forest, Illinois

One commenter stated that the possibility of putting an overpass over Western Avenue (currently, a 60-year-old bridge in Park Forest, Illinois) could affect the shopping center that is being developed in that location.

Response

In its traffic analysis in Section 4.3 of the Draft EIS, SEA found that the Proposed Action would substantially affect the Western Avenue highway/rail at-grade crossing. Since the distribution of the Draft EIS, the Applicants revised the proposed Matteson connection to increase train speeds and reduce potential effects at Western Avenue. Therefore, SEA has not proposed mitigation for Western Avenue. The results of SEA's reevaluation of Western Avenue are presented in Section 2.5 of this Final EIS.

Cost of Wasting Gas

One commenter expressed concern about the economic effect of cars wasting gas while waiting for trains. Another said idling school buses would also use more fuel and would have higher operating costs.

Response

The Draft EIS indicates increased traffic delays as a result of the Proposed Action, and Section 4.8 evaluates the expected energy use by vehicles idling at highway/rail at-grade crossings. Overall, fuel expended along the EJ&E rail line would not be offset entirely by fuel savings along the current CN rail lines. Therefore, there would be a small increase in the overall fuel cost across the Chicago metropolitan area.

Tax Effects

A commenter was concerned that businesses would move out of downtown, thus generating less tax revenue that would need to be replaced by other sources of tax revenue. Other commenters said that the additional train traffic would destroy the local economy by removing sources of revenue and that businesses would lose customers because shoppers already avoid congested downtown areas.

Response

The Draft EIS evaluated the potential for the Proposed Action to adversely affect economics and employment and concluded that any adverse effect would be minor within the regional economy of the Chicago metropolitan area.

The majority of community businesses located along the EJ&E rail line were established after the rail line started operation in 1893, and business operations have developed around the EJ&E rail line and the rail crossings. The EJ&E rail line also pre-dates the majority of retail businesses, and shopping patterns have also developed around the rail line and the rail crossings. Thus, SEA does not anticipate that the Proposed Action would notably affect these sources of property and sales taxes.

Tax Avoidance

One commenter stated that CN has falsely claimed that the Proposed Action would increase general economic value to the "Chicago Mega Region" and is using the *ad valorem* tax to its maximum benefit.

Response

In Section 4.5 of the Draft EIS, SEA stated that Proposed Action would only negligibly affect the socioeconomics of the Chicago metropolitan area.

Equal Consideration for All Communities

Commenters stressed that Chicago neighborhoods deserve the same consideration as suburban communities and said reducing freight train congestion is an economic and environmental benefit to the entire region.

Response

The Draft EIS showed that, in general, rail traffic would be diverted from the more densely populated areas inside the EJ&E arc to less densely populated areas along the EJ&E rail line. Other potential benefits are discussed in more detail in Section 2.8 of this Final EIS.

Separate Regional Analysis by Chicago Metropolis 2020

One commenter stated the importance of understanding how this Proposed Action will affect production, income, and jobs in the region and the nation. To better inform the public on this matter and to provide economic information that can be useful to SEA, a second commenter noted that Chicago Metropolis 2020 is conducting an analysis of the Proposed Action's regional and national economic effects and will submit it to the Board when completed this fall.

Response

Section 4.6 of the Draft EIS evaluated the potential effects of the Proposed Action on the regional economy and society. SEA welcomes the Chicago Metropolis 2020 analysis.

Trains Would Halt Development

Commenters voiced their concern about how the aggregate number of trains that would run through the corridor (on the EJ&E rail line) would stop economic development. One commenter emphasized that such a dramatic increase in rail traffic and traffic congestion would have a disastrous effect on private enterprise, including a retail corridor located near the EJ&E rail line. More specifically, the commenter cited potential economic devastation to Park Forest, Illinois, and communities around the Western Avenue crossing.

Response

The primary socioeconomic concern resulting from the Proposed Action would be increased traffic delays at highway/rail at-grade crossings. SEA calculated vehicle delays for the No-Action and Proposed Action alternatives for the EJ&E and CN rail line segments. Results are summarized in Chapter 3 and Appendix E of the Draft EIS and in Chapter 2 of this Final EIS.

The Draft EIS indicated that severe traffic congestion already exists in many of the affected communities. However, the traffic analyses found that vehicles in the Study Area would experience an average increase of 0.6 minutes of delay (36 seconds) per delayed vehicle at intersections along the EJ&E rail line, and a decrease of 0.9 minutes of delay (54 seconds) per delayed vehicle at intersections along the affected CN rail lines that go in and out of Chicago. These times reflect the average change in motorist delay due to the increase or decrease in train traffic and will vary for each crossing. Delay values for specific intersections are included in Section 2.5 of this Final EIS and in Section 4.3 of the Draft EIS.

Because vehicles are not expected to experience substantially increased delays, SEA has determined that the Proposed Action would not adversely affect local businesses, commercial districts, or population centers. Additionally, delays along the four of the five CN lines would decrease.

SEA expects the Proposed Action would only negligibly affect the socioeconomics of the Chicago metropolitan area. Rerouting trains around Chicago would reduce transit times for rail freight and increase the efficiency of the North American freight rail system, potentially benefiting the U.S. economy as a whole.

Lack of Rail Competition

One commenter stated that CN would cause a reduction in U.S. freight company traffic, therefore creating a lack of competition for U.S. trucking businesses. Other commenters added that the Proposed Action would create a monopoly on the central U.S. transportation rail corridor, especially because CN merged with Illinois Central railroad in 1999.

Response

As part of the decisionmaking process, the Board will evaluate the potential for Proposed Action to increase CN's market power and reduce competition. CN has committed to providing rail access to customers along the EJ&E rail line. In addition, six other Class I railroads operate in the Chicago Terminal District, thus preventing CN from having a monopoly on freight rail traffic.

Noise Would Affect Ability to Work from Home

One commenter said that the Proposed Action would affect his or her ability to work from home, near the Metra Mokena train station, due to an increase in noise levels.

Response

The residence in question is located approximately 2.9 miles from the EJ&E rail line. Therefore, SEA determined that the residence does not fall within the 65 dBA noise contour and would not be affected by the Proposed Action. Additionally, the Proposed Action would not increase train traffic along the Metra line that goes through Mokena.

Sharing Cost Savings

Many commenters pointed out that no shippers have come forward to guarantee that the purported cost savings they derive from CN operating efficiencies would accrue to them or the end customer.

Response

CN's comment letter on the Draft EIS (document number 15801 in Appendix E) stated that shippers would share in the cost savings associated with the Proposed Action; however, for SEA to analyze the extent of these savings would be speculative and beyond the scope of this EIS.

Traffic Delays Would Cause Loss of Jobs

Commenters said that an increase in traffic would prevent them from getting to work in a timely manner, while others were concerned about losing businesses and jobs because of the increase in traffic and the train delays. One commenter mentioned that their company would lose profits because they would be paying workers to sit at highway/rail at-grade crossings.

Response

SEA research indicates that traffic congestion already exists in many of the affected communities along the EJ&E rail line. However, SEA's traffic analyses found that vehicles in the Study Area would experience an average increase of 0.6 minutes of delay (36 seconds) per delayed vehicle at

intersections along the EJ&E rail line, and a decrease of 0.9 minutes of delay (54 seconds) per delayed vehicle at intersections along the CN rail line segments. These times reflect the average change in motorist delay due to the increase or decrease in train traffic and will vary for each crossing. Traffic delays for specific intersections are included in Section 2.5 of this Final EIS and Section 4.3 of the Draft EIS. As the outlying areas of Chicago become more densely populated and traffic volumes increase, drivers will need to allow more time for traffic congestion and delays. Neighborhoods along the CN lines that would see a decrease in rail traffic would potentially experience less traffic congestion at highway/rail at-grade crossings as a result of the Proposed Action.

Loss of Trucking Jobs

One commenter voiced concern with CN taking profits from the U.S. and causing unemployment for truckers. Another commenter said that transport and manufacturing jobs would be taken away from Americans.

Response

The size of the freight transport industry, including trucking, is large enough (see Section 3.6 of the Draft EIS) that any adverse affect from the Proposed Action would be minimal. However, because the CN lines do not all meet in downtown Chicago, trucks would still be needed to transport container cars from one rail head to another. In addition, when containers are off-loaded from rail cars and put onto trucks for delivery to their final destinations, it would be more efficient for trucks to travel from Kirk Yard outside of Chicago than to drive through downtown Chicago.

Local Investments along the EJ&E Rail Line

A comment was made that the Draft EIS should have evaluated cost-effectiveness of the proposal considering the combined costs local communities have expended to-date along the EJ&E rail line for quiet zones, safety enhancements, and future commuter rail via the STAR Line, which are not guaranteed in this proposal.

Response

Chapter 4 of the Draft EIS addressed potential effects of the Proposed Action on local conditions and improvements, such as quiet zones and safety enhancements, along the EJ&E rail line. Section 2.3 of this Final EIS also contains an evaluation of whether the Proposed Action is compatible with Metra's proposed STAR Line.

Have to Raise Prices

A commenter said that the proposal is not only bad for them as a business owner but bad for their clients as well, since they would be forced to raise prices due to traffic delaying their workers and services, causing inflation in the local economy.

Response

SEA's research indicates that traffic congestion already exists in many of the affected communities along the EJ&E rail line. However, SEA's traffic analyses found that vehicles in the Study Area would experience an average increase of 0.6 minutes of delay (36 seconds) per delayed vehicle at intersections along the EJ&E rail line, and a decrease of 0.9 minutes of delay (54 seconds) per delayed vehicle at intersections along the CN rail line segments. These times reflect the average change in motorist delay due to the increase or decrease in train traffic and will vary for each

crossing. Delay values for specific intersections are included in Section 2.5 of this Final EIS and in Section 4.3 of the Draft EIS.

Harm Workers with Cheap Foreign Products

Commenters were concerned that the Proposed Action would harm jobs in the U.S. due to an increase in foreign goods, making domestic manufacturing less competitive.

Response

The Proposed Action would improve the efficiency of freight rail movement in North America. It is unlikely that this improvement would substantially change the quantity of foreign goods entering the United States.

Traffic Noise and Vibration Affecting Business

A commenter said that the excessive noise would affect their business. Another commenter stated that the projected increases in rail traffic would drastically increase noise and vibration impacts. Such impacts would cause prospective shoppers to be less interested and less able to engage in economic activities in the downtown area.

Response

Noise and vibration are addressed in Sections 3.10 and 4.10 of the Draft EIS. The analyses conducted for the Draft EIS did not conclude that increases in noise or vibration would alter communities' shopping habits or result in a major loss of business.

Regional Economic Effects

A commenter said that the EIS needs to make a comprehensive assessment of both the positive and adverse economic, social, and environmental effects on the entire region and not just an assessment of the factors along the EJ&E rail line. Another commenter stressed that the Proposed Action would not create jobs and would add no benefit to Indiana. A commenter claimed that failure to approve the Proposed Action could directly and adversely affect the region and the nation's economy.

Response

Because the Proposed Action removes train traffic from four existing CN lines and places it on one existing EJ&E rail line in the same metropolitan area, the overall regional effects are expected to be minor. The Draft EIS discusses potential effects at a national and international level (the freight rail system crosses the United States and Canada), the regional level (the Chicago metropolitan area), the affected interests (local businesses and residents), and the local area (the 60 communities that are adjacent to the existing EJ&E rail line). The Draft EIS concluded that the Proposed Action would potentially benefit the national and regional economies by improving the efficiency of freight shipping.

CN has proposed a number of voluntary mitigation measures to mitigate off-site environmental effects, including adverse effects on communities along the EJ&E rail line. If the Board approves the Proposed Action, it may add additional conditions to mitigate potential effects.

EIS Should Have Evaluated Indirect Effects

A commenter said the Draft EIS failed to address how the increase in freight traffic will indirectly affect property values, land use, and market influences.

Response

The Draft and Final EIS conclude that the socioeconomic effects of the Proposed Action would be minimal and that they do not warrant evaluation of the indirect effects, which are also expected to be minimal. Section 2.8 of this Final EIS provides additional information on socioeconomic effects.

Investments in Rail Infrastructure

A commenter stated that given the magnitude of rail infrastructure needs and the lack of alternative funding sources, Congress and the Board should avoid sending signals to the financial market that they do not welcome and encourage investment in the privately-owned rail system.

Response

The Proposed Action includes an investment of $100 million in rail infrastructure and the Applicants have proposed voluntary mitigation measures which they estimate would cost $60 million.

3.4.9.3 Tax Base

Taxes Along the EJ&E Rail Line

Commenters said there is a lot of property along the EJ&E rail line and that local communities generate a lot of tax revenues from those properties. They noted that taxes have increased in communities along the EJ&E rail line.

Response

The Proposed Action would have a limited effect on Study Area tax bases and tax revenues. Section 3.6.3 in the Draft EIS provides a detailed discussion of property values, property tax rates, and local taxing districts.

Reduced Tax Revenues

A number of commenters believed that property values would drop, giving estimates of 25 to 60 percent decreases, thus reducing tax revenues. They also said that taxes would increase to pay for overpasses.

Response

Decreases in property values are addressed in Section 4.6 of the Draft EIS. Property acquisitions for the redeveloped connections at Joliet and Matteson are anticipated to only have a minor potential effect on tax revenues to the cities of Joliet and Matteson.

SEA conducted additional analysis of the effects on property taxes; the results are presented in Section 2.8 of this Final EIS. Because these effects are expected to be minor, the tax base and tax revenues are not expected to be adversely affected by the Proposed Action. As a result, the Proposed Action would not substantially affect funding for local services (schools, police, and fire departments).

Concentrated Costs and Dispersed Benefits

Commenters said that there would be additional costs citizens would have to pay to mitigate the local effects of the Proposed Action, while the economic benefits discussed in the Draft EIS are regional.

Response

Chapter 4 of this Final EIS recommends mitigation measures that could be implemented to mitigate local effects from noise, traffic congestion, and other potential effects of the Proposed Action. Any additional mitigation measures desired by local communities beyond those imposed by the Board would need to be developed through negotiated agreements between the Applicants and the individual communities.

Property Values

Many commenters expressed concern over depressed property values and a slower housing market. One commenter expected that his property values would drop by 25 percent as a result of the Proposed Action.

Response

While many factors go into the ultimate value of a residential property—such as location, buyer preferences, amenities, and supply of comparable housing—information in Chapter 4.6 of the Draft EIS outlined how proximity to railroads used for freight may reduce residential property values.

Because the EJ&E rail line predates most of the adjacent residential or commercial developments, the value of properties along the rail line is assumed to already reflect their location. The study cited in Chapter 4.6 of the Draft EIS evaluated potential effects of increased freight traffic on the value of nearby residential properties, and the results were mixed. As shown in Table 4.6-3 in the Draft EIS, property values for small and medium-sized houses were adversely affected for each of three bands (less than 250 feet, between 251 and 500 feet, and between 501 and 750 feet) within 750 feet from the rail line, but the values for large homes were affected only if the homes were within 250 feet of the rail line. The adverse effect on property values resulting from one additional train per day was estimated to be up to roughly one-quarter of 1 percent for a medium-sized house within 250 feet of the rail line. Extrapolating this effect to an increase of 20 trains per day found a maximum adverse effect of 5.35 percent for medium-sized homes within 250 feet of the rail line. Properties beyond 250 feet could be expected to experience no more than a 2.32 percent decrease in values (Simons and El Jaouhari 2004). The same study examined the effects of traffic delays at highway/rail at-grade crossings on home values and concluded that the Proposed Action may have minor, localized, adverse affects on property values.

SEA's analysis considered the Chicago metropolitan area, with a housing stock of more than 1.8 million units, as the Study Area for social or economic effects. Even with a slightly reduced value of property adjacent to the EJ&E rail line or a depressed rate of increase compared to the surrounding areas, the Proposed Action would not result in a substantial adverse effect on property values within the Study Area.

No commenters provided research or data that supported their claims that property values would decrease more than that outlined in the Draft EIS. Additional property value information obtained after the issuance of the Draft (see Section 2.8 of this Final EIS) supports the findings of the Draft EIS. The information presented in the Draft EIS and the supplemental information provided in this Final EIS is the best information available regarding potential property value effects associated with the Proposed Action. SEA's additional analysis of property values included in this Final EIS identified the number of homes within 300 feet of the EJ&E rail line and calculated relative local fiscal effects. Analysis of an individual property owner's specific home financing is beyond the scope of the EIS.

Increased Property Insurance

A commenter said that his property insurance rates would go up because of slower response times for emergency responders.

Response

The primary socioeconomic concern for the Proposed Action is that the additional train traffic on the existing EJ&E rail line would cause traffic delays at highway/rail at-grade crossings. Section 4.6 of the Draft EIS discusses these effects and concludes that traffic delays related to the Proposed Action at highway/rail at-grade crossings would have only minor, adverse local effects. Chapter 4 of this Final EIS recommends mitigation for those areas that could experience delays in emergency response services. Given that these effects are anticipated to be reduced through recommended mitigation should the Proposed Action be approved, it is unlikely that insurance premiums would increase.

Mitigation Would Increase Taxes

A commenter was concerned about local communities being forced to raise taxes to pay for mitigation measures. One commenter noted that in anticipation of the environmental and safety issues in the Proposed Action, his community was trying to determine which fire station to build.

Response

Railroads and local jurisdictions typically cooperate to fund at-grade crossing improvements. Historically, railroads have paid for a small share (5 to 10 percent) of grade separations because the separations primarily benefit the community and not the railroad. However, because the potential safety effects identified in SEA's analysis would be the direct result of increased train traffic on the EJ&E rail line, should the Board approve the Proposed Action, SEA recommends that the Applicants fund 15 percent of the cost of the two grade separations determined to mitigate substantially affected highway/rail at-grade crossings. The reasons for that determination are set forth in Chapter 4 of this Final EIS.

The Draft EIS concluded that traffic delays associated with the Proposed Action would not substantially disrupt local areas, except for the 13 emergency service providers identified in Chapter 2 of this Final EIS. If a community decided to provide an overpass or underpass, it would bear its portion of the financial responsibility, and taxes may increase as a result. The Board will select mitigation measures where needed for emergency services, but communities may also choose the best locations for their community facilities with the enactment of those measures.

Port of Entry

One commenter said that Wal-Mart has the potential to avoid paying the *ad valorem* tax into the Harbor Trust Fund by using Halifax and Prince Rupert for their imported finished goods.

Response

Although the Proposed Action would allow CN to bypass downtown Chicago, this would not require or preclude shipping goods through any particular port of entry. Analysis of the Proposed Action's effects on port usage would be speculative and are beyond the scope of this document.

Taxes Go to Different Jurisdictions

A commenter emphasized that Kirk Yard is in Indiana and that all the CN trains will shift refueling to this yard; thereby, the State of Illinois will lose fuel taxes currently received from CN.

Response

To the extent that CN pays fuel taxes into the state departments of transportation, moving train switching activities to Kirk Yard may reduce fuel taxes to the Illinois Department of Transportation, but these taxes would be paid to the Indiana Department of Transportation. Because the Draft EIS included Lake County, Indiana, as part of the greater metropolitan Chicago area, there would be no adverse effect to the region as a whole.

Sales and Property Taxes

Some commenters noted that if merchants leave, tax revenues would shrink, property values would go down, and the quality of municipal services and education would suffer. Many commenters voiced concern that this will decimate the sales-tax base of affected communities and would create commercial ghost towns. The same commenters noted that the Draft EIS failed to calculate the adverse ripple effect from a reduction in local business activity and property values and did not assess how that would harm the tax bases of those localities and the long-term effects. Of particular concern is the future of a 129,000 square foot shopping center in Park Forest, Illinois.

Response

The primary socioeconomic concern for the Proposed Action is that the additional train traffic on the existing EJ&E rail line would cause traffic delays at highway/rail at-grade crossings. SEA's research indicates that many communities along the rail line currently experience traffic congestion. SEA's traffic analyses found that vehicles in the Study Area would experience an average increase of 0.6 minutes of delay (36 seconds) per delayed vehicle at intersections along the EJ&E rail line, and a decrease of 0.9 minutes of delay (54 seconds) per delayed vehicle at intersections along the CN Study Area segments. These times reflect the average change in motorist delay due to the increase or decrease in train traffic and would vary for each crossing. Traffic delays for specific intersections are included in Section 2.5 of this Final EIS and in Section 4.3 of the Draft EIS. It is not anticipated that these delays would substantially affect shopping habits or businesses.

Based on the available literature, the Draft EIS estimated that the maximum change in property values from the increased train traffic would be a decline of 5.35 percent. Additional studies of effects on property taxes identified after the issuance of the Draft EIS are summarized in Section 2.8 of this Final EIS. The findings of these studies are generally consistent with those presented in the Draft EIS.

As a private enterprise, the Applicants would pay tax on all property acquired for construction. SEA's analysis also estimates that construction activities would generate $3.82 million in local and state tax revenues during each year of the 2-year construction schedule, as well as $8.71 million of Federal tax revenues.

The Draft EIS describes the current weakness of the local and national economies, including the lack of demand for commercial and residential properties. Given the weak market, it is also certainly possible that a developer might cancel plans for developing a property.

Local Tax Increment Financing

A commenter said that if the Proposed Action is accepted, tax and business revenues will decrease due to a lack of retail sales and home values, which support local schools and services. Another commenter noted that any loss in property value within tax increment financing districts would erode the ability of municipalities to make their annual legally required payments to bondholders and school districts.

Response

Section 2.8 of this Final EIS evaluates the tax effects of the Proposed Action and concludes that it would not reduce property taxes for any jurisdiction by more than $69,000. At 2008 tax rates, this represents a 0.3 percent decrease in the residential portion of the property tax base.

Property Value and Tax Effects

Lake Zurich, Illinois concluded, based on an economic study of Lake County, Illinois (Lake County Partners 2001), that if one were to multiply the permanently lost tax revenues in Lake Zurich as a base by the 40 affected communities, the net effect would be an annual loss of approximately $237,468,000 for the local, state, and Federal units of governments. The commenter also said the Draft EIS failed to completely address and determine the full effect of any decrease in property value for residential properties along the EJ&E rail line.

Response

Section 2.8 of this Final EIS contains additional socioeconomic information, including an estimate of residential property value effects related to the Proposed Action and associated property tax revenue effects. SEA's analysis shows estimates that are very different from the estimates contained in the Lake Zurich comment letter. First, the estimated property value effect would not be 15 percent as used by Lake Zurich, but 5.35 percent, similar to the results disclosed in the Draft EIS. Second, properties within 300 feet are evaluated in this Final EIS rather than the 500-foot boundary used by Lake Zurich. In short, SEA believes the Lake Zurich analysis overestimates the degree of effect and the affected area, and SEA's research indicates that the losses of property values and property tax revenues would be approximately $45,531, which is less than the Lake Zurich estimate.

3.4.9.4 Local Businesses

Weak Local Economies

Commenters say that Barrington and other community merchants are struggling to survive. Commenters indicate that Dog Tracks is a popular hangout for high school students and that it is very close to the train tracks.

Response

Section 3.6 of the Draft EIS describes the current weakness of the local, regional, and national economy. The discussion of local businesses contained in the Draft EIS is intended to provide the reader with an overview of the major economic sectors operating in the area and to identify large employers. SEA notes that many individual businesses are currently located adjacent to the EJ&E rail line.

3.4.9.5 Housing

Lower Property Values along the EJ&E Rail Line

Some commenters said that the tracks already decrease property values along the EJ&E rail line and pointed out that their intermediate school is near the EJ&E tracks.

Response

SEA's analysis in Section 2.8 of this Final EIS indicates that proximity to a rail line may decrease residential property values; this is consistent with information provided in Section 4.6 of the Draft EIS. The database of schools within 2.0 miles of the EJ&E rail line has been updated.

Proposed Action Will Cause Further Reduction to Property Values

Commenters were concerned about existing depressed property values and a slow housing market. One commenter said that the real estate market is "already dead" and that additional trains would further affect property values. The commenter said that he or she was conducting a study of market values along the EJ&E rail line and was already seeing declines. Several commenters said that the prospect of the Proposed Action was already affecting property values. One provided statistics on fair market value and assessed value of residential properties, while another noted that they have had significant tax increases.

Response

SEA's analysis of property values considers the Chicago metropolitan area, with a housing stock of more than 1.8 million units, as the area of potential effect for social or economic effects. SEA determined that, while there may be adverse effects on individual property owners adjacent to the EJ&E rail line, the Proposed Action would not affect overall property values within the Study Area.

No commenters provided research or data that support claims that property values would decrease more than the amount outlined in the Draft EIS. Additional property value information obtained after the issuance of the Draft (see Section 2.8 of this Final EIS) supports the findings of the Draft EIS. The information presented in the Draft EIS and the supplemental information provided in Chapter 2 of this document is the best information available regarding potential property value affects associated with the Proposed Action.

Additional analysis of property values included in Section 2.8 of this Final EIS identified the number of homes within 300 feet of the EJ&E rail line and calculated relative local fiscal effects. Analysis of individual property owners' specific home financing would be beyond the scope of what is reasonable to consider in this EIS. Any decrease in property values arising from increased train traffic along the EJ&E rail line would be borne by the property owner.

The Simons and El Jaouhari study cited in the Draft EIS was conducted in Cleveland before and after acquisition of a rail line by Conrail. A summary of their findings is presented in Section 4.6 of the Draft EIS. The adverse effect on property values resulting from one additional train per day was estimated to be up to roughly one-quarter of one percent for a medium-sized house within 250 feet of the rail line. Extrapolating this effect to an increase of 20 trains per day found a maximum adverse effect of 5.35 percent for medium-sized homes within 250 feet of the rail line. Properties beyond 250 feet could be expected to experience no more than a 2.32 percent decrease in values (Simons and El Jaouhari 2004). Although they did not evaluate whether depressed property values rebounded after the increase in rail traffic, another study by Clark (Clark 2006) indicated that a rebound in property values might occur after the community becomes used to the additional train traffic. The analysis presented in Chapter 2 of this Final EIS extended the range of potential effect from 250 feet to 300 feet to be conservative in the assessment of property value effects by including a larger number of residences.

Removed Trees Devalued Property

One commenter said that the value of their home has decreased tremendously since EJ&E cleared the sound barriers (trees) last spring. The commenter stated she now has a view of the tracks and feels the vibrations from the trains.

Response

SEA acknowledges that many homes are adjacent to the EJ&E rail line and that these homes are currently subject to the effects of ongoing operation and maintenance activities. Clearing brush and trees and routine vegetative management within the railroad ROW is often a necessary safety measure.

Decrease in Property Values

Commenters believed that property values would drop, and asked, "Would you purchase property in Barrington?" Commenters said that lower property values would be tough on young families with large mortgages. Some commenters said that the Proposed Action is already affecting property values. One commenter stated that there is no attempt by SEA to actually determine how many homes along the EJ&E rail line are within 250 feet of the line or to calculate the potential property value loss in any way.

Response

The Draft EIS concluded that while the Proposed Action could increase annoyance, it would not adversely affect the housing market in the Chicago metropolitan area. Increased train traffic along the EJ&E rail line would not directly change zoning codes or land use plans that are the basis for growth and development, and the area would continue to grow and develop with or without the Proposed Action.

There are few objective, independent analyses of the potential for increased freight traffic on an established rail line to adversely affect nearby property values. The discussion presented in Section 4.6 of the Draft EIS included relevant research (Simons and El Jaouhari 2004) on the subject and concluded that some homes within 250 feet of the rail line would experience a decrease in property values from the addition of 20 trains per day. The Draft EIS estimated that the maximum change in property values from the increased train traffic would be a decline of 5.35 percent. Additional studies identified after the issuance of the Draft EIS are summarized in Section 2.8 of this Final EIS. The findings of these collective studies are generally consistent with those presented in the Draft EIS.

In response to public comments, Section 2.8 of this Final EIS presents the number of residences within 300 feet of the EJ&E rail line, as well as the number of residences within 300 feet of the CN lines that would experience a decrease in train traffic. The width was expanded from 250 to 300 feet to provide a conservative estimate of the properties potentially affected by the Proposed Action.

Access to Community Facilities

A commenter said that lack of access to hospitals would lead to a decrease in housing values.

Response

Access to community facilities, including hospitals, is important to residents of the Study Area. Figures 3.6-4 through 3.6-9 in Section 3.6 of the Draft EIS illustrated the locations of services and

facilities—including fire stations, police stations, medical centers and hospitals, schools, and parks—near the EJ&E rail line.

While SEA acknowledges that communities along the rail line currently experience traffic congestion, the primary concern is that the additional train traffic on the existing EJ&E rail line might restrict or delay traffic at highway/rail at-grade crossings. SEA's analysis in Section 4.6 of the Draft EIS discussed these effects and concluded that traffic delays related to the Proposed Action at the majority of highway/rail at-grade crossings would have only a minor adverse effect. The analysis concluded that this delay would be an annoyance, but not a major disruption. Therefore, SEA concluded that these minor delays would not affect housing values.

Vacancy Rates

A commenter said that there would be an increase in vacancies, but did not specify if the vacancies would be residential or business.

Response

Chapter 3.6 of the Draft EIS includes Study Area income and property value information and also describes the current weakness of the local and national economies, including the lack of demand for commercial and residential properties. Given the weak market, it is certainly possible that commercial or residential vacancies in the Study Area may increase. The Draft EIS evaluated the potential for the Proposed Action to adversely affect economics and employment and concluded that any adverse effect from the Proposed Action would be minor within the regional economy of the Chicago metropolitan area.

Reduced Home Values Will Hurt Communities

Numerous commenters stated that the Proposed Action would lower property values to a greater degree than that outlined in the Draft EIS. Many disputed both the percentage of reduction and the number of homes that would be affected. Decreases specified ranged from 15 to 60 percent. One commenter said it was "…short-sighted to only look at property value effects within 250 feet of the tracks." Another commenter said that effects on property values should be evaluated for properties at least a mile from the tracks. A commenter said that decreased property values are a certainty, not a possibility.

Several commenters said reduced property values would cause a dramatic change in their communities because tax base reductions would cause a decline in community services, amenities, and education programs. One commenter asked what mitigation would be available to offset losses of housing values and other local costs. Commenters also inquired as to why property value effects did not take neighborhoods into consideration and why cumulative effects on property values were not included.

Response

While many factors go into determining the ultimate value of a residential property, such as location, buyer preferences, amenities, and the supply of comparable housing, information in Chapter 4.6 of the Draft EIS outlines how proximity to freight railroads may affect residential property values.

Because the EJ&E rail line predates most of the adjacent residential or commercial developments, properties are assumed to already reflect some degree of reduced property value. Section 2.8 of this Final EIS contains a comparison of residential property values for Barrington and Matteson properties within 300 feet of the EJ&E rail line and properties farther away. SEA's analyses indicated that land

in Barrington is less expensive near the railroad line, but the residences are larger and more expensive. Both land and residences in Matteson are less expensive near the rail lines.

The study cited in Chapter 4.6 of the Draft EIS evaluated potential effects of increased freight traffic on the value of nearby residential properties. The adverse effect on property values resulting from one additional train per day was estimated to be up to roughly 0.25 percent for a medium-sized house within 250 feet of the rail line. Extrapolating this effect to an increase of 20 trains per day found a maximum adverse effect of 5.35 percent for medium-sized homes within 250 feet of the rail line. Properties beyond 250 feet could be expected to experience no more than a 2.32 percent decrease in values (Simons and El Jaouhari 2004).

SEA's study examined the effects of traffic delays at highway/rail at-grade crossings on home values, and concluded the Proposed Action would have only a minor adverse effect on local businesses, and that the Proposed Action may have minor, localized, adverse effects on property values. The Proposed Action would have only negligible effects on the socioeconomics of the Chicago metropolitan area.

SEA's analysis considered the Chicago metropolitan area, with a housing stock of more than 1.8 million units, as the Study Area for social or economic effects. Any changes to property values for properties adjacent to the EJ&E or CN rail lines would affect so few properties that it would not substantially change property values in the Chicago metropolitan area.

No commenters provided research or data that support claims that property values would decrease more than the amount outlined in the Draft EIS. Additional property value information obtained after the issuance of the Draft (see Section 2.8 of this Final EIS) supports the findings of the Draft EIS. The information presented in the Draft EIS and the supplemental information provided in this Final EIS is the best information available regarding potential property value effects associated with the Proposed Action.

Additional analysis of property values included in Section 2.8 of this Final EIS identified the number of homes within 300 feet of the EJ&E rail line and calculated relative local fiscal effects. Analysis of individual property owner's specific home financing is beyond the scope of the EIS. In the Draft and Final EIS, SEA concluded that the economic effects of the Proposed Action would be minimal, and therefore do not warrant evaluation of the indirect or cumulative effects.

Expected Economic Effects on Housing Values

A commenter noted that the Draft EIS quoted a 2004 article published in *The Appraisal Journal* and said the assumption of no net effect on the region is faulty for many reasons.

Response

The primary conclusion of the socioeconomics analysis is that residential property near the EJ&E rail line may experience a decrease in value if additional trains use the line. However, this would not be a substantial adverse effect on property values for the adjacent communities or the Chicago metropolitan area.

Compensate Property Owners

Many commenters were concerned about who will pay for the anticipated decline in property values.

Response

Because the EJ&E rail line predates most of the adjacent residential or commercial developments, properties are assumed to already reflect some degree of reduced property value. (Section 2.8 of this

Final EIS contains a comparison of residential property values for Barrington and Matteson properties within 300 feet of the EJ&E rail line and properties farther away. SEA's analysis indicated that land in Barrington is less expensive near the railroad line, but the residences are larger and more expensive. Both land and residences in Matteson are less expensive near the rail lines.) Because the majority of homes adjacent to the EJ&E rail line were constructed after the track was built, buyers would have known that the rail line was a feature of the built environment and incurred the latent risk that the number of trains running on the line might increase at some time in the future.

Home Values Down, Property Taxes Remain High

One commenter said the cost of improvements for highway/rail at-grade crossings borne by the community will result in higher taxes, thus making it difficult for an average homeowner to maintain a residence in the area of Barrington.

Response

The current weakness in the national housing market has resulted in a decrease in housing prices throughout the United States. In the Chicago metropolitan area, when property values decline, local jurisdictions need to increase the property tax rates to generate sufficient tax revenues to meet their obligations for community services. An estimate of the property value effects of the Proposed Action, for each affected jurisdiction, is provided in Section 2.8 of this Final EIS. SEA's analysis indicates that property values would not be substantially reduced in any jurisdiction as a result of the Proposed Action. However, communities may choose to enact mitigation measures beyond those required by the Board, in which case they would also have to determine how they will choose to pay for them.

Hazardous Materials Spill Would Affect Property Values

A commenter noted that a hazardous material spill would have a very real effect on property values in Wayne, Illinois.

Response

An evaluation of the increased risk of a hazardous material spills is provided in Section 2.7 of this Final EIS.

Property Values Estimates and Consistent Studies

One commenter noted that property values are site specific just as noise impacts are site specific, but that the Draft EIS does not provide an equal or consistent level of analysis. The commenter also stated that there is no identification of the existing number of homes affected or loss in property value in total dollars in the analysis. Another commenter asked why home values weren't further analyzed rather than simply stating in the Draft EIS that homes within 250 feet of the tracks will experience a decrease in value.

Response

Pages 4.6-6 through 4.6-9 of the Draft EIS provided a complete discussion of potential effects on property values related to the Proposed Action. Section 2.8 of this Final EIS provides a summary of additional property value studies identified after the issuance of the Draft EIS. Although these studies use different methodologies and evaluate different questions, the results are generally consistent with the information provided in the Draft EIS. Section 2.8 also provides a list of the number of houses, by jurisdiction, within 300 feet of the EJ&E rail line, as well as within 300 feet of the CN lines that

would experience a decrease in freight train traffic should the Proposed Action be implemented. Section 2.8 also provides an estimate of property value effects along the EJ&E rail line and the associated property tax effects. No estimate of the positive effects for properties adjacent to the CN lines is provided because no available research literature reaches this conclusion. Analysis of individual property owner's specific home financing is beyond the scope of the EIS.

Conrail Acquisition in Cleveland

One commenter asked what effect the Conrail acquisition had on home values in Cleveland.

Response

The Simons and El Jaouhari (2004) study cited in the Draft EIS was conducted in Cleveland before and after acquisition of the rail line by Conrail. A fuller summary of the findings is presented in Section 4.6 of the Draft EIS. Although Simons and El Jaouhari (2004) did not evaluate whether depressed property values rebounded after the increase in rail traffic, another study (Clark 2006) indicated that a rebound in property values might occur after a community adjusts to the additional train traffic.

3.4.9.6 Communities and Community Cohesion

Communities Are Currently Thriving

A number of commenters said that the affected communities are vibrant and growing. They said young families want to live there, and that people care deeply about their communities and are invested in their protection and development. Commenters also claimed that the Draft EIS did not specifically discuss their communities.

Response

SEA notes the public concern about communities along the EJ&E rail line that are vibrant and growing, and that people care deeply about their communities. This information is consistent with data provided in Section 3.6 of the Draft EIS that describes the social and economic conditions in the Study Area. The western and southern portions of the Study Area are experiencing rapid growth, and large tracts of land, often agricultural, are being converted to residential and commercial development. The areas along the EJ&E rail line from Joliet, Illinois to Gary, Indiana appear to include older, established residential and commercial areas where rapid growth is not expected. However, the population of Will County, in the southwest portion of the Study Area, is projected to increase by more than 100 percent between 2000 and 2030, as areas farther from Chicago are developed. Table 3.6-1 in the Draft EIS lists the communities in the Study Area that the Northeastern Illinois Planning Commission expects to increase by more than 100 percent in population between 2000 and 2030. Communities with low rates of population growth (less than 0.5 percent per year) are listed in Table 3.6-2.

Children and Facilities near Rail Line

Several commenters are concerned about the presence of children and sensitive areas, such as schools, parks, and community facilities, near the EJ&E rail line. One commenter mentioned how the existing rail line splits their community in half.

Response

SEA concluded that the presence of children and nearby schools and parks are of concern, but that while the Proposed Action would exacerbate the issue along line segments that would see additional

train traffic, it unlikely to create conditions that do not already exist. SEA further determined that there would be potential benefits along the CN lines that would see a reduction in the number of trains.

CN has volunteered to work with school and park districts to provide fencing along the EJ&E ROW where schools or parks are within 0.25 mile of the ROW. CN will also continue ongoing efforts with community officials to identify elementary, middle, and high schools within 0.50 mile of the EJ&E's right of way and provide, upon request, informational materials concerning railroad safety to such identified schools.

The Proposed Action should not split communities any more than they already are. Additionally, while delays at crossings along the EJ&E rail line would increase, delays along the CN lines would decrease and improve vehicle access in those areas. SEA has conducted additional analysis to evaluate the safety of school children. This analysis is presented in Chapter 2 of this Final EIS.

Barrington and Plainfield Dates of Incorporation

Commenters noted that Barrington and Plainfield, Illinois, existed long before the EJ&E rail line was constructed in 1889.

Response

SEA agrees. However, the populations of Plainfield and Barrington have grown substantially since the railroad began construction in 1891, and this growth has occurred with the rail line as an existing feature of the community. Section 3.13 of the Draft EIS discusses the history of Barrington and the EJ&E railroad.

Residences near Rail Line

The commenter said that there are numerous residences along the EJ&E rail line near where they live and an elementary school and park within a mile.

Response

Section 3.6 of the Draft EIS discusses the presence of residences in the vicinity of the EJ&E rail line and Section 3.10 addresses existing air quality and vibration conditions. Section 2.8 of this Final EIS provides a count of residences within 300 feet of the EJ&E rail line and the CN rail lines potentially affected by the Proposed Action. Chapter 3.6 of the Draft EIS also discusses the presence of schools in the vicinity of the EJ&E rail line. The database of schools within 2.0 miles of the EJ&E and CN rail lines has been updated. CN has volunteered to work with school and park districts to provide fencing along the EJ&E ROW where schools or parks are within 0.25 mile of the ROW. CN will also continue ongoing efforts with community officials to identify elementary, middle, and high schools within 0.50 mile of the EJ&E ROW and provide, upon request, informational materials concerning railroad safety to such identified schools.

Montgomery, Illinois Issues (3.6f-104)

One commenter stated that their community, Montgomery, Illinois, is growing at a very strong pace and that its traffic is on the rise.

Response

This is consistent with the information contained in Section 3.6 of the Draft EIS.

Update School List

A commenter stated that numerous residences are located immediately adjacent to the EJ&E rail line, with an elementary school and park located less than a mile away.

Response

The information is consistent with data provided in the Draft EIS. SEA has updated the database of schools within 2.0 miles of the EJ&E rail line.

Adverse Effects on Quality of Life

A number of commenters stated that the Proposed Action would affect their quality of life by affecting air quality, noise, dust, traffic, domestic animals (pets), and safety. They also said that the Proposed Action would affect elements of their lifestyle that include a rural setting, equestrian programs, nice homes, and nice shops. Commenters said the Proposed Action would divide (bisect) their community; that the Proposed Action would adversely affect senior citizens; and that it would reduce community growth.

Commenters specifically mentioned Barrington and Mundelein as places where quality of life would be adversely affected. Barrington was noted as a community that has grown up around limited rail traffic and cannot handle any growth in traffic congestion. Others said Mundelein would be affected due to the number of trains that would be diverted from one line to another.

There were also comments on the overall level of effect on community cohesion, with some commenters saying that effects of the Proposed Action would be minimal and others stating that the effects related to the Proposed Action would be substantial.

Response

The EIS concluded that air emissions, noise, vibration, and traffic delays from the increase in train traffic on the EJ&E rail line would annoy residents located near the EJ&E rail line. But these potential adverse effects are not expected to be great enough to induce a large number of residents to change their behavior or move, and effects would be limited to the vicinity of the EJ&E rail line; they would not extend throughout the entire region.

Traffic Congestion and Suburban Lifestyles

A commenter noted that "Barrington is a mature community already developed around limited rail traffic and cannot accommodate more growth and congestion." One commenter addressed the loss of community integrity. Another commenter was concerned about the tracks separating the school from community services such as emergency response. Several commenters expressed concerns about the interaction of the new EJ&E rail traffic with existing Union Pacific (UP) freight rail traffic, Metra commuter rail traffic, Barrington High School traffic, and existing roadway congestion. Residents from northwest Indiana, Hawthorn Woods, Barrington, and Wayne said more and longer trains would block traffic and adversely affect community character, family life, quality of life, and lifestyle. Several commenters said their communities had grown up along the EJ&E rail line with little accommodation for train traffic because it was so low.

Response

Roadway congestion exists today in many of the communities along the EJ&E rail line including the Barrington and Barrington Hills area. Year 2007 traffic estimates show that on a scale from A through F, Hough Street experiences a level of service (LOS) of E, Northwest Highway a LOS of D

and Lake Cook Road/Main Street a LOS of D, showing that travel in the community is already experiencing undesirable levels of delay. As travel in the area continues to grow with expected development, congestion will increase until communities take action to provide additional roadway capacity. The close spacing of these intersections compounds the effects of trains moving along the EJ&E rail line. Section 3.3 of the Draft EIS discusses the methodology and analysis results of existing traffic conditions.

Two rail lines cross near Barrington's village center. The UP rail line presently carries both freight rail service and commuter rail service. Effects of the existing freight rail service occur over various periods of the day and week. Effects of the Metra trains occur primarily during morning and evening work commutes. Increases in proposed traffic on the EJ&E rail line that crosses the existing UP line would most likely be spread over each day. The presence of Metra trains during the peak commute periods would likely discourage the operation of EJ&E trains that must cross the UP lines.

Following issuance of the Draft EIS, SEA undertook additional analysis of vehicular mobility and safety in the Barrington area. Specifically, SEA examined in more detail the interaction of train movements and motorist travel; the results are presented in Section 2.5 of this Final EIS. As a result of this additional analysis, SEA is recommending additional mitigation measures contained in Chapter 4 of this Final EIS.

Adequate Consideration of People

Many commenters said SEA and the Draft EIS did not take a realistic approach to the adverse effects on affected communities, and that the Proposed Action did not give adequate consideration to the people and communities along the EJ&E rail line. They stated, "There needs to be respect for people and communities" and "The proposed project has no concern for people …."

Response

The National Environmental Policy Act of 1969, as amended (NEPA) requires that public comments be solicited as part of the environmental review process so that all residents would be considered during the decision making process. SEA conducted extensive outreach during the scoping phase and during preparation of the Draft EIS and solicited comments from local residents, community service agencies, and local governments. SEA's outreach efforts are documented in Chapter 9 of the Draft EIS and Chapter 5 of this Final EIS. The intent of outreach and scoping is to encourage public participation and as a measure of respect to residents and local communities. SEA made every effort in the EIS to realistically analyze potential effects on the communities and their residents.

Way of Life or Standard of Living

Numerous commenters stated that the increase in train traffic on the EJ&E rail line would adversely affect their way of life or standard of living. Specific comments included the loss of a quiet, rural/suburban life and the addition of time spent stuck in traffic.

Response

The second most frequently made comment on the socioeconomics section of the Draft EIS was that adding additional trains to the EJ&E rail line would adversely affect the way of life for many of the rural and suburban communities along the rail line. While SEA concluded in the Draft EIS that there would be adverse effects due to traffic delays, noise, and vibration, SEA's analyses did not conclude that these effects would be sufficient to change the way of life in the Study Area or any individual community.

Growth and development are occurring in the area and will, in all likelihood, continue with or without the Proposed Action. Land use patterns have been established through zoning and land use plans and the increased train traffic along the EJ&E rail line would not directly change zoning codes or land use plans that are the basis for growth and development. Many of the areas adjacent to the EJ&E rail line are already experiencing a transition from rural and agricultural uses to suburban use; this transition may lead some residents to think that increasing the train traffic on the EJ&E rail line and the expected effects might affect their way of life.

Latent Risk of Increased Train Traffic

A number of people commented that they moved into their neighborhoods knowing that the EJ&E rail line ran only a couple of trains per day and that increasing the number of trains would be unbearable and force them to move.

Response

The EJ&E rail line was built in the early 1990s and predates the majority of residences and businesses that are located along the line. The line was an existing environmental condition when people moved into the area, and many assumed that future rail operations would be the same as current operations. Local conditions cannot be assumed to be static over time and underutilized resources, such as the EJ&E rail line, may be used to the maximum extent possible.

Community Activities

Several commenters stated that the additional trains would damage their communities and would make it hard for them to cross the tracks or take advantage of community activities on the other side of the tracks.

Response

The primary concern is that the additional train traffic on the existing EJ&E rail line might restrict or delay traffic at highway/rail at-grade crossings. SEA's analysis in Section 4.6 of the Draft EIS discussed these effects and concluded that traffic delays related to the Proposed Action at the majority of highway/rail at-grade crossings would have only a minor adverse affect.

Roadway congestion unrelated to rail traffic exists today in many of the communities along the EJ&E rail line. Year 2007 traffic estimates for Barrington show that on a level of service (LOS) scale of A to F, Hough Street experiences a LOS of E, Northwest Highway a LOS of D, and Lake Cook Road/Main Street a LOS of D. These results confirm that the community is already experiencing undesirable levels of delay. As travel in the area continues to grow with expected development, with or without the Proposed Action, congestion will increase until communities take action to provide additional roadway capacity. This will happen even if the Proposed Action is not approved. The close spacing of many intersections in towns and villages along the rail line compounds the effects of trains moving along the EJ&E rail line.

EJ&E Rail Line Effects would be Minimal

A commenter stated that the EJ&E rail line is in place and operational and that effects on towns along the way would be minimal.

Response

This comment is generally consistent with the findings of the Draft EIS.

Domestic Animals

A commenter was concerned about the Proposed Action's adverse effects on domestic animals.

Response

The railroad tracks are an existing condition in the area, and the Proposed Action would not add a new source of risk to domestic animals. Effects on domestic animals would be limited to an increased risk of being hit by trains traveling on the EJ&E rail line and potential noise effects, both of which are considered to be minimal.

Graffiti on Trains

A commenter noted that communities will face unsightly graffiti on the trains.

Response

Increasing the number of trains moving through the area would increase the chance of viewing graffiti on trains. Each rail company has its own program for removing graffiti from its cars, and the operator is not always able to control the appearance of the cars being hauled.

Wayne Elementary School

One commenter was concerned about effects on Wayne Elementary School such as noise, smoke, vibration, and hazardous cargo.

Response

Wayne Elementary School is included in the database of schools within 1.5 miles of the proposed Munger Connection (Draft EIS, page 4.6-19).

Individual Consideration of Socioeconomic Effects

One commenter asserted that the Draft EIS fails to properly consider socioeconomic effects on individual communities such as Frankfort, Illinois.

Response

Because the EJ&E rail line traverses over 60 communities located in five counties and two states, SEA chose to aggregate the socioeconomics discussion. The Draft EIS identifies the intersections in individual communities where traffic conditions related to the Proposed Action would warrant consideration for mitigation. SEA used available data to estimate potential effects on property adjacent to the EJ&E rail line throughout all communities. Section 2.8 of this Final EIS presents additional information about effects on property values and property tax revenues.

Community Bisection

Commenters were concerned about communities such as Barrington, Illinois and Frankfort, Illinois being divided in half.

Response

As stated in Chapter 6 of the Draft EIS, CN would operate under U.S. Operating Rule No. 526 (Public Crossings), which provides that a public crossing must not be blocked longer than 10 minutes. The Draft EIS found 15 intersections along the EJ&E rail line that warrant consideration for

mitigation for traffic congestion. CN proposed voluntary mitigation for two of these 15 at-grade crossings, Woodruff Road and Washington Street in Joliet, Illinois. See Chapter 4 of this Final EIS for additional grade crossing mitigation information.

The potential adverse effects of increased rail traffic are not expected to be great enough to induce a large number of residents to change their behavior or move, and effects would be limited to the vicinity of the EJ&E rail line; they would not extend throughout the region. To compensate for delays, residents may need to alter travel patterns or plan for additional time to reach some destinations.

CN's Position on Potential Effects

A commenter wanted to know if CN feels that the adverse effects of the Proposed Action are overstated.

Response

CN has provided a comment letter on the Draft EIS (Comment Letter 15801 in Appendix E); the reader may refer to this letter for CN's position regarding the environmental analysis of the Proposed Action described in the Draft EIS. Summaries of CN's comments and SEA's responses are presented in the final section of this chapter.

Planned Violent Activities

A commenter was concerned about the potential for incidents of planned violence at Barrington High School in Barrington, Illinois, and other highly populated facilities, when gridlock occurs.

Response

The National Environmental Policy Act of 1969, as amended (NEPA) requires that an environmental document evaluate reasonable and foreseeable effects. The potential for violence is speculative and for this reason, was not addressed in the Draft EIS.

Aurora Incorporated Prior to Railroad

One commenter corrected the Draft EIS by stating that Aurora, Illinois was incorporated prior to construction of the EJ&E rail line.

Response

While Aurora, Illinois was indeed incorporated prior to the railroad's construction, the city's population has grown substantially since railroad construction began in 1891, and this growth has occurred with the rail line as an existing feature of the community.

Waiting for Mitigation

One commenter asked what the communities would do about effects related to the Proposed Action while they waited for CN to implement its mitigation measures.

Response

If the Board approves the Proposed Action, the decision would contain a list of voluntary and Board required mitigation measures. This list of measures would include a schedule for completion. Mitigation would begin shortly after the decision is made, but some measures would need to be

started after construction of the new connections is complete. SEA is recommending that the Board oversee the implementation of mitigation for up to 5 years following the Proposed Action if it is approved.

Health and Safety of the Communities

Many commenters stated that the Proposed Action would damage the health and safety of nearby residents and their communities.

Response

SEA's rail safety analysis for the Draft EIS concluded that the Proposed Action would not degrade the health or safety of local residents. Rail safety, including incident rates for vehicle/train accidents along the CN and EJ&E rail lines, is discussed in Chapter 4.2 and Appendix C of the Draft EIS. SEA concluded that the predicted annual accidents under the Proposed Action would not adversely affect safety and would likely result in a net decrease of 1.0 accident per year. SEA's findings predict that the overall accidents would decrease from 10.9 to 9.9 accidents per year based on an increase of 1.5 highway/rail accidents per year on the EJ&E rail line and a decrease of 2.5 accidents per year on the CN lines. This analysis reflects the Proposed Action without mitigation.

Improved Quality of Life

A commenter, who lives along a CN line, stated that the Proposed Action would greatly improve his family's quality of life. Another commenter said that the Proposed Action would improve safety and quality of life in Buffalo Grove, Illinois by reducing freight traffic at crossings, reducing risks of accidents, and decreasing noise.

Response

This information is consistent with the evaluations presented in the Draft EIS.

Violate Environmental Sovereignty

A commenter from Barrington, Illinois, stated that the Proposed Action would violate "the very roots of our community's environmental sovereignty."

Response

The Board is responsible for regulating interstate railroads, including the EJ&E and CN rail lines. Barrington, Illinois is a local government and does not have the responsibility for approving or denying the Proposed Action. The responsibility and authority for environmental protection is shared among Federal, state, local, and even international agencies, and therefore, no level of government has environmental sovereignty.

Elderly Populations

Commenters said SEA must recognize that dramatically increased rail traffic can only weaken seniors' vital connections to the community.

Response

Section 3.6.6.2 of the Draft EIS stated that communities with older populations may be more sensitive to disruptions because these residents are potentially less mobile or automobile dependent. Section 4.6.3 concluded that effects related to the Proposed Action would not substantially affect

community cohesion in areas with large senior populations just as they would not substantially affect other age groups. Senior residents, like all other residents of the affected communities, may need to plan for additional time to reach some destinations as they currently do for various areas of known traffic congestion.

Pit One Community Against Another

A commenter suggested that CN has perpetuated pitting one suburb against another rather than focusing on the real issue.

Response

The Proposed Action is intended to improve the flow of freight traffic through the Chicago metropolitan area and to improve CN's ability to move freight efficiently. Given the geographical positions of the EJ&E rail line and the CN lines that would experience rail traffic decreases, some communities would experience increased rail traffic and others would experience decreased train traffic. However, it is not the intention of the Proposed Action to favor certain communities over others. Rather, SEA's analysis is intended to equitably examine the effects of the Proposed Action throughout the Chicago metropolitan area.

Statewide Effects

Some commenters have stated that shifting rail traffic will decimate dozens of cities and make all of Illinois suffer.

Response

The Proposed Action would redirect trains from four CN lines that go into downtown Chicago onto the EJ&E rail line that traverses suburban Chicago. On the fifth CN line, the Joliet Subdivision, train traffic would remain roughly the same, but the type of trains would change. The Draft EIS describes the potential effects on communities along the EJ&E rail line, but did not find any indication that these effects would extend beyond the five counties within the Chicago metropolitan area that are discussed in the Draft EIS.

Proof of CN Line Community Benefits

Many commenters stated that benefits to the region are not outlined and that there are no long-term guarantees of benefits to current CN line communities.

Response

The Draft EIS did not state that reducing train traffic on the CN lines would provide community benefits to adjacent communities. The document states that while there may be adverse effects on individual property owners adjacent or near the EJ&E rail line, the Proposed Action would not affect overall property values within the Chicago metropolitan area.

Transients in Local Communities

One commenter addressed the homeless situation saying transients would could jump off rail cars and come into backyards and homes.

Response

The possibility presented by the commenter is speculative and is, therefore, outside the scope of analysis in this Final EIS.

3.4.9.7 Community Facilities

Schools and School Buses (3.6g)

Commenters stated that school buses cross the railroad tracks many times, and in at least one area, the school buses cross the tracks 840 times a day. Some schools are located near the tracks. Children are already late to school when trains block Main Street in Barrington, Illinois, commenters said.

Response

SEA acknowledges that school buses currently cross the EJ&E tracks and schools are located near the rail line. If children are already late to school when trains block Main Street, the school district needs to revise the bus schedule to account for the possibility that Main Street may be blocked. Like other traffic in the Study Area, school buses are not expected to experience substantially increased delays overall. There should be no adverse effects on schools, schoolchildren, or companies that provide bus service. Additionally, while delays at crossings along the EJ&E rail line would increase slightly, delays along the CN lines would decrease.

Community Facilities

Several commenters noted that emergency facilities or hospitals they may need are located on the other side of the EJ&E rail line, saying that could be a problem.

Response

Access to emergency facilities is important. Figures 3.6-4 through 3.6-9 in Section 3.6 of the Draft EIS illustrated the locations of services and facilities—including fire stations, police stations, medical centers and hospitals, schools, and parks—in the vicinity of the EJ&E rail line. Many commenters are concerned that the increases in train volumes and train length would cause automobiles and emergency service providers to be substantially delayed as they cross the EJ&E rail line. SEA prepared vehicle delay calculations for the No-Action and Proposed Action alternatives for the EJ&E and CN rail line segments of the Study Area. Results are summarized in Chapter 3 and Appendix E of the Draft EIS and in Chapter 2 of this Final EIS.

The traffic analyses found that vehicles in the Study Area would experience an average increase of 0.6 minutes of delay (36 seconds) per delayed vehicle at intersections along the EJ&E rail line, and a decrease of 0.9 minutes of delay (54 seconds) per delayed vehicle at intersections along the CN Study Area segments. These times reflect the average change in motorist delay due to the increase or decrease in train traffic and would vary for each crossing. Delays at specific intersections are included Section 2.5 of this Final EIS and in Section 4.3 of the Draft EIS.

Within the Study Area, most communities and their emergency service providers have developed with the awareness that the EJ&E rail line exists. Emergency service providers have adopted practices and procedures accounting for this rail line and the possibility that a freight train may block a highway/rail at-grade crossing. The Applicants have stated in their voluntary mitigation measures that they would notify emergency services dispatching centers in affected communities when crossings are blocked by trains that are stopped and may be unable to move for an extended period of time. Additionally, the Applicants would be required to work with affected communities to minimize emergency vehicle delay by: 1) maintaining facilities for emergency communication with local

emergency response centers through a dedicated toll-free telephone number; and 2) providing, upon request, cameras and video monitors that allow emergency response center dispatching personnel to see real-time train locations. SEA believes that this mitigation would minimize potential effects of the Proposed Action on emergency responders.

Private Camp and Retreat

One commenter requested that Camp Manitoqua and Retreat Center be considered in the environmental analysis.

Response

Camp Manitoqua and Retreat Center is located adjacent to the tracks near the Sauk Trail highway/rail at-grade crossing. Potential effects on this property are likely to be similar to those discussed for public facilities. This Final EIS recommends that CN consult with representatives from Camp Manitoqua about the appropriateness of constructing a fence along the EJ&E ROW to improve safety.

Buses and Pedestrians Must Cross Tracks Every Day

Commenters said that school buses, children, adults, and seniors must cross the tracks every day.

Response

SEA's analysis included all pedestrians and drivers of all age groups. SEA concluded that this issue is of concern but that the risks associated with student populations crossing the tracks exist today. The Proposed Action is unlikely to create conditions that do not already exist. In addition, SEA further determined that there are risk reductions in those locations along the CN lines that will see a reduction in the number of trains.

The Applicants have offered as voluntary mitigation to provide fencing along the EJ&E ROW where schools are within 0.25 mile of the ROW, to identify elementary, middle and high schools within 0.50 mile of the EJ&E rail line and provide them upon request informational materials concerning railroad safety; and to make Operation Lifesaver programs available to schools located along the affected rail line segments.

Community Access

Many commenters voiced concern about the effect of the Proposed Action on community access. Commenters said the Proposed Action would cause hardships by increasing travel times for school buses and by requiring school districts to add more bus routes. They said that school bus times would need to be coordinated with train schedules. Safety for children who walk to and from school was also cited as a concern. Commenters stated that hundreds of children walk across the tracks every day and that school buses cross the tracks 840 times every day. Commenters also noted that trains sitting in residential and public school areas waiting for Metra trains to pass could cause safety and environmental hazards.

Commenters stated that the Proposed Action would deny them access to emergency services, saying lack of access to hospitals would be detrimental to house sales. Commenters said that additional fire stations and personnel would be needed because of poor access, and they wanted to know who would pay for them.

Commenters said that the Study Area communities do not have the infrastructure to deal with the traffic and congestion from the additional trains. They also said that the communities would not be as

attractive, the tax base would decline, and that they would never be able to pass a tax referendum to pay for new facilities, including schools.

Response

The Draft EIS concluded that potential effects of the Proposed Action would include increased traffic delays at highway/rail at-grade crossings and increased noise and vibration near the EJ&E rail line. Also, there could be minor school bus delays at some intersections, and some aspects of pedestrian safety may be adversely affected. There are three at-grade crossings—Ogden Avenue in Aurora, Illinois; Montgomery Road/83rd Street in Aurora, Illinois; and Lincoln Highway/US 30 in Lynwood, Illinois—where increased exposure is expected. The Draft EIS suggested that CN review safety conditions for pedestrian crossings near schools and add crossing arms to sidewalks as necessary to improve safety conditions. Other recommended mitigation measures would require CN to:

- Continue ongoing efforts with community officials to identify elementary, middle, and high schools within 0.25 mile of the ROW and provide, upon request, informational materials concerning railroad safety to such identified schools.
- Conduct an on-site diagnostic review of the locations of designated pedestrian and recreational trail at-grade crossings along the EJ&E rail line that would see an increase in train traffic under the Proposed Action "…to examine the adequacy of the existing warning devices, to ascertain if there are particular trail uses or localized issues that would reduce the effectiveness of these warning devices, to prescribe appropriate remedies to improve safety for pedestrian and recreational trail users, and to establish the timeframe and funding for identified improvements."
- "[I]dentify highway/rail at-grade crossings within one-quarter mile of schools and work with the state departments of transportation, Illinois Commerce Commission (ICC), and local communities to determine those crossings where additional pedestrian warning devices are warranted. Highway/rail at-grade crossings of concern include sidewalks or walkways where students are likely to cross on their journey to and from school."

In Section 2.8 of this Final EIS, SEA evaluated the effects of the Proposed Action on the residential portion of the property tax base for each jurisdiction. Because the number of houses within 300 feet of the EJ&E rail line is relatively small compared to the number of residences in each jurisdiction, the overall effect on the tax base is also small and is not expected to affect the communities' ability to construct new public facilities.

Restricting Access to Community Facilities

Commenters are concerned that the Proposed Action would restrict access to community services such as hospitals, schools, and fire and police departments. One commenter said that social services would be altered as a result of the Proposed Action. Another commenter noted that decisions to locate facilities such as schools were made based on existing rail traffic.

One commenter said that the community would have to have duplicate services on each side of the tracks because of the increased train traffic. Another said an $8 million fire station built to serve western Bartlett, Illinois would become worthless. Train traffic on the EJ&E rail line would place the fire station on the opposite side of the track from the population and "… our community would need to build and staff a new fire station."

Several commenters said getting to hospital emergency facilities located on the opposite side of the tracks could be a problem; one person specified that Edwards Hospital needed to be accessible to the public. Commenters identified a number of residential facilities for the elderly and said that they

were at high risk of needing emergency services and the Proposed Action would delay access to those services. One commenter said that the Proposed Action would threaten the health and life of people in the corridor, while another said that the Proposed Action would make eastern Barrington, Illinois a dangerous place.

Response

The Draft EIS stressed that access to community facilities is important to residents of the Study Area. Figures 3.6-4 through 3.6-9 in Section 3.6 of the Draft EIS illustrated the locations of services and facilities—including fire stations, police stations, medical centers and hospitals, schools, and parks—in the vicinity of the EJ&E rail line.

The primary concern raised by commenters is that the additional train traffic on the existing EJ&E rail line might restrict or delay traffic at highway/rail at-grade crossings. SEA's traffic analyses found that vehicles in the Study Area would experience an average increase of 0.6 minutes of delay (36 seconds) per delayed vehicle at intersections along the EJ&E rail line, and a decrease of 0.9 minutes of delay (54 seconds) per delayed vehicle at intersections along the CN Study Area segments. These times reflect the average change in motorist delay due to the increase or decrease in train traffic, and individual times will vary for each crossing. Delay values for specific intersections are included in Section 2.5 of this Final EIS and in Section 4.3 of the Draft EIS. SEA's traffic analysis also indicated that Edwards Hospital would be accessible to both the public and emergency vehicles and could continue to provide services to the community. Therefore, SEA has not identified a need for duplicate facilities.

In Chapter 6 of the Draft EIS (Section 6.3), SEA identified eight possible strategies to mitigate vehicle delays at the 15 highway/rail at-grade crossings that would warrant consideration for mitigation. SEA sought public and agency comment on the preliminary environmental mitigation strategies and encouraged mutually acceptable negotiated agreements between CN and the affected communities. Based on public comment and input received, SEA developed final mitigation recommendations, which are described in Chapter 4 of this Final EIS. SEA's mitigation recommendations include the extent to which CN should be financially responsible for implementation of this mitigation.

School Bus Delays

Commenters said that increased rail traffic would delay school buses and pedestrian school children, would require developing new bus routes and coordinating bus routes with train schedules, and might require more buses and more schools. One commenter said that school buses going to South Elgin High School from Bartlett, Illinois would be delayed at Stearns Road and Bartlett Road. One stated that neither Waubonsie Valley High School in Aurora, Illinois nor Neuqua Valley High School in Naperville, Illinois, were included in the analysis. Another said school buses cross tracks more than 800 times a day. A commenter from New Lenox said that the school is on the north side of the tracks and that most of the students live on the south side, creating a travel safety concern. One commenter requested that the Study Area for effects on schools be expanded.

Response

School bus delays and the safety of children walking to school are valid concerns voiced by many residents of the Study Area. While the EIS does not specifically separate out the movement of school buses as part of its analysis, Section 4.6 of the Draft EIS concludes that traffic delays related to the Proposed Action at highway/rail at-grade crossings would have only a minor adverse effect. The potential effects of the Proposed Action on school bus and auto traffic are discussed in Sections 4.2 and 4.3.3 of the Draft EIS.

SEA's traffic analyses found that vehicles in the Study Area would experience an average increase of 0.6 minutes of delay (36 seconds) per delayed vehicle at intersections along the EJ&E rail line, and a decrease of 0.9 minutes of delay (54 seconds) per delayed vehicle at intersections along the CN Study Area segments. These times reflect the average change in motorist delay due to the increase or decrease in train traffic and would vary for each crossing. Traffic delays at specific intersections are included in Section 2.5 of this Final EIS and in Section 4.3 of the Draft EIS. SEA concluded that this delay would be an annoyance, but not a major disruption. There should be no need for additional bus routes or duplicate school services should the Proposed Action be approved.

As stated in Chapter 6 of the Draft EIS, CN has proposed mitigation providing that it would operate under U.S. Operating Rule No. 526 (Public Crossings), which provides that a public crossing must not be blocked longer than 10 minutes. The Draft EIS found 15 intersections along the EJ&E rail line that warrant consideration for mitigation for traffic congestion. CN proposed voluntary mitigation for two of these 15 at-grade crossings, Woodruff Road and Washington Street in Joliet, Illinois. Additional grade crossing mitigation information is included in Sections 4.2 and 4.4 of this Final EIS.

In response to comments on the Draft EIS related to school buses, the database of schools within 2.0 miles of the EJ&E and CN rail lines has been updated to include Waubonsie Valley High School and the new Neuqua Valley High School. The Draft EIS found no substantial effects of the Proposed Action on pedestrians, cyclists, or school buses, and, therefore, SEA concluded that expanding the area to be evaluated was not warranted.

Rail Line Proximity Affects Facility Use and Enjoyment

Commenters stated that proximity of rail lines poses a danger to schools, parks, and children. One commenter mentioned Lincoln-Way High School in New Lenox, Illinois is located a few hundred feet away from the EJ&E tracks and wanted to know how noise and safety would be dealt with. Another commenter said that the Proposed Action would have an adverse effect on the education of children, on schools, and on student safety.

Response

The issues associated with schools in proximity to tracks are related to exposure due to train accidents (including derailments), children and others that may cross the tracks traveling to and from school, and delays of emergency response providers should they be blocked by a train. These concerns were addressed in the Draft EIS under the specific sections related to these topics. Section 2.4 of this Final EIS presents additional information on school-related issues.

SEA concluded that this issue is of concern and that the risks associated with schools close to active rail lines exist today. The Proposed Action would not be likely to create conditions that do not already exist, nor would it affect the quality of the students' educational experience. SEA further determined that locations along the CN lines that would see a reduction in the number of trains would experience less risk and fewer effects.

SEA identified the number of schools located along the rail lines that would see a change in train traffic as a result of the Proposed Action. SEA obtained data from the Illinois and Indiana state boards of education on public and private schools (kindergarten through high school) within 2.0 miles, 0.25 mile, and adjacent to the track. The table below illustrates that three times as many schools would see a reduction in rail traffic as would see an increase under the Proposed Action.

Table 3.4-2. Number of Schools Near the EJ&E and CN Rail Lines			
	Schools Immediately Adjacent to Tracks	Schools within 0.25 Mile of the Tracks	Schools within 2.0 Miles of the Tracks
EJ&E Line	12	44	344
CN Lines	14	118	983

CN has volunteered to work with school and park districts to provide fencing along the EJ&E ROW where schools or parks are within 0.25 mile of the ROW. CN will also continue ongoing efforts with community officials to identify elementary, middle, and high schools within 0.50 mile of the EJ&E ROW and to provide, upon request, informational materials concerning railroad safety to such identified schools.

SEA used several current models to assess potential changes in train noise that could be expected because of the Proposed Action: 1) a wayside noise model (to model the noise a train makes when it passes a receiver); 2) a locomotive horn noise model (to evaluate horn noise at highway/rail at-grade crossings); 3) a model for stationary noise such as wheel squeal or noise made when a train rolls over a crossover; and 4) a model for assessing noise from rail yards. Section 4.10 of the Draft EIS contains the results of the noise analysis, and Section 2.11 and Appendix A of this Final EIS contains additional noise assessment results.

Consideration of Infrastructure

Several commenters said that their communities did not have the infrastructure to cope with increased train traffic. Others were concerned about an increase in taxes to pay for improvements at grade crossings. One commenter said communities should not be forced to fund infrastructure upgrades.

Response

Under the Proposed Action, CN would invest $100 million in rail infrastructure improvements to implement its Operating Plan, as described in Section 2.2 of the Draft EIS. SEA evaluated the EJ&E rail line capacity and confirmed that CN's train traffic numbers in the Operating Plan are reasonable. (See Appendix B of the Draft EIS for details on the industry-standard Rail Traffic Controller analysis.)

Transportation infrastructure, including the roadways and bridges that make up the transportation network, belong to local and state agencies. These are the agencies responsible for building and maintaining roadway networks. Railroads and local jurisdictions typically cooperate to fund at-grade crossing improvements. Historically, railroads have paid for a small share (5 to 10 percent) of grade separations because the separations primarily benefit the community and not the railroad. However, because the potential safety effects identified in SEA's analysis would be the direct result of increased train traffic on the EJ&E rail line, should the Board approve the Proposed Action, SEA recommends that the Applicants fund 15 percent of the cost of the two grade separations determined to mitigate substantially affected highway/rail at-grade crossings. The reasons for that determination are set forth in Chapter 4 of this Final EIS.

The Draft EIS concluded that traffic delays associated with the Proposed Action would not substantially disrupt local areas, except for the 13 emergency service providers identified in Chapter 2 of this Final EIS. If a community decided to provide an overpass or underpass, it would bear its portion of the financial responsibility, and taxes may increase as a result. CN would work with the local communities and the appropriate regulatory agencies to determine their financial responsibilities

for the improvements. In addition, CN has committed to a series of voluntary mitigation measures in Chapter 4 of this Final EIS.

Communities Not Accustomed to Train Traffic

One commenter stated that communities have grown accustomed to a railroad that has had virtually no effect on daily life.

Response

When members of the public purchased property in the vicinity of the tracks, there was no assurance that the number of trains using the rail line would remain low, and property owners incurred a latent risk that the number of trains running on the line might increase at some time in the future.

The line was an existing environmental condition when people moved into the area, and many assumed that future rail operations would be the same as current operations. Local conditions cannot be assumed to be static over time and underutilized resources, such as the EJ&E rail line, may be used to the maximum extent possible.

Increased Rail Traffic Poses Danger to Pedestrians

Commenters expressed concerned that increased rail traffic will delay and endanger children and other pedestrians who must cross rail lines. One commenter stated that there are too many tracks between children's homes and elementary schools, while another said children would no longer be able to walk to school.

Response

The analysis that SEA performed regarding pedestrian, bicycle, and vehicular safety included pedestrians and drivers of all age groups. School-age children by nature are more apt to exhibit risky or inappropriate behaviors due primarily to lack of experience or understanding of the risks. SEA's views on actions communities can take to educate pedestrians and cyclists are briefly discussed below:

Student Pedestrians or Cyclists

Where students are intended to cross the tracks, there should be a sufficient walking or cycling surface that is wide enough and without tripping or slipping hazards. This would allow students to approach the area of the tracks with their attention focused on the possibility of approaching trains instead of navigating the surface. Walkers should also be provided with a combination of audio (bells and horns) and visual signals (signs, flashing lights, and clear sight lines down the tracks).

Where students are required to wait for a train, there should be a safe area where they can stand that is free from other hazards such as the passing train itself, highway traffic, driveway approaches, and adjacent tracks. The dimensions of this "safe waiting area" are dependent upon the number of students that are expected to be required to wait and can be very time specific depending upon the school schedule.

Once the train has passed, the students need a clear understanding that the train has passed and it is safe to cross. Where two or more tracks are running through the crossing, there should be sufficient visual sight lines and/or audio warning for students to make the appropriate decision that a second train is not on its way following the passage of the first train.

Once adequate warning and a sufficient safe waiting zone are provided, the primary concern becomes students making the appropriate decision to wait for the train(s). This issue can be addressed through

both education and enforcement. Students should understand the risks and the appropriate responses and this should be followed up with an appropriate level of enforcement and/or monitoring to reinforce appropriate behavior.

Student Drivers

Many students drive to and from school. The concern with young drivers is that they tend to be less experienced and less attentive than other drivers. This leads to the concern that these drivers may be distracted from seeing the warning devices or may ignore the warning devices and take inappropriate risks by attempting to beat the train and/or drive around lowered crossing gate arms. SEA evaluated the predicted risks associated with drivers (of all age groups) within its analysis. The primary issue with student drivers is education and enforcement. Student drivers should understand the risks and the appropriate responses and this should be followed up with a certain level of enforcement and/or monitoring to reinforce appropriate student driver behavior.

SEA identified the number of schools located along the rail lines that would see a change in train traffic as a result of the Proposed Action. The results are displayed in the table below. SEA obtained data from the Illinois and Indiana state boards of education on public and private schools (kindergarten through high school) within 2.0 miles, 0.25 mile, and adjacent to the track.

Table 3.4-3. Number of Schools Near the EJ&E and CN Rail Lines

	Schools Immediately Adjacent to Tracks	Schools within 0.25 Mile of the Tracks	Schools within 2.0 Miles of the Tracks
EJ&E Line	12	44	344
CN Lines	14	118	983

SEA agrees with commenters that this issue is of concern. However, the risks associated with student populations crossing the tracks along the EJ&E rail line exist today. The Proposed Action is unlikely to create conditions that do not already exist. Moreover, locations along the CN lines would see a reduction in the number of trains as a result of the Proposed Action, and therefore less risk.

As voluntary mitigation, the Applicants have offered to provide fencing along the EJ&E ROW where schools are within 0.25 mile of the ROW; to identify elementary, middle, and high schools within 0.50 mile of EJ&E rail line and to provide, upon request, informational materials concerning railroad safety; and to make Operation Lifesaver programs available to schools located along the affected line segments. This mitigation should reduce some of the risks from the Proposed Action to pedestrians and students.

School Not Located on Maps

A commenter from Hawthorn Woods, Illinois stated that an elementary school was not shown on the Draft EIS maps. The school is on the opposite side of the railroad tracks from the fire station. However, the commenter did not specify which school was missing from the analysis.

Response

SEA has updated the database of schools within 2.0 miles of the EJ&E and CN rail lines. Section 2.4 of this Final EIS addresses school-related issues.

EJ&E Rail Line Passes over Natural Gas Line and Close to High Tension Wires

The commenter stated that the EJ&E rail line crosses a natural gas pipeline in the Warrenville community. Two commenters also stated that the EJ&E tracks are close to high voltage electric transmission lines and that vibration from the additional trains would damage these lines.

Response

Rail lines commonly intersect with a variety of different types of utility lines, including natural gas pipelines and high tension wires, around the country. Design standards have been developed to ensure safe operation of both the rail line and the utilities. If the Proposed Action is approved by the Board, the EJ&E rail line and the utilities would meet all applicable design standards related to safety.

Noise Effects on Libraries

Noise and vibration effects would adversely affect libraries located close to the EJ&E rail line. The Barrington Library in Barrington, Illinois plans on constructing a new children's wing within 1,000 feet of the EJ&E rail line.

Response

Expected noise and vibration effects were evaluated in Section 4.10 of the Draft EIS and updated in Chapter 2 of this Final EIS. The results of SEA's noise and vibration analyses show that, if the Proposed Action were to be approved and implemented, the Barrington Library would remain outside of the vibration contour and the 65 dBA Ldn noise contour (that is, the library would not experience threshold levels of noise and vibration). Therefore, SEA concludes that noise impacts from the Proposed Action would not adversely affect the library or people's use of the facility.

Specific Analysis for Rose Elementary School

One commenter requested that a complete analysis be conducted for Rose Elementary School in Barrington Hills, Illinois to identify any adverse effects from the additional train traffic.

Response

SEA has updated the database of schools within 2.0 miles of the EJ&E and CN rail lines. Section 2.4 of this Final EIS addresses school-related issues.

CN has volunteered to work with school and park districts to provide fencing along the EJ&E ROW where schools or parks are within 0.25 mile of the ROW. CN would also continue ongoing efforts with community officials to identify elementary, middle and high schools within 0.50 mile of the EJ&E's ROW and provide, upon request, informational materials concerning railroad safety to such identified schools.

2016 Olympics

One commenter said, "It's hard to imagine any Olympic equestrian competitions after implementation of CN's proposal."

Response

Although Chicago is a finalist to host the 2016 Olympic Games, the International Olympic Committee has not determined which city will host the Games. Therefore, it would be speculative

and beyond the scope of the EIS for SEA to consider potential effects on any equestrian events associated with the Olympic Games.

Evaluate School Playgrounds and Ball Fields

Many commenters were concerned that the effects on school playgrounds, sports fields, local and state parks, as well as schools such as Peterson Elementary School in Naperville, Illinois, were not studied in the Draft EIS. The same commenters went on to state that effects on School District 204 and other school districts along the EJ&E rail line were not carefully examined in the Draft EIS. Concerns included student safety and higher transportation costs resulting from the EJ&E rail line splitting the school district in half, as well as pollution from idling buses.

Response

The Draft EIS did not analyze school playgrounds or school ballfields as separate from schools. The Draft EIS identified nearby schools, and for this Final EIS, SEA updated the database to include schools within 2.0 miles of the EJ&E rail line.

CN has proposed voluntary mitigation to cooperate with school and park districts to provide fencing along the EJ&E ROW where schools or parks are within 0.25 mile of the ROW and to identify at-grade crossings where additional pedestrian warning devices may be warranted. CN would also continue ongoing efforts with community officials to identify elementary, middle and high schools within 0.50 mile of the EJ&E's ROW and provide, upon request, informational materials concerning railroad safety to such identified schools.

Barrington Library

One commenter requested that SEA reconsider the effect of the proposed sale on the Barrington Area Library and the Barrington area as a whole and to address these concerns and a means for resolving them.

Response

The concerns raised relate to access to the library during the evening and access to emergency medical facilities, particularly Good Shepherd Hospital, if an emergency occurred at the library. SEA addressed traffic delays in Barrington and elsewhere along the EJ&E rail line that could occur as a result of the implementation of the Proposed Action in Section 4.3.1 of the Draft EIS. SEA also addressed effects on emergency services, including Good Shepherd Hospital, in Section 4.3.3 of the Draft EIS. SEA described the voluntary mitigation proposed by CN as well as its own preliminary environmental mitigation strategies in Chapter 6 of the Draft EIS.

Additional analyses undertaken as a result of comments received on the Draft EIS are contained in Chapter 2 of this Final EIS. Based on public comment and input received, SEA developed final mitigation recommendations to the Board, which are described in Chapter 4 of this Final EIS.

3.4.9.8 Construction Impacts on Socioeconomics

Maintain Access during Construction

One commenter stated that construction of the Munger and Leithton connections would deny access to local businesses.

Response

During construction, CN would implement reasonable measures to maintain access to local businesses. Construction of the Munger and Leithton connections would not have any effect on businesses, and the construction impacts from the other four connections are expected to be minor, localized, and temporary.

Matteson Metra Commuter Parking Lot

Several commenters expressed concern about the loss of the parking lot or parking spaces at the Metra lot in Park Forest, Illinois and some requested that access to the pedestrian tunnel be maintained.

Response

If the Board approves the Proposed Action, the Applicants would negotiate with Park Forest, Illinois and Metra about compensation/mitigation for the effects on the Metra Matteson commuter parking lot and potential loss of parking, if the Proposed Action is approved. Also, the Applicants shall maintain the pedestrian tunnel from the Metra Park-n-Ride lot to the Metra train station. SEA's recommended mitigation measures and the Applicants' voluntary mitigation measures are presented in Chapter 4 of this Final EIS.

3.4.9.9 Socioeconomics Methodology

Summary

Commenters expressed concern about the methodology used for the socioeconomics analysis. SEA's property value analysis was of particular concern. Other commenters stated that the Draft EIS did not address quality of life issues.

Response

The Draft EIS included information from the most recent official sources to assess the socioeconomic effects of the Proposed Action and to ensure. The discussion included relevant, available studies on the subject of property effects; however, there are few objective, independent analyses of the potential for increased freight traffic on an established rail line to adversely affect nearby property values. SEA identified additional information on property values during the public comment period and has incorporated this data into this Final EIS. Section 2.8 of this Final EIS provides the results of SEA's analysis which are consistent with the information provided in the Draft EIS.

Quality of life issues are addressed in the comment summary and SEA response titled "Adverse Effects on Quality of Life" in Section 3.4.9.6 of this chapter.

No Consideration Given to Certain Municipalities

One commenter stated that the Proposed Action would be very detrimental to New Lennox, Illinois and to other villages such as Frankfort, Illinois, and that no consideration was given to these people.

Response

To ensure fairness and to show respect, the NEPA process provides several opportunities for interested parties to comment on the issues assessed in environmental documents, and to comment on the Proposed Action and its potential effects. SEA's environmental process for this Proposed Action has included many opportunities to provide comments. SEA's public involvement efforts are presented in Chapter 9 of the Draft EIS and in Chapter 5 of this Final EIS.

Property Values

One commenter stated that the Draft EIS was short-sighted to only consider effects on property values within 250 feet of the rail line. Another commenter questioned how SEA determined the number of affected homes because SEA did not attempt to determine how many homes along the EJ&E rail line are within 250 feet, nor did SEA calculate the potential property value loss in any way. A commenter disagrees with the conclusion in the Draft EIS that the Proposed Action would result in a negligible decrease in property value. While many commenters stated that they expect property values to decrease more than the 5.35 percent described in the Draft EIS, no one provided any research or data to support additional losses.

Response

The Draft EIS states that property values for parcels within 250 feet of the EJ&E rail line are likely to decrease as a result of the Proposed Action and property values within 750 feet of the EJ&E rail line may decline. Based on the available literature, the Draft EIS estimated that the maximum change in property values from the increased train traffic would be a decline of 5.35 percent. The complete analysis is provided on in Section 4.6 of the Draft EIS. Additional studies identified after the issuance of the Draft EIS are summarized in Section 2.8 of this Final EIS. The findings of these studies are generally consistent with those presented in the Draft EIS.

Effects Were Underestimated

Commenters said the economic effects would be greater than stated in the Draft EIS. One commenter wrote that the effects on New Lennox, Illinois would be significant and that the document minimizes them.

Response

Section 4.6 of the Draft EIS concluded that the Proposed Action would have minimal socioeconomic effects on Study Area communities. Since the publication of the Draft EIS, SEA has conducted additional socioeconomic analyses. These analyses include effects on property values and property tax revenues; the results are presented, by community, in Section 2.8 of this Final EIS.

CN Direct Economic Benefit Not Given

The Draft EIS did not specify the direct economic benefits to CN and said that is needed to determine what amount CN should contribute to mitigation.

Response

Based on the Applicants' Application to the Board, the Draft EIS stated that the Proposed Action would increase CN's annual revenue by $14.86 million. CN submitted a comment letter stating that this figure is too low. However, mitigation is based on expected environmental effects and not on how much revenue is generated by the Proposed Action.

Obsolete Census Data

Commenters stated that it was inappropriate to use 2000 Census data when some communities, such as Plainfield, have been growing so rapidly. Another commenter pointed out that data from 2000 no longer reflect current conditions.

Response

Population numbers provided in the Draft EIS are from the 2000 U.S. Census. SEA used Census data in the Draft EIS for consistency between the 60 communities adjacent to the EJ&E rail line. The most recent demographic data available for census block groups is from the 2000 U.S. Census. These geographic areas are typically used in the analysis of potential effects because they provide accurate population counts for small areas of analysis such as city blocks and neighborhoods. The U.S. Census Bureau has continued to gather information subsequent to the 2000 U.S. Census by completing American Community Surveys; however, this data was not used in SEA's analysis because they are estimates and do not provide data at the census block group level. Because the more recent data is not available for all of the municipalities, use of this data would be inconsistent across the overall Study Area.

Fails To Clearly Identify Fiscal Effects on Affected Communities

The document fails to clearly identify the fiscal effects on affected communities along the EJ&E rail line.

Response

In response to comments on the Draft EIS, estimated fiscal effects on local communities are provided in Section 2.8 of this Final EIS.

Regional Benefits vs. Local Adverse Effects

Commenter said regional benefits should not outweigh the local adverse effects.

Response

The EIS properly discusses potential effects at a national and international level (the freight rail system crosses the United States and Canada), the regional level (the Proposed Action is located across the Chicago metropolitan area), the affected interests (local businesses and residents), and the local area (the 60 communities that are adjacent to the existing EJ&E rail line, as well as the communities along the CN lines). The EIS concludes that the Proposed Action would benefit the national and regional economies by improving the efficiency of freight shipping. The EIS finds that the expected effects on the local communities and affected interests along the EJ&E rail line would be increased annoyance from traffic delays and increased noise, localized air emissions, and vibration from train traffic. The EIS recommends a number of measures that CN would need to provide as mitigation for potential adverse effects related to the Proposed Action.

Regional Business Effect Ignored

Two commenters asked why regional business effects and tax revenues were ignored.

Response

SEA calculated vehicle delays along EJ&E and CN rail line segments for the No-Action and Proposed Action alternatives. Results are summarized in Chapter 3 and Appendix E of the Draft EIS and in Chapter 2 of this Final EIS. Because vehicles delays are not expected to substantially increase, there should be no adverse effect to local businesses, commercial districts, or population centers. Additionally, while delays at crossings along the EJ&E rail line would increase, delays along the CN lines would decrease and would improve vehicle access in those areas.

The Proposed Action is likely to have a minor effect on property values for residential properties adjacent to the EJ&E tracks, and minor effects on community tax revenues. Acquisition of developed property in Matteson for the Proposed Matteson Connection Alternative would reduce the local property taxes by approximately $50,000 and by $57,000 under the Northeast and Southwest Quadrants Alternative. All other alternatives proposed would not affect the tax base or local property tax rates. As a private enterprise, the Applicants would pay tax on all property acquired for construction. In addition, the analysis estimates that construction activities would generate $3.82 million of local and state tax revenues during each year of the two-year construction period, as well as $8.71 million of Federal tax revenues.

Analyze Entire School Districts

A commenter said that effects on entire school districts should be evaluated, not just schools within one-half mile of the tracks.

Response

Based on the traffic analysis, SEA determined that the Proposed Action would not affect the majority of schools in any given district. As a result, SEA's analysis focused on schools nearest the EJ&E rail line.

Taxpayer Investment

One commenter stated that the document failed to consider adverse effects on taxpayer investments.

Response

When property owners purchased property in the vicinity of the EJ&E rail line, there was no assurance that the number of trains using the rail line would remain low and property owners incurred a latent risk that the number of trains running on the line might increase at some time in the future. However, based on the available literature, the Draft EIS estimated that the maximum change in property values from the increased train traffic would be a decline of 5.35 percent. Additional studies identified after the issuance of the Draft EIS are summarized in Section 2.8 of this Final EIS. The findings of these studies are generally consistent with those presented in the Draft EIS.

Railroads and local jurisdictions typically cooperate to fund at-grade crossing improvements. Historically, railroads have paid for a small share (5 to 10 percent) of grade separations because the separations primarily benefit the community and not the railroad. However, because the potential safety effects identified in SEA's analysis would be the direct result of increased train traffic on the EJ&E rail line, should the Board approve the Proposed Action, SEA recommends that the Applicants fund 15 percent of the cost of the two grade separations determined to mitigate substantially affected highway/rail at-grade crossings. The reasons for that determination are set forth in Chapter 4 of this Final EIS.

Economic Benefits vs. Commuter Rail Effects

One commenter stated that the Proposed Action would interfere with, or possibly destroy, commuter rail routes into Chicago. The commenter went on to say that the costs to the commuter rail providers would outweigh the claimed economic benefits of more efficient freight traffic.

Response

Section 2.3 of this Final EIS evaluates the feasibility of constructing and operating commuter rail along the EJ&E rail line and concluded that the Proposed Action would not interfere with or preclude

adding an additional commuter line adjacent to the EJ&E rail line. Because adding new freight traffic to the EJ&E rail line would not interfere with commuter rail to a substantive degree, SEA did not evaluate the economic effects.

Regional and National Economies

Several commenters stated that SEA skirted entirely the issue of adverse effects of the Proposed Action on local, state, and national economies.

Response

The Board evaluated the economic issues (both beneficial and adverse) through the economic merits evaluation conducted in parallel with this environmental review. The Proposed Action would reroute trains from the existing CN lines that enter and travel through downtown Chicago to the EJ&E rail line that traverses around Chicago. The socioeconomic analysis conducted for the Draft EIS evaluated potential adverse effects on the local economy and did not identify any adverse effects on the region. The regional and national economic effects would include a beneficial increase in freight movement efficiency.

Frankfort, Illinois Analysis

Several commenters stated that the Draft EIS did not address Frankfort, Illinois' numerous schools, subdivisions, churches, and retreat center.

Response

The Draft EIS did not specifically address individual communities because of the length of the EJ&E rail line, which extends through 60 communities located in five counties and two states. The document did address the population of cities and schools within 2.0 miles of the EJ&E rail line. Camp Manitoqua and Retreat Center is located adjacent to tracks near the Sauk Trail crossing in Frankfort, Illinois. Potential effects on this property are likely to be similar to those discussed for public facilities. SEA's recommended mitigation measures in Chapter 4 of this Final EIS would require CN to consult with representatives from Camp Manitoqua about the appropriateness of constructing a fence along the rail right-of-way to improve safety.

3.4.9.10 Other Comments on Socioeconomics

Home Insurance and Hazardous Materials Spills

One commenter was concerned about property home insurance covering the effects from an event as severe as a tanker spill or derailment.

Response

In the event of a spill or derailment, the railroad and/or the shipper would be liable for damages to private property, depending on the cause of the release. As described in Section 4.2 of the Draft EIS, the likelihood of a tanker spill or derailment would increase due to increased rail traffic; however, the likelihood would remain remote. Therefore, determining the potential behavior of insurance companies would be speculative. An evaluation of the increased risk of a hazardous materials spill is provided in Section 2.7 of this Final EIS.

Grade Separation and Redevelopment

Commenters expressed concern that a grade separation on Hough Street (IL 59) would adversely affect access to existing commercial centers and identified redevelopment sites, making it difficult to lease existing space and limiting any possibility for future redevelopment in the Barrington area.

Response

If the Board requires mitigation for effects on the Hough Street (IL 59) highway/rail at-grade crossing, the Applicants would coordinate with Barrington, Illinois, during the design phase.

Cost to Train Emergency Responders

One commenter addressed the issue of increased expenses to train police officers who might have to handle derailments.

Response

Railroads work very closely with local communities to train emergency responders on how to handle releases in the unlikely event of a release that involves hazardous materials. As noted in the Draft EIS, CN has a system-wide plan for handling emergencies. The CN Emergency Response Plan (ERP) is reviewed annually, and local ERPs are prepared for individual yards and facilities. ERPs include extensive training requirements, response plans, and location of response supplies.

CN's rail traffic control centers play an important role in the emergency response process, and local operations are handled out of CN's Homewood rail traffic control center. The rail traffic control centers coordinate all response efforts within CN and with outside agencies and responders.

Either in conjunction with the American Chemistry Council's (ACC) Transportation Community Awareness and Emergency Response (TRANSCAER) program, or on their own, railroads train over 20,000 emergency responders a year in the response methods associated with rail transportation of hazardous materials. CN is an active participant in the TRANSCAER program. To assist local response agencies in preparing for rail transportation emergencies, railroads provide, upon request, a list of the top 25 hazardous commodities transported through their community.

As discussed in the Draft EIS, CN has begun a new emergency response outreach program designed to enhanced preparedness and foster partnerships with the response community through Responder Education Assistance and Certification Training (REACT). CN provides three phases of training for the response community. Finally, in response to EPA's comments, the Applicants have proposed voluntary mitigation to provide spill response training to all appropriate parties in this Final EIS, which should address EPA's concerns.

3.4.10 Comments on Environmental Justice

3.4.10.1 Impacts on Minority and Low-Income Populations

Summary (4.7a)

Commenters are concerned that low-income and minority populations, particularly in West Chicago, Illinois, will be disproportionately adversely affected by the Proposed Action.

Response

Using the data on safety, noise, and vehicle delays that were prepared in other sections of the Draft EIS, SEA set up a scoring system to determine when these impacts could be adversely impact any

population segment. The data on safety and vehicle delays did not reach the level of being considered high and adverse; therefore, SEA determined that no further study was needed for safety and vehicle delays. The data on noise impacts did reach the level of being high and adverse. SEA then did a statistical comparison of the noise impacts on minority versus non-minority and low-income versus non-low-income census block groups. SEA concluded the high and adverse impacts were not disproportionately experienced by either the minority or the low-income census block groups. This is true for West Chicago residents. In addition, SEA concluded that minority and low-income populations were not likely to experience high and adverse impacts due to construction or exposure to hazardous materials. SEA also identified potential benefits to minority and low-income populations along the CN rail lines as a result of decreased train traffic along the CN lines under the Proposed Action. The reduced train traffic along the CN lines corresponds with decreased train noise, vehicle/train interaction frequency, and vehicular delays at crossings.

Evaluation of Growing Hispanic Population

Commenters said the Draft EIS did not investigate the growth of the Hispanic population in Waukegan, Illinois; Elgin, Illinois; West Chicago, Illinois; and Joliet, Illinois, as reported in other data sources.

Response

As discussed in Section 9.2.2 of the Draft EIS, SEA identified Waukegan, Elgin, West Chicago, and Joliet as communities with minority and low-income populations potentially affected by the Proposed Action. SEA conducted specific outreach for these residents and all other communities with minority and low-income populations to ensure that they had the opportunity for full involvement throughout the environmental review process. SEA‘s public outreach efforts are documented in Chapter 5 of this Final EIS.

Safety and Delay Impacts on Minority and Low-Income Population

A commenter questioned how SEA identified the criteria for identifying safety and delay impacts on census block groups as high and adverse in the environmental justice analysis.

Response

The criteria and methodology SEA used to identify safety and delay impacts on minority and low-income populations and the general population is discussed in Chapter 4 of the Draft EIS. SEA’s criteria for evaluating safety and delay effects are explained in Appendix I, Section 1.2.2, of the Draft EIS.

Lacking Resources to Relocate

A commenter resides in a mobile home near the EJ&E rail line and wishes to move away from the rail line if the Proposed Action is approved; however the commenter is concerned because the commenter cannot afford to move away from the tracks.

Response

SEA understands that residents are concerned about the effects of the Proposed Action on properties located near the EJ&E rail line. However, the Draft EIS concluded that effects of the Proposed Action would not require the acquisition of residential properties. It is at the homeowner’s discretion to choose to relocate.

Analysis of Noise Impacts on Minority and Low-Income Populations

A commenter states that the environmental justice analysis should have been conducted using a noise level of 65 dBA Ldn as a high and adverse impact and indicates that a graphic showing the noise effects on minority and low-income populations should have been included in the Draft EIS.

Response

The environmental justice analysis documented in the Draft EIS identified high adverse effects on receptors located within the 70 dBA contour line. SEA and other Federal agencies do not consider noise-sensitive receptors exposed to 65 dBA Ldn to be adversely affected. Draft EIS Section 4.10, Noise and Vibration, presents the effects of noise and vibration on communities along the EJ&E rail line, and Figures 4.10-1 and 4.10-2 show the location of receptors that would be affected by the Proposed Action. In addition to these figures, Appendix L, Noise and Vibration Analysis, presents the noise and vibration contours overlaid upon aerial photography.

A more detailed explanation of the methodology used to assess the effects of the Proposed Action on minority and low-income populations is located in Appendix A of this Final EIS.

Lack of Air Quality Consideration at the Census Block Level

A commenter said air quality effects on minority and low-income populations should have been evaluated.

Response

SEA's analysis of air quality in Section 4.9 of the Draft EIS did not identify adverse effects on air quality for any population from the Proposed Action. In response to concerns about localized air quality effects due to locomotive emissions, SEA performed additional air quality impact analysis for the preparation of this Final EIS. The additional analysis, described in detail in Section 2.8, shows that changes to local air quality would be minimal in comparison to National Ambient Air Quality Standards (NAAQS). As a result, SEA did not conduct an analysis of disproportionate adverse air quality effects on minority and low-income populations.

Noise Effects on Minority and Low-Income Populations

A commenter questioned the environmental justice criteria for evaluating noise impacts.

Response

A more detailed explanation of the methodology used to assess the effects of the Proposed Action on minority and low-income populations is located in Appendix A of this Final EIS. This explanation includes tables presenting the actual and expected train noise impacts on all low-income and minority populations in the Study Area. The analysis of impacts on all minority and low income populations in this Final EIS is consistent with the results contained in the Draft EIS.

Section 4.10 of the Draft EIS presents the effects of noise and vibration on all communities along the EJ&E rail line, and Figures 4.10-1 and 4.10-2 show where noise effects would occur as a result of the Proposed Action. The analysis of impacts on all minority and low income populations documented in Chapter 2 of this Final EIS found high and adverse effects on noise-sensitive receptors (for example, residences and schools) located within the 70 dBA contour line to be consistent with the results of the analysis in Section 4.10 of the Draft EIS.

No mitigation is proposed for minority and low-income communities because disproportionate effects were not found.

Mitigation Funding

A commenter indicated that less affluent communities would not be able to afford the recommended mitigation.

Response

Some mitigation conditions are not required to be solely financed by CN because they are not solely the result of the Proposed Action. SEA sought public and agency comment on the preliminary environmental mitigation strategies described in Chapter 6 of the Draft EIS and encouraged mutually acceptable negotiated agreements between CN and the potentially affected communities. Based on public comments and input received, SEA developed final mitigation recommendations to the Board, which are described in Chapter 4 of this Final EIS. SEA's final mitigation recommendations address the timing and financing of some mitigation measures.

Environmental Justice Analysis in Will County

A commenter questioned the minority environmental justice criteria used for Will County, and indicated that the effects on Will County should have been considered as localized impacts, and that the environmental justice analysis did not analyze property values and air quality impacts.

Response

SEA recognized there was an error in the calculation of the environmental justice criteria. SEA revised the calculation of the percentage of the minority population in Will County from 46.5 to 32.6 percent. This value includes the 10 percent that is added to the minority percentage of the county as described in Section 3.7 of the Draft EIS. The revised environmental justice criteria are presented in Section 2.9 of this Final EIS. The change in the environmental justice criteria did not alter SEA's conclusion, presented in the Draft EIS, that minority and low-income populations do not experience disproportionate high and adverse affects from train noise, delays, and safety as a result of the Proposed Action.

The low-income and minority environmental justice criteria calculated for each county accounted for the differences in the percentage of these populations among the counties included in the Study Area. The percentage of minority or low-income populations within each census block group was compared to the criteria for the county in which the census block group resides. The analysis included the entire Study Area to assess whether minority and low-income populations experience the impacts disproportionately compared to non-minority and low-income populations within the Study Area.

In Sections 4.9 and 4.6 of the Draft EIS, SEA determined that the effects of the Proposed Action on air quality and property values would not be substantial. In response to concerns about localized air quality effects due to locomotive emissions, SEA performed additional air quality impact analysis for the preparation of this Final EIS. The additional analysis, described in detail in Section 2.8, shows that changes to local air quality would be minimal in comparison to National Ambient Air Quality Standards (NAAQS). SEA also performed additional analysis of the potential effects on property values; the results are presented Section 2.10 of this Final EIS. Therefore, SEA did not conduct an analysis of disproportionate high and adverse effects for air quality or property values on minority and low-income populations.

Environmental Justice Analysis Incorrectly Applied

A commenter indicated that Executive Order 12898 was incorrectly applied in the Draft EIS and does not address social justice issues.

Response

The Draft EIS presented the overall effects of the Proposed Action on all communities for each environmental resource. SEA conducted an environmental justice evaluation of the Proposed Action. This evaluation is mandated by Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations, and is in accordance with CEQ and EPA guidance on environmental justice.

A more detailed explanation of the methodology used to assess the effects of the Proposed Action on minority and low-income populations is located in Appendix A of this Final EIS.

Environmental Justice Analysis Did Not Include All Affected Residents

A commenter indicated that the Draft EIS did not include the entire number of affected residents.

Response

The methodology SEA used to assess the effects of the Proposed Action on minority and low-income populations is similar to methodologies previously established by SEA in environmental review documents prepared for other rail transactions. To be consistent in its analysis, SEA used 2000 Census data at the census block group level for the areas that would be potentially affected by the Proposed Action. The census block group data identified the entire population within each of these block groups.

A more detailed explanation of the methodology used to assess the effects of the Proposed Action on minority and low-income populations is located in Appendix A of this Final EIS.

Lack of Consideration of Impacts on Minority and Low-Income Populations

A commenter indicated that the 10 percent threshold eliminates any possibility of finding a disproportionate effect on minority and low-income populations, and that the assessment of impacts over the entire study area does not allow for a complete assessment of impacts on communities such as Frankfort. The commenter also indicated that the Draft EIS does not reference land use plans although the rail traffic and traffic impacts of the Proposed Action may affect the communities along the EJ&E rail line, and that the analysis does not consider the capacity improvements the Applicants may construct if the Proposed Action is approved.

Response

For environmental justice analysis in previous rail transactions, SEA has used the threshold that identifies census block groups that have a percentage of minority or low-income populations that is 10 percent greater than the county average for low-income and minority census block groups. This threshold identifies census block groups with demographics that are not typical for the county.

The analysis included the entire study area to assess whether minority and low-income populations experience impacts disproportionately compared to non-minority and low-income populations within the study area. Frankfort is not identified as a minority or low-income community. SEA believes that the EIS adequately describes the effects of the Proposed Action on all communities in the Study Area.

SEA analyzed the consistency of the proposed changes in rail operations with local land use plans. None of the land use plans reviewed assumed that the EJ&E rail line would be removed. Region-wide transportation plans by the State of Illinois, City of Chicago, the rail industry, and Metra have been developed to upgrade and improve the Chicago region's rail transportation network to improve current freight mobility needs and plan for anticipated growth. The proposed improvements are

consistent with these plans and the Metropolitan Planning Council's 2004 regional plan (MPC 2004). The EJ&E rail line ROW contains an active rail corridor historically used for freight.

NEPA requires that an environmental document evaluate actions that are reasonable and foreseeable. The analysis presented in the Draft EIS is based on the information provided by the Applicants and relevant data from state and local agencies. Speculative actions, such as future capacity improvements, that may or may not occur should the Proposed Action be approved, are not considered "reasonable" and are not evaluated as part of this environmental document.

Medium-Income Communities

Commenters said the Draft EIS only addressed effects on minority and low-income communities and did not include impacts on medium-income communities.

Response

The Draft EIS presented the overall effects of the Proposed Action on all communities for residents at all income levels for each environmental resource. In addition to the overall effects, SEA conducted an environmental justice analysis which evaluated potential effects of the Proposed Action on minority and low-income communities. This evaluation is mandated by Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations, and is in accordance with CEQ and EPA guidance on environmental justice. The Draft EIS also identified potential benefits to all communities along the CN rail lines where the train traffic is expected to decrease under the Proposed Action.

Minority and Low-Income Populations Benefit from the STAR Line

A commenter identified the Hispanic communities in Elgin, Illinois; West Chicago, Illinois; and Joliet, Illinois, as key beneficiaries of the Metra STAR Line.

Response

SEA recognizes that the communities of Elgin, West Chicago, and Joliet are among those that are planning to construct commuter stations adjacent to the proposed Metra STAR Line route. SEA re-evaluated the effects of the Proposed Action on the Metra STAR Line; the results are presented in Chapter 2 of this Final EIS. If the STAR Line is constructed, the Hispanic communities in these cities would benefit from new commuter rail service.

Communities Along CN Rail Lines

A commenter stated that the demographics of communities along the EJ&E rail line potentially affected by the Proposed Action are different than those in communities along the CN rail lines that would benefit from the Proposed Action.

Response

Comment noted. Demographic characteristics of all communities along both rail lines are described in Section 4.7, Environmental Justice, of the Draft EIS and Section 2.9 of this Final EIS.

3.4.10.2 Environmental Justice Methodology

Summary (4.7y)

Commenters questioned the use of 2000 Census data to define minority and low-income areas because the data is eight years old. Some of these commenters believed that SEA should have used more recent and localized demographic information.

Response

The most recent demographic data available for census block groups is from the 2000 Census. These geographic areas are typically used in the analysis of potential effects on minority and low-income populations because they provide accurate population counts for small areas of analysis such as city blocks and neighborhoods. More recent data from some individual municipalities are available, but for much larger geographic areas, such as at the city level. Since the more recent data is not available for all of the municipalities, use of this data would be inconsistent with the overall Study Area. In addition to the census data analysis, SEA conducted outreach targeted to low-income and minority communities to ensure these populations were identified beyond the 2000 Census data and had the opportunity for involvement in the environmental process. SEA's public outreach efforts are documented in Chapter 5 of this Final EIS.

Locating Noise Effects on Minority and Low-Income Populations

Commenters noted the Draft EIS did not include a map that identified the low-income and minority homes that would be affected by noise.

Response

Income information was gathered through census block maps which do not identify individual homes, but rather neighborhood or block level low-income or minority status. Appendix L, Noise and Vibration Analysis, presents maps that show the noise and vibration contours in the Study Area. Communities can refer to these maps to identify local noise effects. In addition, Section 4.10 of the Draft EIS presents the effects of noise and vibration on communities along the EJ&E rail line resulting from of the Proposed Action.

Inappropriate Methodology

Commenters were concerned that the methodology is improper and difficult to follow, does not explain the buffers or the thresholds used to determine environmental justice impacts, fails to explain methodology, and contains inconsistencies with other sections in the Draft EIS. In addition, environmental justice section was not written in plain language and does not include graphics to display information.

Response

A more detailed explanation of the methodology used to assess the effects of the Proposed Action on minority and low-income populations is located in Appendix A of this Final EIS. This methodology includes an explanation of the buffers and thresholds used to determine environmental justice impacts. Using the 2000 Census data, SEA identified census block groups that contain minority or low-income populations that are at least 10 percent higher than the percentage of low-income or minority populations for the county as a whole. This methodology identified census block groups that had a low-income or minority population greater than 50 percent.

SEA has also conducted additional analyses for this Final EIS, which is shown in Chapter 2. Together, these two environmental justice discussions clarify confusion the reader may have encountered in the Draft EIS. SEA did not include graphics in the environmental justice section of the Draft EIS because disproportionate, high, and adverse impacts on minority and low-income populations were not identified.

3.4.10.3 Energy Use and Energy Efficiency

Total Effect on Energy Consumption

Commenters expressed concern that total energy use would increase under the Proposed Action. Comments generally focused on the effect on the environment or on the country being less dependent on foreign oil.

Response

SEA's evaluation of fuel use data supplied by the Applicants shows that energy use will increase under the Proposed Action. As discussed in Section 4.8 of the Draft EIS, fuel consumption from trains and motor vehicles would be anticipated to increase by less than 10 percent compared to current levels of energy use. SEA found the environmental effects and effects on dependence on foreign oil to be minimal.

Individual Fuel Use While Waiting at Crossings

Commenters expressed concern that individual use of gasoline would increase due to increased idling times under the Proposed Action. Comments focused either on the effect on the environment, or on economic effects on individuals and businesses.

Response

SEA's evaluation of fuel use of idling vehicles at highway/rail at-grade crossings indicated that motor vehicle gasoline and diesel fuel use would increase for vehicles delayed near at-grade crossings on the current EJ&E rail line due to the Proposed Action. These increases along the current EJ&E rail line are offset somewhat by decreases on the current CN lines.

As to individual motorists concerned with their own increasing fuel use due to vehicle delays near highway/rail at-grade crossings, decreases at other locations are likely irrelevant, as the impact to an individual motorist is only dependent on the crossing which they regularly encounter. Of the approximately 610,000 increased annual hours of idling on the current EJ&E rail line as calculated in Chapter 2 of this Final EIS, an individual highway/rail at-grade crossing might contribute in the range of 500 to 50,000 annual hours to that total, which is the sum of the hours of idling by all delayed vehicles at that crossing. For example, the traffic delay calculations show that the Washington Street crossing in Joliet Avenue contributes approximately 54,390 hours to the increased annual hours of idling, the largest increase for any crossing. The average daily traffic (ADT) at this crossing is 11,714 vehicles. Therefore, for any given vehicle making the crossing once per day, there would be an average increase of 4.6 idling hours per year (54,390 divided by 11,714), which would translate into an increase of approximately 2.3 gallons of fuel per year per crossing vehicle. This crossing also has the highest average increase in per motorist fuel use for any crossing. If a motorist stopped at this crossing an average of four times per day, the fuel increase would be approximately 10 gallons of fuel per year.

It is also recognized that a given motorist may be "lucky" or "unlucky" in their personal experience with delays caused by crossing train traffic. A lucky motorist would experience less delay than the average motorist, while an unlucky motorist would experience more delay than the average motorist.

In any case, to reduce the amount of their own increase in fuel use, an individual motorist could turn off their vehicle when delayed, if practical.

Total Auto Fuel Use at Highway/Rail At-Grade Crossings or on Alternate Routes

Commenters expressed concern that the overall fuel use by motor vehicles would increase due to increased idling times under the Proposed Action, or due to motorists taking alternate routes to avoid delays. Comments generally focused on environmental effects from fuel increases or on the impact on the country being less dependent on foreign oil.

Response

SEA's analysis of the Applicants' proposed operations indicated that motor vehicle gasoline and diesel fuel use would increase for vehicles delayed near at-grade crossings on the current EJ&E rail line due to the Proposed Action. These increases along the current EJ&E rail line are offset somewhat by decreases on the current CN lines. Fuel consumption from vehicles is anticipated to increase by approximately 57,000 gallons of gasoline and 5,500 gallons of diesel fuel as calculated in this Final EIS, assuming that delayed vehicles sit idling at the delayed locations.

Rather than waiting for a train to clear a crossing, some motorists may feel the need to take an alternate route to avoid delay. The number of possible routes an individual motorist could take at a given at-grade crossing makes it is infeasible to estimate total changes in fuel use due to motorists taking alternate routes. However, an alternate route that adds 1.0 mile to a motorist's preferred path would consume approximately 0.05 gallon of gas (assuming an average vehicle economy of 20 miles per gallon), which is an equivalent amount of fuel burned during 6 minutes of vehicle idling. The time required for a train to pass through a crossing is anticipated to be less than 6 minutes at 97 of the 99 analyzed at-grade crossings during normal operations (and less than 4 minutes at 93 of the 99). Therefore, alternate routes which are longer than 1.0 mile and/or take longer than 6 minutes would not be more efficient on a time or energy basis, on the average, for 97 of the 99 intersections.

It is still possible that individual motorists will nonetheless (at least occasionally) attempt to save time by taking alternate routes. These individuals will likely show an increase in their long-term personal fuel usage, barring a true "short-cut" in physical distance traveled. For those who choose not to take alternate routes, an individual motorist could turn off their vehicle when delayed, if practical, to minimize fuel use.

No Analysis of Fuel Use and Environmental Effects

Commenters stated the Draft EIS did not include an assessment of increased fuel usage due to the Proposed Action and the effects of such an increase on the environment. Nor did it include an Analysis of increased fuel use due to increased idling times

Response

Section 4.8 in the Draft EIS included an analysis of the fuel use estimates, including fuel used by idling vehicles at highway/rail at-grade crossings, as a result of the Proposed Action. Section 4.9 in the Draft EIS includes an analysis of environmental effects (air quality) resulting from fuel use associated with the Proposed Action.

Underestimates of Energy or Air Quality impacts

Commenters stated that various aspects of the energy, air quality, and climate analyses have been understated.

Response

Regarding comments citing underestimates of traffic delays, the methodology used to determine traffic delays has been used by SEA on previous studies. Regarding comments citing underestimates due to a lack of analysis of newly available capacity on CN lines, see the comment summary and SEA response titled "Newly Available Capacity on CN Lines" in Section 3.4.12.5 of this Final EIS. Regarding comments citing a general underestimate of impacts, an additional air quality analysis has been completed and the reader is referred to Section 2.9 of this Final EIS.

Multi-Faceted Air Quality & Energy Comments

Many comments which cover multiple aspects of air quality, climate, and energy analyses have been consolidated into the comment response below. .

Response

While these various aspects are important to address, they are covered in other energy or air quality and climate responses within Sections 3.4.11 and 3.4.12 of this chapter. Specifically, please see SEA's responses in this chapter titled "Contradictory Fuel Use Data" in Section 3.4.12.9 and "Lack of EJ&E Idling Train Fuel Use" in Section 3.4.11.5. Also refer to the following comment summaries and SEA responses in this chapter titled "Total Effect on Energy Consumption" in Section 3.4.11.2, "Will County Ozone Nonattainment" in Section 3.4.12.3, "Local AQ Effects Due to Operations" in Section 3.4.18.9, "Increased Fuel Use and Climate Change" in Section 3.4.12.6, and "Newly Available Capacity on CN Lines" in Section 3.4.12.5.

Idling Fuel Use Rates are Incorrect

Some comments stated that SEA's vehicle idling fuel use rates in the Draft EIS are incorrect and the comments provide different estimates.

Response

In its analysis of fuel use from idling vehicles, SEA used reported tested or measured fuel use rates from vehicles considered to represent a conservative (high) estimate of idling-related fuel use. Therefore, the fuel use rates have not been changed in this Final EIS.

Violation of Energy Policy

One commenter stated that we're in an energy crisis and the Proposed Action violates state/Federal energy policy.

Response

SEA's analysis did not identify a specific state/Federal energy policy that would be violated by the Proposed Action.

3.4.10.4 Changes Caused by Truck-to-Rail Conversions

Trains are More Efficient than Trucks

One commenter observed that trains keep fossil fuel-burning trucks off the highways. Comment focused on the country being less dependent on foreign oil.

Response

The Applicants' reason for the Proposed Action is to move trains through the Chicago metropolitan area more quickly. SEA concurs that the Proposed Action, in itself, would not change overall freight traffic levels. SEA found that environmental effects and effects on dependence on foreign oil would be minimal.

"More Trains" Does Not Mean Less Trucks

Comment observed that there is no basis in fact in saying more trains means less trucks.

Response

The Applicants' reason for the Proposed Action is to move trains through the Chicago metropolitan area more quickly. SEA concurs that the Proposed Action, in itself, would not change overall freight traffic levels.

3.4.10.5 Energy Methodology

Validity of the Revised Fuel Use Data

Commenters expressed concern that the Draft EIS used revised fuel use information that was not validated to the same degree as the original fuel use information the Applicants had provided.

Response

As discussed in Section 4.9.1.1 in the Draft EIS, after independently analyzing the original fuel use information from the Applicants, SEA determined that reductions in locomotive idling time were not considered and requested an estimate of these fuel reductions. These supplemental data, which were provided by the Applicants and reviewed by SEA, were additional components to the original information to ensure a more complete analysis and did not revise the original data, but rather, added to it.

In addition, at the same time as these more complete data were supplied, the Applicants also submitted revisions to the original data because it had become known to the Applicants that a Class I partner (CSX) was unwilling to change the current arrangement it has with the Applicants regarding the routing of two CSX trains on the Applicants' existing line.

The revised data relating to the CSX trains, and the supplemental data related to reductions in locomotive idle time and fuel savings by other affected railroads, together make up the data included in the revised analysis. In SEA's opinion, the revised and supplemented fuel use information analysis is more complete and more accurate. Therefore, SEA relied on it in its analysis for this EIS.

Lack of EJ&E Idling Train Fuel Use

Commenters discussed revised fuel use data and an apparent lack of changes in idling fuel use by EJ&E and other trains on the EJ&E rail line under the Proposed Action. Commenters also note that this would affect energy and air quality analyses.

Response

SEA's evaluation of the Applicants' revised fuel estimates, submitted with a February 15, 2008 letter to SEA, do not appear to have accounted for an increase in idling-related fuel use by EJ&E and other carriers' trains operating on the EJ&E rail line under the Proposed Action. The letter does include an

estimate for idling/delay-related fuel use by the Applicants' trains on the EJ&E rail line under the Proposed Action, at 249 imperial gallons/day (299 U.S. gallons/day).

In response to this comment, SEA's team conducted its own analysis of Proposed Action idling-related fuel use on the EJ&E rail line. SEA estimated that for all trains combined (CN, EJ&E, and other carriers), the total idling time would be approximately 1.6 hours per transit between Leithton and Kirk Yard. While some track segments along this route are projected to have more trains than others, the average of all 14 segments is approximately 31 trains per day. SEA's estimate of idling-related fuel use is 23 lb/hour per locomotive as shown in the additional air quality analysis in Chapter 2 of this Final EIS. Dividing by the fuel density of 7.05 lb/gallon for diesel gives 3.26 gallons per hour of locomotive idling. Multiplying this by two (2) locomotives per train, 31 trains per day, and 1.6 gallons/train gives daily idling-related fuel use of 323 gallons/day, which is only slightly (about 8 percent) more than the 299 gallons/day estimate by the Applicants for their trains alone.

Considering that the Applicants have agreed to voluntary mitigation to shut off idling locomotives when temperatures are above 40°F, and given that monthly average temperatures at Chicago O'Hare International Airport are above 40°F for 8 months out of the year (April through November), it is apparent the annual idling-related fuel use will actually be less than the annualized value of the Applicants' estimate, which is 299 gal x 365 days = 109,135 gallons/yr. SEA's estimate of the mitigated value is approximately 121 days (Dec through March) multiplied by 323 gallons/day = 39,083 gallons per year. Annual emissions would also be accordingly lower than the Draft EIS estimates, which were based on the Applicants' unmitigated fuel use value.

Air Quality Analysis did not Consider Metra's STAR Line

Commenters stated that cumulative effects of a Metra STAR Line scenario were not addressed as part of the air quality and energy analysis.

Response

It is SEA's understanding that the STAR Line is, to date, a potential project, but is not yet funded and has not been sufficiently defined with regard to technology and operating characteristics to support a detailed energy and air quality analysis Typically, transit projects result in existing trips moving from automobile to transit, resulting in an overall reduction in emissions. SEA's capacity analysis of the STAR Line indicates that the Proposed Action, if approved, would not preclude future implementation of the STAR Line. If the STAR Line was implemented, it is expected that there would be benefits to both air quality and energy for the region. Therefore, if the Proposed Action is approved, any cumulative effects of the Proposed Action plus STAR Line implementation would likely be an improvement from the air quality and energy effects already analyzed by SEA.

Effects from Affected Metra Trains not Considered

Commenters expressed concern that the Draft EIS did not consider air quality, climate, and energy impacts caused by the interaction of CN trains with Metra trains.

Response

Conflicts between commuter and freight rail operations exist in any metro area when rail lines are shared. As such occurrences are not preferred in the operations of either commuter or freight rail operation, interested public and private parties generally work together to minimize the conflicts. In general, the promotion of both freight and commuter rail is beneficial as the successful operation of

both is more energy efficient (and therefore, more environmentally sound by minimizing emissions) than the movement of goods or people (on a per ton-mile or person-mile basis) by truck or car.

3.4.10.6 Other Comments on Energy

Natural Gas Pipelines Near Rail Lines

The commenters focused on concerns regarding the integrity of natural gas pipelines near rail lines.

Response

Natural gas pipelines located on railroad properties are installed in accordance with American Railway Engineering and Maintenance-of-Way Association (AREMA) standards which specify a depth of cover, and type and length of casing pipe. The integrity of existing pipelines would not be affected by existing trains or by the Proposed Action, because the standards to which they are installed are not dependent on the number of trains operating in proximity to the pipeline. For buried pipes, the depth of cover should be sufficient for protection in the event of a derailment.

Diesel Fuel Use

The commenter, a citizen's group, indicated that it has chosen not to involve itself in discussions of the Proposed Action despite pressure to do so from various groups. A number of directors within the environmental group feel that coming out against the Proposed Action would be hypocritical, given that the Proposed Action would reduce idling locomotives on congested tracks. The group suggests working with CN toward improvement of natural areas along the EJ&E ROW. The commenter also disagrees with a town that is opposed to the Proposed Action because that town added to their own congestion problem by expanding a Metra parking area in the middle of town rather than opting for satellite lots in surrounding villages.

Response

Comment noted.

3.4.11 Comments on Air Quality and Climate

3.4.11.1 Existing Air Quality Conditions

Emissions from Existing Trains

Commenters stated that the frequency and length of existing nearby trains do not usually cause extreme pollution, and have not negatively affected the commenters' lives.

Response

Comment noted.

Emissions from Auto Fuel Use

Commenters expressed concern about the overall emissions from motor vehicles due to motorists taking alternate routes to avoid delays by trains.

Response

Rather than waiting for a train to clear a crossing, some motorists could feel the need to take an alternate route to avoid delay. The number of possible routes an individual motorist could take at a

given at-grade crossing makes it unfeasible to estimate total changes in fuel use or emission changes due to alternate routes. However, an alternate route that adds 1.0 mile to a motorist's preferred path would consume approximately 0.05 gallon of gas (assuming an average vehicle economy of 20 miles per gallon), which is an equivalent amount of fuel burned during 6 minutes of vehicle idling. The time required for a train to pass through a crossing is anticipated to be less than 6 minutes at 97 of the 99 analyzed highway/rail at-grade crossings during normal operations (and less than 4 minutes at 93 of the 99). Therefore, alternate routes which are longer than 1.0 mile and/or take longer than 6 minutes would not be more efficient on a time or energy basis, on average, for 97 of the 99 intersections.

It remains probable that individual motorists will nonetheless (at least occasionally) attempt to save time by taking alternate routes. These individuals likely will show an increase in their long-term personal fuel usage and increase their associated emissions, barring a true "short-cut" in physical distance traveled. For those who choose not to take alternate routes, an individual motorist could turn off their vehicle when delayed, if practical, to minimize fuel use and emissions due to idling.

Current Monitoring Data Needed

Comments state that monitoring data included in the Draft EIS (from 2004 to 2006) is insufficient to discuss future attainment status of the study area, and that data from 2006 to 2008 should instead be included and discussed.

Response

SEA initiated work on the Draft EIS during calendar year 2007. At that time, monitoring data from 2004-2006 was the most recent three complete years of data which was available. To date, the 2007 data have become complete, but 2008 are not complete, and will not become complete until 2009. While 2007 data could be retrieved, SEA believes that the 2004-2006 data represent an adequate representation of the existing conditions of the study area, given that in general, air quality has tended to improve with time, as EPA and states continue to impose ever tighter controls on both mobile and stationary emission sources.

As a point of clarification, the attainment status of the study area is not determined by the data presented by SEA. EPA determines the attainment status of all areas of the nation at appropriate intervals, through the Federal rulemaking process.

3.4.11.2 Existing Climate

Existing Pollution along the EJ&E Rail Line

A commenter stated that existing air quality conditions in a local community are affected by trains passing through the community.

Response

In response to concerns about localized air quality impacts due to locomotive emissions, SEA has performed additional air quality impact analysis in this Final EIS. The additional analysis addresses potential impacts due to both moving locomotives along the EJ&E rail line, and impacts from locomotives that may idle for a period on sidings while waiting for other rail traffic to clear the line ahead. The additional analysis, described in detail in Chapter 2 (Section 2.8), shows that the local air quality impacts of moving and idling trains are minimal in comparison to National Ambient Air Quality Standards (NAAQS). These standards have been established by EPA to protect public health and welfare, including protection against damage to natural resources. The additional analysis in

Chapter 2 also shows that there would be minimal impacts due to emissions of mobile source air toxics (MSATs) from locomotives.

Regarding the potential for trains to cause resuspension of dust along the rail line, SEA acknowledges that this is a possibility. However, any such dust resuspension would be in brief, intermittent pulses as a train moves through and would not be expected to measurably degrade air quality.

Potential impacts from motor vehicles delayed near highway/rail at-grade crossings were explicitly analyzed in the Draft EIS, and impacts were found to be below NAAQS and other thresholds of concern. Therefore, no additional analysis of such impacts is included in this Final EIS.

3.4.11.3 Air Emission Changes in Nonattainment Areas

NO_x Emissions

Commenters discussed the estimated increase in NO_x emissions based on original and revised fuel use estimates. Specifically, commenters expressed concern that emissions based on original estimates could pose a barrier to metropolitan Chicago's efforts to achieve Federally required air quality standards.

Response

SEA's analysis shows that NO_x emissions based on the original fuel-use estimates provided by the Applicants would have exceeded the General Conformity emissions thresholds, but the original fuel-use estimates did not account for fuel savings that would be realized due to the Proposed Action, such as reduced idling of CN trains. In SEA's opinion, the revised fuel use estimate that accounted for these fuel savings is a more accurate assessment of the net fuel-use change that would result from the Proposed Action.

SEA used the General Conformity thresholds only as a measure to determine whether mitigation should be considered to minimize the subject emissions. As discussed in Section 4.9.3.3 of the Draft EIS, the calculated net emissions increases related to the Proposed Action are negligible compared with available emissions budgets developed for State Implementation Plans, and are expected to meet all parameters established by applicable State Implementation Plans (for Illinois and Indiana) to achieve attainment of air quality standards for ozone.

General Air Quality Emissions

Commenters expressed concern regarding general air pollutant emissions in the Chicago metropolitan area relating to the Proposed Action.

Response

SEA's air emissions analysis described in the Draft EIS demonstrates that the Proposed Action would result in minor net increases in regional air pollutant emissions within the Chicago metropolitan area (which includes northwest Indiana). The increases would be below the de-minimis thresholds specified in Federal rules and therefore, are not expected to adversely affect efforts to bring the Chicago metropolitan area into attainment with all National Ambient Air Quality Standards (NAAQS).

Air Pollution Near Schools and Sensitive Resources

Commenters expressed concern regarding air quality near schools, and the associated health of children at those schools. Some commenters expressed concern regarding localized effects near sensitive biological resources.

Response

In response to concerns about localized air quality effects due to locomotive emissions, SEA has performed additional air quality analysis in this Final EIS. The additional analysis addresses potential effects due to both moving locomotives along the EJ&E rail line, and effects from locomotives that may idle for a period on sidings while waiting for other rail traffic to clear the line ahead. The additional analysis, described in detail in Section 2.8 of this Final EIS, shows that the local air quality effects of moving and idling trains are minimal compared with the National Ambient Air Quality Standards (NAAQS), which have been established by EPA to protect public health and welfare, including protection against damage to animals and vegetation. EPA considers sensitive populations, such as asthmatics, children, and the elderly when setting these NAAQS. The additional analysis in Chapter 2 also shows that there would be minimal effects due to emissions of mobile source air toxics (MSATs) from locomotives.

Cumulative Effects on Air Quality in Study Area

Commenters stated that the Draft EIS did not address air quality broadly in the context of cumulative and indirect effects, and that areas not adjacent to the EJ&E rail line were not considered.

Response

SEA evaluated cumulative effects on air quality within the Study Area in Section 5.6.2 of the Draft EIS. It determined that the Study Area for that evaluation should be the 10 counties in Illinois and Indiana in which air quality could be directly affected by the Proposed Action. SEA did not analyze air quality outside the 10-county Study Area because CN train numbers and routes outside the Study Area are not projected to change as a result of the Proposed Action. The current air quality within the Study Area already includes any rail-related emissions associated with other railroads that operate within the Study Area. SEA's technical analysis and conclusions of potential air quality effects related to the Proposed Action are found in Section 4.9.3 of the Draft EIS, and Section 2.8 of this Final EIS.

Will County Ozone Nonattainment

Commenters expressed several concerns related to the ozone nonattainment status of Will County, Illinois, including relocation of rail yard emissions into Will County (some would move to East Joliet Yard), whether emissions increases below the General Conformity de minimis thresholds would nonetheless adversely affect local ozone, and that CO emissions of 100 tons/year need to be offset to avoid adversely affecting ozone attainment status. A commenter also mentioned that an ozone waiver that previously applied to Cook County, Illinois did not apply in Will County.

Response

Ozone formation results from directly emitted precursors including VOCs and NOx, one of the six criteria pollutants. The EPA considers emissions increases below the General Conformity de minimis thresholds (100 tons/year for VOC and NOx emissions in the Chicago metropolitan area) to have a negligible effect on attainment status. Relocation of emissions within a non-attainment area (in this case the entire Chicago metropolitan area, including Will County) is not considered by EPA to create a concern regarding NAAQS attainment for that area. Furthermore, local emissions of NOx are not an issue in local ozone production, but rather have an effect far downwind, typically over 100 km from the point of emissions. In fact, local NOx emissions will tend to decrease local ozone levels. Therefore, relocation of rail yard emissions into Will County is not expected to adversely affect plans to attain the NAAQS for ozone there. CO emissions are not considered by EPA to affect ozone nonattainment, and furthermore, the CO emissions increase from the Proposed Action is well under

100 tons/year. Finally, the waiver provisions of the old one-hour ozone NAAQS are no longer relevant to ozone attainment issues in the Chicago area.

Local Air Quality Effects Due to Operations

A number of comments raised concerns about additional pollutant emissions from locomotives as a result of the Proposed Action. Many of these comments referenced only a general concern about additional pollution or odors, but some specifically cited concerns regarding effects on sensitive segments of the population such as children at nearby schools or residents with respiratory diseases. Some comments raised concerns about air toxics emissions. Other comments cited a potential for resuspended dust along railroad tracks. Still others expressed concern about emissions from idling motor vehicles delayed at highway/rail at-grade crossings.

Response

In response to concerns about localized air quality effects due to locomotive emissions, SEA has performed additional air quality effect analysis in this Final EIS. The additional analysis addresses potential effects due to both locomotives moving along the EJ&E rail line, and effects from locomotives that may idle for a period on sidings while waiting for other rail traffic to clear the line ahead. The additional analysis, described in detail in Chapter 2 (Section 2.8), shows that the local air quality effects of moving and idling trains would be minimal in comparison to NAAQS, which have been established by EPA to protect public health and welfare, including protection against damage to natural resources. The additional analysis in Chapter 2 also shows that there would be minimal effects due to emissions of mobile source air toxics (MSATs) from locomotives. SEA acknowledges the existence of odors near rail lines, for limited duration as trains pass by, or for longer periods if a train idles nearby. While such effects are considered unavoidable, the locomotive emissions standards adopted by EPA in 2008 will gradually reduce emissions of multiple air pollutants, as well as odors, from locomotive fleets.

SEA acknowledges the potential for trains to cause resuspension of dust along the rail line. However, any such dust resuspension would be in brief, intermittent pulses as a train moves through and is not expected to measurably degrade air quality.

Potential effects from motor vehicles delayed near highway/rail at-grade crossings were specifically analyzed in Chapter 4 of the Draft EIS, and effects were found to be below NAAQS and other thresholds of concern. Therefore, no additional analysis of such effects is included in this Final EIS.

Abandoning Air Line Route

Commenters stated the need for a cumulative analysis which considers the effects of displaced Amtrak riders due to the abandonment of St. Charles Air Line (the Air Line).

Response

The Applicants' voluntary mitigation measures commit CN to the terms of its March 10, 2008 letter to Amtrak. They provide that CN shall allow Amtrak to remain indefinitely on the Air Line, at its current operating standards, after CN's trains are rerouted from the Air Line onto the EJ&E rail line should the Proposed Action be approved and implemented. Approval would preserve Amtrak's access to Chicago's Union Station and Amtrak's ability to continue to provide service to and from such points as Champaign and Carbondale, Illinois. CN would abide by the commitment to capping the cost to Amtrak for maintaining the Air Line at the current level, indexed for inflation pursuant to the formula contained in the current agreement between Amtrak and CN (Applicants 2008p). The Air Line is defined to include the entire approximately 19.9-mile route from Markham Yard to the limits

of CN's rights on the northern end. Therefore, the Proposed Action is unlikely to result in displaced Amtrak riders; commuters would not be forced into their automobiles and there would be no associated impacts on air quality or foreign oil dependence.

Multi-Faceted AQ and Energy Comments

Many comments which address multiple aspects of air quality, climate, and energy analyses have been combined into a single comment response below.

Response

While these various aspects are important to address, they are covered in other energy or air quality and climate responses within Sections 3.4.11 and 3.4.12 of this chapter. Specifically, please see SEA's responses in this chapter titled "Total Effect on Energy Consumption" in Section 3.4.11.2, "Will County Ozone Nonattainment" in Section 3.4.12.3, "Local AQ Effects Due to Operations" in Section 3.4.18.9, "Increased Fuel Use and Climate Change" in Section 3.4.12.6, and "Newly Available Capacity on CN Lines" in Section 3.4.12.5. Also refer to the following comment summaries and SEA's responses in this chapter titled "Contradictory Fuel Use Data" in Section 3.4.12.9 and "Lack of EJ&E Idling Train Fuel Use" in Section 3.4.11.5.

Appropriate Emissions for Analysis Year

Commenters stated the 2015 analysis is not sufficient for the Draft EIS, and would like SEA to use 2030 to coincide with other regional plans. Another commenter stated that the analysis year did not extend to 2015, and suggests that emissions data used were based on emissions rules inconsistent with the analysis year.

Response

SEA must apply the NEPA process as outlined in Federal rules. This process does not require that analysis years for an EIS coincide with analysis years in a regional transportation plan. SEA completed the air quality analysis using rule-based emissions projections consistent with the 2015 analysis year. SEA has evaluated the analysis horizon for the Proposed Action and determined that 2015 is appropriate. The air quality analysis was completed using rule-based emissions projections consistent with the 2015 analysis year.

Lack of Transparency

Commenters stated that the analysis lacked transparency in its presentation of locomotive emission factors, including the use of load factors and in-use adjustment factors. Other comments cited a lack of transparency in its presentation of fuel use/emission calculations relative to "other carriers." Several comments also included references to additional aspects of air quality, climate, and energy analyses. While these various aspects are important to address, they are covered in other air quality and climate or energy responses in Sections 3.8 and 3.9 of this Final EIS.

Response

In Section 4.9 of the Draft EIS, SEA calculated locomotive emission factors using EPA data (EPA 2008). Specifically, for PM_{10}, $PM_{2.5}$, NO_x, and VOCs, the control case of pollutant emissions based on the 2008 locomotive emission standards (Tables 3-81 through 3-84 in the referenced document) was divided by the baseline case of pollutant emissions based on the 1998 locomotive emission standards (Tables 3-71 through 3-74 in the referenced document). The resulting ratio was multiplied by the corresponding pollutant 1998 emission factor found in Table 9 of document

identified as reference EPA 1997 in the Draft EIS (*1997 Emission Factors for Locomotives*. EPA420-F-97-051. December 1997). $PM_{2.5}$ was additionally multiplied by 0.97, to account for the estimate of $PM_{2.5}$ to be 97 percent of the PM_{10} emission inventory, per EPA 2008i. VOC was additionally multiplied by 0.949667, a value calculated from EPA's HC and VOC data in the above document to account for the portion of the 1998 hydrocarbon (HC) emission factor which is considered VOCs. CO and SO_2 emission factors are not expected to change based on the 2008 locomotive standards. Load factors and in-use adjustment factors are built into the emission inventory, as described within Section 3.3 of EPA 2008i.

Fuel use for "other carriers" was estimated as described in Section 4.9 of the Draft EIS.

$PM_{2.5}$ Emissions Should be Limited

A commenter said that electrification of the line would improve $PM_{2.5}$ emissions, but if diesel power is used, EPA must ensure emission controls to limit $PM_{2.5}$ emissions below current levels.

Response

Electrification of freight rail lines would require substantial infrastructure changes. Also, depending on how the electrical energy would be generated, the generation process could result in substantial air pollutant emissions. However, even if diesel powered locomotives continue to be used by the Applicants for the foreseeable future, it is clear that current EPA emissions standards, which would apply to locomotives purchased by and remanufactured by the Applicants, will continue to drive fleet emissions of $PM_{2.5}$ downward, ultimately to levels approximately an order of magnitude or more below today's locomotive fleet average emission factors.

Trains Hauling Cancer-Causing Chemicals

A commenter expressed concern that chemicals hauled by trains may cause cancer in other communities.

Response

Hazardous chemicals hauled by trains are sealed in tank cars or other containers. In rare cases where an accident or leak could allow such chemicals to escape to the environment, the railroad and local emergency responders would act quickly to clean up the spill. Because such leaks are very infrequent, communities along freight lines should not experience a measurable risk of increased cancer due to chemicals hauled by any rail carrier.

3.4.11.4 Emissions Caused by Vehicles Idling

Emissions Due to Idling Vehicles

Numerous commenters expressed concern about the emissions and effects of motor vehicles delayed near highway-rail at-grade crossings while waiting for trains to pass. Some comments identifying this issue also indicated concern with locomotive emissions and/or effects on climate.

Response

SEA's analysis shows that vehicle idling-related emissions would increase near highway/rail at-grade crossings on the current EJ&E rail line due to the Proposed Action. SEA's air quality analysis conducted for the Draft EIS evaluated the effects of idling vehicles delayed near high traffic highway/rail at-grade crossings. The analysis used EPA-approved emissions and dispersion modeling techniques. The results, detailed in Section 4.9 of the Draft EIS, show that pollutant effects

(including carbon monoxide and mobile source air toxics) near these crossings would be below levels that present a threat to public health. Therefore, no further analysis of this issue is provided in this Final EIS.

Many commenters who raised concerns about emissions from idling vehicles also commented about other air quality concerns, such as local air quality effects of locomotives, general metropolitan area-wide emissions increases, etc. SEA's responses to these other air quality and climate concerns are provided in Sections 3.8 and 3.9 of this Final EIS.

3.4.11.5 Change in Emissions Caused by Operations

General Air Quality Emissions

Commenters expressed concern regarding general air pollutant emissions in the Chicago metropolitan area resulting from the Proposed Action.

Response

SEA's air emissions analysis in Section 4.9 of the Draft EIS demonstrates that the Proposed Action would result in minor net increases in regional air pollutant emissions within the Chicago metropolitan area (which includes northwest Indiana). The increases would be below the de minimis thresholds specified in Federal rules, and therefore, are not expected to adversely affect efforts to bring the Chicago metropolitan area into attainment with all NAAQS.

Newly Available Capacity on CN Lines

A commenter stated that the air emissions benefits (essentially offsets) of moving train traffic off the existing CN line would not be accrued if the freed-up capacity were used up by other rail carriers.

Response

While the Proposed Action would free up a certain amount of capacity on the current CN rail lines through Chicago, there is available capacity on the EJ&E rail line. If there is growth in freight demand, some growth could be accommodated either on the EJ&E rail line by various carriers without the Proposed Action, or on the existing CN corridor by various carriers with the Proposed Action. Thus, growth could happen in either case, and any such growth would not be a result of the Proposed Action.

Air Quality Controls

A commenter stated that no air quality controls seem to exist.

Response

Sections 3.9 and 4.9 of the Draft EIS, and Section 2.8 of this Final EIS discuss the regulations that apply to air quality, and SEA's evaluation of the Proposed Action relative to those regulations.

Underestimates of Energy or AQ Effects

Commenters stated that various aspects of the energy, air quality, and climate analyses have been understated.

Response

Regarding comments citing underestimates of traffic delays, the methodology used to determine traffic delays has been used by SEA on previous studies. Regarding comments citing underestimates due to a lack of analysis of newly available capacity on CN lines, see the comment summary and SEA response titled "Newly Available Capacity on CN Lines" in Section 3.4.12.5 of this chapter. Regarding comments citing a general underestimate of impacts, SEA conducted additional air quality analysis. The results are presented in Section 2.9 of this Final EIS.

Applicants Must Meet Emissions Standards

A commenter stated that the Board must assure that the Applicants meet emissions standards for diesel equipment.

Response

SEA has already specified a mitigation measure in the Draft EIS, stating "Applicants shall comply with EPA emissions standards for diesel-electric railroad locomotives (40 CFR 92) when purchasing and rebuilding locomotives."

Local Air Quality Effects Due to Operations

Commenters raised concerns about additional pollutant emissions from locomotives. Many of these comments referenced only a general concern about additional pollution, but some specifically cited concerns regarding effects on sensitive segments of the population such as children at nearby schools or residents with respiratory diseases. Some comments raised concerns about air toxic emissions. Other commenters cited a potential for resuspended dust along the railroad tracks. Still others expressed concern about emissions from idling motor vehicles delayed at rail—highway at-grade crossings.

Response

In response to concerns about localized air quality effects due to locomotive emissions, SEA has performed additional air quality effect analysis in this Final EIS. The additional analysis addresses potential effects due to both moving locomotives along the EJ&E rail line, and effects from locomotives that may idle for a period on sidings while waiting for other rail traffic to clear the line ahead. The additional analysis, described in detail in Chapter 2 (Section 2.8), shows that the local air quality affects of moving and idling trains are minimal in comparison to NAAQS, which have been established by EPA to protect public health and welfare, including protection against damage to natural resources. The additional analysis in Chapter 2 also shows that there would be minimal effects due to emissions of mobile source air toxics (MSATs) from locomotives.

SEA acknowledges the potential for trains to cause resuspension of dust along the rail line. However, any such dust resuspension would be in brief, intermittent pulses as a train moves through and is not expected to measurably degrade air quality.

Potential effects from motor vehicles delayed near highway-rail at-grade crossings were explicitly analyzed in the Draft EIS, and effects were found to be below NAAQS. Therefore, no additional analysis of such effects is included in this Final EIS.

3.4.11.6 Climate Change

Increased Fuel Use and Climate Change

Commenters expressed concern regarding the increase of fuel use under the Proposed Action, and the potential effects of such an increase on climate change. Comments further suggested that the subject of climate change in the Draft EIS was either mischaracterized, underemphasized, or both.

Response

SEA has provided more detail on the status of climate change science and how that relates to potential cumulative effects of greenhouse gas emissions that would result from the Proposed Action. This discussion is provided in Section 2.8 of this Final EIS.

3.4.11.7 Air Quality and Climate Methodology

Contradictory Fuel Use Data

Commenters expressed concern regarding the use of two sets of fuel use data to estimate two sets of air quality emissions.

Response

After receipt and review of the Applicants' original fuel use estimate used to calculate air emissions, SEA became aware that the original estimates did not account for various fuel savings that would be realized due to the Proposed Action, such as reduced idling of CN trains. In SEA's opinion, the revised fuel use estimate that accounted for these fuel savings is a more accurate assessment of the net fuel use change. SEA included both sets of data in the Draft EIS in an effort to make transparent the process of analyzing the initial and refined fuel estimates and related air emissions.

AQ Analysis Relies on Data by a CN Consultant

Commenters expressed concern that data used in traffic and air quality analyses within the Draft EIS were apparently provided by a direct consultant to CN.

Response

The air quality analysis used traffic counts and delay data from the transportation systems section of the Draft EIS to analyze various effects and emissions from motor vehicles for the air quality section of the Draft EIS. All of the data used in transportation system analyses were collected from authoritative sources including Federal Railroad Administration (FRA), state transportation agencies, and local counties and towns. Emissions data were derived from EPA emission factors and model. All this data was acquired independently of CN.

Lack of EJ&E Idling Train Fuel Use

Commenters discussed revised fuel-use data and an apparent lack of change in idling fuel use by EJ&E and other trains on the EJ&E rail line under the Proposed Action. Comments note that this would affect energy and air quality analyses.

Response

SEA's evaluation of the revised fuel estimates, submitted by the Applicants in a February 15, 2008, letter to SEA, indicates that they do not appear to have accounted for an increase in idling-related fuel use by EJ&E and other carriers' trains operating on the EJ&E rail line under the Proposed Action.

The letter includes an estimate for idling/delay-related fuel use by the Applicants' trains on the EJ&E rail line under the Proposed Action at 249 imperial gallons/day (299 U.S. gallons/day).

In response to this comment, SEA's team conducted its own analysis of Proposed Action idling-related fuel use on the EJ&E rail line. SEA estimated that for all trains combined (CN, EJ&E, and other carriers), the total idling time would be approximately 1.6 hours per transit between Leithton and Kirk Yard. While some track segments along this route are projected to have more trains than others, the average of all 14 segments is approximately 31 trains per day. SEA's estimate of idling-related fuel use is 23 lb/hour per locomotive, as shown in the additional air quality analysis in Chapter 2 of this Final EIS. Dividing this amount by the fuel density of 7.05 lb/gallon for diesel gives 3.26 gallons per hour of locomotive idling. Multiplying this by two locomotives per train, 31 trains per day, and 1.6 gallons/train results in daily idling-related fuel use of 323 gallons/day. This is only slightly (about 8 percent) more than the 299 gallons/day estimate by the Applicants for their trains alone.

Considering that the Applicants have agreed to voluntary mitigation by shutting off idling locomotives when temperatures are above 40°F, and given that monthly average temperatures at O'Hare Airport are above 40°F for eight months of the year (April through November), it is apparent the annual idling-related fuel use should actually be less than the annualized value of the Applicants' estimate, which is 299 gal x 365 days = 109,135 gallons/yr. SEA's estimate of the mitigated value is approximately 121 days (December through March) multiplied by 323 gallons/day = 39,083 gallons per year. Annual emissions would also be lower than the Draft EIS estimates, which were based on the Applicants' unmitigated fuel use value.

Accidental Chlorine Releases

A commenter questioned potential dispersion area of chlorine from a rail car, if released during an accidental spill.

Response

Dispersion of a gas such as chlorine would be affected by a variety of meteorological and location-specific factors. There is no way to provide a typical area or volume. Railroads work very closely with the chemical industry to train emergency responders on how to handle hazardous materials releases. Either in conjunction with the American Chemistry Council's (ACC's) Transportation Community Awareness and Emergency Response (TRANSCAER) program, or on their own, railroads train over 20,000 emergency responders a year in the response methods associated with rail transportation of hazardous materials. CN is an active participant in the TRANSCAER program. To assist local response agencies in preparing for rail transportation emergencies, railroads provide, upon request, a list of the top 25 hazardous commodities transported through their community. If and when an accident occurs, railroads provide the emergency responders with a full train consist so they can manage the accident.

As discussed in the Draft EIS, CN has begun a new emergency response outreach program designed to enhance preparedness and foster partnerships with the response community through Responder Education Assistance and Certification Training (REACT). CN provides three phases of training for the response community.

As noted in the Draft EIS, CN has a system-wide plan for handling emergencies. The CN Emergency Response Plan (ERP) is reviewed annually, and local ERPs are prepared for individual yards and facilities. The ERP includes extensive training requirements, response plans, and location of response supplies.

CN's rail traffic control centers play an important role in the emergency response process, and local operations are handled out of CN's Homewood rail traffic control center. The rail traffic control centers coordinate all response efforts within CN and with outside agencies and responders.

SEA's recommended mitigation is presented in Chapter 4 of this Final EIS.

Future State Implementation Plans

A commenter stated that EIS should consider future state implementation plans.

Response

SEA is unable to incorporate assumptions of future State Implementation Plans or other future documents without a clear indication of the data which may be included in those documents.

Air Sampling Not Performed

A commenter stated there no air samples were tested.

Response

SEA relied on existing EPA monitoring data to assess current conditions. SEA performed dispersion modeling of locomotive and motor vehicle emissions to assess the potential air quality effects from the Proposed Action.

3.4.11.8 Other Comments on Air Quality and Climate

Air Quality Did Not Consider Metra's STAR Line

Commenter stated that cumulative effects of a Metra STAR Line scenario were not addressed as part of the air quality and energy analysis.

Response

It is SEA's understanding that the STAR Line is, to date, a potential project, but is not yet funded and has not been sufficiently defined with regard to technology and operating characteristics to support a detailed energy and air quality analysis. Typically, transit projects result in existing trips moving from automobile to transit, resulting in an overall reduction in emissions. SEA's capacity analysis of the STAR Line indicates that the Proposed Action, if approved, would not preclude future implementation of the STAR Line. If the STAR Line was implemented, it is expected that there would be benefits to both air quality and energy for the region. Therefore, if the Proposed Action is approved, any cumulative effects of the Proposed Action plus STAR Line implementation would likely be an improvement from the air quality and energy effects already analyzed by SEA.

Hold CN Financially Responsible for Air Quality Emissions

Commenters stated that CN should be held responsible for harmful air quality effect as a result of the Proposed Action.

Response

The Final EIS contains mitigation measures intended to reduce the impact of emissions associated with the Proposed Action. In addition, EPA emissions standards are forcing fleet-average locomotive emissions downward dramatically. SEA's additional air quality impacts analysis, presented in

Section 2.8 of this Final EIS, demonstrates that locomotives traveling the EJ&E rail line would not cause adverse air quality impacts.

3.4.12 Comments on Noise and Vibration

3.4.12.1 Human Perception

Correlation of Noise and Health

Commenters stated that noise was not being addressed thoroughly, and that they believe there are sleep and health effects from current noise levels.

Response

The existing noise environment is analyzed in Section 3.10 with supplemental information in Appendix L. Day-night noise levels (Ldn) of less than 65 decibels are generally not considered adverse to human health and welfare by the scientific community and agencies such as the Federal Aviation Administration (FAA), the Department of Housing and Urban Development (HUD), the Environmental Protection Agency (EPA), and the American National Standards Institute (ANSI). SEA's use of the 65 dBA Ldn noise effect threshold is, therefore, reasonable and protective of human health and welfare.

3.4.12.2 Noise

Existing Noise Levels

Commenters stated that existing noise and train horn usage already have adverse effects on their communities and quality of life. Sample comments include: "[I] wake up at night when I hear the horns," "For 38 years I wake up each time a train passes through," "We already cannot have our windows open." One commenter stated: "I have measured the current trains from our front porch which is on your 65 d/b/a and I measure them 70-75 d/b/a sustained." Some commenters noted that the monitoring locations presented in the Draft EIS were incorrectly printed.

Response

To assess noise, SEA measured existing noise levels for 24 continuous hours at numerous locations throughout the Study Area. The monitoring locations were selected because they are representative of locations that would be affected by noise from the Proposed Action: Noise levels were not measured at every individual residence. Existing noise levels ranged from approximately 49 dBA to 81 dBA depending upon how close the measurement location was to the existing rail alignment or other sources of noise (for example, freeways and other roadways, etc.).

SEA also measured noise during individual train pass-by events (for example, horn and locomotive noise, and noise from railcars). Noise levels from these train pass-by events ranged from about 91 dBA for locomotives and rail cars to 103 dBA for locomotive horns. Locomotive horn use where trains cross public roadways at-grade is required by Federal Railroad Administration (FRA) safety regulations. These same FRA safety regulations also provide guidance on how communities can implement alternative safety measures that can take the place of locomotive horns at public at-grade crossings.

SEA performed the noise measurements in accordance with relevant guidelines published by FRA and the Federal Transit Administration. Details of the noise analysis can be found in the Draft EIS in Sections 3.10 and 4.10. See Table 3.10-2 – Existing Noise Levels, Table 3.10-3 – Average Sound

Exposure Levels (locomotive horns, locomotives, rail cars), and Figure 3.10-1 – Noise Monitoring Locations. Appendix L contains supplemental information.

The list of noise and vibration monitoring sites has been updated to correct an erroneous address; the proper location of that monitoring location is included Chapter 2 of this Final EIS.

Support for Reduced Noise

Commenters expressed support for reducing noise in their communities or expressed a desire to not be exposed to rail noise.

Response

Chapter 4 of this Final EIS presents SEA's noise mitigation analysis and requirements.

Idling Trains

Commenters stated that idling trains currently cause noise issues for residences adjacent to EJ&E rail line. Commenters also expressed a concern for future operations and noise considerations in relation to trains idling.

Response

The Draft EIS contains SEA's initial analysis of noise from trains idling on the EJ&E rail line. SEA's initial analysis resulted in an approximate unshielded 65 dBA Ldn contour distance of 592 feet. The revised analysis accounts for a longer idling time of 12 hours, resulting in an approximate unshielded 65 dBA Ldn distance of 729 feet.

Chapter 2 of this Final EIS presents SEA's revised analysis of noise from trains idling on the EJ&E rail line. Chapter 4 of this Final EIS contains SEA's mitigation recommendations.

Established Quiet Zones

Commenters stated that trains on the EJ&E rail line do not adhere to established quiet zones by sounding the horn during the day and night hours.

Response

Even in established quiet zones there are situations in which an engineer must sound the horn. For details on specific instances where locomotive horn use in quiet zones is allowed please refer to 49 CFR Chapter II 222.23.

Increased Noise Levels

Commenters stated that noise will be an issue and the Proposed Action would generally increase noise in their communities. One commenter said the Proposed Action would "Create noise in a once quiet community." Others said: "I don't want all the noise of these trains," "I am very concerned for the noise impacts," and "We will be very affected with more train noise." Commenters stated that the additive effects of existing ambient noise levels, train noise, horn noise, and wheel squeal need to be considered. Commenters also stated that noise at rail crossovers adjacent to their properties was excessive and needed to be considered in the noise analysis. One commenter stated that the Proposed Action would result in a significant increase in frequency, magnitude, and duration of noise.

Response

Noise levels in the Study Area can reasonably be expected to increase in areas adjacent to the EJ&E rail line as a result of the Proposed Action. The increase would be due to steel wheels rolling on steel rail during a train pass-by event (this is called wayside noise), locomotive noise, and locomotive horn use at grade crossings. The duration of train pass-by events is a function of train length and speed. The Applicants may operate longer trains on the EJ&E, which would extend the duration of a pass-by event. Therefore the duration of the noise event associated with a train pass-by may also increase. When trains travel over rail/rail at-grade crossings or other special trackwork, the wheels have to roll over a gap in the rail. As the wheels pass over these gaps and reach the rail on the other side of the gap, they produce a noise that is different from normal wheel-rail rolling noise.

The magnitude of individual pass-by noise events, however, has the potential to decrease. Monitoring data shows that CN trains are quieter than other trains that currently operate on the EJ&E rail line.

In areas adjacent to current CN rail lines, noise levels are likely to decrease as a result of the decrease in traffic on those lines associated with the Proposed Action. Train noise is assessed using the cumulative noise descriptor, Ldn (day-night noise level). The Board's environmental regulations include noise analysis requirements.

The Draft EIS presented SEA's initial assessment of noise associated with the Proposed Action. Chapter 2 of this Final EIS includes additional noise analysis, using FTA methods, proposed in response to comments on the Draft EIS, including SEA's evaluation of noise associated with crossings, crossovers, and other special trackwork. SEA"S recommended mitigation measures are presented in Chapter 4 of this Final EIS.

Noise and Property Values

Commenters stated that the Proposed Action would increase noise, therefore decreasing property values adjacent to the EJ&E rail line.

Response

SEA considered the effects of noise and vibration on the value of property adjacent to the EJ&E and the CN rail lines. Refer to the socioeconomics sections of the Draft EIS and Final EIS for a discussion of SEA's assessment of how the Proposed Action may affect property values.

Noise Sensitive Receptors

Commenters stated that the Proposed Action would increase noise and vibration, negatively affecting schools, churches, and other noise-sensitive receptors adjacent to the EJ&E rail line.

Response

SEA's analysis indicated that train-induced noise and vibration levels would change in areas adjacent to the CN and EJ&E rail lines. The Board's environmental regulations identify sample noise-sensitive land uses; however they do not assign different noise sensitivities to these lands. Therefore, SEA's noise analysis does not treat historic districts, schools, or churches differently than it treats other noise-sensitive land uses. The Proposed Action offers both potential benefits and consequences. It will decrease train noise levels in most areas adjacent to CN rail lines (benefits) and increase train noise levels in areas adjacent to the EJ&E rail line (consequences). SEA's noise analysis identified noise-sensitive land uses predicted to experience a 3-dBA increase and an Ldn of 65 dBA, in accordance with the Board's environmental regulations. The Board's environmental regulations do not require analysis of train-induced ground-borne vibration, nor do they identify a vibration impact

threshold. However, SEA performed a vibration analysis using vibration impact thresholds advocated by the Federal Transit Administration (FTA) and the Federal Railroad Administration (FRA); however, neither agency has jurisdiction over the Proposed Action. SEA's vibration analysis identified vibration-sensitive receptors predicted to experience vibration impacts as defined by FTA/FRA. Chapter 4 of this Final EIS includes a discussion of SEA's mitigation analyses and recommendations.

Idling Vehicles

Commenters stated that the noise analysis needed to address the increase in noise caused by idling cars.

Response

The Board's noise regulations do not address noise from vehicles idling at highway/rail at-grade crossings during train pass-by events.

Noise Reduction

Some commenters supported the Proposed Action due to a decrease in noise that would occur in their community. Other comments stated an opinion such as, "I do not want noise" in my community.

Response

Chapter 4.10 of the Draft EIS contains more information on SEA's noise analysis. Chapter 2 of this Final EIS discusses the additional noise analyses performed.

Locomotive Horn Usage

Commenters stated that locomotive horn use was underestimated in the Draft EIS. Several expressed the need for a quiet zone in their community.

Response

SEA used the FRA's Locomotive Horn Noise Model to determine the location of the 65 dBA Ldn noise contour associated with each highway/rail at-grade crossing in the Study Area not located in a quiet zone. Use of site-specific input data, either provided by the Applicants or determined by SEA, allowed SEA to create unique noise effect contours for each grade crossing included in this analysis. The locomotive horn noise emissions term used in SEA's analysis of grade crossing noise was conservatively high, ensuring that SEA did not underestimate horn noise in the project area.

Locomotive horn use is required by Federal Railroad Administration (FRA) safety regulations. In general, FRA requires use of locomotive horns or other audible warning devices where trains cross public roadways at-grade. These same FRA safety regulations also provide guidance on how communities can create quiet zones by implementing alternative safety measures that can take the place of locomotive horns at public at-grade crossings. See Chapter 4 of this Final EIS for information SEA's quiet zone mitigation for Barrington, Illinois.

Throttle Settings

Commenters expressed concern with train noise at inclines, suggesting that the noise assessment should account for changes in throttle settings at inclines throughout the project.

Response

Tests have shown that locomotive noise changes by approximately 2 dBA for each one-step change in throttle setting. As the engineer moves the locomotive throttle from notch one to notch eight, noise levels increase by an average of 16 dBA. Because locomotive engineers constantly adjust throttle setting as necessary, only rough estimates of throttle settings are usually available for noise projections. In its noise analysis, SEA assumed a throttle position of eight, the highest possible position, unless more specific information was available.

Curve Squeal

Commenters expressed concern over the excessive amount of noise or "wheel squeal" created when trains travel on curved track. Many commented on the need to incorporate curve squeal into the noise assessment, particularly in Barrington, Illinois.

Response

SEA conducted additional analysis, including "wheel squeal," that is presented in Chapter 2 in this Final EIS. This Final EIS also addresses noise mitigation measures for sections of curved track in Chapter 4.

Schererville Adjacent to EJ&E Rail Line

Schererville, Indiana, requested that residences near the EJ&E rail line be considered in SEA's analysis of noise and vibration effects.

Response

The residential zones along Kennedy Avenue and 213th Street in Schererville were considered in SEA's noise and vibration analysis. Figure L1, sheets 123-125, of the Draft EIS show the calculated noise and vibration contours for the residences in question. The measured vibration along the EJ&E corridor did not exceed 90 VdB at any representative site. For areas where mitigation was deemed warranted, see Chapter 4 of this Final EIS.

Nighttime Railroad Operations

Commenters expressed concern about railroad noise at night. Many stated that nighttime railroad operations should be considered in the noise assessment, citing that noise caused by nighttime railroad operations would be detrimental to the health of those adjacent to the EJ&E rail line.

Response

SEA's noise analysis uses the day-night noise level (Ldn) descriptor to assess potential increases in train noise. The Ldn is a 24-hour average noise level measurement that penalizes nighttime noise levels in recognition that they are generally perceived as more annoying than daytime noise events. The effect of the adjustment is that one nighttime event, such as a train passing by between 10 p.m. and 7 a.m., is equivalent to ten similar events during the daytime. Because of the weighting factor applied to nighttime noise, it often dominates Ldn. Assuming a typical separation distance of 100 feet from the rail line to residences, an Ldn level of 65 dBA from rail operations usually reflects four or more trains per day. Near a highway/rail at-grade crossing, where the engineers sound the train horns at full volume, four trains per day can generate an Ldn level greater than 65 dBA at distances up to 250 feet from the tracks.

Noise and Wildlife

Commenters stated that the Proposed Action would adversely affect wildlife, due to an increase in noise.

Response

The EIS considers the affect of noise and vibration on U.S. Fish and Wildlife Service (USFWS) trust resources, such as migratory birds and threatened and endangered species. The EJ&E is an active freight line and wildlife now occupying the corridor has acclimated to the ambient noise and disturbance. Adverse effects on breeding bird densities could occur at lower noise levels than noted in the Draft EIS. Bird populations and migratory species within the Study Area (within 500 feet of the EJ&E ROW) could experience auditory, behavioral, physiological affects, and/or masking of communication signals because of the additional noise during train pass-bys. To mitigate increased train noise levels experienced by species in habitats adjacent to the EJ&E rail line, SEA's recommended mitigation would enhance the Applicants' voluntary environmental liaison mitigation to include working with natural resource stakeholder groups to identify and improve habitat away from the rail line to off-set impacts of increased train noise levels that would result from the Proposed Action.

SEA notes, however, that use of the Ldn descriptor in the noise analysis is somewhat misleading in the context of wildlife response to noise. The Ldn descriptor incorporates 24 consecutive hourly equivalent (average) noise levels, and then adds 10 decibels to each average noise level for hours between 10:00 p.m. and 7:00 a.m. The penalty is applied in recognition that people are generally more annoyed by nighttime noise than daytime noise. This nighttime penalty has not been demonstrated to be equally meaningful in the context of wildlife response to intermittent noise events like train noise.

Also, the predicted increase in train noise due to the Proposed Action would not equate to elevated noise levels at all times throughout a 24-hour period. Rather, noise levels in the Study Area rise and fall with each train pass-by event. The Proposed Action would simply increase the number of train pass-by events each day. In the absence of a train, noise levels in the project area return to levels that presumably are acceptable for native wildlife. A train pass-by lasts for approximately 2.5 minutes; assuming the almost maximum projected train traffic of 42 trains per day, this equates to approximately 1 hour and 40 minutes of train noise per 24-hour period. The individual noise level associated with each train pass-by event may not increase under the Proposed Action. Monitoring data collected by SEA shows that CN trains are quieter than other trains that operate in the Study Area. Therefore, while the frequency of train pass-by events would increase, the overall loudness associated with each pass-by event might not increase.

Hourly Leq

Commenters stated that the maximum hourly Leq should have been used in place of the Ldn contours for certain land uses.

Response

The maximum hourly leq was not used in the noise analysis because SEA's environmental regulations specify use of the Ldn descriptor to address noise. The Board's environmental regulations at 49 (CFR), 1105.7(e) require that if any of the activity-based thresholds identified in item (5)(i) of the Board rules are surpassed, the EIS has to state whether the Proposed Action would cause: 1) an incremental increase in noise levels of three decibels Ldn or more; or 2) an increase to a noise level of 65 decibels Ldn or greater. If so, sensitive receptors (for example, schools, libraries, hospitals,

residences, retirement communities, and nursing homes) in the project area must be identified and the noise increase for these receptors quantified if the thresholds are surpassed.

Noise Considerations and Mitigation (Will County)

Commenters stated that the criteria for determining "reasonability and feasibility" of noise mitigation measures was not cited in the Draft EIS. Will County also stated that figures in the Final EIS should indicate where schools, nursing homes, historical sites, and hospitals are located.

Response

Chapter 2 of this Final EIS clarifies the criteria for determining reasonability and feasibility, and contains an expanded discussion of noise and vibration at historic structures. SEA's environmental regulations consider noise-sensitive receptors equally. This includes schools, nursing homes, historic properties, and hospitals. Therefore, SEA does not single them out in the Study Area. The noise contours shown in Appendix L of the Draft EIS represent wayside noise, locomotive horn noise (at public grade crossings), wheel squeal on the connections, special trackwork that was known at the time of the analysis, and rail yard noise. Chapter 2 of this Final EIS presents a more detailed discussion of SEA's revised assessment of wheel squeal on sections of curved track in the project area. SEA's assessment of noise from moving trains in East Joliet Yard divided the total traffic equally among several rail lines within the yard. Appendix L of the Draft EIS shows the noise contours associated with this assessment.

Outdoor Land Uses

Commenters stated that the Proposed Action would negatively impact local parks and other outdoor land uses due to an increase in noise.

Response

The Board's environmental regulations at 49 (CFR), 1105.7(e) require identification of sensitive receptors (for example, schools, libraries, hospitals, residences, retirement communities, and nursing homes) in the project area. Parklands are not included in the list of sample noise-sensitive land uses in the Board's environmental regulations. However, use of noise and vibration contour lines overlaid upon digital aerial photographs facilitates a visual assessment of noise and vibration effects on parks and other outdoor recreational and natural areas. Refer to this Final EIS for SEA's revised noise and vibration contours.

Freeport Subdivision and Munger Connection

Commenters stated that the noise analysis in the Draft EIS did not account for the Freeport Subdivision and the Munger Connection appropriately through Pratt's Wayne Woods.

Response

Although sheet 31 in Appendix L of the Draft EIS only shows noise and vibration contours along the EJ&E rail line, SEA's noise and vibration analyses also evaluated the Freeport Subdivision and the Munger connection. Chapter 2 of this Final EIS presents a figure showing noise and vibration contours for this location.

Receptor Count

Commenters stated that the use of a net receptor count was inappropriate and discounts the increase of noise on a local level.

Response

The Proposed Action would re-route freight rail traffic from several CN rail lines to one EJ&E rail line. The net effect would be a reduction of rail traffic in some portions of the project area, and an increase in other areas, producing both potential benefits and impacts. Therefore, a comparison of the net benefits and impacts is a simple and reasonable assessment of the overall effect of the Proposed Action that neither discounts the merit of benefits nor the detriment of impacts. In the Draft EIS, SEA also assessed the displacement of noise effects from areas adjacent to the CN lines to areas adjacent to the EJ&E rail line. In this manner, SEA took into account both the regional and local scope of noise effects associated with the Proposed Action. Chapter 4 of this Final EIS includes SEA's final recommended noise mitigation measures that are expected to minimize the adverse impacts of the Proposed Action on noise.

Noise Contours

Commenters stated a concern for residential areas adjacent to the EJ&E rail line and requested that a detailed noise analysis, accounting for wayside noise and other noise producing elements, be performed for their community.

Response

SEA's noise analysis assessed wayside noise along CN and EJ&E rail lines using a model that takes into account train length, the number of railcars and locomotives, train speed, and the average number of trains per day. The model also incorporates actual measured noise levels for locomotives, railcars, and locomotive horns. These measured values represent data collected in the project area. Train noise contours are based on model output. This methodology is consistent with noise analyses SEA has performed on previous decisions. Chapter 2 of this Final EIS provides additional information on wayside noise and noise analysis.

Train Noise Limits

A Commenter stated that a maximum allowable noise limit for train operation needed to be made.

Response

EPA and FRA regulate maximum allowable noise limits for train operations. Some of the FRA rules are located at 49 CFR 210, Railroad Noise Emissions Compliance Regulations. FRA regulates horn noise by providing both a maximum and minimum limit for horn level. The maximum allowable limit for horn level is 110 dBA at 100 ft. and the minimum is 96 dBA at 100ft.

Prestwick Homeowners Association

Commenter stated that existing noise levels in the Draft EIS were inaccurate, suggested that on site measurements were not taken, and stated that the figures in Appendix L of the noise analysis excluded receptors adjacent to the EJ&E rail line. Other commenters said that noise monitoring locations selected did not accurately represent current conditions, while some requested that noise monitoring be performed at their residence.

Response

SEA measured existing noise and vibration levels in locations that are representative of noise-sensitive areas located near the EJ&E rail line. Some of these locations were residences located adjacent to the EJ&E rail line throughout the project. SEA's noise analysis contours were overlaid on the highest quality digital aerial photography available at the time of the analysis. Development since the date the photos were taken was not intentionally omitted. Use of the best available aerial photography is consistent with precedent in prior Board decisions. See Section 3.10.2 of the Draft EIS for more information on existing conditions.

Noise Impact to Undeveloped Land

Commenters stated that SEA's noise analysis should incorporate the impact to undeveloped land intended for residential use adjacent to the EJ&E rail line. Additionally commenters state that land adjacent to the EJ&E rail line would become unsuitable for residential development due to the increase in noise caused by the Proposed Action.

Response

The Board's environmental regulations at 49 (CFR) 1105.7(e)(6) do not require noise mitigation measures for vacant or undeveloped lands, nor are vacant or undeveloped lands identified in the list of noise-sensitive receptors. SEA notes the existence of residential land uses adjacent to EJ&E and CN rail lines throughout the project area.

Noise Impact to Barrington, Illinois, Area Library

Commenters stated that SEA's noise analysis should take into consideration the noise sensitivity of libraries in the assessment of noise impacts, particularly sensitivity to horn noise.

Response

The Board's environmental regulations at 49 (CFR) 1105.7(e)(6) do not establish differential noise sensitivities to noise-sensitive receptors such as libraries. Locomotive horn use is regulated by the Federal Railroad Administration (FRA). FRA regulations establish procedures for communities to establish quiet zones – areas where supplemental safety measures take the place of locomotive horn use at locations where railroad tracks cross public streets (at-grade crossings). Refer to Chapter 4 of this Final EIS for final voluntary mitigation measures, and SEA's noise mitigation recommendations.

3.4.12.3 Vibration

Existing Vibration Levels

Commenters stated that current train activity causes "excessive perceivable vibration," with several stating that the railroad causes rattling windows. Sample comments included: "The iron tracks hum and vibrate for 20 minutes or more," "You can feel the vibrations," "Our house shakes…."

Response

The Draft EIS addresses vibration in Sections 3.10 and 4.10, with supplemental material in Appendix L. As explained there, ground-borne vibration from trains is primarily caused by the interaction of steel wheels rolling along steel rails, producing energy that is transmitted outwards from the tracks that can be felt in nearby buildings. If strong enough, the vibration can be transmitted into living spaces where it can be intrusive and annoying to building occupants.

Ground-borne vibration can be perceived as vibration of floors, rattling of dishes and other items on shelves, rattling of windows, and a low-frequency rumbling sound, which is caused by acoustic waves that radiate from vibrating room surfaces. Experience has shown that train-induced, ground-borne vibration, while often perceptible, does not generally reach levels where cosmetic or structural damage occurs to buildings. As a result, assessments of potential vibration impacts from rail systems usually focus on annoyance to building occupants rather than structural damage.

Typical community sources of ground vibration include construction equipment, passenger and freight rail operations, and motor vehicle traffic. Existing vibration levels were measured at several locations selected because they provided a good representation of existing conditions in each community along the EJ&E rail line.

Figure 3.10-4 in the Draft EIS shows the vibration monitoring locations for existing conditions, with vibration analysis of the effects under current conditions.

General Vibration

Commenters stated that residents adjacent to the EJ&E rail line have dealt with vibration from rail operations for many years, with some stating that under current conditions train operations cause "shaking of windows" and other sounds. Other commenters stated that vibrations caused by large freight trains can cause damage to houses as far as 1.0 mile away from the tracks.

Response

Train-induced ground vibration within 100 to 200 feet of the tracks may be perceptible and may be annoying to building occupants. The measured vibration levels from CN and EJ&E freight trains, taken at distances of 40 to 100 feet from the tracks, were below the most stringent standards used to avoid damage to buildings. Section 3.6 of the Draft EIS discusses the presence of residences in the vicinity of the EJ&E rail line, and Section 3.10 addresses existing noise and vibration conditions. Section 2.10 of this Final EIS provides a count of residences within 300 feet of the EJ&E rail line and the CN lines potentially affected by the Proposed Action

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Vibration Mitigation

Commenters stated that current train activity causes alarming vibration, citing occurrences such as houses shaking, and asked for discussion of mitigation measures.

Response

Train-induced ground vibration may be perceptible and will sometimes result in annoyance to building occupants. The vibration test results show that vibration levels from trains using the CN and EJ&E tracks are comparable. Therefore, the Proposed Action is not expected to increase the train-induced ground-borne vibration levels in the project area. However, the number of trains would increase, resulting in more vibration events. Sensitive receivers located within the impact distances (approximately between 100 and 200 ft from the tracks) might be affected. Refer to Chapter 4 of this Final EIS for a discussion of noise and vibration mitigation measures including use of wheel impact load detectors (WILD) on the EJ&E rail line.

Vibration Induced Damage to Hawthorne Dam

Commenters stated a concern for the possibility of structural damage to Hawthorne Dam.

Response

It is unlikely that train vibration will cause any structural damage, including minor cracks, to the historic Hawthorne Dam because the measured vibration from CN and EJ&E trains was below the vibration threshold for structural damage.

Increased Vibration

Commenters noted that vibration sensitive areas, such as the Fermi National Accelerator Laboratory (Fermilab), could possibly be affected by the Proposed Action. Commenters expressed concern for increasing levels of train-induced vibration and its possible structural and cosmetic effects on homes, noting a concern for damage to foundations, windows, and walls. Commenters stated that there is visible cosmetic damage to structures, due to vibration, under current operating conditions. Sample comments include: "…more vibration and loosing material in and around my properties," "…loosen my foundation and brick and mortar," "There's got to be an impact on my home (based on existing vibration experience)," "Increased train vibrations would cause increased annoyance to residences up to a mile away from the tracks," "The Board's vibration analysis focused their vibration impact assessment on vibration sensitive equipment, not human perception."

Response

Train-induced ground-born vibration levels in the Study Area are not expected to increase as a result of the Proposed Action; however, the frequency of train pass-by events would increase along the EJ&E rail line and decrease along the CN lines. Therefore, train-induced ground-borne vibration events would occur more frequently on the EJ&E rail line under the Proposed Action. SEA's analysis indicates that vibration levels are not predicted to interfere with current activities at hospitals and laboratories in the Study Area, including Fermi National Accelerator Laboratory (Fermilab), although future development at Fermilab may be restricted in the area nearest the EJ&E rail line. Although train-induced ground vibration within 100 to 200 feet of the tracks may be perceptible and may be annoying to building occupants, train-induced ground-borne vibration associated with the Proposed Action is not anticipated to reach annoyance thresholds at distances of up to one mile from the tracks.

It is very rare for vibration generated by any rail system, including freight trains, to be of sufficient magnitude to cause even minor cosmetic damage to buildings of normal structural integrity. A "Particularly High Sensitivity" building is safe from damage from a frequent event like freight rail operations when the vibration is less than 90 VdB. This includes any type of structural damage as well as cosmetic damage in the form of cracks in foundations and damage to stained glass windows. The measured vibration along the CN and EJ&E rail lines for this EIS was less than 90 VdB at all of the measurement sites, even at distances of less than 40 feet from the tracks. SEA therefore concludes that the vibration from freight train operations is very unlikely to cause cosmetic or structural damage to any residential or historic structures in the corridor.

Small cracks in foundations are a common occurrence that can be caused by a number of different factors. These factors include differential settlement of the soil, improper backfill that would induce excessive stresses on the foundation, frost heaves, and expansion and contraction of building materials due to changes in moisture content and temperature.

Vibration Mitigation

Commenters requested mitigation measures to alleviate vibration impacts from increased train traffic.

Response

To minimize vibration resulting from increased train operations, a Wheel Impact Load Detector (WILD) on the EJ&E rail line would be installed within 5 years of the effective date of the Board's final decision. The WILD would identify railcars with wheels that have vibration-inducing defects. This and other mitigation measures are discussed in more detail in Chapter 4 of this Final EIS. Train-induced ground vibration maybe perceptible and will sometimes result in annoyance to building occupants. Vibration test results show that vibration levels from trains using the CN and EJ&E rail lines are comparable. Therefore, the Proposed Action is not expected to increase the train-induced ground-borne vibration levels in the project area. However, the number of trains would increase resulting in more vibration events. Sensitive receivers located within the impact distances (approximately between 100 and 200 feet) from the tracks might be affected.

Vibration Damage to Underground Structures

Commenters stated that vibration could induce damage to underground structures such as gas pipelines.

Response

Underground structures such as pipelines and tunnels constrained by the ground around them are not particularly prone to damage from ground vibration. In fact, they can generally withstand substantially higher vibration than typical buildings (Dowding, 2000). This is because the surrounding soil acts to limit the deflections and strains in pipelines.

Because underground pipelines are less susceptible to damage from vibration than buildings, Dowding suggests that vibration limits 3 to 5 times greater than those applied to buildings are often appropriate. A conservative estimate is the train vibration at a pipeline close to the tracks might be as high as 100 VdB. This would mean a peak particle velocity of approximately 0.4 to 0.6 inches per second. Since most pipelines can withstand short-term vibrations of 6 to 10 inches per second, and long term vibration of 2 to 5 inches per second, these amplitudes of train vibration should not present any potential for damage to the pipelines.

Vibration Testing in Barrington, Illinois

Commenters stated a concern for the validity of the vibration monitoring that occurred in Barrington.

Response

Vibration measurements were performed at four sites in the Barrington area and site V2B showed higher vibrations. This higher vibration level for site V2B was expected since the monitoring devices were placed within 100 feet of the track turnout located north of Main Street. As a rule, special track work for turnouts, crossovers, and crossing tracks are expected to be 6 to 10 decibels higher than regular tracks because of wheel impacts at "frogs," the track component where two rails cross.

Battery failure due to sub-zero temperatures during the long-term vibration monitoring limited the measured data to two trains at site V2C. However, battery levels do not affect the accuracy of the measurements that were recorded.

3.4.12.4 Construction Impacts on Noise and Vibration

Construction Noise and Vibration (4.10w)

Commenters stated that increased construction noise and vibration would be an inconvenience to the residents and schools, specifically work performed at night. Commenters also stated that a detailed analysis of construction related noise and vibration should be performed as part of this Final EIS.

Response

The project proposes to modify portions of the EJ&E rail line, therefore construction activities would likely occur at different times and in different locations throughout the Study Area. Construction activities often generate noise and sometimes generate ground-borne vibration. These emissions vary greatly depending upon the duration and complexity of the project.

Construction noise effects would be temporary and localized around the connections and double track, and would typically be subject to local noise ordinances. Best management practices, such as requiring OEM or higher-performing mufflers on equipment and limiting the hours of construction activities to typical weekday business hours, can minimize the influence of noise from construction activities.

The Applicants did not provide detailed construction plans; therefore SEA performed a screening-level construction noise assessment. However, one of the voluntary mitigation measures submitted by the Applicants includes working to minimize construction noise disturbances to noise-sensitive land uses in the vicinity of construction activities. This will be partly accomplished through best management practices and limiting the hours of construction activities.

Vibration velocities associated with construction equipment attenuate very quickly with increasing distance from the source. SEA's assessment of construction-induced vibration reached the following conclusions:

- For the upper range of impact pile driving, potential for damage to normal buildings extends out to 50 feet, and potential for damage to fragile historic buildings extends out to 120 feet
- For typical vibration from pile driving, the potential for damage is reduced to 30 feet for normal buildings and 70 feet for fragile historic buildings

The Applicants did not provide detailed construction plans; therefore SEA is unable to perform a detailed assessment of construction-induced vibration. In a voluntary mitigation measure, the Applicant committed to minimizing construction noise disturbances to nearby residences.

3.4.12.5 Noise Methodology

Noise Methodology and Shielding Summary

Commenters stated that the noise methodology used in the Board's noise analysis was outdated and incorrectly implemented shielding. Additionally commenters stated that "The Draft EIS uses a methodology for generating noise contours and accounting for building shielding that is outdated and was used prior to the advent of high-speed personal computers." Commenters stated that the Draft EIS failed to address existing and proposed noise conditions for residents near the EJ&E rail line.

Response

SEA performed 24-hour noise and vibration measurements at residences and other locations throughout the Study Area. Noise measurement locations were selected because they were

representative of other locations that could be affected by noise from the Proposed Action (not every individual residence was monitored). Existing noise levels are shown in Table 3.10-2 of the Draft EIS, and ranged from about 49 dBA to about 81 dBA (on an Ldn basis), depending on how close the measurement location was to the existing rail alignment or other sources of noise (for example, freeways and other roads). The Board also assessed potential changes in train noise associated with the Proposed Action. The methodology for this assessment was based on current FTA and FRA methods and guidance. Section 4.10 of the Draft EIS presents this assessment; portions of it have been revised and are presented in this Final EIS.

SEA created a noise model based on the Federal Transit Administration (FTA) guidance document titled, "Transit Noise and Vibration Impact Assessment" (2006). These analytical methods are in use throughout the nation. SEA also applied the shielding methodology presented in the FTA guidance document to assess the building-induced acoustical shielding in the project area. Shielding is defined as an interruption of sound path by a barrier, such as rows of buildings. These barriers reduce the sound level by breaking the line-of sight to the sound source.

The FTA shielding methodology is consistent with the shielding methods published by Federal Highway Administration (FHWA), and has been used by the Board on previous rail noise assessments. FTA's noise analysis methods are used in transit and freight train noise analyses throughout the nation. The methods are both current and valid. Furthermore, the Board implemented a conservative application of the FTA shielding methodology: only the shielding effects of the first three rows of buildings were accounted for in this analysis. SEA also assessed noise associated with wheel squeal, rail yards, and special track work using FTA (2006) methods.

Additionally, the Board implemented the Federal Railroad Administration's locomotive horn noise model to assess horn noise at grade crossings. This model was released for use in 2005, when FRA released 49 CFR 222 and 229, "Use of Locomotive Horns at Highway-Rail Grade Crossings; Final Rule." SEA considers the application of these FTA and FRA methods to be current, reasonable, and appropriate for use in evaluating potential noise associated with the Proposed Action.

SEA recognizes that other acoustical analysis tools exist, including commercially available, computer-based models that have the capability to perform three-dimensional noise analyses, propagate noise between buildings, account for the shielding effects of those buildings, and show predicted noise levels using multi-color noise contours. SEA also recognizes that some of those models do not contain a Federally validated and Federally approved implementation of the FTA train noise and FRA locomotive horn noise algorithms. Therefore the Board does not require use of those computer models in evaluating potential noise associated with the Proposed Action.

Noise Receptor Counts

Commenters stated that the Draft EIS did not address the number of people that would be affected by the increased noise caused by the Proposed Action.

Response

SEA's noise analysis is presented in Chapter 4 of the Draft EIS; additional analysis is presented in Chapter 2 of this Final EIS. The Board's regulations in 49 CFR 1105.7(e)(6) require a noise analysis if rail traffic will increase by at least 100 percent as measured by annual gross ton miles, eight or more trains per day, or carload activity at rail yards increases by at least 100 percent. If these activity thresholds are exceeded, the Board requires a determination as to whether the Proposed Action will cause an incremental noise-level increase of at least 3 dBs on an Ldn basis, or the noise level rises to 65 dBs (Ldn) or more. If either of these thresholds is met, the Board requires that sensitive receptors (e.g., schools, libraries, hospitals, residences, retirement communities, and nursing homes) in the area be identified, and the projected noise increase for these receptors be determined.

Noise Mitigation Threshold

Commenters questioned the use of the 70 dBA Ldn threshold for mitigation.

Response

In prior cases, the Board has used a 70 dBA Ldn contour for noise mitigation purposes, and the Board's decision to do so has received approval from the courts. Other transportation agencies define noise impacts using an hourly Leq of 65 dBA or 67 dBA. SEA notes that 71 dBA and 75 dBA are the equivalent Ldn values for these two hourly Leq values. Therefore SEA's use of the 70 dBA Ldn contour to identify where mitigation should be considered in association with the Proposed Action is professionally acceptable and based on precedent. All recommended noise mitigation can be found in Chapter 4 of this Final EIS.

Determination of Existing and Future Noise

Commenters stated that the Draft EIS inappropriately assessed existing and future noise conditions. Commenters stated that noise measurements made for the analysis misrepresented the actual conditions in their area.

Response

SEA measured existing noise levels for 24 continuous hours at numerous locations throughout the project area. The monitoring locations were selected because they are representative of locations that would be affected by noise from the project; noise levels were not measured at every individual residence. Existing noise levels ranged from approximately 49 dBA to 81 dBA depending upon how close the measurement location was to the existing rail alignment or other sources of noise (for example, freeways and other roadways). SEA created a noise model based on the FTA guidance document titled, "Transit Noise and Vibration Impact Assessment" (FTA 2006). SEA's noise analysis also incorporated the Federal Railroad Administration's locomotive horn noise model to assess horn noise at grade crossings. This model was released for use in 2005, when FRA released 49 CFR §§ 222 and 229 "Use of Locomotive Horns at Highway-Rail Grade Crossings; Final Rule." Measuring existing noise levels throughout the project area and use of current FTA and FRA noise analysis methodologies ensured that SEA did not inappropriately assess existing or future noise conditions. Refer to Table 3.10-2 of the Draft EIS for monitoring locations. See Section 2.11 in this Final EIS for an updated and corrected monitoring location list.

Construction Noise Analysis

Commenters stated that the Final EIS needed to include a noise and vibration analysis pertaining to construction activities. Commenters requested that a detailed construction analysis be done, including schedule.

Response

The Applicants did not provide detailed construction plans; therefore SEA was unable to perform a detailed assessment of construction noise and construction-induced vibration. One of the Applicants' voluntary mitigation measures commits to minimizing construction noise disturbances to nearby residences.

Construction noise effects would be temporary and localized around the connections and double track, and would also typically be subject to local noise ordinances. Best management practices, such as requiring OEM (original equipment manufacturer) or higher-performing mufflers on equipment

and limiting the hours of construction activities to typical weekday business hours, can minimize the influence of noise from construction activities.

Matteson Noise Monitoring

Commenters stated that the Draft EIS failed to address existing and proposed noise conditions for residents near the Proposed Matteson Connection.

Response

SEA measured ambient noise levels at representative locations throughout the project area. The selection of monitoring locations and subsequent data collection activities was performed in accordance with generally accepted approaches. Section 2.1 of this Final EIS presents the Revised Matteson Connection, and SEA's analysis of noise associated with it.

Application of FTA Methodology for Freight Trains

Commenters stated that the Board's use of the FTA noise model was inappropriate. The commenters expressed a concern for the possible underestimation of noise caused by freight trains.

Response

SEA's noise analysis followed FTA noise analysis guidelines and used FTA propagation equations. However, the SEL values used to represent noise emissions from each locomotive and each railcar were based on measurements of noise during freight train pass-by events in the project area. Those freight train-specific SEL values were inserted into FTA propagation equations. In this manner, the FTA methods were adapted for use to assess noise associated with the Proposed Action (and therefore do not understate noise associated with the Proposed Action). Similarly, SEA measured ground-borne vibration levels and vibration propagation characteristics in the project area. This freight-train specific vibration data was used to assess vibration associated with the Proposed Action. In this manner, the FTA methods were adapted to assess vibration associated with the Proposed Action. These applications of FTA methods for use with freight rail noise and vibration assessments are reasonable, appropriate, and consistent with FTA guidelines and industry practices. This Final EIS presents the noise mitigation analysis, and identifies noise mitigation requirements in Sections 4.2.10 and 4.3.6.

Noise Analysis (Barrington Response)

Commenters from Barrington are concerned that the scope of the noise analysis was inconsistent with the Board's regulations and therefore, the Draft EIS failed to provide to the public full disclosure of potential noise impacts. Further, Barrington residents stated concerns with the Board's use of the 70 dBA mitigation threshold, the use of a net receptor count, and the application of shielding used in the noise analysis.

Response

SEA's scope of the noise analysis was consistent with the Board's regulations, provided full disclosure, and was consistent with precedent on prior decisions. SEA's application of the 5 dBA increase and 70 dBA Ldn mitigation criteria on the Proposed Action is also consistent with precedent established by prior Board decisions. The Proposed Action, unlike many other Board decisions, proposes to re-route freight rail traffic rather than simply increase the amount of freight traffic on a rail system. The net effect is a reduction of rail traffic in some portions of the project area and an increase in other areas, resulting in both potential benefits and impacts. A comparison of the net

benefits and impacts is a simple and reasonable assessment of the overall effect of the Proposed Action that neither discounts the merit of benefits nor the detriment of impacts. SEA also recognized the displacement of noise impacts from areas adjacent to the CN lines to areas adjacent to the EJ&E rail line.

SEA's model is based on Federal Transit Administration guidelines, published in 2006, and Federal Railroad Administration methods, published in 2005. While commercially-available PC-based acoustical analysis software models have been used on a prior Board decision, some of those models do not contain Federally-validated and Federally-approved implementations of the current FTA and FRA models. Therefore, SEA does not require their use, and is confident that use of current FTA and FRA models is reasonable and appropriate.

SEA's use of the 70 dBA Ldn and +5 dBA threshold is appropriate for identifying mitigation opportunities on the Proposed Action. SEA notes that the obligation and precedent for mitigating noise from freight trains is unlike the obligation and precedent for mitigating noise from other modes of transportation. For example, the Board's environmental regulations do not include thresholds or requirements for noise mitigation. Therefore use of the 70 dBA Ldn and +5 dBA threshold has merit for numerous reasons:

- It recognizes the Board's desire to mitigate noise impacts on a reasonable scale
- It is consistent with the Board's precedent of mitigating freight train noise in large urban corridors
- It reflects the Board's support of the original basis for the 70 dBA Ldn and +5 dBA threshold
- It recognizes the fact that CN can achieve the majority of the proposed train increases by simply acquiring additional trackage rights – entirely bypassing the Board's and NEPA review and eliminating the possibility of implementing any noise mitigation measures
- It reflects the freight rail industry's status as preempt from local ordinance and rules, and the historically limited amount of noise mitigation imposed on the industry nation-wide
- It balances the historical preemption of railroads from local rules with NEPA's desire to protect the environment

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Shielding

Commenters stated that SEA's noise and vibration analysis used shielding incorrectly, intentionally excluding affected areas.

Response

SEA created a noise model based on the Federal Transit Administration (FTA) guidance document titled, "Transit Noise and Vibration Impact Assessment" (FTA 2006). These analytical methods are in use throughout the nation. SEA also applied the shielding methodology presented in the FTA guidance document to assess the building-induced acoustical shielding in the project area. The FTA shielding methodology is consistent with the shielding methods published by Federal Highway Administration (FHWA), and has been used by SEA on previous rail noise assessments. FTA's noise analysis methods are used in transit and freight train noise analyses throughout the nation. The methods are both current and valid. Furthermore, SEA implemented a conservative application of the FTA shielding methodology: only the shielding effects of the first three rows of buildings were accounted for in this analysis.

Noise Modeling BACOG

Commenters from the BACOG stated that the Board's noise assessment was outdated. Additionally commenter's noted that the use of the 70 dBA contour was inappropriate and that increases in noise would negatively impact wildlife in the area.

Response

SEA created a noise model based on the FTA guidance document titled, "Transit Noise and Vibration Impact Assessment" (FTA 2006). SEA applied the shielding methodology presented in the FTA guidance document, to assess the building-induced acoustical shielding in the project area. The FTA shielding methodology is consistent with the shielding methods published by Federal Highway Administration (FHWA), and also used by SEA on previous rail noise assessments. Furthermore, SEA implemented a conservative application of the FTA shielding methodology: only the shielding effects of the first three rows of buildings were accounted for in this analysis. SEA also assessed noise associated with wheel squeal, rail yards, and special track work using FTA (2006) methods. FTA's noise analysis methods are used in transit and freight train noise analyses throughout the nation. The methods are both current and valid.

Additionally, the Board implemented the Federal Railroad Administration's locomotive horn noise model to assess horn noise at grade crossings. This model was released for use in 2005, when FRA released 49 CFR §§ 222 and 229 "Use of Locomotive Horns at Highway-Rail Grade Crossings; Final Rule." Each grade crossing in the project area was modeled individually, and each crossing has unique noise contours. Therefore, SEA considers the application of these FTA and FRA methods to be current, not outdated, and both reasonable and appropriate for use in evaluating potential noise associated with the Proposed Action.

The Board's requirements for noise analysis exist in 49 CFR 1105.7(e)(6). These regulations identify the activity thresholds that, if met, require a noise analysis. The Board's regulations do not define noise impacts nor do they include noise mitigation criteria; rather they simply require that a noise analysis identify noise-sensitive land uses predicted to experience an Ldn of 65 dBA or greater. Under the National Environmental Policy Act (via 40 CFR 1502.14(f), Alternatives Including the Proposed Action) the Board is required to include appropriate mitigation measures not already included in the Proposed Action. SEA notes that the Applicants provided voluntary mitigation measures with the Proposed Action. SEA is also required (via 40 CFR 1502. 16(h)) to include discussions of means to mitigate adverse environmental effects (if not fully covered under 40 CFR 1502.14 (f). Finally, 40 CFR 1505.3 "Implementing the Decision," states that mitigation and other conditions established in the EIS "…shall be implemented by the lead agency." SEA advocated the Applicants mitigation measures in the Draft EIS.

SEA's use of the 70 dBA Ldn + 5 dBA increase threshold for noise mitigation purposes received Federal approval on prior STB decisions, thus establishing precedent for use on future Board decisions. Other transportation agencies define noise impacts using an hourly Leq of 65 dBA or 67 dBA. SEA notes that 71 dBA and 75 dBA are the equivalent Ldn values for these two hourly Leq values. Therefore SEA's use of the 70 dBA Ldn contour to identify where mitigation should be considered in association with the Proposed Action is considered professionally acceptable, based on precedent, and both reasonable and appropriate.

Chapter 2 of this Final EIS presents an additional discussion of noise effects on wildlife. A response earlier in this section deals specifically with the potential effects of noise on wildlife.

Methodology (Will County)

Commenters stated that the criteria for determining "reasonability and feasibility" of noise mitigation measures was not cited in the Draft EIS. Will County also stated that figures in the Final EIS should indicate where schools, nursing homes, historical sites, and hospitals are located.

Response

SEA assessed the reasonability and feasibility of noise mitigation measures using criteria established by the Illinois and Indiana departments of transportation to assess highway noise mitigation measures. The Board's environmental regulations do not require that this Final EIS indicate where schools, nursing homes, historical sites, and hospitals are located.

3.4.12.6 Vibration Methodology

Detailed Vibration Methodology

Commenters stated that SEA did not accurately assess vibration and the possibility of future vibration impacts.

Response

SEA performed a Detailed Vibration Assessment based on FTA (2006) methods. These methods are appropriate for use to assess train-induced, ground-borne vibration associated with the Proposed Action.

Vibration Analysis of Alternatives

Commenters requested that a detailed vibration analysis be done for all project alternatives.

Response

SEA considered four additional alternatives, but found them to be unreasonable because they would not meet all elements of the Applicants' Purpose and Need for the Proposed Action. These alternatives were: expanded trackage rights to CN; implementation of the Chicago Region Environmental and Transportation Efficiency (CREATE) Program; acquisition of a different rail line within the Chicago metropolitan area; and construction of a bypass outside of the EJ&E rail line in Northern Illinois. In general, SEA found these alternatives to be unreasonable because they would not give CN full ownership and use of a continuous rail route around Chicago, the Applicants could not gain access to EJ&E rail yard, or the alternatives would be more expensive or more environmentally damaging than the Proposed Action. Therefore a vibration analysis was not performed on these project alternatives.

Noise and Vibration Measurements

Commenters stated that SEA did not accurately assess noise or vibration and the possibility of future impacts. Additionally commenters stated that monitoring locations in their representative area were reported incorrectly in the Draft EIS.

Response

SEA's noise and vibration analyses are based on current FTA and FRA methods, and are therefore reasonable and appropriate for assessing noise and vibration associated with the Proposed Action.

The list of noise and vibration monitoring sites has been updated to correct an erroneous address; the proper location of that monitoring location is included in Section 2.9 of this Final EIS.

Existing Vibration

Commenters expressed a concern for the possible underestimate of future vibration and the effects on residences adjacent to the EJ&E rail line.

Response

Based on a review of monitoring data, vibration levels during train pass-bys on the CN and E&JE rail lines are comparable. Therefore, train-induced ground-born vibration levels in the project area are not expected to increase as a result of the Proposed Action. While vibration levels are not expected to increase, the frequency of train pass-by events would increase. Therefore, train-induced ground-borne vibration events would simply occur more frequently under the Proposed Action. According to the FRA ("High Speed Ground Transportation Noise and Vibration Impact Assessment," October 2005), if the predicted vibration levels do not exceed an overall vibration level of 90 VdB, there is no need to further investigate the potential for damage. This includes any type of structural damage as well as cosmetic damage in the form of cracks in foundations and damage to stained glass windows. This is the same threshold recommended by FRA guidance on construction noise and vibration for "extremely fragile historic buildings" (FRA 2005). The measured vibration along the CN and EJ&E corridors was less than 90 VdB at all of the measurement sites, even at distances of less than 40 feet from the tracks. The conclusion is that measurement data and the available standards indicate that vibration from freight train operations is very unlikely to cause structural damage to any residential or historic structures in the corridor.

FTA Methodology

Commenters stated that SEA's use of FTA vibration limits and methodology were inappropriate.

Response

The FTA vibration impact limits are intended to be applied to rail transit and commuter trains where the vibration from each train will last for a few seconds. The FTA vibration limits are relaxed when there will be "occasional" or "infrequent" trains. Because freight train events may last several minutes, the impact limits for CN and EJ&E trains were defined by factoring-in the duration of freight train events. The number of equivalent events was calculated as follows: 10 freight trains with a passby time of 120 seconds (2 minutes) per train would be equivalent to 120 transit train events with a passby time of 10 seconds per train. With this adjustment, application of the FTA impact criteria is a reasonable approach.

Vibration Measurements in Barrington, Illinois

Commenters stated that SEA's vibration measurements in Barrington were invalid.

Response

Vibration measurements were performed at four sites in the Barrington area and site V2B showed higher vibrations. This higher vibration level for V2B was expected since the transducers were placed within 100 feet of the track turnout located north of Main Street. As a rule of thumb, special track work for turnouts, crossovers, and crossing tracks are expected to be 6 to 10 decibels higher than regular tracks because of the wheel impacts at "frogs," the track component where two rails cross.

Noise and Vibration Thresholds

Commenters stated that SEA's analysis concludes that there will be increases in both noise and vibration but fails to identify how those increases will impact residents adjacent to the EJ&E rail line.

Response

SEA's analysis indicates that the Proposed Action will result in an increase in noise and an increase in the frequency of vibration events for residents adjacent to the EJ&E rail line. As a result, residents within 100 to 200 ft. of the tracks could experience train-induced ground vibration that may be perceptible and may be annoying to building occupants.

Noise levels in areas where the Ldn is less than 65 decibels are generally not considered adverse to human health and welfare by the scientific community and agencies such as the Federal Aviation Administration (FAA), the Department of Housing and Urban Development (HUD), the Environmental Protection Agency (EPA), and the American National Standards Institute (ANSI). The use of the 65-dBA Ldn noise effect threshold is, therefore, reasonable and protective of human health and welfare.

Noise and vibration contours can be found in Appendix L of the Draft EIS.

Noise and Vibration Measurement

Commenters stated that the vibration and noise measurements should have been taken at the same locations. Additionally commenters stated that communities should have a choice as to where monitoring was performed.

Response

SEA selected noise and vibration monitoring locations that were considered adequately representative of the project area. While noise and vibration data was collected at the same monitoring locations in a few instances, in other instances the Board collected noise data at some locations and vibration data at others.

3.4.13 Comments on Biological Resources

3.4.13.1 Threatened or Endangered Species

Sandhill Crane

Commenter expressed concerned about the endangered Sandhill crane and its occurrence at the Pratt's Wayne Woods Forest Preserve.

Response

Sandhill cranes (*Grus canadensis*), a state threatened species in Illinois, are also protected as a migratory species. The Draft EIS analysis considered the occurrence Sandhill cranes at Pratt's Wayne Woods Forest Preserve.

Illinois DNR elemental occurrence records (EORs) were reviewed by SEA and it was determined that marsh bird species (that is, the biological guild that includes Sandhill crane) could be affected at segments 11, 12, 13B, and 13A along the EJ&E rail line (which includes segments adjacent to Pratt's Wayne Woods Forest Preserve). Additional EOR information obtained from Forest Preserve District of Du Page County suggests that the species was recorded at Powis Marsh as recently as June 2007.

SEA expects a minor reduction in marsh bird habitat resulting from the construction of the proposed Munger Connection and its alternative configurations along segment 12, which is where the greatest affects on marsh birds would likely occur. Marsh bird species currently occur in proximity to the EJ&E rail line in the Pratt's Wayne Woods Forest Preserve.

Mitigation measures are outlined in Chapter 4 of this Final EIS.

Occurrence of State and Federally Listed Species

Prairie remnants may include the state-threatened Franklin's ground squirrel. The Federally-threatened Mead's milkweed is known to occur near Vermont Cemetery and may exist in prairie remnants along the EJ&E rail line. Plant and animal surveys should be conducted prior to the completion of this Final EIS.

Response

SEA evaluated Mead's milkweed in Section 4.11 of the Draft EIS; surveys and mitigation, as appropriate, would be required.

Elemental occurrence records (EOR) were obtained from Illinois and Indiana DNRs and suggest that Franklin's ground squirrel is known to occur within segments EJ&E 1 and EJ&E 3 within the Indiana portion of the Study Area (see Table 4.11-5). EJ&E 3 is a segment that is expected to see no new construction and no changes in rail traffic. While no construction impacts are proposed for segment EJ&E 1, there is a potential for the Proposed Action to impact the species through potential increased disturbance or mortality due to increased train traffic.

SEA presumes that Federal- or state-listed species (such as Franklin's ground squirrel) within the Study Area may experience effects in response to the cumulative long-term affects of the Proposed Action (increased rail operations) and proposed construction areas (new connections and double tracking).

Species Listed in Tables

Tables 3.11-2 and 3.11-3 of the Draft EIS should not reflect these wildlife species as "common" given that a fair number of these species are state-listed or rare within the Chicago Wilderness region. Also, Table 3.11-4 of the Draft EIS should indicate an additional INAI site #1470 directly down stream (west of Eola road) from Night Heron Marsh.

Response

Comment acknowledged; see Errata, Chapter 2. Tables 3.11-2 and 3.11-3 reflect that wildlife species are present, not common, to the Study Area. Table 3.11-4 has been revised to include INAI #1470.

State Listed Species Not Adequately Explored

The Draft EIS does not adequately explore the potential effects on state listed species from increased train traffic through direct impacts and potential habitat contamination. Commenters are concerned about negative effects on state-listed species that would lose their habitat. Several state threatened and endangered species were excluded from this Draft EIS. All are located within the 4.5 mile corridor adjacent to the EJ&E ROW. This includes four mussels, 1 fish, 1 reptile, and at least 2 birds. Habitat for one Federally listed species lies adjacent to the ROW in Cook County.

Response

Subsequent to the publication of the Draft EIS, SEA further coordinated with the USFWS, and Indiana and Illinois DNR on the potential presence of state-listed species, and conducted additional field investigations with regional biological experts at proposed construction sites. Chapters 2 and 3 of this Final EIS discuss additional findings as a result of these efforts.

SEA's analyses of Federal-and state-endangered and threatened species that potentially occur in the Study Area were based on elemental occurrence records (EORs) that were obtained from Illinois and Indiana Departments of Natural Resources. SEA also reviewed information in databases from DuPage County that included wildlife observations and EOR data based on the County's ecosystem unit types.

In addition, SEA used data from published reports, feasibility studies, discussions with resource personnel, aerial photographs, USGS topographic maps, and analyses of Geographic Information Systems (GIS) databases. SEA conducted observational surveys within selected, accessible sections of the Study Area in February, April, October, and November 2008 using public access areas and hi-rail vehicles, respectively. SEA also interviewed local and regional biological experts and further researched the preferred habitat and behavior of threatened and endangered species to determine whether they occur in the Study Area, and whether the Proposed Action or constructions may affect them.

Threatened and Endangered Species

Commenters asked where endangered animals would go when train traffic increases, concluding that the number of threatened and endangered species will increase with increased train traffic and its associated impacts on the environment. There is additional concern that the effects on these species are undervalued.

Response

SEA conducted further coordination with the USFWS in October 2008 and conducted further field investigations for the Hine's emerald dragonfly and Eastern prairie fringed orchid in October and November 2008. Since the publication of the Draft EIS, SEA has prepared a Biological Report (Appendix A in this Final EIS) that discusses the additional analysis and an improved discussion of Federally listed species potentially found in the Study Area, and determination of affects.

Endangered Species at Baker's Lake

Overpasses and underpasses would totally change the ecology of the town and its topography and would harm endangered species at Baker's Lake.

Response

Because Bakers Lake is located over 1.0 mile east of the EJ&E rail line, it is unlikely that state- or Federally listed endangered and threatened species within the preserve would be affected by the Proposed Action.

Baker's Lake herons primarily forage in Cuba Marsh, which is located within the Study Area and approximately 1 mile north of Baker's Lake. Although herons use Cuba Marsh for foraging, they do not likely cross the EJ&E rail line on this flight and would likely continue to use the western half of this preserve as their primary foraging grounds. Areas within 500 feet of the EJ&E rail line were determined to be most likely to be affected as a result of increased train traffic from the Proposed Action. However, the primary foraging grounds at Cuba Marsh are mainly located at least 500 feet

away from the EJ&E rail line. Thus, the effects on herons from Baker's Lake would likely be minimal.

Air Quality Effects on Wildlife and Natural Resources

Commenters are concerned that air quality would decrease and affect wildlife and endangered species. Lake Renwick Forest Preserve and associated rookery provides breeding and foraging ground for five bird species; how would increased pollution (air emissions) affect the rookery? Other commenters stated they were concerned about effects on wetlands due to pollutants from automobile and truck exhaust.

Response

Air pollutant emissions can affect plants and animals through 1) respiration processes, 2) direct surface contact, or 3) precipitation processes that could affect soil, and water quality. Impacts through respiration could result from exposure to elevated concentrations of pollutants in the air. Deposition of pollutants to material or vegetation surfaces, soils, or water can occur either by direct contact of the pollutant gases or particles or by acid precipitation.

Air quality was analyzed at a regional level. While air quality monitors in the Chicago area generally show compliance with National Ambient Air Quality Standards (NAAQS) (or are expected to show compliance within the next few years) there may be concerns that local impacts of emissions from locomotives or from highway vehicles delayed near at-grade crossings may adversely impact air quality on a very localized or "hot-spot" scale near roadways and rail lines. Such impacts could theoretically occur in areas too small to be identified by the current air pollutant monitoring network. The Draft EIS included "hot-spot" analysis to estimate concentrations due to highway vehicle emissions near at-grade rail crossings, and found that the maximum impacts were below NAAQS. Additional analysis conducted for this Final EIS shows that emissions from moving and idling locomotives are also below levels that would create new exceedances or significantly exacerbate existing exceedances of the NAAQS. In the case of fine particulate matter (PM2.5), the existing measured 24-hour concentrations at some sites in the Study Area are already above the NAAQS, but analysis shows that locomotive traffic would add only a couple of percentage points to existing maximum monitored levels. Thus, localized impacts of emissions from locomotives and delayed motor vehicles are predicted to be well below levels that could directly affect plant or animal life.

Another type of potential impact on soils, water, and the ecosystem in general is acid precipitation. This type of impact occurs due to cumulative emissions over broad regions and is generally seen at large distances downwind of the emissions sources. The reason for this is that it takes a lot of time and dispersion before the precursor pollutants, primarily sulfur dioxide (SO_2) and nitrogen oxides (NO_x), are chemically converted to sulfuric and nitric acid. Such impacts from Chicago area emissions would tend to occur hundreds of kilometers downwind. Because the Proposed Action would change total SO_2 and NO_x emissions in the Chicago area by only a very small percentage, there would be negligible changes in downwind acid rain amounts. Localized impacts of acid precipitation due to the Proposed Action would be insignificant due to the relatively short distances and plume travel times to the forest preserves and wildlife areas near the EJ&E corridor.

Bird Species Impacts

The Draft EIS doesn't acknowledge that the potential significance of effects on bird species will depend on the species being affected.

Response

Specific effects on natural and biological resources have yet to be realized, and impacts would vary between species, location, and season. The Final EIS attempts to better disclose effects on migratory birds and other wildlife, and outlines how the Applicants will work with the natural resource stakeholders to identify habitat improvements away from the EJ&E ROW to off-set potential effects on wildlife inhabiting areas in proximity to the ROW. As a result of further coordination with the USFWS, it was determined that no Federally listed species will be adversely affected by the Proposed Action and constructions (see the Biological Report included in the Appendix A of this Final EIS).

Cumulative Impacts on Threatened and Endangered Wildlife

The Draft EIS does not adequately consider the cumulative impacts of more trains, length of trains, increased noise, and vibration on threatened and endangered species and wildlife.

Response

Since the publication of the Draft EIS, SEA further consulted with the U.S. Fish and Wildlife Service (USFWS) and conducted additional field investigations based on meetings with USFWS to identify the occurrence of Federally listed species, critical habitat, and potential suitable habitat in the Study Area. Noise and vibration impacts were considered as direct impacts and were therefore not considered as cumulative impacts. (See the Biological Report included Appendix A of this Final EIS)

Generally, SEA determined that long-term effects on wildlife and migratory birds, bird populations, and migratory species within 500 feet of the EJ&E rail line may experience auditory, behavioral, and/or physiological affects, and/or masking of communication signals because of the additional noise during train pass-bys. To mitigate increased train noise levels experienced by species in habitats adjacent to the EJ&E rail line, SEA enhanced CN's voluntary environmental liaison mitigation to include working with natural resource stakeholder groups to identify and improve habitat away from the rail line to off-set increased train noise levels impacts.

The Applicants will be required to comply with Federal and state endangered and threatened species laws. Under such laws, Federal and state agencies must ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat of such species.

To mitigate impacts on wildlife and endangered species, SEA is recommending mitigation to establish a qualified liaison with natural resource experience to work with Federal, state, and local natural resource stakeholders to identify species that will require additional protection as a result of the Proposed Action, monitor the populations pre- and post-acquisition, and develop appropriate mitigation and adaptive management measures to compensate for any project-related impacts. The Applicants have also developed voluntary mitigation. Mitigation measures are outlined in Chapter 4 of this Final EIS.

Wetland and Marsh Reptiles, Blanding's Turtle

Commenters disagreed with the assessment that the Proposed Action would have minor effects on marsh and wetland reptile species, specifically to Blanding's and spotted turtles. Studies have shown documented movement of state-listed Blanding's Turtle within Pratt's Wayne Woods along rail lines of both the EJ&E and Freeport Subdivision. Potential rail effects on turtles are well documented in the literature where individuals are attracted to the aggregate base materials along rail lines for egg laying and during seasonal movements. Individuals may become trapped between rails and exposed to desiccation. Commenters requested that the Final EIS address turtles being trapped between rails and how increased activity along the rail line would result in longer periods of entrapment.

Response

Large marsh and wetland complexes, important to Blanding's and spotted turtles, occur in numerous conservation and natural areas within the Study Area. Tables 4.11-3, 4.11-5, and 4.11-7 within the Draft EIS list the potential effects on these state-listed wetland reptiles within the Study Area and proposed construction areas.

EORs were obtained from Illinois and Indiana DNRs and Forest Preserve Districts to determine the presence of Blanding's turtle. EOR data (including Blanding's turtle) were evaluated by SEA within the Study Area. Large marsh and wetland complexes, important to Blanding's and spotted turtles, occur in numerous conservation and natural areas within the Study Area. Tables 4.11-3, 4.11-5, and 4.11-7 in the Draft EIS list the potential effects on these state-listed wetland reptiles in the Study Area and proposed construction areas.

SEA recognizes that these wetland reptile species have a tendency to move to find new habitat and breeding sites, and each species could experience increased mortality due to increased rail traffic. The increased traffic is primarily projected for the outer arc (that is, EJ&E rail line), while reductions in traffic are projected for tracks (namely, CN rail lines) within the arc.

Based on the available EOR data reviewed, SEA concluded that effects on Blanding's turtle may occur near the Applicants' proposed Munger connection and its alternative configurations. The species may also occur within the double track construction limits. However, the double track construction would generally take place within or immediately adjacent to existing rail embankment, and thus SEA expects minor reduction in wetland habitat within these construction areas. The existing rail line is already a barrier for movement, and construction of the double track is not anticipated to further fragment the species' habitat. SEA has recommended a condition requiring installation of turtle passages through EJ&E ROW where wetland habitat is located on both sides of the rail line. SEA's recommended conditions (Chapter 4 of this Final EIS) include measures to minimize Blanding's turtle mortality.

Chapter 4 includes a condition proposed by SEA intended to mitigate Blanding's and spotted turtle mortality. SEA has recommended a condition requiring installation of turtle passages through EJ&E ROW where wetland habitat is located on both sides of the rail line.

Determination on Federally-Listed Species

Commenters disagreed with SEA's conclusion that the Proposed Action would not adversely affect Federally listed species (including the Hine's emerald dragonfly) and state-listed species. The Draft EIS states that the Proposed Action should not adversely affect the Hine's emerald dragonfly with appropriate mitigation; however, the Draft EIS indicates no impacts were identified.

The Draft EIS does not discuss the Lockport Prairie and Romeoville Prairie nature preserves; both are high-quality areas in proximity to the EJ&E rail line and should be specifically addressed. The Lockport Prairie has known populations of the Hine's emerald dragonfly. Commenters noted that wetlands in the Lockport Prairie Nature Preserve support habitat for the Federally- endangered Hine's emerald dragonfly, leafy prairie clover, Federally-threatened lakeside daisy, and other state threatened and endangered species. Any changes to traffic or weight of train cars on this line could have potentially serious effects on the Hines emerald dragonfly and other known listed species that occur at these two preserves. Finally, the proposed staging areas identified in Crest Hill will increase the amount of time train traffic would be present in that area and, in addition to trains causing increased mortality to the Hine's emerald dragonfly, would increase the opportunity for habitat contamination of the Hine's emerald dragonfly to the northeast through leaching of petrochemicals into groundwater resources. Commenters recommended studies to determine 1) the proximity of known and currently unknown areas of suitable Hine's emerald dragonfly habitat, and 2) the hydrologic connection

between the Crest Hill staging area and nearby occupied habitat to evaluate the potential for habitat contamination.

Response

In response to the USFWS's concerns, SEA gathered additional data and conducted additional field visits. This information is included in a Biological Report (Appendix A of this Final EIS). The purpose of the Biological Report is to review the Applicants' proposed acquisition of the EJ&E rail line and determine to what extent the Proposed Action and Transaction-related constructions may affect Federally-threatened, endangered, candidate, or proposed species and designated or proposed critical habitat.

Five species (Indiana bat, Hine's emerald dragonfly, Karner blue butterfly, Eastern prairie fringed orchid, and leafy prairie clover) were evaluated because preliminary information indicated they do occur or might occur in or near the Action Area. An additional four plant species (Mead's milkweed, Prairie bush clover, Lakeside daisy and Pitcher's thistle) were eliminated from further consideration because they do not presently occur in proximity to the Action Area, or because they occur only in areas where no construction or operational impacts are reasonably anticipated.

After a detailed review of the best scientific and commercial information available and habitat-level field surveys, determinations of "may affect but not likely to adversely affect" were made for all five species. For one species, the Eastern prairie fringed orchid, the Applicants have agreed to conduct pre-construction surveys, and SEA will re-initiate consultation if the species is found within an area of proposed activity.

The Lockport Prairie and Romeoville Prairie Nature Preserves are located along the Paul Ales Branch, a rail spur near Joliet off the EJ&E rail line. The Proposed Action does not include any modifications to the Paul Ales Branch. Therefore, SEA did not include these two preserves in its analysis in Section 4.11 of the Draft EIS.

Since the Draft EIS, SEA and USFWS also agreed that the Paul Ales Branch and CN track (Joliet subdivision) were two locations where ground vibration could potentially affect wetlands that support larval Hines emerald dragonfly habitat. However, SEA and USFWS also determined that the Proposed Action would not affect these areas because it does not include operational changes for these two locations. Since publication of the Draft EIS, SEA also conducted field investigations for Hine's emerald dragonflies at the Joliet Connection and along the Paul Ales Branch. As a result of SEA's field studies and additional coordination with USFWS, an expanded discussion of the Hine's emerald dragonfly and other Federally- listed species is included in the Biological Report in Appendix A of this Final EIS.

Eastern Prairie Fringed Orchid Determination

A commenter disagreed with SEA's conclusion that there would be no effects on Federally listed species. This determination can't be made for the Eastern prairie fringed orchid without conducting a habitat assessment or survey in suitable wetland habitat. Previous USFWS consultations on Federally listed threatened and endangered species involving wetland communities comprised of organically rich hydric soils such as at the Munger Connection have required more extensive reviews and field surveys during bloom stages of the Eastern prairie fringed orchid to document the presence or absence of the species.

Response

Since the publication of the Draft EIS, SEA has conducted suitable Eastern prairie fringed orchid habitat field investigations within the proposed construction areas. SEA has prepared a Biological

Report (Appendix A in this Final EIS) that discusses the additional analysis and an improved discussion of Federally listed species potentially found in the Study Area, including the Eastern prairie fringed orchid, and determination of affects.

After a detailed review of the best scientific and commercial information available and habitat-level field surveys, determinations of "may affect but not likely to adversely affect" were made for this species and four others which were investigated. The Applicants have agreed to conduct pre-construction surveys, and SEA will re-initiate consultation if the Eastern prairie fringed orchid is found within an area of proposed activity.

Wetlands as Critical Habitat

Wetlands that support threatened and endangered habitat should be treated as critical habitat areas and offered the fullest degree of protection. As well, calcareous ecosystem types are common in Chicago Region and support numerous T&E species and rare plant assemblages.

Response

Since the publication of the Draft EIS, SEA has conducted suitable habitat field investigations for Eastern prairie fringed orchid in the proposed connection and double-tracking construction areas. SEA has prepared a Biological Report (Appendix A in this Final EIS) that discusses the additional analysis and an improved discussion of Federally listed species potentially found in the Study Area, including the Eastern prairie fringed orchid, and determination of affects.

After a detailed review of the best scientific and commercial information available and habitat-level field surveys, determinations of "may affect but not likely to adversely affect" were made for this species and four others which were investigated. The Applicants have agreed to conduct pre-construction surveys, and SEA will re-initiate consultation if the Eastern prairie fringed orchid is found within an area of proposed activity.

SEA also acknowledges the importance of calcareous ecosystem types and identified these sites within the Study Area in Chapter 3 of the Draft EIS. During the Stakeholder Meeting on April 29, 2008, resource agency representatives requested that SEA perform additional analysis specifically on groundwater-fed fens located outside of the defined one-mile Study Area. SEA performed additional analysis on fens located within 5 miles of the Study Area, recognizing the potential for groundwater contamination from more distant locations. The results of this analysis are located in Chapter 4 of the Draft EIS.

The Applicants will be required to perform wetland delineations, including FQA assessments according to county and Federal guidance. County regulations in Lake and Du Page County in Illinois, the state of Indiana, and the USACE have discretion to require the Applicants to perform habitat assessments prior to permitting any wetland disturbing activities.

Inconsistency Between Sections

The wildlife heading on page 48 (item 29) and construction section on page 51 (item 55) are inconsistent in the Draft EIS. On page 48, both Federally- and state-listed species will be surveyed and a mitigation plan will be implemented upon approval of appropriate Federal and state authorities. This is fine. However on page 51, the SEA recommendation does not include state-listed species or state authority, but it does state authority again in item. To correct item 55 on page 51, it should reflect the state's interest in the same way it has been noted in items 29 and 56.

Response

Illinois and Indiana DNRs will provide protection of state-listed threatened and endangered species, should they be encountered during construction activities, and have the ability to stop project construction and establish suitable mitigation if a T&E species is found during construction. See recommended conditions in Chapter 4 of this Final EIS.

Inappropriate Conclusions

SEA has inappropriately concluded that the Proposed Action is "not likely to adversely affect" a variety of species. SEA reached this conclusion without performing field surveys of potential habitat and without input from the USFWS. Instead, in reaching its premature conclusion SEA relies on 'mitigation' consisting of future surveys. In addition, the Draft EIS fails to analyze potential effects on the Indiana bat, despite USFWS expressing concern over potential effects on this endangered species. By failing to adequately analyze potential effects on these species, and failing to disclose potential taking of threatened or endangered species to the public and the decision-maker, SEA has violated Section 7 of the Endangered Species Act and NEPA.

Response

Discussion of the Indiana bat was inadvertently omitted from the Draft EIS. A detailed discussion and a determination of "may affect, but not likely to adversely affect" is included in a Biological Report included in Appendix A of this Final EIS.

SEA met with the USFWS on October 23, 2008 to discuss project specific issues related to Federally-listed species. Further field investigations were conducted for the Hine's emerald dragonfly and suitable habitat for the Eastern prairie fringed orchid. Further detail can be found in the Biological Report within Appendix A of this Final EIS.

Significance of Impacts

The biological resource impact analysis is incomplete as the level of detailed information needed to properly assess impacts has not been provided. Therefore, impacts have not been evaluated, avoided, and disclosed as required by CEQ regulation. The potential significance of impacts cannot be ascertained from the Draft EIS information.

Response

SEA calculated the potential acreage of ground disturbance impacts associated with the construction of the six connections and four locations of double track using resource data and ROW boundaries in the locations where the constructions are proposed. The construction impacts were based on a conservative scenario, in which the largest footprint possible was considered. SEA determined land cover using high-resolution aerial photography (one-foot resolution in Illinois and six-inch resolution in Indiana) to create GIS polygons of distinct landscape types and then conducted a field visit to verify landscape types. Landscape types were roughly based on the Chicago Wilderness (CW) Terrestrial Community Classification System (CW 2007b).

In response to the concern expressed by the USFWS, SEA gathered additional data and conducted additional field visits. This information is included in a Biological Report (Appendix A of this Final EIS). The purpose of the Biological Report is to review the Applicants' proposed acquisition of the EJ&E rail line and determine to what extent the Proposed Action and Transaction-related constructions may affect Federally-threatened, endangered, candidate, or proposed species and designated or proposed critical habitat.

To minimize potential impacts and ensure plant communities and wildlife are protected when possible within the Study Area, SEA has recommended a mitigation measure requiring a qualified natural resource liaison to work closely with state stakeholders to develop monitoring protocols and mitigation.

Inconsistent Impacts

The Draft EIS contains a conflicting finding of no effect to wildlife which is then refuted by a finding of potential effects on prairie plants and marsh bird species.

Response

Tables 2-9 through 2-16 have been revised to make impact summaries consistent with the findings in Chapter 4 of the Draft EIS, as well as incorporate new data gathered since the publication of the Draft EIS. See Chapter 2, Errata, in this Final EIS.

Analysis Concurrence

Commenters indicated that they did not concur that only two Federally- listed endangered species could be potentially affected by the Proposed Action; and the risk of mortality to state-listed species from increased train traffic "is slight." They did concur that wildlife species living in the EJ&E corridor would be directly displaced by ground disturbances caused by varied connection construction.

Response

Since the publication of the Draft EIS, SEA has further coordinated with USFWS to identify potential effects on Federally listed species in the Study Area. The USFWS has indicated that the Indiana bat is the only additional species that needs to be addressed in this Final EIS. Additional analyses and field investigations have been completed for the Eastern prairie fringed orchid and the Hine's emerald dragonfly in the Study Area. A detailed description of effects is found in the Biological Report in Appendix A of this Final EIS.

No Assessment of USFWS Species

There was no impact assessment concerning USFWS protected species inclusive of, but not limited to, numerous marsh, wetland, nesting and migratory waterfowl bird species, "state-listed", and "Common." These species are affected by both construction activities and train operation related impacts. SEA should address effects on these protected species under USFWS within this Final EIS.

Response

SEA recognizes the Services' Resource Conservation Priorities and Focal Species lists. The Final EIS includes enhanced analysis of effects on migratory birds and other wildlife and outlines SEA's recommendations for the Applicants to work with the natural resource stakeholders to identify habitat improvements away from the EJ&E ROW to off-set potential effects on wildlife inhabiting areas in proximity to the ROW. Measures to protect listed species are detailed in Chapter 4.

SEA met with the USFWS on October 23, 2008 to discuss project-specific issues related to Federally-listed species. Further field investigations were conducted for the Hine's emerald dragonfly and suitable habitat for the Eastern prairie fringed orchid. Further detail can be found in the Biological Report within Appendix A of this Final EIS.

Listed Species in the Draft EIS

Migratory waterfowl should be considered as protected species by USFWS. Commenter wants more discussion of sensitivity of these species, and further discussion of project effects on Blanding's turtle.

Response

SEA recognizes the migratory birds included in the Resource Conservation Priorities and Focal Species lists set forth by the USFWS. The Final EIS attempts to better disclose effects on migratory birds and other wildlife. SEA also acknowledges that large marsh and wetland complexes, important to Blanding's and spotted turtles, occur in numerous conservation and natural areas within the Study Area. Tables 4.11-3, 4.11-5, and 4.11-7 within the Draft EIS list the potential effects on these state-listed wetland reptiles within the Study Area and proposed construction areas. SEA recognizes that these wetland reptile species have a tendency to move to find new habitat and breeding sites, and each species could experience increased mortality due to increased rail traffic.

Mitigation measures may include, but are not limited to, identifying areas where seasonal construction limits should be imposed to reduce effects on breeding, nesting, and migratory birds and identifying where habitat can be enhanced away from the EJ&E ROW to off-set potential impacts. SEA has recommended a condition requiring installation of turtle passages through EJ&E ROW where wetland habitat is located on both sides of the rail line to reduce wetland reptile (includes state-listed Blanding's turtle) fragmentation and mortality.

Listed Species in Pratt's Wayne Woods Forest Preserve and Night Heron Marsh

Disagree with wildlife impact conclusion for the proposed Munger Connection and double track at Night Heron Marsh.

Response

Effects on wildlife may occur at the proposed Munger Connection and Night Heron Marsh; see Chapter 2 of this Final EIS for corrected findings. These natural areas may provide habitats for several listed species. The Applicants are required to comply with all applicable Federal, state, and local laws to ensure the Proposed Action minimizes effects on listed species. Prior to construction, these areas will be surveyed for both suitable habitats and usage by listed species. SEA presumes that the construction of the connections will impact habitat and double tracking may impact habitat.

3.4.13.2 Wildlife Resources and Plant Communities

Wildlife Resources

Commenters described wildlife and plant resources within the Study Area, stating they often see deer, various breeds of birds, coyotes, and fox on the paths and roads near the railroad tracks, and citing local efforts to protect wildlife. Pratt's Wayne Woods was mentioned as "A lush environment for egrets, great blue herons, wood ducks, beavers, coyotes, foxes, white-tailed deer, red-tailed hawks, screech owls, and others." Also mentioned that "U.S. protected wetland and a park occur within a mile of the rail line." Commenters also mentioned that "Reed-Keppler Park contains 20 acres of high quality wetlands adjacent to the rail line."

Response

These wildlife resources are documented in Table 3.11-2 in Chapter 3 of the Draft EIS.

Animal Kills along Rail Line

Certain wildlife are killed by rail cars regularly, but the railroads don't keep any record of animal kills on any of the rail lines.

Response

Comment acknowledged.

Wildfires

Wildfires are ignited in Will County almost annually. Some of the fires have required significant response from local fire departments to suppress.

Response

Wildfires are a natural part of prairie succession and can easily be caused by lightning strikes and to humans. Species native to prairie areas have adapted to these conditions. For example, many native plant species have enhanced root systems that positively respond once a naturally occurring fire clears away threatening species such as shade trees. If a fire does occur, it could potentially affect plant communities, wildlife, Federal-and state-listed species, migratory species and conservation and natural areas within the Study Area, but it may also play a necessary role in maintaining the health of a prairie ecosystem.

To address the concern of wildfires occurring in large scale events that require multiple emergency response teams, mitigation measures have been developed. These include the Applicants' voluntary mitigation measure to coordinate with local stakeholders and fire response teams. SEA also recommends that the Applicants coordinate with the U.S. Department of Agriculture, and Natural Resources Conservation Service (NRCS) when developing fire control plans. Complete mitigation measures are outlined in Chapter 4 of this Final EIS.

EJ&E Rail Line Near Seven Nature or Forest Preserves in Du Page County

The EJ&E rail line or alternative routes assessed within Draft EIS bisect, adjoin, or lie adjacent to portions of Pratt's Wayne Woods (bisects), James "Pate" Phillip State Park (adjacent), Dunham Marsh (adjoins), West Chicago Prairie (adjoins), Truitt-Hoff Nature Preserve (adjoins), Roy C. Blackwell (adjoins), Night Heron Marsh (adjacent). Within these preserves, various natural and restored resources are managed to preserve and protect a rich biodiversity of plants and animals.

Response

SEA identified these areas in Section 3.11 of the Draft EIS. SEA's recommended conditions include establishing a natural resource agency liaison with appropriate experience to work with natural resource stakeholders, such as public lands managers, to develop appropriate adaptive management strategies. Mitigation measures are outlined in Chapter 4 of this Final EIS.

General Effects on the Environment

Many commenters were concerned with general negative effects on the environment. Examples of comments are:

> ... concern for the environment.
>
> … negative impact on the environment.

… concerned about well-being of animals and birds in the area.

… health of the environment will be negative.

… concerned about significant issues related to the environment.

…wildlife will experience increased freight traffic related issues

…concerned for wildlife and foxes

… will be left to deal with environmental impact.

… increased number of trains would be significant and dangerous to wildlife.

…increase in rail traffic along these lines will absolutely affect the migration, diversity, population, density, and quality of life of these natural resources.

Response

A discussion of biological resources identified within the Study Area is provided in Section 3.11 of the Draft EIS. An evaluation of potential impacts is provided in Section 4.11.

The Applicants are required to comply with Federal and state endangered and threatened species laws. Under such laws, Federal and state agencies must ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat of such species. SEA also recommends that the Applicants establish a liaison with natural resource experience to work with natural resource stakeholders to identify species that will require additional protection as a result of the Proposed Action, monitor the populations pre- and post-acquisition, and develop appropriate mitigation and adaptive management measures to compensate for any project-related impacts. See Chapter 4 of this Final EIS.

Wetland and Marsh Habitat

Several commenters expressed concern that wetlands and marshes will be affected by potential contamination due to derailment or rail infrastructure collapse.

Response

As discussed in Section 4.2.4 of the Draft EIS, the risk of hazardous materials spills from train accidents would slightly increase due to increased train traffic; however, these would continue to be extremely rare events. Actual impacts, containment, and clean-up methods would depend on the substance spilled, location of the spill, weather conditions, accessibility of the spill site, and response time. In the unlikely event of a catastrophic spill, the Applicants would be required to clean up the area to prevent potential harm to the environment. Section 4.2.5 of the Draft EIS and Chapter 4 of this Final EIS discuss response plans to hazardous materials spills, recommended mitigation to address emergency response concerns, and proposed consultation with the U.S. Environmental Protection Agency (USEPA), the Illinois Environmental Protection Agency (IEPA), and Indiana Department of Environmental Management (IDEM) relative to protection of sensitive surface and groundwater resources. The Applicants are required by Federal regulation to have trained staff and response contractors to handle spills. This is outlined in CN's Safety Integration Plan that has been approved by FRA.

If construction of new infrastructure were required to replace collapsed infrastructure, the Applicants would be required to obtain all permits (including wetland and hazardous materials discharge among others) and mitigate for impacts as required by law.

Additional air quality analyses conducted for this Final EIS shows that emissions from moving and idling locomotives are below levels that would create new exceedances or significantly exacerbate existing exceedances of the National Ambient Air Quality Standards (NAAQS).

Rail Traffic Increase by 400 Percent

Commenters expressed concern about the impact of increasing rail traffic by 400 percent. In addition, conservation and natural areas adjacent to the EJ&E rail line represent a major component of the habitat available to species in the region.

Response

Environmental consequences to plant communities and wildlife resources were discussed and summarized in Chapter 4.11 of the Draft EIS.

In general, plant communities and wildlife along the EJ&E rail line would experience a higher probability of exposure to hazardous material spills, train collisions, and noise disturbance compared with current conditions. To mitigate for these potential effects on species in habitats immediately adjacent to the EJ&E rail line, SEA proposes to enhance the voluntary environmental liaison mitigation that the Applicants proposed to include working with natural resource stakeholder groups to identify and improve habitat away from the rail line to off-set increased train noise levels impacts.

Lake Near Rail Line

A small lake exists near the EJ&E rail line that is stocked with fish. How will the fish be affected?

Response

SEA consulted a fisheries biologist with more than twenty-nine years of fisheries management and fish hatchery related experience in the states of Illinois, Indiana, and Kansas. The Proposed Action (operational increases) will increase noise and vibration along the EJ&E rail line; however, effects on fish are anticipated to be minimal. For a short period of time, the fish may stop feeding until they acclimate to their environment. The biologist indicated he had personally observed this short-term trend at a fish hatchery located near an air field. The biologist suggested that effects on fish spawning could be more variable depending on spawning substrate and the species present within the small lake or pond. The stocked nature of the small pond suggests that existing conditions may not be suitable for fish spawning activities.

With increased rail traffic from the Proposed Action, accidents or equipment failure could release hazardous substances and petroleum products from the train engines and/or rail cars into adjacent wildlife habitats. However, as discussed in Chapter 4 of the Draft EIS, the possibility of hazardous substances and petroleum products release would remain remote because of the regulatory and other safeguards already in place. In the event of a spill or release, the Applicants would be required to clean up the area to prevent potential harm to the environment. Chapter 4 of this Final EIS discusses recommended mitigation to address emergency response concerns and response plans to hazardous materials spills, and SEA's recommended condition for the Applicants to establish a qualified liaison to work with local natural resource agencies to identify resources that need additional protection under the Proposed Action, and to develop adaptive management practices.

Pollution and Natural Areas

Commenters are concerned with the impact of pollution on natural areas along the EJ&E rail line and disruptions in these habitats that would be caused by increased emissions and potential contamination.

Response

Potential air and water quality impacts due to increased train traffic are anticipated to be minimal. As discussed in Section 4.2.4 of the Draft EIS, the chance of hazardous materials spills from train accidents would slightly increase due to increased train traffic; however, these would continue to be extremely rare events. In the unlikely event of a catastrophic spill, the Applicants would be required to clean up the area to prevent potential harm to the environment. Section 4.2.5, Hazardous Materials Transportation Safety of the Draft EIS and Chapter 4 of this Final EIS discuss recommended mitigation to address emergency response concerns, response plans to hazardous materials spills, and proposed consultation with USEPA, IEPA, and IDEM relative to the protection of sensitive surface and groundwater resources. Additional air quality analyses conducted for this Final EIS show that emissions from moving and idling locomotives are also below levels that would create new exceedances or significantly exacerbate existing exceedances of the National Ambient Air Quality Standards (NAAQS).

Mitigation measures in Chapter 4 include SEA's recommendation for the Applicants to establish a qualified liaison who would coordinate with water and natural resource stakeholders to improve various adaptive natural resource management measures. In addition, SEA recommends that the Applicants either conduct or supply financial support for pre- and post- construction monitoring to evaluate and document potential effects of the Proposed Action. Once monitoring is completed, the CN liaison and natural resource agencies can develop and implement appropriate site-specific mitigation measures when potential effects from the Proposed Action are realized.

Invasive Species

Commenters were concerned about the possibility of invasive species increasing with increased rail traffic and the potential impact of invasive species on surrounding natural areas. The Draft EIS did not list train traffic and railroad maintenance as a potential means of invasive species transport. An increase in invasive plants is likely from an increased number of vectors (train car containers) potentially carrying invasive species from continental and cross-continental sources.

Response

The likelihood of railcars dispersing invasive and nonnative species along the EJ&E ROW may increase as a result of the Proposed Action. It should be noted, however, that currently several portions of the EJ&E ROW are dominated by non-native and invasive plant species. The Applicants indicate that their current invasive species control practices would be applied to the EJ&E arc under the Proposed Action, which likely will result in a beneficial decrease in invasive species within the ROW.

Chapter 4 of this Final EIS includes the Applicants' voluntary mitigation and SEA's recommended conditions regarding cooperative strategies with resource agencies to address invasive species.

Migratory Birds

Commenter was concerned about the impact to migratory birds, such as the turkey vulture, with increased rail traffic.

Response

The typical nesting season for migratory songbirds, game birds, and shorebirds in the Study Area ranges from April 1 through July 15. Some species and/or select individuals within a particular species may begin nesting prior to April 1 or complete their nesting cycle shortly after July 15, but the

vast majority will complete their initial nesting during this period. Depending upon the year and species, some bird pairs will undertake a second nesting effort later in the season.

Chapter 4 of this Final EIS details SEA's recommended conditions for the Applicants to coordinate with natural resource stakeholders to identify habitat improvements away from the EJ&E ROW to off-set potential effects on wildlife inhabiting areas in proximity to the ROW.

Crabtree Nature Preserve

Commenters questioned why no evaluation of Crabtree Nature Preserve was found in Section 4.11 of the Draft EIS.

Response

Crabtree Nature Preserve was evaluated within Draft EIS and discussed in Section 3.11. Only a small portion of the preserve is located within the Study Area, and no portion of the preserve lies within 500 feet of the railroad. Two major highways (IL 59 and IL 52) separate the Crabtree Nature Preserve and the EJ&E ROW. Because SEA determined that operational impacts beyond 500 feet would not be significant, and because highways have already fragmented habitat between the EJ&E ROW and preserve, SEA concluded that the Proposed Action would not affect the Crabtree Nature Preserve. SEA did not address unaffected conservation and natural areas in Section 4.11; unaffected areas are listed in Table M.3-2-1 in Appendix M in the Draft EIS.

Koi Ponds

Commenter stated that their Koi pond is frequently visited by wildlife from Pratt's Wayne Woods Forest Preserve. The danger of the Proposed Action to all the animals is of great concern.

Response

SEA concurs that Pratt's Wayne Woods is an important natural area with habitat that supports numerous species of threatened and endangered (T&E) birds. As such, consideration of effect of the Proposed Action on this area was included in Sections 3.11 and 4.11 of the Draft EIS.

Noise Effects on Wildlife and Plants

Wildlife and plants will be negatively affected by noise and vibration. Commenters stated they were concerned about behavioral effects on nesting birds and water birds from noise and other changes. Studies have shown that noise does impact species. The Draft EIS fails to acknowledge the potential significance of this issue. In addition, there are no monitoring plans to detect these impacts and no mitigation activities proposed to address them if observed. The Final EIS should compare the predicted noises levels from the Proposed Action (including the increased number and frequency of trains) to noise levels and distances that have shown an adverse affect on migratory birds.

Response

The EJ&E rail line is an active freight line, and wildlife that is present in the corridor has generally acclimated to the ambient train noise and disturbance. However, adverse effects on breeding bird densities can occur at lower noise levels than noted in the Draft EIS. Bird populations and migratory species within the Study Area (500 feet of the EJ&E rail line) may experience auditory, behavioral, and/or physiological affects and/or masking of communication signals because of the additional noise during train pass-bys. To mitigate increased train noise levels experienced by species in habitats immediately adjacent to the EJ&E rail line, SEA proposes to enhance the Applicants' voluntary environmental liaison mitigation to include working with natural resource stakeholder groups to

conduct species monitoring to identify where habitat can be improved away from the rail line to off-set effects from increased train noise.

SEA notes, however, that use of the Ldn descriptor in the noise analysis is somewhat misleading in the context of wildlife response to noise. The Ldn descriptor was developed to indicate levels of noise effects on humans and social conditions of the human environment The Ldn descriptor incorporates 24 consecutive hourly equivalent (average) noise levels, and then adds 10 decibels to each average noise level for hours between 10:00 p.m. and 7:00 a.m. The penalty is applied in recognition that people are generally more annoyed by nighttime noise than daytime noise. This nighttime penalty has not been demonstrated to be equally meaningful in the context of wildlife response to intermittent noise events like train noise. The Ldn descriptor (and the A-weighted scale) was developed to indicate levels of noise effects on humans and social conditions of the human environment.

Also, the predicted increase in train noise due to the Proposed Action does not equate to elevated noise levels at all times throughout a 24-hour period. Rather, noise levels in the Study Area rise and fall with each train noise pass-by event and the Proposed Action simply increases the number of train pass-by events each day. In the absence of a train, noise levels in the Study Area return to levels that presumably are acceptable for native wildlife. A train pass-by lasts for approximately 2.5 minutes; and assuming the almost maximum projected train traffic of 40 trains per day, this equates to approximately 1 hour and 40 minutes of train noise per 24-hour period. The individual noise level associated with each train pass-by event may not increase under the Proposed Action. Monitoring data collected by SEA shows that CN trains are quieter than other trains that operate in the Study Area. Therefore, while the frequency of train pass-by events will increase, the overall loudness associated with each pass-by event may not increase.

To mitigate increased train noise levels experienced by species in habitats immediately adjacent to the EJ&E rail line, SEA proposes to enhance the voluntary environmental liaison mitigation to include working with natural resource stakeholder groups to identify and improve habitat away from the rail line to off-set increased train noise levels impacts. SEA has also recommended that the Applicants establish a resource agency liaison to work closely with Federal, state, local, and other natural resource groups.

Mature Oak Trees

Commenters stated that they were concerned about the impact to 200-year old oak trees along the rail line in the Frankfort area, the impact on huge groves of 200+ year-old oak trees at Camp Manitoqua, and the impact on these trees by noise, vibration, and pollution.

Response

SEA recommends that the Applicants coordinate with natural resource stakeholders to identify resources that need protection in the Study Area, and develop appropriate mitigation and best management practices as discussed in Chapter 4 of this Final EIS. As site-specific project impacts are determined, the Applicants' liaison and local resource stakeholders can minimize potential effects on the existing vegetation communities (including mature trees) along the EJ&E ROW.

In many cases, vegetation management is mandated by Federal regulation, requiring railroads to retain sightlines near developed areas. Vegetation within the railroad ROW is managed by application of herbicides and brush cutting, or mowing where spraying is ineffective. Control programs and chemicals vary according to the particular species. All chemical applicators are licensed and qualified. Railroad vegetation management will not change from current conditions.

Based on review of aerial photos of Camp Manitoqua, most oak tree groves appear to be outside of the footprint of the double track. Potential effects on the trees due to increased pollution are anticipated to be minimal, as the likelihood of spill will remain remote, and localized air quality impacts from locomotives are predicted to be below levels that could affect plant life.

Wildlife Mortality

Commenters do not concur that all wildlife affected are sufficiently mobile to avoid impacts. There will be increased mortality to mammals and reptiles as a result of increased train traffic through wildlife migration corridors or animals would move out of the area in search of food. The increased mortality should also be considered in the cumulative effects section. It was pointed out that insufficient data exists for the Draft EIS to address this issue and baseline conditions such as mortality rates, documenting location, number and species killed, should be determined before finalizing the EIS so that the true risks of mortality related to train impacts can be assessed. In addition, the statement "animals in the area have adapted to existing train traffic and the increased potential for animal/train collisions would not affect any particular animal populations is not cited. There is documentation on direct mortality to reptile, amphibians, and insect species from collisions and/or attempting to cross the tracks and being incapable of escaping before becoming dehydrated or exhausted. There is a great deal of research which documents that trains can have a severe impact on animal species of all types. Mortality of wildlife would increase at Sugar Creek Preserve.

Response

Displacement and wildlife mortality due to collisions may increase under the Proposed Action. Collisions are most apparent when they involve large ungulates such as a deer; however, mortality from direct collisions can also affect small rodents, small ungulates, owls, birds of prey, reptiles, amphibians, and invertebrates. Predators or carrion eaters that scavenge and feed on the carcasses of dead animals are also particularly vulnerable. CN does not keep records of animal strikes/kills on its own rail lines. Likewise, EJ&E does not record animal strikes/kills (Applicants 2008m); however, during the April 2008 field inspection several dead animals were observed, including: raccoon, squirrel, opossum, fox, and coyote.

The potential increase in the probability of train animal collisions will be dependent on the species, the population size and movements and habitat use in the vicinity of the EJ&E ROW, as well as train speeds. While train-animal collisions are not uncommon under existing conditions, species of birds and mammals as well as amphibians, reptiles and invertebrates (including butterflies, dragonflies, beetles, and other slower and less responsive species) may experience an increase in mortality under the Proposed Action. Some species such as deer and predator/scavengers may be better able to avoid increased train traffic, while slower and less responsive species may experience an increase in mortality proportionate to increase in train traffic.

Highest mortality rates are found at the intersection of railroads with important wildlife habitats and migration routes. Railroad corridors provide habitat features that are attractive to some species of animals. Reptiles utilize the sun-exposed, well drained embankments for overwintering or maintaining (high) body temperature; while mammals use railroad embankments for den sites. Birds can be attracted to vegetation within right of way, using it as a food source. SEA has recommended a condition requiring installation of turtle passages through EJ&E ROW where wetland habitat is located on both sides of the rail line.

The Pratt's Wayne Woods (PWW) Pressures Study suggested that the EJ&E rail line was used much less than the surrounding vehicular roadways (Christopher B. Burke Engineering, Ltd., 2003). While the PWW study stated that no records on deer strikes along the EJ&E were kept for Pratt's Wayne Woods, the EJ&E rail line poses a threat to wildlife. The PWW Pressures Study mentioned

occurrences of reptile mortality, where turtles were trapped between the rail lines of the EJ&E rail line.

SEA recommends that the Applicants establish a liaison with natural resource experience to work with natural resource stakeholders to identify species that will require additional protection as a result of the Proposed Action, monitor the populations pre- and post-acquisition, and develop appropriate mitigation and adaptive management measures to compensate for any project-related impacts. SEA also recommends that the Applicants provide structures to minimize wildlife habitat fragmentation and wildlife mortality. Similar measures have been successful in Europe (Trocme 2006) and these measures have been suggested at Pratt's Wayne Woods (Christopher B. Burke Engineering, Ltd. 2003). The PWW Pressures Study suggested using old railroad ties as barriers along the EJ&E rail line (Christopher B. Burke Engineering, Ltd. 2003). These approaches could be implemented to mitigate where affects on wildlife fragmentation and mortality from the Proposed Action are realized. Specific culvert, underpass, and barrier requirements should be evaluated and determined by the CN liaison in conjunction with the natural resource agencies.

Increased Hazardous Materials Transport

Commenter stated that they disagreed with SEA's conclusion that the possibility of hazardous materials releases is remote because the increase in hazardous materials releases would increase with the increased amount of train activity. It is requested that this Final EIS provide data that shows the proposed frequency of spills with the proposed number of carloads transporting hazardous materials per day, and that this Final EIS provide data that compares the frequency of spills (with proposed number of carloads) with other rail lines transporting comparable numbers of cars per day over similar distances.

Response

Although an increase in train traffic would result in a potential increase in the probability of a release at any location along the EJ&E, including areas adjacent to natural and conservation areas, the probability of a release remains remote because of regulatory and other safeguards already in place. Not every release would be hazardous to the natural environment. In the unlikely event of such a release, CN has procedures in place to respond to and contain/remediate releases within a relatively short period as required by local, state, and Federal regulations.

In Chapter 4 of the Draft EIS, SEA analyzed the estimated time between spills for various segments of the EJ&E and CN rail lines. See Chapter 4 in this Final EIS for spill response procedures.

Effects on Ivanhoe Dune and Swale from Grade Separation

A grade separation structure at the 5th Avenue/US 12-20 highway/EJ&E rail line would adversely affect the Ivanhoe Dune and Swale natural area/nature preserve complex.

Response

The traffic analysis in Section 4.3 of the Draft EIS did not identify this intersection as a Hot Spot under the Proposed Action. Section 5.4.1 identified the airport runway extension project at Gary/Chicago International Airport in Indiana requiring relocation of a portion of the EJ&E rail line. Although FAA prepared an EIS and issued a ROD in support of the runway expansion, the Airport Authority and EJ&E have not reached agreement regarding relocation of the currently elevated EJ&E rail line. The Proposed Action does not include relocation of this track.

However, the effects of the proposed runway extension combined with those of the Proposed Action are analyzed for cumulative effects in Section 5.5.5. The location of the elevated EJ&E rail line has

not been determined, and it is unknown if that relocation will include a grade separation of the EJ&E rail line at 5th Avenue. When determined, the relocation of the EJ&E rail line will be evaluated as part of the FAA airport runway extension EIS or a separate Federal action. The impacts and associated mitigation and minimization measures will be part of that evaluation.

To mitigate for effects on dune and swale habitat, the Applicants, in consultation with Federal and state natural resource stakeholders, including USFWS, INDNR and TNC, shall designate EJ&EW-owned areas of prime prairie and dune swale habitat for potential land management agreement and / or conservation easement. See Chapter 4 (mitigation) in this Final EIS.

Wetland Loss at Griffith and Ivanhoe Connections

Commenter stated that they are concerned that if the proposal is approved there will be wetlands lost at the Griffith and Ivanhoe Connections.

Response

Section 4.11.3.2 of the Draft EIS describes the identified potential effects on wetland habitats by the construction areas. SEA identified the following potential wetland habitats: 0.7 acre of shrub swamp and 0.6 acre of mixed emergent wetlands at the Griffith connection, and a small, 1.3-acre excavated pond at the Ivanhoe connection. The construction impacts were based on a conservative scenario, in which the largest footprint possible was considered.

The Applicants are required to comply with all Federal, state and local regulations prior to any construction under the Proposed Action, including Section 404 of the Clean Water Act (CWA). USACE, EPA, and local jurisdictions require the Applicants to prove that adequate steps have been taken to avoid, and minimize wetland effects on the greatest possible extent, and, where wetland effects are permitted, to provide compensation for unavoidable effects.

Fragmentation and Displacement

The Draft EIS presents fragmentation as if all the damage has already been done. Every train should be a fragmentation event as it could interrupt wildlife movements related to reproduction or foraging and have negative impacts on breeding success. Another commenter stated that displacement is a potentially lethal impact. If an affected native plant community supports remnant-dependent species there is likely nowhere nearby to which these animals can relocate. This wildlife could easily become prey or face other forms of mortality while trying to avoid the construction impacts and crossing habitat types for which they are not suited.

Response

Existing habitat in the Study Area has been historically fragmented by construction of highway corridors and smaller roads; the conversion of land for agricultural, residential, commercial and industrial uses; and by the existing EJ&E ROW. These land use changes disrupt the continuity and function of the original wildlife habitat by affecting the foraging and reproductive habits, and migratory movements of certain species. It is generally recognized that there are several types of fragmentation (that is, patch-size, edge, and isolation effects) (Johnson 2001). Impacts caused by wildlife fragmentation and habitat disruption vary between species, location, and season. Wildlife in populated areas may be more acclimated than remote areas (Huff and Huff 2003a; 2003b).

SEA recommends that the Applicants establish a liaison with natural resource experience to work with Federal, state, and local stakeholders to identify species that will require additional protection as a result of the Proposed Action, monitor the populations pre- and post-acquisition, and develop appropriate mitigation and adaptive management measures to compensate for any project-related

impacts. SEA also recommends that the Applicants provide structures to minimize wildlife habitat fragmentation and wildlife mortality. Similar measures have been successful in Europe (Trocme 2006), and these measures could be implemented to mitigate where affects on wildlife fragmentation and mortality from the Proposed Action are realized. Specific culvert, underpass, and barrier requirements should be evaluated and determined by the CN liaison in conjunction with the natural resource agencies.

SEA presumes that wildlife in the Study Area may be further displaced in response to long-term effects of the Proposed Action. SEA has recommended mitigation measures in Chapter 4 of this Final EIS that include Best Management Practices and the development of a liaison that will allow Federal, state, and local natural resource agencies to interact with CN to complete various adaptive management measures along the EJ&E ROW. In addition, SEA recommends that the Applicants conduct or supply financial support for pre- and post- construction monitoring to evaluate and document potential effects by the Proposed Action. Once monitoring is completed, the CN liaison and natural resource agencies can develop and implement appropriate site-specific mitigation measures once potential effects from the Proposed Action are realized.

Beavers

Beavers occupy watercourses and impoundments throughout Will County. All locations where the EJ&E rail line crosses streams present potential conflicts with beavers, especially damming of culverts and other structures.

Response

Under the Proposed Action, the only new structures to be built in Will County are double tracks and the Joliet Connection; no other modifications will be required to tracks through Will County. As such, there are no additional culverts or other structures that can be dammed by beavers. The construction of new double track and Joliet Connection in wetland areas would be required to comply with local, state, and Federal regulations. Chapter 4 of this Final EIS details SEA's recommended conditions for the Applicants to coordinate with natural resource stakeholders to identify habitat improvements away from the EJ&E ROW to off-set potential effects on wildlife inhabiting areas in proximity to the ROW.

No Net Loss

There is a significant increase in the effects on sensitive natural resource communities in the outer arc compared with the current level of disturbance to natural resource communities within the inner arc.

Response

The methodology for the biological resources in the Draft EIS focused on the areas where effects were presumed to have a potentially detrimental effect. The methodology presumed that areas with a reduction in train traffic would likely experience positive effects due to a decrease in rail operations. The biological resources analysis does not state that these potential positive impacts inside the EJ&E arc negate negative impacts along the arc. The areas along the EJ&E arc where increased rail traffic is proposed contains more and generally higher quality habitat areas than areas where CN rail traffic is likely to decrease or remain the same.

Forest preserves, INAI sites, state nature preserves, and National Park Service lands occur in areas inside the EJ&E arc, including significant biological resources at Lockport Prairie, Wampum Lake, Thatcher Woods Prairie, Hoosier Prairie, and portions of Pratt's Wayne Woods where CN trains are likely to decrease. It is acknowledged that there are fewer high quality biological resources inside the

arc rather than along the arc. However, significant resources exist along routes where train traffic is likely to be reduced. The decrease in CN trains near these areas is likely to result in fewer collisions and decreased noise effects.

Pollution and Vermont Cemetery

Increased pollution would adversely impact prairie remnants existing in railroad ROW adjacent to Vermont Cemetery

Response

SEA assessed the environmental consequences for biological resources within the Study Area including the one-acre Vermont Cemetery Prairie Nature Preserve, a dry-mesic prairie that contains the Federally-endangered and state-threatened Mead's milkweed and Hill's thistle, using data from published reports, feasibility studies, regulatory agency documents, guidance manuals, discussions with resource personnel, aerial photographs, United States Geological Survey (USGS) topographic maps, field visits (February 2008 field inspections using public access areas and April 2008 field inspections using hi-rail vehicles), and analysis of Geographic Information Systems (GIS) databases. SEA concluded that Vermont Cemetery would not be affected by any construction activities.

Since the publication of the Draft EIS, SEA has further coordinated with USFWS on the potential of the Proposed Action to affect Federally listed species. USFWS concurs with SEA's determination that the Proposed Action would not affect the Mead's milkweed. The results of SEA's additional investigation are included in the Biological Report in Appendix A of this Final EIS.

Wildlife Behavior and Movement

Wildlife behavior and movement near and over tracks would be affected.

Response

SEA presumes that wildlife in the Study Area may experience effects as a result of the Proposed Action.

- Increases in noise and vibration associated with increased train traffic on the EJ&E rail line and rail traffic in the new construction areas could affect wildlife habitat, nesting, and breeding viability for some species. Within 500 feet of the rail line, increased noise could affect animal behavior and mask wildlife communication signals. Noise and vibration could affect wildlife adjacent to the existing EJ&E rail line and potential adverse effects on wildlife in proposed new construction areas.
- Existing habitat in the Study Area has been fragmented by construction of highway corridors and smaller roads; the conversion of land for agricultural, residential, commercial and industrial uses; and by the existing EJ&E ROW. These land use changes disrupt the continuity and function of the original wildlife habitat by affecting the foraging and reproductive habits, and migratory movement of certain species. Impacts caused by wildlife fragmentation likely vary between species, location, and season. Potential impacts should be minor where existing fragmentation exists. In addition to fragmentation, displacement of wildlife will occur in proposed new construction areas.
- Animals living in and passing through areas along the EJ&E rail line and the proposed new construction areas may have a higher risk of being struck by trains due to increased train traffic. Animals along the existing EJ&E rail line have likely adapted to existing train traffic and the increased potential for animal/train collisions should not affect any particular animal

population. Impacts could be more significant in proposed new construction areas, especially initially after construction when animals have not had time to adapt to new conditions.

Wider Crossings

The most significant changes affecting wildlife would be the increased traffic and increased hazardous materials transport. Factors such as changes in rail speed and increased activity (in yards, staging areas, and on route traffic), along with construction projects that create impervious berms, changes in curvature-alignment, and increased width or double-tracking that result in wider crossings may have all new increased impacts on wildlife.

Response

Under the existing condition, wildlife populations likely have declined near the existing alignment due to collisions, habitat fragmentation and loss, disturbance and other factors, and some species may have been displaced by other, more tolerant, species or moved out of the area due to disturbance. In general, there is limited data to determine if increased train traffic results in a proportionate increase in collisions. The potential increase in the probability of train animal collisions will be dependent on the species, the population size and movements and habitat use in the vicinity of the EJ&E ROW, as well as train speeds. While train-animal collisions are not uncommon under existing conditions, species of birds and mammals as well as amphibians, reptiles and invertebrates (including butterflies, dragonflies, beetles, and other slower and less responsive species) may experience an increase in mortality under the Proposed Action. Some species such as deer and predator/scavengers may be better able to avoid increased train traffic, while slower and less responsive species may experience an increase in mortality proportionate to increase in train traffic. SEA also recognizes that new construction of connections and double tracks would result in the loss of habitat at some sites, and may alter drainage patterns in the area.

The Applicants propose several voluntary measures to maintain existing drainage and hydrologic patterns, and SEA recommends that the Applicants establish a qualified liaison to work with natural resource stakeholders to identify best management practices and adaptive management measures.

Prairie Path-Potential Loss of Four Species

The 62 mile-long prairie path will be disrupted; it is predicted that four species will suffer habitat loss if CN purchase is allowed.

Response

Disruptions to the Illinois Prairie Path are discussed in Section 4.5 of the Draft EIS. The Draft EIS evaluated effects on the Federally- and state-listed species. Since the Draft EIS, SEA has met with the USFWS to further coordinate on effects on Federally listed species and trust resources, such as migratory birds.

1,500-Meter Noise Contour

The Forest Preserve District of Cook County conducted a study to assess the magnitude of noise effects on forest preserves. The District used a 1,500 meter distance from the EJ&E tracks as opposed to the Draft EIS which assessed noise impacts within 500 feet of the tracks. The District disagrees with the Draft EIS conclusions on noise impacts, and said a 400 percent increase in railway traffic will result in a 400 percent increase in noise.

Response

Wildlife species live in patches of natural habitat along segments of the EJ&E rail line that could experience increased noise. SEA agrees that there are adverse effects on breeding bird densities at lower noise levels than noted in the Draft EIS, but these migratory bird populations already are exposed to noise levels from train traffic (See Table 3.10-2 in Chapter 3). Monitoring at 500 feet from the rail line found existing noise levels range from 51 to 63 dBA; indicating wildlife may have become accustomed to noise and/or adjusted to repeated noises resulting from human activity (Dooling and Popper 2007). The projected average noise increase from additional trains at 500 feet from the rail line is 5 to 6 dBA Ldn (average 24-hour noise level, see Section 4.10 for a detailed explanation).

The 1,500-meter noise threshold mentioned above was derived from a study on a roadway with heavy traffic. The noise patterns generated on a railway are different from those generated on a busy highway. Waterman et al. (2004) observed the threshold noise levels from which bird densities (which included meadow birds) were affected ranged from 42 dB(A) to 49 dB(A) for species studied. These authors also stated that the mechanism through which birds might be affected by trains is not known and could be a combination of sound, vision and other factors. A correlation between noise and number of bird territories was shown for three species but the other eight species studied did not show a significant effect of the presence of the railway and the noise load generated (Waterman et al. 2004). They stated that the presence of a railway will result in loss of bird habitat, but this may be compensated by other measures.

Bird populations and migratory species within the 500 feet of the EJ&E rail line may experience auditory, behavioral, and/or physiological affects and/or masking of communication signals because of the additional noise during train pass-bys. Beyond 500 feet from the ROW, minimal affects would likely be expected. Effects on wildlife from noise likely vary between species, location, and season. Wildlife in populated areas may be more acclimated than remote areas (Huff and Huff 2003a; 2003b).

The Final EIS includes mitigation establishing an environmental liaison to work with natural stakeholder groups to conduct pre- and post-acquisition species monitoring to further identify appropriate mitigation based on realized project impacts, and identifying areas where habitat can be improved to off-set noise impacts immediately adjacent to the rail line.

Missing Sensitive Community Associations

Information related to several unique and sensitive community associations located in or adjacent to the EJ&E ROW was excluded. These associations include grasslands, fens, streams, sedge meadows, and savannas.

Response

The proximity of the railway to public lands adjacent to it, affecting 18 forest preserves, natural areas, and sensitive habitat areas; and contain these grasslands, fens, streams, sedge meadows and savannas. The Study Area is within the Chicago Wilderness (CW), which is a regional nature reserve including 225,000 acres of protected natural lands from southeastern Wisconsin through northeastern Illinois and northwestern Indiana. The protected lands include forest preserves, state parks, Federal lands, county preserves, and privately owned lands. Many other unprotected natural areas exist within CW that offer refuge to native wildlife. The CW consortium has studied and classified plant communities in the region, which many local and state government agencies recognize as authoritative. Study Area landscape types are roughly based on the CW Terrestrial Community Classification System (CW 2007b).

SEA's analyses of Federally- and state-endangered and threatened species as well as sensitive community associations that potentially occur in the Study Area were based on elemental occurrence records that were obtained from Illinois and Indiana Departments of Natural Resources. SEA also reviewed information in databases from DuPage County that included wildlife observations and EOR data based on the County's ecosystem unit types.

In addition, SEA used data from published reports, feasibility studies, discussions with resource personnel, aerial photographs, USGS topographic maps, and analyses of Geographic Information Systems (GIS) databases. SEA conducted observational surveys within selected, accessible sections of the Study Area in February and April 2008 using public access areas and hi-rail vehicles, respectively. SEA also interviewed local and regional biological experts and further researched the preferred habitat and behavior of threatened and endangered species to determine whether they occur in the Study Area, and whether the Proposed Action may affect them. Section 4.11 in the Draft EIS quantifies the effects on natural communities within each of the construction areas.

Invasive Animal Species

Stop the spread of invasive species; for example, Asian long horned beetles, and Japanese beetles.

Response

Chapter 4 of this Final EIS details the Applicants' voluntary mitigation measures as well as SEA's recommended conditions regarding invasive species under the Proposed Action.

ROW Maintenance and Vegetation Control

Commenters were concerned with ROW maintenance and vegetation control practices previously experienced along the EJ&E rail line. Of specific concern is the direct collateral impact to wetland vegetation and associated plant communities caused by drift and over-spray on District owned and managed lands. The application of broad spectrum herbicides intended for upland terrestrial ROW target species can have unintended consequences to adjoining wetland and water environments, where such chemicals are restricted by label. A greater sensitivity is necessary by rail practitioner to be cognizant of changing wind conditions affecting drift and over spray as well as being mindful that wetland environments are found on rail ROW as well. A commenter expressed concern that CN's proposed ROW maintenance and vegetative control program would not involve changes to current practice.

Response

The Applicants propose a voluntary mitigation measure that shall ensure that any herbicides used in ROW maintenance to control vegetation are approved by the U.S. EPA and are applied by licensed individuals who shall limit application to the extent necessary for rail operations. Herbicides shall be applied so as to prevent or minimize drift off of the ROW onto adjacent areas.

If regional, state, or local laws have specific requirements for minimal distance to steams or sensitive habitat, it is CN practice to verify those requirements and ensure the certified applicator is cognizant of such restrictions.

Insect Impacts

Increased noise and pollution levels would have an adverse effect, causing disturbance in the mating cycles of key insects needed for the cross fertilization of crops. Birds and other wildlife (flowers and blooming trees) would suffer with the lack of insects for survival, chaos would be evident.

Response

SEA has not identified any research that determines the affect of increased noise and pollution on key insects. The Draft EIS includes the potential impacts of increased noise on wildlife (Section 4.11). Air pollution (deposition/concentrations of selected pollutants) and acceptable air quality standards for human health are discussed in Section 3.9, Air Quality and Climate. Potential adverse effects of noise and pollution would vary greatly between species (insects, birds, mammals, & other wildlife) due to differences in life history, movements and habitat usage, locations relative to the alignment, cues used to locate food as well as communication mechanisms (chemical, auditory, visual, etc).

Programmed Management Impact

The staging of trains increases the fragmentation of the preserve landscape over expansive areas, affecting certain programs. A likely adverse impact resulting in an increase is the disruption to, and complications with, the administration, management, and implementation of performing forest preserve prescribed burn management programs on natural resource landscapes can result. Prescribed burn management is already a critical natural resource management tool that has numerous challenges and variables with which to contend and a very narrow seasonal window of opportunity in which to implement. This programmed management impact is not addressed in the Draft EIS and should be reflected in this Final EIS.

Response

The Applicants' have agreed to establish a liaison that will allow Federal, state, and local natural resource stakeholders to interact with the Applicants' to complete various adaptive management measures along the EJ&E ROW. The forest preserve districts can work with the Applicants' to address concerns relative to burn management programs.

Biological and Water Risks

The increased risk and effects on biological and water resources of the Munger Alternatives extend beyond the immediate vicinity. Downstream of this site is Pickerel Lake, the primary recreational fishing lake at Pratt's Wayne Woods Forest Preserve containing a breeding population of a state-listed fish within a healthy aquatic community enjoyed by preserve users. Potential contamination of this entire surface water resource drainage should be recognized for a rigorous risk management assessment when scenarios for potential remediation costs are fully evaluated.

Response

Construction of the Munger Connection - either upstream of Pickerel Lake or at one of the other proposed locations - will require the Applicants to comply with Federal, state and local laws regarding wetland impacts and stormwater management. As part of mitigation for construction impacts, the Applicants will need to demonstrate that adequate mitigation and best management practices will be implemented to compensate for affected functions such as water quality treatment.

As discussed in Section 4.2.4 of the Draft EIS, hazardous materials spills from train accidents would slightly increase due to increased train traffic; however, these would continue to be extremely rare events. In the unlikely event of a catastrophic spill, the Applicants would be required to clean up the area to prevent potential harm to the environment. Section 4.2.5, Hazardous Materials Transportation Safety and Chapter 4 (Mitigation) of this Final EIS discuss response plans to hazardous materials spills, proposed consultation with USEPA and IL EPA and IDEM relative to the protection of sensitive surface and groundwater resources. Chapter 4 of this Final EIS also includes SEA's recommendation that the Applicants establish a liaison with natural resource management experience

to work with natural resource stakeholders to assist in quantifying project impacts and developing mitigation and adaptive management measures.

Waters of the U.S.

The Draft EIS fails to identify, delineate, and consider wetlands and jurisdictional waters of the US. The analysis of wetland impacts presented in the Draft EIS is not sufficient to assess impacts as stated under the Executive Order 11990 - Protection of Wetlands. This level of analysis is insufficient to assess true wetland impacts and future mitigation.

Response

In Section 4.12 of the Draft EIS, SEA conservatively identified the quantity, size, and value of wetlands in the Study Area. The proposed design of the double tracks and connections is still in the conceptual phase; as such it is not practicable to provide specific wetland delineations and mitigation at this time. As indicated in the Draft EIS, wetland permitting will be secured with Federal, state, and local stakeholders prior to any construction activities. Wetland studies and mitigation that complies with all applicable laws will be provided once the project design is further developed, and the proposed limits of construction are better established.

Future Surveys and Prairies

It is impossible to assess potential impacts from the Proposed Action when it is unknown what species may be present along the sections of new construction. The reliance on conducting surveys at a later date makes a comparison of alternatives—as well as identifying impacts, avoidance, minimization, and mitigation strategies—impossible.

There is limited investigation of prairie areas near roadways. More information is needed to accurately determine the potential effects on prairies. Therefore, neither resource agencies nor the public know the true environmental impact upon prairies.

Response

SEA evaluated expected effects of the Proposed Action and constructions on wildlife (including migratory species, invasive and non-native species), plant communities, Federal- and state-listed threatened and endangered species, and Federal, state, and local conservation and natural areas.

For the specific Study Area for each biological resource (see Section 3.11, Biological Resources, in the Draft EIS), SEA used data from published reports, feasibility studies, regulatory agency documents, guidance manuals, discussions with resource personnel, aerial photographs, USGS topographic maps, field visits (February 2008 field inspections using public access areas and April 2008 field inspections using hi-rail vehicles), and analysis of GIS databases. SEA also conducted observational surveys within selected, accessible sections of the Study Area and consulted with local, state, and Federal resource agencies. SEA analyzed operation and maintenance effects on natural areas including wildlife sanctuaries, refuges, state parks, wetlands, and vegetation communities.

Construction impacts within most of the proposed double track areas would likely be minimal because the rail bed is already in place as a double track had been constructed and used in the past. Prior to any construction, surveys would be conducted to ascertain what resources are definitively located adjacent to those sites. Suitable habitat for the Eastern prairie fringed orchid exists adjacent to some of the double track areas. Species-specific protocol surveys will be conducted in all suitable habitat areas adjacent to where constructions are proposed to occur. If Eastern prairie fringed orchids are present, construction will not commence at that location until Section 7 consultation has been re-initiated and completed. Further details can be found in the Biological Report in Appendix A.

Rail Upgrades and Operations

The discussion of operational effects on wildlife anticipates minimal impacts as trains already used the line and that wildlife will adapt. Discussion should be provided identifying whether the existing EJ&E rail line infrastructure (bed and rail) is of sufficient durability to handle the increases in train numbers and length. If not, then identify the type of track upgrades that would be needed. If this is significant, there is, potentially, a high probability of more significant effects on all natural resources during construction along the line. Construction activities, if needed, will have the potential to effect mating, nesting, and rearing activities for wildlife along the line. Common practice for railroads is to dump old ties and debris along the track bed, affecting wetlands and other biological resources. Provisions should be made to address this under operations. If the infrastructure cannot support additional freight traffic, the risk for derailments increases. A derailment destroyed the McLean Boulevard Fen with the dumping of soybeans into the fen and the careless cleanup activities conducted by rail crews in the attempt to quickly open up the rail.

Response

Railroads operate and maintain tracks to FRA standards based on an operating speed that is independent of the number or length of trains operated on it. The FRA has primary authority over railroad safety, and has promulgated regulations, applicable to all railroads, that govern most aspects of railroad safety. They include rail operations, track, and signaling, as well as rolling stock such as locomotives and freight cars (49 CFR 200-299). Maintenance of track must be performed to at least FRA's Track Safety Standards (49 CFR 213) and the frequency and stringency of inspections is based on the track classification for the segment of rail in question. FRA conducts occasional unannounced inspections of track, and at the same time reviews the carrier's track inspection records to ensure compliance with FRA track safety standards. As EJ&E's maximum operating speed is 45 mph and CN has stated that it intends to operate its trains at this speed, CN will therefore maintain the EJ&E trackage to FRA Class of Track 4 which provides standards for the safe operation of freight trains up to 60mph.

FRA's Track Safety Standards that codify the speed at which a railroad may safely operate are based on a number of factors, including the percentage of good vs. bad ties in a rail length, condition of track surface and line and track gauge. Track inspectors, while they are employees of the railroad, have a dual-reporting structure that mandates the inspector to submit reports to the railroad, and the FRA and the FRA state representative.

Workers engaged in clean-up activities are trained in how to minimize the environmental impact of the cleanup itself and they would coordinate with natural resource agencies to ensure awareness of and correct handling of sensitive issues. In addition, the railroad would have officials on-site in the event of a derailment.

Hine's Emerald Dragonfly and Wildlife Habitat

Page 4.11-8 of the Draft EIS identifies potential habitat and a slight potential for collisions between trains and dragonflies. The last paragraph in this section indicates that proposed mitigation in Section 6 will minimize adverse effects. However, there is no discussion of the Hine's emerald dragonfly mitigation in Section 6.

Page 4 .11-23 of the Draft EIS indicated that there will be a reduction in forage and cover areas for wildlife; there will be increases in competition for the remaining habitat; and an anticipated decline in wildlife numbers.

The Draft EIS needs to identify potential size of the reduction of habitat and whether there is sufficient habitat nearby that can be utilized by displaced wildlife.

Response

SEA conducted further coordination with the USFWS in October and November 2008 regarding Federally listed species such as the Hine's emerald dragonfly. Based on resolution of the Service's comments on the Draft EIS, SEA conducted additional field investigations for the Hine's emerald dragonfly in October 2008 with regional experts. Since the publication of the Draft EIS, SEA has prepared a Biological Report (Appendix A in this Final EIS) that discusses the additional analysis and an improved discussion of Federally listed species potentially found in the Study Area, and determination of effect. The Applicants will abide by the special conditions of the 1996 COE Permit # 199600211 for train operations on the Paul Ales Branch to minimize further effects on larval Hine's emerald dragonflies.

In Section 4.11 of the Draft EIS, SEA quantified the area of habitat that would be lost due to construction impacts at the six connections and four double track sites. Chapter 2 of this Final EIS updates the potential impacts of the project at the revised Matteson and Leithton connections. It should be noted that, except for natural and conservation areas where new construction occurs such as Pratt Wayne's Woods, most open space areas that would be affected by construction are already highly fragmented by urbanization, and thus have limited opportunity to provide habitat to wildlife. Mitigation measures are outlined in Chapter 4 of this Final EIS.

Wetland Reptile Mitigation

The Draft EIS mentions that the rails themselves provide barriers to movement and would not fragment species further. On the Paul Ales branch line, there are turtle passages provided to allow movement of reptiles. The Draft EIS should address mitigation on listed reptile species for new rail installation.

Response

Chapter 4 of this Final EIS includes a condition proposed by SEA intended to mitigate fragmentation and potential mortality of Blanding's and spotted turtles, along with other species.

3.4.13.3 Federal, State, and Local Conservation Areas and Natural Areas

General Comments on Existing Conditions

Barrington is surrounded by designated natural areas, and that the rail lines run through and/or near forest preserves and marshes, "…which were intended for the purpose of environmental protection." Pratt's Wayne Woods was mentioned as "… home to several threatened and endangered plant and animal species.", "the open space, flora and fauna of Pratt's Wayne Woods has been an integral part of the quality of life of the Village of Wayne residents for several decades."

Response

Comment acknowledged.

Missed Natural Areas along Rail Line

A commenter requested that SEA identify all natural areas along the EJ&E corridor on Figure 3.11.1. This would add MacArthur Woods Nature Preserve, Middlefork Savanna Nature Preserve, and Old School Forest Preserve.

Response

No rail operations increases are proposed on EJ&E rail line segments adjacent to MacArthur Woods Nature Preserve, Middlefork Savanna Nature Preserve, and Old School Forest Preserve. Therefore, SEA determined that the Proposed Action would not affect these areas.

Missed Preserve and Figure Correction

Vermont Cemetery Nature Preserve and Wolf Creek Preserve – Weisbrook Access are depicted incorrectly on inset B of Figure 3.5-14.

Response

SEA corrected the locations of Vermont Cemetery and Wolf Creek Preserve - Weisbrook Access in Chapter 2 of this Final EIS.

Hardwood Transition Bird Conservation Region

The Draft EIS missed a second Bird Conservation Region applicable to the Chicago Region, the Hardwood Transition.

Response

SEA added the Hardwood Transition to Chapter 2 of this Final EIS.

Theodore Marsh not included in Draft EIS

Theodore Marsh is not included in Draft EIS.

Response

As described in Section 3.11 of the Draft EIS, the Study Area for biological resources was a 1-mile corridor centered over the EJ&E rail line, or one-half mile on each side of the EJ&E ROW. Theodore Marsh is located approximately 3,000 feet from the EJ&E, and thus lies beyond one-half mile area designated on each side of the EJ&E ROW.

Federal, State, Local, and Private Conservation Areas

Federal, state, local, or private conservation areas would be detrimentally affected. Sample comments include:

> …the tranquil and bucolic scene at Pratt's Wayne Woods will be put at risk by CN's purchase of the EJ&E rail line.
>
> …18 Forest Preserves will be affected.
>
> … the tracks run near recreational areas such as parks and forest preserves and the extra traffic of trains could cause ecological problems.

Response

Sections 3.11 and 4.11 of the Draft EIS evaluated the effected environment and environmental consequences for Biological Resources. Chapter 4 of this Final EIS outlines the Applicants' voluntary mitigation and SEA's recommended conditions intended to minimize impacts that may include, but not be limited to, wildlife, plant communities, Federally- and state-listed species, and conservation and natural areas.

Mitigation measures in Chapter 4 of this Final EIS include SEA's recommendation for the Applicants to establish a qualified liaison that will allow Federal, state, and local natural resource stakeholders to interact with CN to complete various adaptive management measures and monitoring along the EJ&E ROW. Once monitoring is completed, the CN liaison and natural resource agencies can develop and implement appropriate site-specific mitigation measures once potential effects from the Proposed Action are realized.

Specific Natural Areas

Commenters indicated concern for effects at Pratt's Wayne Woods Forest Preserve, Hoosier Prairie Nature Preserve, Ivanhoe Dune and Swale Nature Preserve, Clark and Pine Nature Preserve, Pine Station Nature Preserve, West Chicago Prairie, Blackwell Nature Preserve, and Night Heron Marsh. Sample comments include:

> …substantial increase in noise, vibration, and air quality on Pratt's Wayne Woods
>
> …significant impact on Pratt's Wayne Woods resources such as wetlands, plant communities, fish and wildlife, protected species, air quality. Long-term productivity of ecosystem would also be affected by permanent loss/fragmentation and unmitigated adverse impacts on plant and wildlife habitat.
>
> …increased trains could have a corresponding and significant impact on Pratt's Wayne Woods resources as wetlands, plant communities, fish and wildlife, air quality
>
> …Land and Conservation Funds were used for Hoosier Prairie and Clark and Pine Nature Preserves.

Response

SEA addressed these areas in Sections 3.11 and 4.11 of the Draft EIS. Chapter 2 of this Final EIS clarifies effects on these natural areas based on further coordination with natural resource stakeholders.

SEA recommends several mitigation measures in Chapter 4 of this Final EIS that include best management practices; the development of a liaison that will allow Federal, state, and local natural resource agencies to interact with the Applicants to complete various adaptive management measures (including invasive species management) along the EJ&E ROW. In addition, CN will either conduct or will supply financial support for pre- and post- construction monitoring to evaluate and document potential effects by the Proposed Action. Once monitoring is completed, the CN liaison and natural resource agencies can develop and implement appropriate site-specific mitigation measures once potential effects from the Proposed Action are realized, including identifying and improving habitat away from the rail line to off-set increased train noise level impacts.

Cuba Marsh and Flint Lake

Several commenters expressed concern for the effects of increased rail traffic on the Cuba Marsh and Flint Lake areas because they are important natural areas.

Response

Flint Lake is located more than two miles from the EJ&E rail line and numerous impoundments exist that disrupt hydrological connection between the two locations. No effects on Flint Lake are likely to occur. Cuba Marsh is an important natural area that serves as the primary foraging grounds for Baker's Lake herons. As such, consideration of effects of the Proposed Action on this area was

included the Draft EIS Sections 3.11 and 4.11. Bird populations and migratory species along the EJ&E rail line may experience auditory, behavioral, and/or physiological affects, and/or masking of communication signals because of the additional noise during train pass-bys. In addition to the Applicants' voluntary mitigation, SEA recommends that the Applicants provide a liaison to work with natural resource stakeholder groups to identify and improve habitat away from the rail line to off-set increased train noise impacts.

Potential air and water quality effects on Cuba Marsh are also anticipated to be minimal due to increased train traffic. As discussed in Section 4.2.4 of the Draft EIS, the likelihood of a hazardous materials spill from train accidents would slightly increase due to increased train traffic; however, these would continue to be extremely rare events. In the unlikely event of a catastrophic spill, the Applicants would be required to clean up the area to prevent potential harm to the environment (see Section 4.2.5 of the Draft EIS, Hazardous Materials Transportation). Additional air quality analyses conducted for this Final EIS show that emissions from moving and idling locomotives are also below levels that would create new exceedances or significantly exacerbate existing exceedances of EPA's National Ambient Air Quality Standards (NAAQS), which are meant to protect vegetation and wildlife as well as human health and welfare.

Night Heron Marsh Preserve

The Forest Preserve District of Will County has concerns regarding potential environmental effects on the Nigh Heron Marsh Preserve adjacent to the northern part of the East Siding double track on both the north and south side of Liberty Street near Eola Road; potential for carrying invasive species from continental and cross continental sources; conflicting findings on wildlife impacts; and potential for hazardous materials release into water resources.

Response

The proposed construction of double track near Night Heron Marsh would require the Applicants to comply with Federal, state and local laws regarding wetland impacts and stormwater management. As part of mitigation for construction impacts, the Applicants will need to demonstrate that adequate mitigation and best management practices will be implemented to compensate for affected functions such as water quality treatment. As discussed in Section 4.2.4 of the Draft EIS, hazardous materials spills from train accidents would slightly increase due to increased train traffic; however, these would continue to be extremely rare events. In the unlikely event of a catastrophic spill, the Applicants would be required to clean up the area to prevent potential harm to the environment. Section 4.2.5, Hazardous Materials Transportation Safety and Chapter 6 (Mitigation) of the Draft EIS discuss response plans to hazardous materials spills, proposed consultation with EPA and IEPA relative to the protection of sensitive surface and groundwater resources.

Table 3.11-4 has been revised to include INAI Site #1470. Assuming that there is a surface and/or subsurface water connection between Night Heron Marsh and Eola Marsh, there is the slight potential for contaminants from day-to-day rail operations to reach Eola Marsh. However, Night Heron Marsh likely traps and filters most contaminants before they can reach Eola Marsh.

Invasive Plants: As a Class 1 Railroad, the Applicants' vegetation management system would be more rigorous than the EJ&E's. Although there is an increased risk of invasive and non-native species entering the area with an increase in number of trains, the ROW is currently heavily infested in some location with species such as teasle. SEA recommends that the Applicants implement several invasive species control measures. These recommendations are detailed in Chapter 4 of this Final EIS.

Wildlife Impacts: Wildlife mortality (including migratory species) due to collisions may increase under the Proposed Action. Collisions are most apparent when they involve large ungulates such as a

deer; however, mortality from direct collisions can also affect small rodents, small ungulates, birds, reptiles, amphibians, and invertebrates. CN does not keep records of animal strikes/kills on its own rail lines. Likewise, EJ&E does not record animal strikes/kills (Applicants 2008m); however, during the April 2008 field inspection several dead animals were observed, including: raccoon, squirrel, opossum, fox, and coyote.

Highest mortality rates are found at the intersection of railroads with important wildlife habitats and migration routes. Railroad corridors provide habitat features that are attractive to some species of animals. Reptiles utilize the sun-exposed, well drained embankments for overwintering or maintaining (high) body temperature; while mammals use railroad embankments for den sites. Birds can be attracted to vegetation within right of way using it as a food source.

Water Resources: SEA has conducted additional analysis regarding the potential for hazardous materials releases, described in Section 2.7 of this Final EIS. Chapter 4 of this Final EIS presented SEA's recommended mitigation.

Maple Hill, Fermilab, and Preserves

Commenters expressed concern about wildlife and wetlands on Maple Hill's Federally-protected lands, Fermilab's land, and surrounding forest preserve lands. Another commenter expressed concern about how Fermilab's rich wildlife ecosystem would be affected.

Response

The Fermi National Accelerator Laboratory (Fermilab) and the Maple Hill subdivision are located on the west and east sides of the EJ&E rail line along rail segment 11 in DuPage County, IL. This rail segment is expected to see an increase of 20.9 trains per day and a change in noise levels of 5 dBA within 500 feet of the ROW (see Table 4.11-1 of the Draft EIS).

Fermilab contains one of the largest restored prairie sites in the region and is considered a significant grassland bird reserve (Fermilab 2008). Restored land within Fermilab is divided into ecological land management (ELM) tracts. The Study Area encompasses ELM 7, 9, and 21. ELM 7 and 21 contain newly restored prairie plots; while ELM 9 contains wetlands, grasslands, restored and remnant prairies and numerous open water bodies including Sea of Evanescence, AE Sea, Eastern Dusaf, and Nepese Pond (Fermilab 2008). In addition, this portion of the Study Area at rail segment EJ&E 11 also encompasses the Maple Hill subdivision, which is located on the east side of the EJ&E rail line. Between the rail ROW and the subdivision is a wetland complex, and south of the complex lies a western finger of Blackwell Forest Preserve.

The anticipated effects from increased operations and those subsequent affects from noise and vibration, mortality, and pollution are expected to be minor or slight (as these resources are already adjacent to the EJ&E ROW). SEA recognizes that the exact affects of the Proposed Action on these natural resources is unknown, as potential impacts vary between species, location, and season.

Mitigation measures have been developed that include Best Management Practices; establishment of a liaison that will allow Federal, state, and local natural resource stakeholders to interact with CN to complete various adaptive management measures along the EJ&E ROW. In addition, pre- and post-construction monitoring is also suggested to evaluate and document potential effects by the Proposed Action. Once monitoring is completed, the CN liaison and natural resource agencies can develop and implement appropriate site-specific mitigation measures once potential effects from the Proposed Action are realized.

Additional Analysis Needed

Commenter expressed concern about missing data. Sample comments include:

> …no data from Lake County Forest Preserve District and did not list Lake County Forest Preserve District as a resource.
>
> …does not identify the Recommended Resource Protection Areas recognized by both the Chicago Wilderness and the Chicago Metropolitan Planning Agency.
>
> …Barrington is one of the seven largest remaining continuous regions of non-fragmented resources and there is no mention of this in the Draft EIS. What do you plan to do to protect this area?
>
> …did not include any data from the Flint Creek Water Plan.
>
> … effects on sensitive forest preserves the trains will pass through have not been adequately studied.

Response

Lake County (Illinois) Forest Preserve District (LCFPD) was contacted by SEA via e-mail on February 26, 2008 and subsequently via telephone. Contacts included requests for information and data pertaining to natural resources based on information contained within the project scoping documents. Requests for information included, but were not limited to, GIS and shape files; reports, inventories, or planning documents that pertain to wildlife, water, watersheds, wetlands and ADID wetlands, streams, plant communities, monitoring, birds, reptiles, amphibians, mammals, threatened and endangered species and elemental occurrence records.

SEA were informed by LCFPD personnel that based on the scoping documentation the available information did not pertain to areas LCFPD considered to be potentially affected by the project. This claim was verified, as LCFPD provided a study report for MacArthur Woods on March 10, 2008 (located outside of the Study Area). No other subsequent request for information was made by SEA, nor was any other information provided by LCFPD.

SEA recognizes that numerous recommended resource protection areas exist within the Study Area. Those areas may include, but may not be limited to, Popular Creek Division, Fox River Corridor, Fox River Fen Complex and Brewster Creek, West Branch of the DuPage River, Fermi, Mainstem of the DuPage River, Lake Renwick Rookery, Lockport Prairie recharge Zone, Thorn Creek, Hoosier/Oak Ridge, Lower Little Calumet River Corridor, and Grand Calumet Corridor.

The Flint Creek Watershed Plan's ecologically significant areas and T&E species locations were reviewed and included when evaluating impacts on biological resources within the Study Area.

SEA recommends several mitigation measures in Chapter 4 of this Final EIS that include best management practices; the development of a liaison that will allow Federal, state, and local natural resource agencies to interact with CN to complete various adaptive management measures (including invasive species management) along the EJ&E ROW. In addition, CN will either conduct or will supply financial support for pre- and post- construction monitoring to evaluate and document potential effects by the Proposed Action. Once monitoring is completed, the CN liaison and natural resource agencies can develop and implement appropriate site-specific mitigation measures once potential effects from the Proposed Action are realized, including identifying and improving habitat away from the rail line to off-set increased train noise level impacts.

Hazardous Materials Freight Cars

Commenters expressed concern about the increased number of hazardous material freight cars traveling through environmentally sensitive areas such as Lake Renwick and an increase in the risk of a release of hazardous materials into preserve environments. The Draft EIS finds a significant increase in the frequency, magnitude, and duration of hazardous materials transported and/or staged on the EJ&E rail line along with an increase in the frequency of train accidents. Of specific concern is the safety of preserve users in the event of such an exposure.

Response

Materials spilled during construction are typically fuels, lubricating oils, hydraulic fluids, paints, and solvents, and are generally small in quantity. The Applicants would make provisions in their Spill Prevention, Control and Countermeasure, and Stormwater Pollution Prevention plans for construction work adjacent to critical water and natural resources for the complete removal (excavation) and off-site disposal of any soils that become contaminated during construction. Disposal would be in a municipal or hazardous material landfill that is regulated to handle such materials.

For post-construction containment of spills at the Munger Connection in the Pratt's Wayne Woods Forest Preserve, the Applicants would construct clay-lined vegetated swales, to the extent practical, and clay-lined containment basins, where site constraints allow, to capture leaks and trace contaminants in run-off.

Roads and Bridges in Forest Preserves

A commenter expressed concern about the lack of road options; more roads and overpasses would detract from the natural resources in the forest preserves.

Response

No roads or bridges are proposed as part of the Proposed Action, and there is no reasonably foreseeable need to construct new roads and bridges as part of the Proposed Action.

Pratt's Wayne Woods Forest Preserve

Commenters were concerned that the increased number of trains will have a corresponding impact on Pratt's Wayne Woods resources such as: wetlands, plant communities, fish and wildlife, protected species, and air quality. Any potential negative effects on the preserve would have a corresponding negative effect on quality of life. Other commenters are concerned that the EJ&E rail line runs through sensitive habitats and wildlife in the preserve that contain rare species and that the Proposed Action would affect those natural resources. In addition, a release of hazardous materials could have a long-term impact on resources in the preserve.

Response

SEA concurs that Pratt's Wayne Woods Forest Preserve is an important natural area with habitat that supports numerous listed and protected species. As such, consideration of effect of the Proposed Action and proposed construction areas was included in Sections 3.11 and 4.11 of the Draft EIS. Chapter 4 of this Final EIS also provides a discussion of the Applicants' measures to minimize quality of life effects from the Proposed Action.

The Munger connection would impact wetlands within the Pratt's Wayne Woods Forest Preserve. Wetlands associated with this site are considered important from a biological resources perspective and are listed as INAI #1401 as an important habitat. Various state-listed bird species are known to

inhabit these wetlands during at least some portion of the year, and suitable habitat exists for the Eastern prairie fringed orchid.

The preferred alternative for the Munger Connection is the Proposed Munger Connection. This alternative would require construction of two retaining walls to remain within the ROW. Construction would occur in 2.48 acres of palustrine emergent wetland including shrub swamp, and marsh containing giant reed and reed canary grass.

Direct and indirect effects on the wetlands within Pratt's Wayne Woods Forest Preserve will be minimized and mitigated to the extent practicable (see SEA's proposed conditions minimization Chapter 4 of Final EIS).

Bird populations and migratory species at Munger may experience auditory, behavioral, and/or physiological affects and/or masking of communication signals because of the additional noise during train pass-bys. SEA proposes a condition in Chapter 4 of this Final EIS that avoids construction at the proposed Munger connection during the bird breeding season (April – August) to minimize disturbances to breeding birds at Pratt's Wayne Woods Forest Preserve.

Potential air and water quality impacts at Munger are also anticipated to be minimal due to increased train traffic. As discussed in Section 4.2.4 of the Draft EIS, hazardous materials spills from train accidents would slightly increase due to increased train traffic; however, these would continue to be extremely rare events. In the unlikely event of a catastrophic spill, the Applicants would be required to clean up the area to prevent potential harm to the environment (Section 4.2.5 of the Draft EIS, Hazardous Materials Transportation). Additional air quality analyses conducted for this Final EIS shows that emissions from moving and idling locomotives are also below levels that would create new exceedances or significantly exacerbate existing exceedances the EPA's National Ambient Air Quality Standards (NAAQS), which are meant to protect vegetation and wildlife as well as human health and welfare.

Lake Renwick Heron Rookery

Commenters expressed concern that the effects of increased train traffic on protected Lake Renwick must be considered, including noise. The Draft EIS does not acknowledge that critical foraging and potential breeding habitat for rookery exists within the identified 500-ft sensitivity zone. Another commenter was worried that the Proposed Action would harm the sanctuary.

Response

The Lake Renwick Heron Rookery Nature Preserve (LRHR) nesting sites are located on narrow, linear gravel bar island complexes; know as the "A" and "B" islands (DeMauro 1993). The "A" islands are located slightly closer to the EJ&E rail line than IL 30 along the eastern boundary of Preserve; however, the "B" islands are approximately three times closer to IL 30 than to the EJ&E rail line. The numerous vehicles, including motorcycles, buses, trucks, and cars that travel IL 30 represent a significant source of continuous noise. These sources of noise pose a greater risk of disturbance the rookery than intermittent and single source of noise generated by the railroad.

The Lake Renwick Heron rookery is already exposed to noise levels from train traffic (See Table 3.10-2 in Chapter 3 of Draft EIS. Bird populations and migratory species in the Study Area within 500 feet of the EJ&E tracks may experience auditory, behavioral, and/or physiological affects and/or masking of communication signals because of the additional noise during train pass-bys.

Lake Renwick Preserve was studied in detail by Marcella M. Demauro in 1993. While the main focus of this study was not related to trains, observations of rookery species and their response to passing trains was documented. Birds exhibited various responses to passing trains, and 75 percent of the passing trains (N=4) did not evoke a response. One passing train was documented to cause

flushing of the rookery, however, observations indicated the birds returned to their nest sites after an unspecified time interval. Based on the findings of this study, and continued success of the rookery, it is likely rookery species using the LRHR have become habituated to human activities surrounding the nesting islands, including passing trains.

The exact effects on wildlife, including bird populations and other migratory species, from the Proposed Action are unknown. It should be noted that potential effects on wildlife from noise likely vary between species, location, and season. Wildlife in populated areas may be more acclimated than remote areas (Huff and Huff 2003a; 2003b).

SEA recommends mitigation in Chapter 4 of this Final EIS.

How does CN Propose to Protect Natural Areas?

How is CN going to protect high quality natural areas along the rail corridor?

Response

SEA recommends mitigation measures in Chapter 4 of this Final EIS that include best management practices; the development of a liaison that will allow Federal, state, and local natural resource stakeholders to interact with CN to complete various adaptive management measures along the EJ&E ROW. In addition, CN will either conduct or will supply financial support for pre- and post-construction monitoring to evaluate and document potential effects and subsequent impacts by the Proposed Action. Once monitoring is completed, the CN liaison and natural resource agencies can develop and implement appropriate site-specific mitigation measures once potential effects from the Proposed Action are realized.

Effects on Parks and Preserves Underestimated

Commenters indicated that they disagreed with SEA's conclusions on forest preserves and natural areas, that the full extent of environmental effects on forest preserves has not been adequately studied, and that natural resources were not properly assessed. The negative environmental impact on parks and preserves was greatly downplayed in the Draft EIS, or that SEA does not address all potentially adverse environmental effects on preserves and natural resources.

Response

As discussed in Section 3.11 of the Draft EIS, SEA assessed the environmental consequences for biological resources within the Study Area, including forest preserves and natural areas, using data from published reports, feasibility studies, regulatory agency documents, guidance manuals, discussions with resource personnel, aerial photographs, United States Geological Survey (USGS) topographic maps, field visits (February 2008 field inspections using public access areas and April 2008 field inspections using hi-rail vehicles), and analysis of Geographic Information Systems (GIS) databases. SEA also conducted observational surveys within selected, accessible sections of the Study Area and consulted with local, state, and Federal resource agencies regarding the presence of any T&E species in the Study Area. SEA interviewed local and regional agency biological experts and further researched the preferred habitat and behavior of T&E species to determine whether they occur in the Study Area and whether the Proposed Action might affect them. SEA analyzed operation and maintenance affects on natural areas including wildlife sanctuaries, refuges, state parks, wetlands, and vegetation communities.

Section 4.11.1 of the Draft EIS describes the Methodology used by SEA to evaluate the environmental consequences on biological resources within the Study Area. SEA evaluated expected effects of the Proposed Action and associated construction on wildlife (including migratory species,

invasive and nonnative species), plant communities, Federal- and state-listed threatened and endangered species, and Federal, state, and local conservation and natural areas. Since publication of the Draft EIS, SEA has met with natural resource stakeholders and reviewed their comments. Additional field investigations were conducted; and a Biological Report that further documents effects on natural resources is presented in see Appendix A.

SEA calculated the potential construction acreage of the connections and double track using resource data and ROW boundaries in the proposed construction areas. The construction impacts were based on a conservative scenario, in which the largest footprint possible was considered. SEA determined land cover using high-resolution aerial photography (one-foot resolution in Illinois and six-inch resolution in Indiana) to create GIS polygons of distinct landscape types and then conducted a field visit to verify landscape types. Landscape types were roughly based on the Chicago Wilderness (CW) Terrestrial Community Classification System (CW 2007b).

In Chapter 4 of this Final EIS, SEA recommends that the Applicants work with Federal, state, and local water and natural resource agencies to develop a liaison program to complete various adaptive management measures along the EJ&E ROW. The Applicants will either conduct or will supply financial support for pre- and post- construction monitoring to evaluate and document potential effects and subsequent impacts on natural areas. This monitoring can include forest preserves and natural areas. Once monitoring is completed, the Applicants' liaison and natural resource agencies can develop and implement appropriate site-specific mitigation measures. Mitigation measures have been developed in Chapter 4 that include best management practices.

Matteson Connection and Powis Marsh

Relationship of Matteson Connection and Powis Marsh is not accurate.

Response

SEA has revised this information has been revised in Chapter 2 of this Final EIS.

Impacts at Munger Connection

A commenter states that there is the potential for adverse impacts and a variety of significant and irretrievable direct and indirect adverse impacts from the proposed "Munger Connection" and various alternatives that propose land loss to the Pratt's Wayne Woods Forest Preserve, wetland area loss and functional impacts, floodplain loss and functional impacts, hydrology impacts, wildlife impacts and displacement and a variety of temporary construction impacts. The District views the No-Build Munger Alternative as the least damaging to natural and water resource within Pratt's Wayne Woods, affords the lowest risk for major accidents and potential hazardous material releases, and provides the greatest protection of safety for preserve users.

The District finds errors and has numerous disagreements with the Draft EIS finding within Table 2-10 Summary of Potential Environmental Impacts Munger Connection. One specific error, example within this table is how, within the Resource Category - Wildlife, the Proposed Munger Connection with a revised, decreased, impact on the Powis Marsh has findings of impacts of increased noise and indirect loss of habitat utility for breeding birds; whereas the Original Munger Proposal, having a greater direct impact to that same Powis Marsh, has a finding listed as no effect. This clearly demonstrates the inconsistencies, and error within this table that must be carefully reviewed and corrected within this Final EIS.

Response

The Draft EIS discuss the potential effects on wetlands and wildlife habitat as a result of the proposed connections, as well as permitting that will need to be secured at the Federal, state, and local level prior to any construction activities. Among other things, permitting will require the Applicants to demonstrate adequate mitigation - including avoidance, minimization, and compensation for lost wetland functions and values, as well as adequate stormwater management. Furthermore, SEA recommends that the Applicants establish a liaison with natural resource management experience to work with natural resource stakeholders to assist in quantifying project impacts and developing mitigation and adaptive management measures.

The STB has concluded that the Applicants have shown that they do not need Board authorization under 49 USC 10901 to construct the six connections they have described in this proceeding. See Decision No. 9, April 21, 2008. Thus, the STB has no authority to deny authority to construct the proposed Munger Connection or the alternatives to the proposed Munger Connection. SEA did analyze the potential impacts of the construction of the six proposed connections and alternatives in the Draft EIS because the connections would not be constructed but for the Proposed Action and, thus, are connected actions. As discussed in Section 2.4.1 of the Draft EIS, CN proposed the Munger Connection to avoid Pratt's Wayne Woods Forest Preserve.

Table 2-10 has been revised to address inconsistencies between the impact summary and findings in Chapter 4 of the Draft EIS; see Chapter 2 of this Final EIS.

District Biological Areas at Risk

Numerous biological resources inclusive of listed INAI sites, diverse flora within natural and restored areas containing certain State listed species, scarce communities such as the globally rare savanna, sedge meadows, grassland bird habitat, large wetland complexes supporting nesting and migratory waterfowl habitat, as well as critical habitat for State listed species of birds, reptiles, fish, mussels, and amphibians are at risk.

Response

Review of Section 4.11 of the Draft EIS indicates the only natural area directly affected is Pratt's Wayne Woods. Numerous natural areas occur within proximity to the EJ&E rail line with proposed rail line increases. Therefore, effects on these biological areas will be limited to the effects of increased rail traffic from changes in rail operations. As discussed in Section 4.11 of the Draft EIS, the potential effects on these areas are anticipated to be minimal since the risk of hazardous materials spills will remain remote and wildlife in adjoining habitats have generally habituated to existing train traffic disturbance since the noise from an individual train event doesn't change.

Section 4.11 of the Draft EIS addresses potential effects on wetlands and wildlife habitat in the Pratt's Wayne Wood Forest Preserve due to the proposed Munger Connection; mitigation for these impacts will need to comply with Federal, state, and local wetland regulations as well as Federal and state endangered species acts. Suitable habitat for the Eastern prairie fringed orchid also occurs at this connection. Species specific protocol surveys will be conducted in the growing season. No construction will commence at this location until surveys are complete. If the Eastern fringed prairie orchid occurs, SEA will re-initiate Section 7 consultation with the USFWS.

SEA recommends mitigation in Chapter 4 of this Final EIS that includes best management practices; the development of a liaison that will allow Federal, state, and local natural resource agencies to interact with CN to complete various adaptive management measures along the EJ&E ROW. In addition, CN will either conduct or will supply financial support for pre- and post- construction monitoring to evaluate and document potential effects and subsequent impacts by the Proposed

Action. Once monitoring is completed, the CN liaison and natural resource agencies can develop and implement appropriate, site-specific, mitigation measures once potential effects from the Proposed Action are realized.

Missing Resource Data

SEA identified that it received its biological resources information from several agencies. However, they did not list the Forest Preserve District of Lake County, Illinois as one of their resources or the Flint Creek Watershed Plan. There is significant data missing from our region with these omissions. While the Draft EIS describes several plant communities through descriptions supplied by Chicago Wilderness, it does not simultaneously identify where those plant communities exist in relation to the Study Area.

Response

The Forest Preserve District of Lake County is listed in the Draft EIS, Section 3.11.1, as Lake County (Illinois) Forest Preserves. Data was requested from the Lake County Forest Preserve District. The Flint Creek Watershed Plan's ecologically significant areas and T&E species locations were reviewed and included when evaluating impacts on biological resources within the Study Area. SEA described the locations of plant communities in areas of potential disturbance, including connections at Munger, Joliet, Matteson, Griffith, Ivanhoe, and Kirk Yard, and double track areas. Plant community types, locations, and effects are described in the Draft EIS in Chapter 4.11.3.2 Proposed New Constructions.

Citizen's Park

Commenter expressed concern about effects on Citizen's Park.

Response

Citizen's Park (approximately 45 acres) is managed by the Barrington Park District. The park provides a variety of recreational opportunities that include tennis and basketball courts, tree houses, shelters and pavilions, an amphitheater, playground, and biking/waling path. Citizen's Park was evaluated and considered in Tables 3.5-10 and 4.5-3 of the Draft EIS.

While rail operations are anticipated to increase under the Proposed Action, no construction (connections or double track) is planned along rail segments adjoining this natural area, and thus existing habitat will not be directly altered by the Proposed Action. Potential air and water quality effects on these natural areas are anticipated to be minimal due to increased train traffic. As discussed in Section 4.2.4 of the Draft EIS, hazardous materials spills from train accidents would slightly increase due to increased train traffic; however, these would continue to be extremely rare events. In the unlikely event of a catastrophic spill, the Applicants would be required to clean up the area to prevent potential harm to the environment (Section 4.2.5 of the Draft EIS, Hazardous Materials Transportation). Additional air quality analyses conducted for this Final EIS shows that emissions from moving and idling locomotives are also below levels that would create new exceedances or significantly exacerbate existing exceedances of the EPA's National Ambient Air Quality Standards (NAAQS), which are meant to protect vegetation and wildlife as well as human health and welfare.

Forest Preserve Inventory in Draft EIS

The Draft EIS does not identify all preserve areas that may be potentially affected environments.

Response

In Sections 3.11 and 4.11 of the Draft EIS, SEA inventoried conservation and natural areas within the Study Area and potential effects on such areas under the Proposed Action and constructions. These inventories have been updated in Chapter 2 of this Final EIS based on further coordination with natural resources stakeholders.

3.4.13.4 Construction Impacts on Biological Resources

General (4.11w)

The Draft EIS did not fully assess the extent of direct ground impacts attributable to temporary construction or other construction related activity effects on vegetation, natural area, and wildlife species within proximity to these construction connections

Response

Summary Tables 2-9 through 2-16 have been revised to accurately reflect the findings in Section 4.11 of the Draft EIS, as well as incorporate new findings developed since the publication of the Draft EIS. Please See Chapter 2 of this Final EIS.

SEA recommends mitigation in Chapter 4 of this Final EIS that includes best management practices; the development of a liaison that will allow Federal, state, and local natural resource stakeholders to interact with CN to complete various adaptive management measures along the EJ&E ROW. In addition, CN will either conduct or will supply financial support for pre- and post- construction monitoring to evaluate and document potential effects and subsequent impacts by the Proposed Action. Once monitoring is completed, the CN liaison and natural resource stakeholders can develop and implement appropriate site-specific mitigation measures once potential effects from the Proposed Action are realized.

3.4.13.5 Biological Resources Methodology

Field Work Methodology

A commenter questioned where field data from field visits is located; how natural areas can be investigated from public roadways; and what measures can be taken to protect Cuba Marsh Forest Preserve, Crabtree Nature Center, and Spring Creek, and all Illinois Natural Area Inventory (INAI) areas, from rail line traffic increases.

Response

Field data from site visits is included in the Draft EIS and Final EIS and is also as part of the administrative record. Data have been combined on GIS layers and overlaid on top of Study Area aerial photography.

Initial field investigations were conducted from public rights-of-way. This included visiting natural areas, but not areas on railroad property. Subsequent field investigations in April, October, and November 2008 included accessing habitat areas on railroad property.

SEA calculated the potential acreage of construction impacts for the connections and double track locations using resource data and ROW boundaries in the locations where the constructions are proposed. The construction impacts were based on a conservative scenario in which the largest footprint possible was considered. SEA determined land cover using high-resolution aerial photography (one-foot resolution in Illinois and six-inch resolution in Indiana) to create GIS polygons of distinct landscape types, and then conducted a field visit to verify landscape types. Landscape

types were roughly based on the Chicago Wilderness (CW) Terrestrial Community Classification System (CW 2007b).

In terms of protecting INAI sites and important natural areas, mitigation measures in Chapter 4 of this Final EIS include the recommendation that the Applicants' create a liaison that will allow natural resource stakeholders to interact with the Applicants to complete various adaptive management measures on public lands. These adaptive management strategies include monitoring to assess potential impacts and tiered-mitigation to minimize realized impacts.

Ecological Assessment

A commenter expressed concern that field work was conducted in February and April and not within the growing or breeding season and requested that ecological assessments be conducted within the appropriate seasons.

Response

The purpose of the field surveys was to characterize the existing habitats/ecological communities and determine the potential project-related effects on the natural environment. This type of site survey can be done during most times of the year, excluding snow cover and poor visibility. The field visits were not intended to serves as species specific surveys. Species specific information was obtained through GIS information, available literature, and resource agency consultations. If needed, supplemental surveys for specific species will be conducted during the appropriate months/seasons, and under suitable environmental conditions using approved survey methods.

3.4.13.6 Other

General

A commenter stated that "our greenery will also have to be treated and watched."

Response

Comment acknowledged.

Quantifiable Conclusions

The Final EIS needs to provide quantifiable conclusions for effects on biological resources and appropriate mitigation resources

Response

SEA has taken additional steps to quantify effects on listed species since the publication of the Draft EIS, including further coordination with USFWS to determine whether the Proposed Action or constructions would adversely affect Federally listed species. The Biological Report in Appendix A of this Final EIS details SEA's findings.

Direct impacts from proposed construction of double track and connections were quantified in the Draft EIS. More specific quantification of impacts will occur in the permitting process, which needs to occur before construction can occur. Wetland and wildlife studies, best management practices and mitigation that complies with all applicable laws will be provided once the project design is further developed, and the proposed limits of construction are better established.

SEA recommends that the Applicants establish a qualified liaison that will allow Federal, state, and local natural resource agencies to interact with CN to complete various adaptive management

measures along the EJ&E ROW. In addition, CN will either conduct or will supply financial support for pre- and post- construction monitoring to evaluate and document potential effects and subsequent impacts by the Proposed Action and constructions. Once monitoring is completed, the CN liaison and natural resource stakeholders can develop and implement appropriate site-specific mitigation measures once potential effects from the Proposed Action are identified.

3.4.14 Comments on Water Resources

3.4.14.1 Groundwater

Summary

Commenters expressed concerned that groundwater issues have not been effectively addressed.

Response

In Section 3.12.2 of the Draft EIS, SEA examined multiple sources of information on public and private wells, aquifers, and groundwater that included publications of the Illinois State Water Survey and the Illinois State Geological Survey, geologic formations, thickness of unconsolidated sediments, susceptibility of shallow groundwater to contamination, and the locations of setback zones around public water supply wells. The information was sufficient to determine depth to groundwater, areas of groundwater recharge, generalized groundwater flow directions, and the degree to which wells might be affected by groundwater contamination. SEA obtained information not directly available in certain areas of Indiana by extending or interpreting the available data.

Risks to Drinking Water Wells from Hazardous Materials Spills

Many commenters expressed concern about the safety of their water supplies in the event of a hazardous material spill. Residents commenting include those dependent on public and private wells for drinking water.

Response

SEA evaluated the susceptibility of local groundwater supplies to a hazardous material spill (see the Draft EIS, Section 4.12.3.1). The study considered the proximity of drinking water wells to the right-of-way, direction of groundwater flow, and potential for contamination as determined by the thickness, permeability, and other properties of the geologic materials. This analysis identified one location (in Plainfield, Illinois) where an existing public water supply well could be affected by a hazardous material spill, and also identified several rail segments with greater potential for a spill that could impact private wells and/or natural areas. SEA undertook additional investigation since the publication of the Draft EIS and identified areas—primarily along the Des Plaines River in Will, Cook, and DuPage Counties—where the geologic materials overlying the bedrock are thinner and/or more permeable than along most of the right-of-way. The shallow bedrock aquifer is more susceptible to contamination from the surface in these areas.

Because the railroad already exists in susceptible areas, the risk of a spill also already exists. The freight currently being hauled includes the same classes of hazardous materials that would be transported if the Proposed Action is approved. SEA has determined that the Proposed Action does not create any new threats to wells or water supplies. Effects from the Proposed Action on groundwater take the form of increased possibilities for spills, which increases existing risks. Statistics on the current and the Proposed Action release intervals are included in Table 4.2-23 of the Draft EIS.

As explained in the Draft EIS, if a spill were to occur, CN would be required by law to mitigate the impacts by remediating the groundwater resource and/or providing an alternate supply of water to the property owner. Mitigation measures would be negotiated with governmental agencies.

In response to public comments, SEA conducted additional analysis of the potential effects from a hazardous materials spill in sensitive areas. SEA determined that the environmental consequences would be the same for the No-Action and Proposed Action; but the likelihood of a spill would increase for the Proposed Action due to increased rail traffic. The results of SEA's analysis are presented in Chapter 2 of this Final EIS.

Wells in Park Forest, Illinois

One commenter expressed concerned about effects on drinking water in wells close to the EJ&E rail line in Park Forest, Illinois.

Response

According to Illinois EPA data records, the wells in the Park Forest area are in the bedrock aquifer located several hundred feet below the ground surface. The susceptibility of the bedrock aquifer to contamination is rated as limited or very limited based on the low permeability of the overlying geologic materials. Thus, although the wells are near the railway right-of-way, the potential for a rail spill to contaminate the aquifer is low. See Draft EIS Figure 3.12-2 for overlying Quaternary geologic materials, Figure 3.12-3 for drift thickness, and Figures 3.12-5 and 3.12-6 for the leaching potential of the shallow geologic materials.

Seeps along Paul Ales Branch at Lockport and Romeoville Prairies

A commenter requested an evaluation of effects on seeps at Lockport Prairie and Romeoville Prairie.

Response

Seeps in this area are the result of groundwater flow on or immediately above the bedrock surface. This flow discharges where the top of the bedrock is exposed on the margins of the floodplain of the Des Plaines River, with flow occurring toward the river. Unless mitigated, contaminants that enter the groundwater on the landward side of these margins would likely be discharged at these seeps. At Lockport Prairie, the rail line lies between the locations of the seeps and the Des Plaines River, so that contaminants potentially emanating from the rail line would not affect the seep. The Paul Ales Branch does not extend north far enough to reach the landward areas above Romeoville Prairie. Romeoville Prairie would not be affected by the Proposed Action.

Additional Impervious Areas in Will County, Illinois

The commenter asked that this Final EIS describe the effects of additional impervious areas on groundwater in Will County, Illinois.

Response

Ballast on railroad berms is considered impervious area, and will be added or increased as part of new double track construction. Proposed new double track areas in Will County consist of 9.8 miles of track from Joliet to Frankfort (Draft EIS Section 2.2.2.2), or about 1.8 acres per mile. Based on review of the Quaternary geologic materials (Draft EIS, Figure 3.12-2), drift thickness (Draft EIS, Figure 3.12-3) and the leaching potential of the shallow geologic materials (Draft EIS, Figures 3.12-5 and 3.12-6), the area of the proposed double track construction is not conducive to significant quantities of recharge. The effects of these impervious areas on groundwater are negligible.

No Quantification of Effects

The commenter stated that the Draft EIS did not quantify effects on natural resources or water supplies.

Response

Section 4.12.3.1, Table 4.12-1 and Table 4.12-2 of the Draft EIS identified where natural areas and public water supplies may be affected by the Proposed Action. The existing track already creates a risk to resources, wells, and populations. The potentially-affected resources, wells, and populations are not changed by the Proposed Action. What is changed is the likelihood that any given well or resource could be affected. Statistics on the current and the Proposed Action release intervals are included in Table 4.2-23 of the Draft EIS. The probability goes up slightly but is still low.

Spill Risk to Groundwater Resources

The commenter noted that various soils, surficial geologic resources, and ground water are at risk in Pratt's Wayne Woods Forest Preserve.

Response

The existing track already creates a risk to resources in and around Pratt's Wayne Woods Forest Preserve. The potentially affected resources, wells, and populations are not changed by the Proposed Action. What is changed is the likelihood that any given well or resource could be affected. Statistics on the current and the Proposed Action release intervals are included in Table 4.2-23 of the Draft EIS.

Contaminant movement through Groundwater

The commenter voiced concern about rapid effects on groundwater resources downstream and downgradient of a spill in Pratt's Wayne Woods Forest Preserve.

Response

SEA recognizes that a mechanism exists whereby contaminants entering the groundwater near the surface could migrate downward and laterally to potentially affect downstream resources. However, given typical groundwater velocities in the range of feet per day or less, and assuming timely intervention in the event of a spill (as required by law), it is unlikely that groundwater resources would be affected.

Increased Risk to Water Supplies in Will County, Illinois

The commenter asked that this Final EIS address the impact to water supplies from diversion of traffic, the hydrologic connection between the EJ&E tracks and the shallow dolomite aquifer, and population levels affected by potential contamination of wellhead protection areas in Will County, Illinois. Clarify the distance from the EJ&E track and the wellhead protection areas.

Response

The connection between the railroad tracks and the shallow dolomite aquifer is discussed in Section 2.7 of this Final EIS. The wellhead protection areas shown on Figure 3.12-4 in the Draft EIS include all protected areas that touch or are intersected by the rail line.

Wellhead Protection Areas

The commenter asked that the EIS explain whether Illinois EPA controls for wellhead protection are applicable to rail lines.

Response

The controls of the wellhead protection program do not apply to rail lines, highways, pipelines, or other transportation corridors, except where fixed sources of contamination exist, such as maintenance and fueling facilities.

Hines Emerald Dragonfly and Wetlands

The commenter stated "Railroad track transects wetland and any changes to tracks, ballast, number of trains, weight of trains, or length of trains will adversely affect existing surface and groundwater hydrology, including seeps that support endangered and threatened species."

Response

Since the publication of the Draft EIS, SEA conducted additional coordination with USFWS to identify potential effects on Federally listed species in the Study Area. SEA and USFWS agreed that the Paul Ales Branch and CN track (Joliet subdivision) were two locations where ground vibration could potentially affect wetlands that support larval Hines emerald dragonfly habitat. However, SEA and USFWS also determined that the Proposed Action would not affect these areas because it does not include operational changes for these two locations. Since publication of the Draft EIS, SEA also conducted field investigations for the Hine's emerald dragonfly at the Joliet Connection and along the Paul Ales Branch. As a result of SEA's field studies and additional coordination with USFWS, an expanded discussion of the Hine's emerald dragonfly and other Federally listed species are included in the Biological Report in Appendix A of this Final EIS.

Fate and Transport of Contaminants in Groundwater

The commenter disagreed with the decision to not perform fate and transport modeling of a hypothetical spill. The commenter takes issue with the rationale of modeling being "too speculative," stating that "a fate and transport study is not so much speculative as it is involved, time-consuming, and expensive." Another commenter reiterated a previous request for groundwater studies, including groundwater water levels and flow patterns, stormwater flow patterns in relation to recharge areas, behavior of hazardous materials in water, baseline water chemistry, well water sampling, and municipal liability for provision of infrastructure and public waters.

Response

The components of the requested groundwater studies are necessary elements of a fate and transport evaluation. A study of the fate and transport of a spilled chemical in the environment is highly dependent on case-specific circumstances, including the nature and volume of the substance released, and the hydrologic and geologic characteristics of the area where the release occurs. Because the specific circumstances of a spill cannot be predicted, selection of a given set of circumstances would be speculative. Furthermore, the Proposed Action does not propose transporting new classes of hazardous materials from what is currently transported on the EJ&E rail line. The wells, populations, and groundwater resources are already at risk and that risk would be unchanged by the Proposed Action. The effect of the Proposed Action would be to change the likelihood that any given well or resource is affected. Statistics on the current and the Proposed Action release intervals for hazardous materials are included in Table 4.2-23 of the Draft EIS.

In response to public comments, SEA conducted additional analysis of the potential effects from a hazardous materials spill in sensitive areas. SEA determined that the environmental consequences would be the same for the No-Action and Proposed Action, but the likelihood of a spill would increase for the Proposed Action due to increased rail traffic. The results of SEA's analysis are presented in Section 2.7.2 of this Final EIS.

3.4.14.2 Floodplains

Floodplains

Commenters stated that the Proposed Action could potentially result in increased flooding, but did not state the location of concern.

Response

In the Draft EIS, Section 4.12.3.2, SEA identified streams where extending culverts may cause upstream increases in the 100-year flood elevation and outlined steps that the Applicants would need to follow to prevent this from occurring. If changes to the flood elevation were unavoidable, the Draft EIS also outlined the steps that the Applicants would need to take to obtain permits from FEMA and the state and local stormwater management organization to raise the water level.

Flooding at Underpasses

Commenters expressed concerns about flooding at underpasses.

Response

Current flooding in underpasses of the EJ&E rail line is a result of poor roadway drainage and not the EJ&E tracks, and is symptomatic of the generally overburdened condition of the regional highway system. This condition would continue regardless of whether or not the Board approves the Proposed Action. Affected communities should coordinate with the Applicants to resolve existing underpass flooding issues. Planned underpasses would be designed to prevent flooding at the low point and not affect the downstream municipal storm system to the extent required by ordinance.

Sugar Creek Hydrology

Commenter stated that the hydrology of Sugar Creek, located in Will County, would be affected.

Response

The Applicants have not provided information regarding which culverts would be upgraded; therefore, SEA's culvert evaluation assumed that the existing culverts would be extended. In the Draft EIS, Section 4.12.3.2, SEA identified streams, such as Sugar Creek, where extending the culvert may cause upstream increases in the 100-year flood elevation unless measures are taken such as improving the culvert inlet, installing a second pipe, or even totally replacing the culvert. Extending, upgrading, or replacing the culvert will trigger a Section 404 and DNR review where the Applicants must show why a water level rise is unavoidable. If changes to the flood elevation are unavoidable, the Applicants would need to obtain permits from FEMA and the state and local stormwater management organizations to allow for an increase in the water level.

3.4.14.3 Surface Waters

Existing Surface Waters

Commenter expressed concerned that effects on Hawthorne and Hawley lakes were not addressed.

Response

SEA examined named and un-named lakes and streams along the entire EJ&E corridor for impaired waterbodies (see the Draft EIS, Section 3.12.4). Because Hawthorne and Hawley lakes, located in Barrington, Illinois adjacent to the EJ&E tracks, are not in the area of proposed construction, SEA determined that the Proposed Action would not affect these water bodies.

Existing Wetlands

Commenter expressed concern with the embankment along Hawley Woods Road, an area next to the existing rail line that holds rainwater.

Response

The EJ&E rail line embankment along Hawley Woods Road has been in place for more than a century (prior to the regulation of wetlands) and appears to bisect a drainage area west of Hawley Lake. Wetland conditions along the EJ&E rail line in this area are an existing condition in an area where no construction is proposed.

Effects on Surface Waters

Commenters expressed concern that increased train traffic would affect wetlands and surface waters.

Response

SEA estimated the acreage of wetlands that would be directly affected or lost due to the Proposed Action. Section 4.12.3.2 of the Draft EIS explains the Federal, state, and local regulatory requirements to mitigate these losses.

Section 402 of the Clean Water Act (CWA) requires measures to reduce or eliminate potential indirect effects on wetlands and surface waters due to sediment and trace contaminants in stormwater runoff. The NPDES Permit for Industrial Activities covers material storage facilities, train cleaning, maintenance, and fueling areas, and staging areas and yards where vehicles await cleaning, repair or maintenance. The NPDES Permit for Construction Activities protects water resources during and after new construction, including the new double tracks and the new connections in the Proposed Action, by requiring installation of stormwater management measures such as wet ponds and vegetated swales to control pollutants in stormwater. Clearing land to install double track on existing embankments that previously were double-tracked will require an NPDES permit because clearing is a soil disturbing activity. Areas of new construction that discharge to streams not meeting current water quality standards trigger more stringent requirements under the NPDES permit, and construction in areas that discharge directly to municipal storm systems will need to meet local discharge requirements. All other areas along the EJ&E and CN rail lines that will not undergo improvements as part of the Proposed Action are exempt under CWA until such time as upgrades are made.

Runoff from Hazardous Waste Contaminating Lakes

Commenter expressed concern that storm runoff from hazardous materials would contaminate local lakes.

Response

While the probability of a hazardous material spill is low, SEA recognizes such a spill could have environmental consequences to surface waters. The Applicants are required by Federal regulation to

have trained response staff and contractors to handle spills. These response contractors have experience in dealing with spill containment and clean-up in lakes, streams, and wetlands.

Water Drying Up

Commenter stated that because of the Proposed Action "our water will dry up."

Response

Permanent dewatering is not part of the Proposed Action. SEA found no indication that either construction activities or operations, should the Proposed Action be approved, would cause drinking-water wells to dry up.

Potential Contamination from Stormwater Runoff in Lake Zurich, Illinois

Commenter stated that, in the context of NPDES Phase II regulations, the Draft EIS failed to address potential contamination from diesel fuel, grease, and heavy metals in surface runoff generated during routine rail operations in Lake Zurich.

Response

Current NPDES Phase II regulations cover industrial activities regarding material storage, vehicle maintenance, and fueling operations at rail transportation systems, and not routine operation on existing tracks. NPDES Phase II regulations for construction activities protect water resources during and after new construction, such as the new double tracks and the new connections in the Proposed Action, by requiring stormwater management measures be installed such as wet ponds and vegetated swales to control pollutants in stormwater. All other areas along the EJ&E and CN rail lines that would not undergo improvements as part of the Proposed Action are exempt under CWA. The approval, or disapproval, of the Proposed Action by the Board does not prevent Lake Zurich from negotiating with railroad owners to voluntarily install water quality-control measures to help improve the water quality of Lake Zurich.

Suspended Sediments in Lake Zurich, Illinois

Commenter stated that water flowing through two existing culverts beneath the EJ&E rail line is causing suspended sediments in Lake Zurich that would be in violation of NPDES Phase II regulations.

Response

These existing culverts are in an area in which no new construction is being considered as part of the Proposed Action. NPDES Phase II does not cover stormwater from existing rail transportation systems outside of material storage, vehicle maintenance, and fueling operations, or areas of new construction. Mitigation for existing conditions is outside the scope of the EIS. Approval or disapproval of the Proposed Action by the Board does not prevent Lake Zurich from negotiating with railroad owners to correct this existing suspended sediment problem.

Mitigation Ratios for High Quality Aquatic Resources

Commenter stated that mitigation ratios for effects on HQARs is 3:1, not 1:3 as shown on Table 3.12-8. There also are larger buffer requirements for areas that are HQARs or support habitat for Federal- or state-listed species.

Response

SEA revised Table 3.12-8 to show a mitigation ratio for HQARs of 3:1. SEA also added a statement that larger buffer requirements are necessary for HQARs and wetlands that support Federal- or state-listed species. These revisions are included in Chapter 2 of this Final EIS.

Wetland Communities

Commenter stated that the Draft EIS focuses on fens and does not provide much discussion on other important community types.

Response

SEA held an agency stakeholders meeting on April 29, 2008. At the meeting, representatives from forest preserve districts specifically asked that more analysis be done on fens. In response to the stakeholder comments, SEA evaluated fens; the results of the evaluation are provided in the Draft EIS in Sections 3.11, 3.12, 4.11, 4.12. In addition, SEA's identification of wetlands in the project area utilized wetland inventories such as the IN and IL ADID, which identify high-quality wetlands based on criteria such as high-quality wildlife habitat, high floristic quality and/or high quality aquatic habitat (Northeastern Illinois Planning Commission et al. 2004). Since the publication of the Draft EIS, SEA has conducted additional habitat surveys for wetland-obligate endangered and threatened species such as Hine's emerald dragonfly and the eastern prairie fringed orchid. Section 2.11 of this Final EIS presents more details regarding these listed species; SEA's Biological Report is located in Appendix A of this Final EIS.

Illinois EOR identified five remnant wet and wet-mesic dolomite prairie communities that are located within the EJ&E arc along the Des Plaines River on the Paul Ales Branch between Crest Hill and Romeoville. These communities are outside the areas of proposed construction.

At-Risk Water Resources

Commenter stated that various streams and lakes in the vicinity of Pratt's Wayne Woods Forest Preserve are at a much greater risk of adverse effects due to the Proposed Action.

Response

NPDES Phase II regulations for construction activities protect water resources during and after new construction, such as the Munger Connection, by requiring stormwater management measures be installed. These measures include wet ponds and vegetated swales to control pollutants in stormwater.

Streams and Floodplains

Commenter expressed concern about the analysis and assessment of how construction could be achieved at the Munger Connection without causing significant environmental effects. The culvert analysis should be evaluated under a framework applicable to the DuPage Countywide Stormwater and Floodplain Ordinance and preliminary permitting consultation should be conducted by the Applicants.

Response

As the Applicants did not provide details or construction plans for the Proposed Action, SEA made reasonable assumptions to estimate potential effects, such as the assumption that existing culverts would be extended rather than replaced. If the Proposed Action is approved, the Applicants would be

required to submit detailed plans and the results of hydrologic and hydraulic modeling of the planned culverts on major streams in designated floodplains, such as Brewster Creek, to the U.S. Army Corps of Engineers (USACE), and to state and local stormwater and floodplain managers for review and permitting. Preliminary permit application consultation by the Applicants with the local stormwater and floodplain managers may help to streamline and expedite the permitting process at the state and Federal level.

Water Resources at the Munger Connection

Commenter disagreed that construction of the Munger Connection would not affect floodplain and streamwater quality and expressed belief that the direct wetland impacts may be greater than the estimates in the Draft EIS.

Response

Appropriate hydraulic assessment of culvert/bridge design is consistent with the regulatory requirements set forth in the DuPage Countywide Stormwater and Floodplain Ordinance, as revised in August 2008, for addressing stream and floodplain impacts. Sustainability of dynamic stream aquatic biology and floodplain habitat communities has the same outcome for the No-Action and Proposed Action.

The Draft EIS outlines the permitting process for construction activities as required under the National Pollutant Discharge Elimination System (NPDES) Phase II regulations including provisions for post-construction stormwater management and the use of a higher level of protection BMPs for discharges to 303d-listed streams or wetlands. The Applicants must prepare a Storm Water Pollution Prevention Plan (SWPPP), which describes the erosion and sediment control BMPs that will be implemented during and after construction, to apply for coverage under NPDES. As part of the Section 404/401 and Section 402 permitting process, this SWPPP document will be reviewed by Federal, state and local regulatory agencies. DuPage County will have the opportunity to review and comment on the SWPPP to assure compliance with the Countywide Stormwater and Floodplain Ordinance.

Because construction plans were not provided by the Applicants, SEA's estimate of 2.48 acres of directly affected wetlands was based on conservative assumptions that the construction limits would extend 75 feet from track centerline. SEA applied this method for estimating direct wetland effects on all proposed construction areas to develop a uniform measure of potential impacts for the evaluation process. If the Proposed Action is approved by the Board, the Applicants will be required to perform on-site wetland delineations, with floristic assessments, as part of the Federal, state and local permitting process and explain the avoidance-minimization-mitigation sequence for each construction area.

Hazardous Material Releases on Water Resources

Commenter expressed concern that hazardous material releases in streams could travel to downstream resources.

Response

The effects of a spill on water resources are discussed in Section 2.7 of this Final EIS.

Assessment of Water Resources

Commenter disagreed with the assessment in the Draft EIS that finds no effects on floodplain and streams, no effects on wetlands, and no effects on drainage patterns.

Response

In Section 4.12.3.2 of the Draft EIS, SEA identified potential effects on floodplains, streams, and drainage patterns that would need to be avoided or minimized by the Applicants. The Draft EIS also provided suggestions for methods to achieve these ends and the permitting process to be followed if avoidance was not possible. SEA estimated potential direct effects on wetlands and described the compensatory mitigation requirements for these losses in Section 3.12.5 of the Draft EIS.

Water Resources at Double Track Construction Areas

Commenter disagreed that construction of the double track in the vicinity of Pratt's Wayne Woods Forest Preserve would not affect floodplains and streams, water quality, and that the direct wetland effects may be greater than the estimates in the Draft EIS.

Response

Appropriate hydraulic assessment of culvert/bridge design is consistent with the regulatory requirements set forth in the DuPage Countywide Stormwater and Floodplain Ordinance, as revised in August 2008, for addressing stream and floodplain impacts. Sustainability of dynamic stream aquatic biology and floodplain habitat communities has the same outcome from the No-Action and Proposed Action.

In the Draft EIS, SEA outlines the permitting process for construction activities as required under NPDES Phase II regulations including provisions for post-construction stormwater management and the use of a higher level of protection BMPs for discharges to 303d-listed streams or wetlands. The Applicants must prepare a SWPPP, which describes the erosion and sediment control BMPs that will be implemented during and after construction, to apply for coverage under NPDES. As part of the Section 404/401 and Section 402 permitting process, this SWPPP document will be reviewed by Federal, state and local regulatory agencies. DuPage County will have the opportunity to review and comment on the SWPPP to assure compliance with the Countywide Stormwater and Floodplain Ordinance.

SEA's estimate of 1.92 acres of directly affected wetlands was based on conservative assumptions that the construction limits would extend 75 feet from track centerline because construction plans were not provided by the Applicants. SEA applied this method for estimating direct wetland effects on all proposed construction areas to develop a uniform measure of potential impacts for the evaluation process. If the Proposed Action is approved by the Board, the Applicants will be required to perform on-site wetland delineations, with floristic assessments, as part of the Federal, state and local permitting process and explain the avoidance-minimization-mitigation sequence for each construction area.

Du Page County Wetlands, Floodplains, and Streams

Commenter disagreed with the estimate for direct wetland effects in the Draft EIS, and disagreed with the assessment that finds no effect on floodplains and streams in DuPage County.

Response

Because the Applicants did not provide construction plans, SEA's estimate of direct effects was based on conservative assumptions that the construction limits would extend 75 feet from track centerline. SEA applied this method for estimating direct wetland effects on all proposed construction areas to develop a uniform measure of potential effects for the evaluation process. The Applicants would be required to perform on-site wetland delineations, with floristic assessments, as part of the Federal,

state and local permitting process and explain the avoidance-minimization-mitigation sequence for each construction area.

Appropriate hydraulic assessment of culvert/bridge design is consistent with the regulatory requirements set forth in the DuPage Countywide Stormwater and Floodplain Ordinance, as revised in August 2008, for addressing stream and floodplain impacts. Sustainability of dynamic stream aquatic biology and floodplain habitat communities would have the same outcome for the No-Action and Proposed Action.

3.4.14.4 Water Quality Standards

Summary

Commenters asked how the Applicants will deal with water quality from common stormwater runoff.

Response

The Draft EIS included the Applicants' voluntary mitigation measures which addressed meeting state and Federal National Pollutant Discharge Elimination System (NPDES) requirements. It should be noted that although the Draft EIS section on water quality primarily focused on construction activities and post construction stream degradation, it does consider the need for permanent sediment basins or stormwater ponds, and vegetated swales to meet post-construction stormwater quality.

3.4.14.5 Construction Impacts on Water Resources

Replacement of Sugar Creek Culvert

Commenter expressed concern that culvert will be structurally affected.

Response

The Applicants have not provided specific culvert replacement plans for review in the EIS. It is therefore assumed that the existing culverts would be extended to provide for double track, but no other culvert modifications are anticipated. The Applicants are required to apply for state and Federal permits for work within streams; such permits require the implementation of best management practices (BMP) for construction in moving water.

Hazardous Material Spill During Construction

Commenter expressed concerns that hazardous material spills during construction would not be detected, contained, and cleaned up quickly enough, and would adversely affect Pratt's Wayne Woods Forest Preserve.

Response

Materials spilled during construction are typically fuels, lubricating oils, hydraulic fluids, paints, and solvents, and generally are small in quantity. The Applicants would have a spill prevention plan for construction work adjacent to critical water and natural resources that outline methods that would be used to contain, recover, and clean up spilled materials.

3.4.14.6 Water Resources Methodology

Vibration Effects on Groundwater Recharge

Commenter asked if there has been an evaluation of the vibrational effects of increased rail traffic along areas of thin, highly permeable materials, such as important groundwater recharge zones in the Barrington area, that have been identified in recent studies by others.

Response

In preparation of the Draft EIS, SEA monitored train-induced ground-borne vibration along the EJ&E rail line. SEA's results, detailed in Section 4.10 of the Draft EIS, indicated that the train-induced ground-borne vibration velocities are not dramatically different between CN and EJ&E trains. Therefore, SEA determined that maximum vibration levels would be comparable to existing levels. Therefore, vibrational effects due to the Proposed Action would not impact groundwater recharge areas in the Barrington area.

3.4.14.7 Historic Districts and Properties Identified

Koppers Coke Oven Plant Site

The Forest Preserve District of Will County noted that the Koppers Coke Oven Plant Site is "adjacent to or in close proximity" to the construction area for the proposed Joliet Connection in Joliet, Illinois.

Responses

The ruins of the Koppers Coke Oven Plant Site, a designated Will County historic landmark, is located west of the I&M Canal Trail, which is west of the limits of construction for the proposed Joliet connection. The Joliet Steel Works, a historic district listed on the National Register of Historic Places, is located approximately 3,800 feet south of the construction limits for the proposed Joliet connection. With respect to the I&M Canal Heritage Trail, the limits of construction of the proposed Joliet connection would approach no closer than roughly 80 feet east of the trail in the northern portion of the connection, as it begins to ascend to the elevated CN tracks. In the southern portion of the proposed connection, the limits of construction would be approximately 25 feet to the east of the trail, but at a point would be elevated roughly 20 feet above the trail. Therefore, none of the resources would be affected by the Proposed Action.

Joliet Iron Works Historic Site Redevelopment

The Forest Preserve District of Will County questioned whether the construction of the proposed Joliet Connection might have an impact on the projected timeline for the district's planned redevelopment of the Joliet Iron Works Historic Site.

Response

The limits of the Joliet Iron Works Historic Site lie roughly 800 feet south of the CN railroad bridge, whereas construction of the proposed Joliet connection would occur north of the CN bridge. Therefore, SEA has determined that construction of the proposed Joliet connection would not affect redevelopment of the Joliet Iron Works Historic Site.

Frankfort Historic Residential Structure

Commenters wrote that they live in a 112-year old house that "will probably not withstand the amount of trains that have been predicted to come down the tracks next to our home."

Response

SEA assessed the effects of railroad-related ground-borne vibration on historic buildings, specifically identifying two different vibration effects thresholds, one for historic buildings listed or eligible for listing on the National Register of Historic Places (NRHP) and buildings that are in a deteriorated state of maintenance, and another threshold for all other historic structures. Vibration velocity thresholds are expressed as peak particle velocity in inches per second (in/sec ppv) and in vibration decibels (VdB). For NRHP and deteriorated buildings, the threshold is 0.12 in/sec ppv (or 90 VdB). For all other historic structures the threshold is 0.2 in/sec ppv (or 94 VdB). Based on SEA's analysis, these vibration levels would occur within 10 feet of the rail line for vibration associated with train operations.

SEA researched the location of the house in question and determined that it is located outside the 0.12 in/sec ppv (90 VdB) train operations vibration impact threshold. Therefore, it is unlikely that the structure in question would suffer vibration-related damage as a result of the Proposed Action.

3.4.14.8 Identified Impacts

Indiana SHPO Section 106 Finding

The Indiana Division of Historic Preservation and Archaeology (that is, the Indiana State Historic Preservation Office, or SHPO) reviewed a letter (including a packet of cultural resource assessment survey reports) from the Board dated July 25, 2008, in which the Board concluded that the Proposed Action would not adversely affect archaeological or historical resources listed on, or eligible for listing on, the National Register of Historic Places. In response, the Indiana SHPO found that, based on available information, no "historic buildings, structures, districts, or objects listed in or eligible for inclusion in the National Register of Historic Places [are located] within the probable area of potential effects." However, the Indiana SHPO requested that it be notified if any "archaeological artifacts or human remains … [are] uncovered during construction, demolition or earthmoving activities," as required by Indiana state law. Indiana SHPO further noted that this "does not obviate the need to adhere to applicable Federal statutes and regulations." The Indiana SHPO also reminded SEA that, in making its determinations and findings of effect on NRHP properties, it should include in its analysis information gathered from "the Indiana SHPO, the general public, and any other consulting parties."

Response

Thank you for your comment. SEA will comply with the request of the Indiana SHPO consistent with the provisions of the National Historic Preservation Act (NHPA). See SEA's mitigation in Chapter 4 of this Final EIS.

Frankfort Historic Districts

Several commenters wrote that Frankfort, Illinois in Will County is a "historic town" with a "historic downtown."

Response

While it is true that the Frankfort community was established in the 1850s and currently features historic business and residential districts, neither district is listed on the National Register of Historic Places. The business and residential districts are located approximately 3,500 feet north and 1,700 feet north, respectively, of the EJ&E rail line. SEA's review of the Illinois Historic Preservation Agency's online cultural resources geospatial database (HAARGIS) indicates that six individual structures have been recorded in the area, all of which are located at least 1,700 feet north of the EJ&E rail line. Given the distance of these resources from the EJ&E rail line, SEA has

determined that there is little likelihood the Proposed Action would affect either of the two districts or any of the individual IHPA-listed structures.

I&M Canal Heritage Corridor Historic Sites

Commenters expressed concern that the proposed construction of the Joliet Connection is in "very close proximity" to the Illinois & Michigan (I&M) Canal Heritage Corridor" and would affect historic sites within corridor.

Response

The Joliet Connection would not be constructed on I&M Canal property. The Illinois Historic Preservation Agency (or Illinois State Historic Preservation Office, or SHPO), in a letter to the Board dated September 29, 2008, made a determination based on the cultural resource surveys prepared by SEA that "no significant historic, architectural, and archaeological resources are located in the project area."

Wayne Historic District

A few commenters expressed concern that the Proposed Action would affect the Wayne Historic District because the EJ&E tracks were "a stone's throw" away from the district.

Response

The Wayne Historic District is located approximately 1,100 feet west of the EJ&E railroad tracks. Therefore, SEA determined that the Proposed Action would not affect the historic district.

Historic Vermont Cemetery

Commenter wrote that vibrations from increased train traffic may affect historic grave stones at the Vermont Cemetery Nature Preserve.

Response

The cemetery containing the historic gravestones in the western portion of the Vermont Cemetery Nature Preserve is located approximately 75 feet from the EJ&E railroad tracks. Normantown Road is located between the cemetery and the railroad tracks. The graves are located well outside the 0.12 in/sec ppv (90 VdB) vibration contour, which is the impact threshold that generally would be appropriate for historic structures, including gravestones and similar masonry objects. Therefore, SEA determined that the gravestones would not be damaged as a result of the Proposed Action.

Joliet Iron Works Historic Site Vibration Effects

Will County Forest Preserve District wrote that vibration associated with the Proposed Action "would impact [the I&M Canal Heritage Trail] and other infrastructure" at the Joliet Iron Works Historic Site.

Response

SEA assessed the effects of railroad-related ground-borne vibration on historic structures, specifically identifying two different vibration effects thresholds, one for historic buildings listed or eligible for listing on the National Register of Historic Places (NRHP) and buildings that are in deteriorated state of maintenance, and another for all other historic structures. Vibration velocity thresholds are expressed as peak particle velocity in inches per second (in/sec ppv) and in vibration decibels (VdB). For NRHP and deteriorated buildings, the threshold is 0.12 in/sec ppv (or 90 VdB). For all other

historic structures the threshold is 0.2 in/sec ppv (or 94 VdB). Based on SEA's analysis, these vibration levels of 94 VdB would occur with 10 feet of the rail line for vibration associated with train operations. The 0.12 in/sec ppv (90 VdB) vibration impact threshold extends 25 feet beyond the tracks, at or slightly beyond the rail bed's toe of slope.

With respect to noise, it is reasonable to expect average hourly noise levels to increase as a result of the increase in average daily freight train traffic associated with the Proposed Action. However, the actual change in noise levels takes place during a train pass-by event, which would have a duration on the order of 1.0 to 2.5 minutes.

SEA determined it is unlikely that the park, including its outdoor educational programs, would be adversely affected by noise and vibration effects as a result of the Proposed Action.

Section 2.11 of this Final EIS includes an analysis of potential impacts of ground-borne vibration on historic structures.

New Lenox, Illinois

Two commenters expressed concern for the "negative bearing on …historic preservation" that "long and faster freight trains" would have on "their neighborhoods and backyards" in New Lenox, Illinois.

Response

According to the Illinois Historic Preservation Agency's inventory, there are two recorded historic buildings in New Lenox, neither of which is listed on the National Register of Historic Places. The buildings are located approximately 1.4 miles north of the EJ&E rail line. It is therefore unlikely that the Proposed Action would affect these historic buildings.

Barrington Historic District

Commenter noted that Barrington has the largest historic district in Illinois and that this district "should not be destroyed by making the town center unfeasible as a local commercial center."

Response

The Proposed Action does not include any construction or any ground disturbance that would affect the historic district in Barrington, Illinois. According to the National Register of Historic Places (NRHP) nomination application for the Barrington Historic District (prepared in 1986), the "district exemplifies the development of the residential section of a rural community which grew up around a railroad center in the second half of the nineteenth century." The NRHP application goes on to say that "[t]he location and expansion of the town was also strongly influenced by the expansion of the American railroad industry, and particularly the extension of the Chicago and Northwestern Railroad [*sic*]." Railroad sights and sounds, therefore, have long been a hallmark of the Barrington community. The Proposed Action would not introduce any visual or auditory elements that are out of character with this historic setting.

SEA determined that the Proposed Action would have an effect on Barrington with respect to air, noise, vibration, and traffic. The effects would constitute an annoyance and would not adversely affect the viability of the commercial sector in Barrington. Refer to Section 4.6 of the Draft EIS for more details.

EJ&E Rail Line Bridge Over IL 171

Commenter questioned the ability of the 100-year old EJ&E Bridge over IL 171 to "withstand significant additional train usage." Commenter also asked the bridge rating for the structure and what coordination will be required to upgrade or rebuild this bridge.

Response

The Illinois Historic Preservation Agency, in a letter to the Board dated September 29, 2008, made a determination based on the cultural resource surveys prepared by SEA that "no significant historic, architectural, and archaeological resources are located in the project area."

EJ&E currently maintains, and is required by Federal law to inspect and maintain, all of its bridges and structures to allow for the safe passage of trains. The structure currently meets those standards and is capable of safely supporting existing freight trains operated at the existing speeds. The bridge currently has a sufficient rating to comply with this statute. As of October 2008, there are no weight or speed restrictions that would restrict train operations on this structure. CN's Operating Plan and Safety Integration Plan (which has been approved by FRA) maintains that the structure's current condition will be sufficient to safely handle the anticipated traffic. If in the future the Applicants chose to upgrade or replace this structure, they would do so with the required approvals and permits.

Historic Downtown Matteson

Matteson, Illinois is concerned that the Proposed Matteson Connection will affect historic downtown Matteson.

Response

According to the Historic Old Matteson Homeowners Association, "Historic Old Matteson" is located south of the Proposed Matteson Connection. The Illinois Historic Preservation Agency's online cultural resource database (HAARGIS) lists three historic structures located in Matteson, all of which are located just west of the CN rail line. None of these structures is listed on the National Register of Historic Places, nor is there a formally recognized historic district in Matteson.

The Applicants propose to construct the Proposed Matteson Connection east of the CN rail line and, therefore, SEA has determined that this configuration would not adversely affect the three state-listed historic structures west of the CN rail line.

3.4.14.9 Other Comments on Cultural Resources

Incorrect USGS Topographic Map Name

Commenter noted that the USGS quadrangle identified in one of SEA's archaeological reports is erroneous.

Response

The USGS topographic map encompassing the area assessed in SEA's Phase I Archaeological Investigation of the Proposed Munger Connection was misidentified as "Aurora South" in the first page of the report, but was correctly identified as "West Chicago" in Attachment 1 of the report.

3.4.15 Comments on Indirect and Cumulative Effects

3.4.15.1 Indirect Effects

Insufficient Indirect Effects Analysis

Some commenters stated that the Draft EIS failed to address the Proposed Action's indirect effects and did not address indirect effects on human health.

Response

SEA followed the regulations of the Council on Environmental Quality (CEQ) (40 CFR Part 1500) when it analyzed potential indirect effects in the Draft EIS. CEQ regulations define indirect effects as follows:

> Indirect effects… are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems. (40 CFR 1508.8(b))

As stated in Section 5.3 of the Draft EIS, SEA examined indirect effects based on information received during scoping and obtained from the Applicants. SEA found that the Proposed Action could have generalized indirect effects on:

- Land use and transportation systems near the EJ&E and the CN rail lines
- Socioeconomic factors based on the increase in freight rail capacity in the region

The Proposed Action could indirectly discourage locating noise-sensitive developments or retail establishments that rely on pedestrian traffic in communities along the EJ&E rail line. However, it could encourage locating these land uses in the communities along the current CN lines, particularly the communities served by commuter rail. Transportation planning and safety improvements similarly could be indirectly affected in communities that would experience increases or decreases in rail freight traffic.

Positive indirect effects could result at the regional and local level because the Proposed Action would add freight rail capacity to the region and provide existing EJ&E rail line customers with improved access to CN's North American system.

SEA considered human health as part of the air quality evaluation in the Draft EIS. Cancer risk was evaluated based on potential levels of emissions as a result of the Proposed Action. As stated in Section 4.9 of the Draft EIS, the Proposed Action would have negligible cancer risk on public health.

Neither SEA nor the Applicants identified any changes in freight rail traffic outside the arc formed by the EJ&E rail line as a result of the Proposed Action. Since no changes were identified, SEA concluded that it would be beyond the scope of the Draft EIS to analyze indirect effects outside the arc.

No Indirect Effects Analysis in Northwest Area

Commenter asked whether operating changes related to the Proposed Action, like those at East Joliet and Kirk yards, would result in indirect effects on the northwest area of EJ&E's territory.

Response

SEA analyzed the East Joliet and Kirk yards for indirect effects, as defined by CEQ and the Board's regulations (see Section 5.2 of the Draft EIS) because CN's proposed Operating Plan would substantially increase the number of cars handled daily by each yard. The Proposed Action would not result in such increases, or result in indirect effects, at other CN or EJ&E facilities or in the northwest area of the Study Area. SEA also considered proposed community projects along the EJ&E rail line in its analysis of general indirect effects (see Section 5.3 of the Draft EIS). Although the Proposed Action could influence community decisions on some proposed projects because of perceived adverse effects, SEA concluded that there are many factors other than the amount of rail traffic that could influence such decisions.

Indirect Effects on Biological Resources

Commenters stated that the Draft EIS did not evaluate the indirect effects of the Proposed Action on biological resources within the Study Area.

Response

As defined by CEQ "indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects on …natural systems, including ecosystems. " (40 CFR 1508.8(b)) By modifying the definition of "indirect effects" with the words "reasonably foreseeable," the CEQ chose to neutralize possible speculation about indirect effects.

To identify and analyze possible indirect effects, SEA reviewed the effects of the Proposed Action on the relevant environmental impact categories studied in the Draft EIS, including biological resources, to determine if those effects could lead to indirect effects. SEA followed CEQ guidance that directs agencies to focus only on the effects and resources within the context of the Proposed Action. SEA concluded that in the case of biological resources, "context" refers to those resources near the EJ&E, and it examined resources within an area approximately 500 feet on either side of the rail line and running parallel with it.

Potential direct effects on biological resources were discussed in Section 4.11.3 of the Draft EIS. SEA defined potentially affected resources as those within the EJ&E ROW or adjacent to it. For example, noise from increased train operations could adversely affect the diversity of bird species as well as breeding density near the ROW. Although little research exists on the effects of intermittent railroad noise on nearby wildlife species, animals in the area already live with intermittent noise from trains. SEA therefore concluded that additional noise from the Proposed Action could have "minor [direct] effects on wildlife and natural areas adjacent to the EJ&E rail line," that is, within 500 feet of the rail line (see Section 4.11.3 of the Draft EIS).

If the Board approves the Proposed Action, any direct effects on biological resources, such as noise from increased train operations, would occur when the Applicants' Operating Plan is implemented, whether over a three-year period after approval of the Proposed Action, or more rapidly. SEA has no reason to believe that the anticipated "direct effects" to biological resources would evolve into "indirect effects" in the future. In other words, the potential direct effects would not increase in severity or distance from the right-of-way after implementation or at some foreseeable future point. The Applicants did not suggest or provide data to support the assumption that more trains than those projected would use EJ&E track in the future. In addition, SEA's own analysis of the Applicants' Operating Plan indicated that CN's trains would fill most of the EJ&E rail line's available capacity leaving little to no room for growth (see Section 4.1 of the Draft EIS).

Finally, SEA did not receive nor locate studies or information that provided a basis for an assessment of indirect effects on biological resources. Based on the CEQ's definition of "indirect effects," its guidance to avoid speculation and the information available about possible effects on biological resources, SEA does not consider indirect effects on such resources from the Proposed Action to be "reasonably foreseeable."

SEA concluded that the Proposed Action could indirectly affect proposed development or redevelopment near the EJ&E ROW by discouraging location of noise-sensitive facilities or retail establishments in adjacent communities. In doing so, it also could discourage development near the ROW that might have displaced or destroyed biological resources.

Good Samaritan Hospital Deer Park

Commenter expressed concern that increased traffic delays related to the Proposed Action would lead to Good Samaritan Hospital losing its accreditation, insurance coverage, and referrals, which would result in loss of hospital jobs.

Response

SEA believes this commenter is referring to Advocate Good Shepherd Hospital. SEA analyzed indirect effects based on information it received from the public during the scoping period. The issues surrounding the future accreditation of this hospital were not raised at that time. Advocate Good Shepherd Hospital has been identified as a potentially affected emergency service provider in Section 2.6 of the Final EIS. SEA has recommended mitigation based, in part, on discussions between SEA and the Hospital staff concerning the potential effects of the Proposed Action.

Health-Related Indirect Effects

Commenters stated that the Proposed Action could lead to indirect health effects including sleep deprivation, criminal behavior, mental illness, suicides, and reduced exercise opportunities.

Response

SEA reviewed a comprehensive list of environmental categories for potential indirect effects. (See Chapter 4 of the Draft EIS for SEA's analyses of possible direct effects associated with each category.) SEA analyzed environmental categories that could have an indirect effect on human health, such as air quality. Health effects associated with sleep deprivation, criminal behavior, mental illness, suicidal behavior, and reduced exercise opportunities are not "reasonably foreseeable" indirect environmental effects of the Proposed Action.

Future Double-tracking on the EJ&E Rail Line

Commenter stated that rail traffic is expected to double by 2020, making construction of new double tracks on the EJ&E rail line foreseeable. Therefore, according to the commenter, SEA should assess the potential impact of more traffic being diverted onto the EJ&E rail line and consequently, the reasonableness of the train counts the Applicants have projected in their Operating Plan.

Response

SEA conducted three capacity analyses to identify potential constraints and bottlenecks that could occur on the EJ&E rail line if the Board approves the Proposed Action. While there are four segments that would have a line occupancy index (LOI) of more than 70 percent, all are in the southwestern part of the EJ&E arc. Double track in that area would help alleviate such constraints, as would operational changes. However double-tracking the entire EJ&E rail line would not be

necessary for projected or evolving CN traffic. If rail traffic were to nearly double by 2020 in Chicago it would be distributed over the many railroad lines that operate in the Chicago area. Therefore SEA cannot reasonably foresee which future rail traffic CN would carry over the EJ&E rail line or where capacity constraints might lead CN to build new double track.

3.4.15.2 Indirect Effects Methodology

Indirect Effects Beyond the Region

Commenters stated the Draft EIS failed to look broadly at indirect effects of the Proposed Action beyond the region.

Response

SEA reviewed a broad list of environmental categories for potential indirect effects. (See Chapter 4 of the Draft EIS for SEA's analyses of possible direct effects associated with each category.) The regulations of the Council on Environmental Quality (CEQ) define indirect effects as effects that "are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable."

In considering indirect effects on the environmental categories, SEA followed CEQ guidance directing agencies to focus only on the effects and resources within the context of the Proposed Action. Therefore SEA examined the potential for such effects within EJ&E's operating territory where changes related to the Proposed Action would take place. That territory stretches along the 140-mile long EJ&E ROW through five Chicago metropolitan-area counties in Illinois and one in Northwest Indiana. SEA's review did not include other states, regions, or countries where CN or its subsidiaries operate because they are not within the Proposed Action's context, nor would such indirect effects be reasonably foreseeable. The reasonably foreseeable, indirect effects SEA identified and examined are discussed in Section 5.3 of the Draft EIS.

The spatial boundaries of SEA's analysis fell within the EJ&E ROW, or a relatively short distance outside it, depending on which environmental category was being evaluated. For example, SEA described general indirect effects that could affect land use, commercial and residential development, and transportation systems within communities along the EJ&E rail line in Section 5.3.1 of the Draft EIS.

3.4.15.3 Cumulative Effects

Potential Cumulative Effects

Commenters suggested that the direct effects of the Proposed Action, including noise and vibration from increased train frequency, would lead to cumulative effects within local and regional environments.

Response

SEA used CEQ regulations to examine potential cumulative effects as part of the Draft EIS. These regulations contain a definition of cumulative impact at 40 CFR 1508.7 that states:

> "Cumulative impact" is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

This definition refers to the accumulation of effects of the Proposed Action and other actions or projects on particular categories of environmental effects, but does not refer to the aggregation of effects from the Proposed Action alone. For example, if an individual community experienced noise and vehicle delays as a result of the Proposed Action, these are direct effects.

As stated in Section 5.4 of the Draft EIS, SEA identified and examined all related projects to determine which could lead to cumulative effects when added to the direct effects that would be caused by the Proposed Action. Although most of the related projects were associated with transportation, two were related to biological resources and one was associated with scientific research. Site-specific related projects SEA examined for cumulative effects included:

- Planned expansion by Metra within EJ&E's ROW known as the STAR Line
- Planned construction of commuter stations by communities along the STAR Line
- Highway improvement projects that will cross the EJ&E rail line
- The Pratt's Wayne Woods Mining and Reclamation Project under construction, adjacent to the EJ&E rail line in DuPage County
- An airport runway extension project at Gary/Chicago International Airport requiring relocation of a portion of the EJ&E rail line
- Existing and future plans for the Fermi National Accelerator Laboratory
- Illinois River EJ&E Movable Bridge
- Dunham Forest Preserve wetlands restoration project

As stated in Section 5.6 of the Draft EIS, SEA also analyzed the following regional related projects for system-wide cumulative effects associated with energy (fuel) use, air quality, and climate:

- The CREATE Program
- Planned expansion by Metra on rail lines that cross EJ&E's ROW
- Planned expansion by NICTD within CN ROW and near EJ&E's ROW
- Amtrak passenger service operations within the Study Area

As stated in Section 5.5 of the Draft EIS; Metra's proposed STAR Line, the proposed commuter rail stations on the STAR Line, and the extension of the Gary/Chicago International Airport runway were the only related actions that would likely result in cumulative effects.

The STAR Line and the new commuter stations could have cumulative effects on:

- Noise and vibration
- Vehicle delays
- Emergency services
- Biological resources in Lake Renwick Heron Rookery

Potential cumulative effects related to rail operations, vehicle delays, and emergency response from the Gary Airport runway extension all are contingent upon construction of an interim grade-crossing at Industrial Highway. Without this interim grade crossing, there would be no cumulative effects because the construction related to the runway extension and the railroad relocation would take place in locations away from existing rail operations and vehicular traffic. This crossing initially was proposed as part of the runway project but now has been remove from the project (and thus is not reasonably foreseeable) as a result of a Preliminary Memorandum of Understanding announced by the

airport and other interested parties on June 27, 2008. If there is a material change in the facts or circumstances upon which the Board relied in its analysis, the Board may consider whether its analysis is still applicable.

CP/DM&E/IC&E Cumulative Effects

Commenters said the Draft EIS should address future impacts of the STB's recently approved application by Canadian Pacific Railway to acquire the Dakota, Minnesota and Eastern Railroad and the Iowa, Chicago and Eastern Railroad on certain streets and areas.

Response

In its decision on the Final Scope of Study for this proceeding issued on April 23, 2008, the Board concluded that Canadian Pacific's pending application to acquire the DM&E and IC&E (Board Finance Docket No. 35081) did not fall within the indirect and cumulative effects scope of analysis. SEA has not received any information that would indicate that Canadian Pacific's application will result in the addition of trains to the EJ&E rail line. Therefore, SEA did not analyze the potential for cumulative effects related to the Proposed Action.

Cumulative Effects on Air Quality in Study Area

Commenters argued that the Proposed Action would negatively affect air quality beyond the Chicago area and that CN's prior acquisitions of other railroads should be part of the Board's cumulative-effects analysis regarding air quality.

Response

SEA evaluated cumulative effects on air quality within the Study Area in Section 5.6.2 of the Draft EIS. It determined that the Study Area for that evaluation should be the 10 counties in Illinois and Indiana in which air quality could be directly affected by the Proposed Action. SEA did not analyze air quality outside the 10-county Study Area because CN train numbers and routes would not change outside the Study Area as a result of the Proposed Action. The current air quality within the Study Area, as determined pursuant to the NAAQS, should already include any rail-related emissions associated with other railroads CN acquired that operate within the Study Area. SEA's technical analysis and conclusions of potential air quality effects related to the Proposed Action are found in Section 4.9.3 of the Draft EIS.

Cumulative Effects of Greenhouse Gas (GHG) Emissions

Commenters stated that the Draft EIS failed to analyze cumulative effects of greenhouse gas emissions despite a presidential pronouncement and court decisions directing agencies to do so.

Response

The United States has not yet adopted legislation requiring limits on greenhouse gas (GHG) emissions. Nevertheless, the Proposed Action would result in no discernible increase in GHG emissions due to the longer route of CN trains through the Study Area. Any future growth in rail freight that might be accommodated by the Proposed Action would correspondingly reduce long-haul truck mileage, avoiding additional fuel use and associated GHG emissions from truck traffic. The cumulative effects of these factors should therefore tend to lower overall GHG emissions rather than increase them. See Section 2.10 of this Final EIS for SEA's analysis of potential effects on climate change.

Future Increases in Rail Congestion

Commenters suggested that projected CN rail traffic over the EJ&E, when added to increases in highway traffic resulting from development, highway projects, and population growth, would create more congestion in suburban areas. Others argued that projected reductions in rail traffic in some Chicago neighborhoods would be temporary and eventually would yield to more trains, leaving no neighborhoods better off.

Response

SEA's analysis of effects of the Proposed Action included traffic delays (congestion) along the EJ&E and CN rail lines, and found increased delays along the EJ&E rail line and decreases in delays along the CN rail lines. Increases in population growth, highway projects, and traffic will affect congestion throughout the Chicago area. However, SEA has no reasonable means or data to predict all such future interactions.

Geographic Scope of Analysis

Commenters stated that cumulative environmental effects should be reviewed from regional and national perspectives.

Response

When SEA reviewed potential direct effects of the Proposed Action together with related actions to identify cumulative effects, it needed to limit that review to EJ&E's physical territory, also known as the geographic scope of the Proposed Action. That scope, or Study Area, stretches along the 140-mile long EJ&E ROW through five Chicago metropolitan-area counties in Illinois and one in Northwest Indiana. It did not include other states, regions, or countries where CN operates. Related actions that could interact with the Proposed Action to cause cumulative effects in the Study Area were considered, while those more distant from its boundaries were not. Analysis of a regional or continental rail plan would be outside the Board's scope of review.

Benefits of the Proposed Action

Commenters stated there was not one benefit of the Proposed Action to be found in the Draft EIS.

Response

Should the Proposed Action be approved, its implementation would improve the operational efficiency of the North American rail system by reducing transit time through Chicago. Reductions in traffic delays, noise exposure, emissions, and other potential benefits along CN rail lines were discussed in the Draft EIS.

Freight Rail Bottlenecks

Commenters inquired about bottlenecks that could be caused when current train traffic on other railroad lines is combined with the additional proposed CN trains.

Response

Chapter 2 of this Final EIS includes SEA's additional analysis of possible cumulative effects on vehicle delays, rail operations, noise and vibration, and emergency services that could result from the combination of proposed CN trains on the EJ&E rail line and trains on other railroad lines that cross the EJ&E and the same roads or highways.

Munger Connection and Dunham Marsh Forest Preserve

The Forest Preserve District of DuPage County stated that if SEA concludes that the "Munger Alternative-UP Connection is not a viable alternative" for the proposed Munger Connection, a cumulative effects analysis of the Dunham Preserve Master Plan would not be necessary.

Response

The potential direct effects of the Munger Alternative-UP Connection are discussed in various places in the Draft EIS, including Sections 2.4.1.4, 4.5.3, and 4.11.3.2. According to Section 4.11.3.2, the Munger Alternative-UP Connection would "shift traffic to the edge of the Dunham Forest Preserve" and would "bisect Brewster Creek Marsh and Western Prairie and Wayne Meadow." Please also see Chapter 2 of this Final EIS.

3.4.15.4 Cumulative Effects Methodology

Insufficient Cumulative Effects Analysis

Commenters stated the Draft EIS failed to look broadly at cumulative effects of the Proposed Action and that SEA needed to develop a coordinated plan to address them.

Response

SEA reviewed a broad list of environmental categories for potential cumulative effects. The regulations of the Council on Environmental Quality (CEQ) define cumulative impacts as "the impact on the environment which results from the incremental impact of the [proposed] action when added to other past, present, and reasonably foreseeable future actions…."

SEA developed the methodology for assessment of cumulative effects associated with the Proposed Action based on the Board's regulations for implementing NEPA, CEQ regulations, and CEQ's Cumulative Effects Handbook. To identify and analyze possible cumulative effects, SEA applied a four-step analysis that included:

1. Identifying the environmental impact categories that could be affected by the Proposed Action (see Chapter 4 of the Draft EIS for SEA's analyses of possible direct effects associated with each category).
2. Defining temporal and spatial (geographical) boundaries for analyzing the identified environmental impact categories; spatial boundaries generally were apparent for each of the impact categories and usually were near the EJ&E ROW.
3. Identifying past, existing, and proposed related projects or activities (related projects) or receiving information about them from the public.
4. Assessing the probability of cumulative effects if the effects on environmental impact categories caused by the Proposed Action were combined with the potential environmental effects of related projects.

In addition, SEA examined cumulative effects on fuel use, air quality, and climate throughout the Study Area.

To gather information regarding related projects that could interrelate with the Proposed Action, SEA held agency scoping meetings in Illinois and Indiana; met individually with Metra, Amtrak, and NICTD; conducted numerous stakeholder group meetings; and contacted local community governments, agencies, and citizen groups. SEA reviewed cumulative effect-related comments about

the draft scope, and identified or received information regarding related projects in the Chicago metropolitan region to analyze potential cumulative effects.

3.4.15.5 Other Comments on Indirect and Cumulative Effects

Unintended Consequences

Commenter stated that the Proposed Action would lead to "far too many unintended consequences that need to be mitigated."

Response

In the EIS, SEA has analyzed the reasonably foreseeable consequences from the Proposed Action. SEA's recommended mitigation measures are presented in Section 4.4 of this Final EIS.

3.4.16 Comments on Mitigation

3.4.16.1 Rail Operations Mitigation

Operational Practice to Avoid Blocked Crossings

Commenters suggested that SEA require CN trains be operated to minimize blocked crossing times. One commenter recommended that CN's rail operations controllers (ROCs) should authorize train movements only when it is known that the train can proceed without blocking crossings to the next point where it must stop, particularly at the Western Avenue highway/rail at-grade crossing.

Response

Railroads serve their customers by moving freight, and thus have a natural business incentive not to stop trains when they can avoid it. However, trains are sometimes required to make unplanned stops, and SEA wants CN to minimize those occurrences. Therefore, to reinforce the Applicants' voluntary mitigation, which obligates CN to operate under U.S. Operating Rule No. 526 (Public Crossings), SEA has recommended additional mitigation conditions designed to minimize blocked highway/rail at-grade crossings. See Section 4.4 of this Final EIS for detailed descriptions of SEA's recommended mitigation conditions.

Double Track at Western

Commenter suggests requiring double-tracking at Western Avenue to avoid blocking crossings.

Response

The EJ&E rail line already is double tracked at the Western Avenue highway/rail at-grade crossing.

Limit Train Length

Commenters suggested limiting train length to avoid blocking crossings, or limiting train length if continual crossing delays occur after implementation of the Proposed Action. Some suggested that trains be no longer than a coal train; others asked that trains be short enough to ensure that if trains were stopped for some reason, they would not block all intersections in a particular town.

Response

Any condition the Board imposes must relate directly to the Proposed Action, must be reasonable, and must be supported by the record in the transaction before the Board. Furthermore, mitigation may not be imposed to correct pre-existing conditions.

There are approximately 16 locations along the EJ&E arc where CN could hold a train 10,000 feet or longer, thus providing opportunities for CN to avoid blocking crossings. However, the Applicants' have proposed voluntary mitigation that would obligate CN to operate under U.S. Operating Rule No. 526 (Public Crossings). In addition, SEA recommends additional mitigation conditions designed to minimize blocked highway/rail at-grade crossings. See Chapter 4 of this Final EIS for detailed descriptions of proposed voluntary mitigation measures and SEA's recommended mitigation conditions.

Limit Number of Trains

Numerous commenters suggested limiting the number of trains CN could operate on the EJ&E rail line to reduce adverse effects on adjacent communities. Commenters noted that CN "has not made any commitments about long-term reductions in traffic" and some commenters asked SEA to require CN to agree to permanent reductions on its existing routes in the Chicago Terminal District.

Response

The Board can only impose conditions that are consistent with its statutory authority. Any condition the Board imposes must relate directly to the Proposed Action, must be reasonable, and must be supported by the record in the transaction before the Board.

The Applicants do not need Board Review to increase trains on both the existing CN rail lines and on the EJ&E rail line acquired under the Proposed Action, should it be approved. The Applicants also could increase trains in cooperation with EJ&E without Board approval under current conditions. The EJ&E rail line is able to add more double track or other infrastructure beyond that identified in the Proposed Action without Board review, as long as construction capacity remains in the current railroad ROW. Nonetheless, SEA has concluded that the Applicants' Operating Plan is reasonable based on its analysis of demand for rail service, as well as EJ&E's physical capacity. In addition, SEA's own analysis of the Operating Plan indicates that CN trains would fill most of EJ&E's available capacity, leaving little room for growth (see Section 4.1.5 of the Draft EIS). CN intends to reduce use of its rail lines inside the EJ&E arc, reduce operating costs, and increase reliability of service by avoiding rail congestion within the arc. SEA has received no evidence suggesting that CN will change its plans in the foreseeable future, thereby subjecting itself to the very congestion it now seeks to avoid.

Monitor and Report Actual Crossing Times

Commenters suggested adding a device to record actual crossing times and making quarterly reports on actual crossing delays. One commenter asked that this additional mitigation include "enhanced monitoring of total rail traffic (both the number of trains and their length), delays to other rail traffic and at highway grade crossings."

Response

SEA recognizes that information on crossing delays is important to provide objective information to all interested parties, and could be used to support public agencies seeking funding support for grade separations, for example, or to guide emergency responders in allocating resources or developing alternate routes. The Applicants have proposed voluntary mitigation that obligates CN to report on

the frequency and duration of train delays at crossings. In addition, SEA has recommended monitoring and enforcement conditions that would strengthen CN reporting. These are described in Chapter 4 of this Final EIS.

Do Not Interfere With METRA and Amtrak, Support Create

Although Metra had discussions with EJ&E regarding STAR service prior to this Application, Metra had not entered into formal agreements with EJ&E or CN and does not currently have funding for the STAR Line. Metra's letter dated September 29, 2008 stated that an increase in its costs could adversely affect the STAR Line's cost-benefit standards and potentially jeopardize FTA funding for the STAR Line. Since Metra and CN never have negotiated new Metra service on a CN line, Metra has expressed concern that CN's freight interests could undermine Metra's ability to successfully negotiate details for STAR Line implementation on the EJ&E rail line.

Congressman Peter Roskam noted that CN has not "made any guarantees to see through to completion the STAR Line regional commuter rail project long in the works using the EJ&E." The Regional Transportation Authority (RTA) does not believe that reliance upon Metra and CN to resolve issues between themselves is sufficient, and "recommends that CN be required to reach agreements with Metra which ensure that current and future commuter rail operations will receive priority at all junctions and on existing and future shared rights-of-way, prior to Board approval."

Commenters asked that CN adjust its schedule to "assure no impact on the existing or future passenger rail service" that CN guarantee general priority for Metra commuter trains, and that this Final EIS mandate that commuter trains be given priority over CN freight trains in perpetuity. Comments also included requests that CN provide ROW for future commuter service.

With respect to passenger rail, CMAP asks that CN agree that increases in the total rail traffic outlined in the Operating Plan be consistent with commuter rail operations, including any commuter rail operations identified as the "preferred alternative" in the Southeast Service and STAR Line New Starts processes now under way. Commenters also request that SEA direct CN to agree with UP and Metra to address specific issues, such as the "inadequate" staging locations near interlockings.

Commenters asked that SEA ensure agreements support CREATE's proposed rail program generally or accommodate specific existing or planned commuter rail service in Illinois and Indiana (Metra and NICTD service). Comments also addressed the need to support Amtrak service.

If the Proposed Action is approved, commenters asked that the Board retain oversight for 10 years, require regular reports on delays to commuter trains resulting from operations on the EJ&E, and enforce agreements required as part of this Final EIS.

Response

As described in Section 4.1.7.3 of the Draft EIS, SEA considered the potential effects of the Proposed Action on Metra's ability to implement its proposed STAR Line service on a portion of the EJ&E rail line. Initial STAR Line service on the Outer Circumferential Segment (OCS) is proposed on the EJ&E rail line segment between Hoffman Estates (near MP 42.3, south of the Northwest Tollway/Interstate 90 overpass) and Crest Hill (near Joliet MP 7.2, just south of Renwick Road). In the Draft EIS, SEA concluded that this portion of the STAR Line is foreseeable and that the Proposed Action would not preclude the implementation of the STAR Line service on the EJ&E rail line.

Based on numerous comments on the STAR Line issue, SEA completed a more detailed analysis of the potential effects that the Proposed Action could have on STAR Line implementation. In response, to handle increased freight traffic resulting from the Proposed Action, CN proposed to upgrade/connect existing siding tracks and construct an additional main line track to create a

10.1-mile segment of double track between the west end of East Siding (MP 21.1) and the east end of Walker Siding (MP 10.9).

However, concerns remain that additional CN traffic, and the proposed freight-only double track, would increase the difficulty, costs, and time required to initiate STAR Line service on the EJ&E occupancy control system.

SEA's analysis focused on whether there would be sufficient capacity to allow freight and passenger trains to share tracks, or stand-alone service for Metra's own passenger-only commuter network within the EJ&E corridor. This analysis is included in Chapter 2 of this Final EIS. The timing and implementation of STAR Line service are subject to numerous variables, including securing government funding, but the Applicants are committed to continuing discussions with Metra on the STAR Line (Applicants 2008j). To underscore this commitment, the Applicants have proposed, and SEA recommends, that the voluntary mitigation measure related to the STAR Line be a condition of the Board's approval of the Proposed Action. See Chapter 4 for a detailed description of mitigation measures SEA recommends.

The Applicants shall operate the key interlockings at West Chicago and Barrington, Illinois according to the current agreements under which EJ&E operates, which require EJ&E to give priority to passenger trains over either UP or EJ&E freight trains (Applicants 2008k). Concerning Amtrak, which operates over CN's St. Charles Air Line/Chicago Subdivision and the Joliet Subdivision, CN has agreed to allow Amtrak to use the St. Charles Air Line (March 10, 2008 agreement), and SEA recommends that the Board make it a required mitigation measure. SEA has determined that the Proposed Action would not affect Amtrak service on the Joliet Subdivision because the proposed two trains per day matches the current level.

CN has been a strong supporter of the CREATE program and is a member of the Chicago Planning Group (CPG, composed of the six Class 1 railroads that operate within the Chicago metropolitan area plus Metra and Amtrak. With ARR, CPG continues to support and sponsor CREATE and its project list.

Board oversight typically has been limited to a five-year period. This was the case for the Union Pacific/Southern Pacific Acquisition and for the NS/CSX Conrail Acquisition. Given that CN has outlined a three-year implementation schedule, the Board could provide oversight for two full years following CN's full build-out, should the Board decide that oversight is warranted.

Trade Rush Hour Limits for Pratt's Wayne Woods ROW

Commenter suggested trading a moratorium on CN trains at rush hour (to accommodate Metra) for permission to allow CN to use right-of-way in the Pratt's Wayne Woods Forest Preserve to accommodate a higher speed connection at Munger.

Response

Such an agreement would have to be negotiated between the affected stakeholders and state regulatory agencies. Local jurisdictions may wish to pursue this idea. However, SEA has recommended the Applicants' proposed voluntary measures that would require that they continue negotiations with Metra regarding the STAR Line and give Metra trains crossing the EJ&E rail line priority over freight trains to the extent required by current curfew agreements.

Require Positive Train Control

Commenters asked that SEA require positive train control on the EJ&E rail line.

Response

In accordance with H.R. 2095, Railroad Safety Enhancement Act of 2008, the Federal government has appropriated $1.32 billion over five years and required any railroad carrying hazardous materials and/or passenger rail to make safety improvements, including positive train control, which is mandatory by 2018. This legislation will apply to either EJ&E and /or CN should the Proposed Action be approved.

Consider Rail/Rail Grade Separation at UP Crossing

Commenter asked why a rail/rail grade separation at the Union Pacific/EJ&E crossing in West Chicago was not considered.

Response

SEA's operational analysis of the Proposed Action determined that such a substantial investment, along with its associated environmental effects, would not be justified. However, Metra's 2007 Report suggested a flyover be installed over the Union Pacific mainline at West Chicago to accommodate the proposed STAR Line commuter service. This rail/rail grade separation is included in SEA's analysis of the ability of the EJ&E rail line to accommodate the proposed STAR Line service. SEA's RTC analysis modeled freight train operations through the West Chicago area without incurring more than normal delays.

Allow Trains to Move Faster

Commenter suggested that trains be permitted to move faster to minimize delays and crossing blocking.

Response

Allowable maximum track speeds are determined by EJ&E and are based on condition of the track, which in turn is governed by FRA Track Safety Standards. Both permanent and temporary speed restrictions are in effect at some locations due to track curvature, crossing diamonds, grade crossings, and other physical or operating conditions. Should CN's Proposed Action be approved, CN may be in a position to raise the maximum allowable speed along the EJ&E corridor.

Enforce Schedules to Minimize Crossing Blockages

Commenters suggested that CN schedule its operations to avoid blocking crossings. Comments included implementing a peak period prohibition of freight trains, and it was suggested that the majority of the trains moving through the Chicago inner ring suburbs do so primarily between 10 p.m. and 5 a.m. to reduce traffic congestion and delays.

Response

In general, freight train schedules are determined by commercial needs and operating conditions and agreements. Railroads will negotiate with each other to optimize efficient use of the overall rail system. However, SEA is recommending that CN comply with its voluntary measure, which compels it to maintain any written and executed EJ&E curfew agreements now in effect regarding operations affecting passenger or commuter train service. Those curfews minimize freight traffic on the EJ&E across the rail/rail interlockings used by commuter trains at Rondout, Barrington, Spaulding, West Chicago, and East Joliet during morning and evening peak periods. Holding CN trains for peak service Metra trains at those crossing diamonds would have the added benefit of minimizing the

number of highway/rail at-grade crossings blocked by trains moving during the morning and evening peak hours.

Freight Congestion Mitigation Ideas

A variety of suggestions for improving freight operations and reducing congestion were sometimes "bundled" in the public comments. These bundled comments included requiring CN to cut trains to avoid blocking crossings; requiring additional main tracks and sidings; creating a new entity to dispatch trains located within the Chicago area; rebuilding Woodcrest Yard, limiting train length to no more than three quarters of a mile; setting the maximum number of trains per day; and "even[ing] out freight traffic" between the existing CN lines through Chicago and EJ&E rather than shifting most of it to the EJ&E rail line. It was also suggested that CN provide a "maximum operation plan" as part of the Proposed Action, and that changes in future operations that would be in excess of the proposed maximum operation plan authorize SEA to require the railroad to show the aggregate impacts of its actions, and essentially open the environmental review process again. One commenter suggested that freight trains be routed through less populous areas.

Response

The issues of limiting trains, limiting train lengths, and scheduling to avoid rail-caused delays on roadways or delays to commuter service are discussed in other comment responses in this section. See the comment summaries and SEA responses titled "Operational Practice to Avoid Blocked Crossings," "Limit Train Length," "Limit Number of Trains," and "Enforce Schedules to Minimize Crossing Blockages" presented earlier in this section.

SEA conducted extensive analyses pertaining to each individual resource category (e.g., railroad and highway operations, safety, land use, water, etc.) that could potentially be affected by the Proposed Action. SEA discussed the results of its analyses in Chapter 4 of the Draft EIS. SEA's analysis concluded that CN's Operating Plan is reasonable and could be implemented with mitigation conditions.

To supplement the Applicants' proposed voluntary mitigation measures, SEA proposed additional mitigation conditions, as described in Chapter 6 of the Draft EIS, and specifically asked the public to review and comment on the proposed mitigation. In response to public comment, and with further analysis by SEA, Chapter 4 of this Final EIS contains voluntary mitigation measures proposed by the Applicants and SEA's recommended mitigation conditions for each resource area, including rail operations.

Require Metra/EJ&E Grade Separations & Commuter Train Priority

Commenters suggested that grade separations be required for the rail/rail crossings of Metra lines with the EJ&E rail line. A commenter noted that commuter trains have priority over freight trains, and suggested that CN provide a guarantee that commuter schedules are "consistent and predictable."

Response

The Applicants would not have control over regional commuter rail service, other freight railroads, or the multitude of conditions that could affect on-time commuter rail service. However, they have proposed voluntary mitigation measures addressing current passenger service, which SEA recommends be a condition of approval. The Applicants would comply with any curfew agreements that are in effect regarding operations affecting passenger or commuter train service at five rail/rail crossings involving the EJ&E rail line. Those agreements give priority to commuter trains crossing the EJ&E rail line during peak hours. See Chapter 4 of this Final EIS for a description of SEA's

recommended mitigation conditions, including voluntary mitigation measures proposed by the Applicants.

Require Railroads to Add Freight Trackage

Commenters asked SEA to require the Applicants to add trackage to minimize delays, or to double track the length of the EJ&E rail line to improve operational efficiency.

Response

SEA analyzed the Applicants' proposed Operating Plan in Section 4.1 of the Draft EIS and concluded that if implemented as proposed, the Applicants would operate on the EJ&E rail line at, or very near, its capacity. The Applicants could not be required to add more capacity than is necessary to accomplish the purpose of the Proposed Action; however, SEA's analysis also indicated that the EJ&E corridor has sufficient right-of-way to add capacity if and when required.

Grade Separate at Barrington with Depressed EJ&E Rail Line

Commenter suggested building an underpass for the EJ&E rail line through Barrington because "in less than 6,000 feet of rail track, there are three significant road/rail crossings and one significant rail/rail crossing with the Union Pacific." Commenter asked that SEA consider that both the UP and EJ&E have been raised from the existing grade, and therefore depressing the EJ&E rail line would not be as costly or difficult in that location as in others.

Response

Any condition the Board imposes must relate directly to the Proposed Action before it, must be reasonable, and must be supported by the record before the Board. In addition, mitigation may not be imposed to correct pre-existing conditions, like the highway/rail at-grade crossing issues in Barrington. Projects such as railroad grade depression through a community such as Barrington would necessarily involve multiple participants and funding sources.

SEA has recalculated its estimate of approximate times that proposed CN trains, existing freight trains and Metra trains, would occupy EJ&E and Metra rail/rail at-grade crossings during any 24-hour period (see Chapter 2 of this Final EIS). SEA's revised analysis of the UP/EJ&E interlocking at Barrington in Section 2.3 of this Final EIS shows that it would be occupied 11.7 hours per day, leaving sufficient time for traffic to cross the EJ&E rail line. Therefore, even if the Board could impose such a mitigation condition, SEA concludes that there would not be a sufficient operational conflict at this location to warrant it.

Develop Regional Freight Management Solution

Commenter would like to see a "regional freight management solution."

Response

The Applicants have indicated that CN would continue to be a partner in the CREATE program which is designed to improve efficient train movements within the Chicago area. SEA has determined that the Proposed Action would not preclude CREATE's regional rail program.

Create Train Location Monitoring System

Commenters suggested creation of a train location monitoring system. RTA requested that a condition be added that would require "enhanced monitoring of total rail traffic (both the number of

trains and their length), delays to other rail traffic and at highway grade crossings." Commenters believe the duration of the Board's oversight of the Proposed Action should be extended from three to ten years, and that the Board should consider performance-based penalties or other back-up remedies in the event that CN's operations result in excessive delays to other traffic.

Response

SEA is recommending that the Board adopt the Applicants' voluntary mitigation measures, which address, among other things, cooperation with affected communities to minimize vehicle delays through a number of means. These include providing, upon request, dispatching monitors that allow Emergency Response Center dispatching personnel to see real-time train locations, and closed-circuit television that will allow emergency service personnel to see real-time at-grade crossing conditions. SEA also is proposing mitigation that includes monitoring and enforcement of conditions. See Chapter 4 of this Final EIS for detailed descriptions of voluntary and recommended mitigation measures.

Improve Infrastructure on EJ&E Rail Line to Maintain Service

Commenters suggested that CN be required to maintain FRA Class 4 track standards (for example, by improving track and roadbed construction) to reduce the possibility of derailment and to reduce sound and vibration.

Response

As stated in the Draft EIS, Section 3.2.1.1, FRA has primary authority over railroad safety, and has promulgated regulations that govern most aspects of railroad safety, including rail operations, track and signaling, as well as rolling stock, such as locomotives and freight cars (49 CFR 200-299). Maintenance of track must be performed to at least FRA's Track Safety Standards (49 CFR 213) and the frequency and stringency of inspections is based on the track classification for the segment of rail in question. FRA conducts periodic unannounced inspections of track and at the same time reviews the owner's track inspection records to ensure compliance with FRA track safety standards. EJ&E's maximum operating speed is 45 mph, and the Applicants have stated that they intend to operate their trains at this speed if the Proposed Action is approved.

Require CN to Comply with Commitment to Amtrak & Fund Grand Crossing

Commenter asked that SEA ensure CN compliance with its voluntary measure No. 71 in the Draft EIS with amendments to clarify the intent to ensure Amtrak's access to Union Station and maintenance of the Air Line Route to FRA Class 4 standards. Commenter suggested that CN be required to fully or substantially fund the Grand Crossing/NS track improvements (estimated to be between $30 and 35 million) and that it disclose to Amtrak the track maintenance costs.

Response

See Chapter 4 for a description of the Applicants' voluntary mitigation, which would commit CN to the terms of its March 10, 2008 letter to Amtrak related to the Air Line Route. Given that CN has committed to capping Amtrak costs and maintaining the level of service on the Air Line, SEA has not recommended that the Applicants contribute to the future Grand Crossing connection. Additional information is contained in comment summary and SEA's response titled "STAR Line Accommodation" later in this section.

Railroad Funding of Grade Crossings is Unfair

Commenter stated, "A Board decision requiring CN to pay the proposed grade crossing mitigation costs would tilt government policy even further in favor of competing transportation modes. Other transport operators benefit from various government-sponsored trust funds and other funding mechanisms designed to pay for infrastructure development and maintenance, whereas rail carriers receive little government assistance. Unlike motor, water, and air carriers, which do not pay the full cost of the publicly-funded infrastructure they use, rail carriers own, maintain, and pay for their own rights-of-way and associated infrastructure."

Response

SEA has assessed potential effects of the Proposed Action on vehicle delays and considered related public comments. It has determined that some contribution by the Applicants to recommended grade separations would be reasonable and warranted due to impacts of the Proposed Action. Those grade crossings are analyzed and discussed in Chapter 2 of this Final EIS. Recommended mitigation measures to address such impacts are described in Chapter 4 of this Final EIS.

Timber Bridge Contribution

Commenter requested that "CN contribute 50 percent in future funding for State of Illinois Timber Bridge replacement at IL 45 within three years from approval of the Proposed Action." The new bridge will accommodate 39-ton axle loads with Coopers E-80 loading for trains and five lanes of traffic for motor vehicles. If state funds are not available within 3 years, CN pays for 100 percent of cost of bridge replacement.

Response

Agreements that govern the maintenance obligations associated with each overpass and underpass along the EJ&E rail line are in place. These agreements will transfer to CN should the Proposed Action be approved. For a discussion of SEA's recommended mitigation measures, see Chapter 4 of this Final EIS.

Frankfort Mitigation Group

A range of suggested mitigation measures from Frankfort, Illinois included:

- prohibition of double-tracking within two miles of Frankfort,
- restriction of trains within morning and evening peaks to 25 percent of the number that otherwise can operate,
- CN's agreement that Frankfort can impose civil penalties for "excessive intersection blocking, defined as 10 minutes per train or greater" with specified penalties,
- installation of motion detectors at CN's expense to monitor and record train movements,
- requirement that CN pay for grade separations at Harlem Avenue and Wolf Road, and
- requirement that CN install wheel-impact load-detectors (WILD) at all connections to the EJ&E rail line and at the lead and trailing end of East Joliet, Kirk, and Markham yards.

Response

SEA's Draft EIS analysis recognized that although the Proposed Action would indeed affect highway/rail at-grade crossings along the EJ&E alignment, crossing delays at Harlem Avenue and

Wolf Road would not exceed established thresholds. However, the Applicants have offered voluntary mitigation proposing to assist in securing funding for grade separations along the EJ&E corridor and to fund these grade separations to the extent required by existing law.

The existing Frankfort siding extends just over two miles from just west of the Old Sauk Trail at grade crossing to 116th Avenue near New Lenox. The Applicants intend to construct a second track between the end of Frankfort Siding (near New Lenox) and East Joliet Yard on a subgrade that, as recently as 10-12 years ago, supported a second main track. While CN has not indicated that it would extend the east end of the Frankfort siding toward Matteson, it could do so should CN require the added capacity.

Regarding installation of WILD on the EJ&E, SEA recommends that the Applicants' related voluntary mitigation measure be made a condition if the Proposed Action is approved. See Chapter 4 for discussions of the proposed voluntary and recommended mitigation measures.

STAR Line Accommodation

Comments included various suggestions to accommodate eventual implementation of the STAR Line commuter rail service on the EJ&E tracks, or within the EJ&E ROW. One commenter asked that the Board demand, as a condition of approval, that CN acquire sufficient ROW to accommodate a third track for STAR or other commuter rail in the future. USDOT comments that "it was premature" to require mitigations for the STAR Line, but noted the concern that a "substantial amount of trains" would be added at peak hours.

Mitigation suggestions included mandated reduction of freight traffic; mandatory improvements of line capacity either entirely at the expense of CN, or on a cost-sharing basis with Metra; a more definitive commitment from CN to work with Metra. Commenters asked for additional information about what infrastructure would be required for the STAR Line to operate, and what those costs might be.

Response

Based on various comments to the Draft EIS, SEA has conducted a more in-depth analysis of the potential effects that the Proposed Action would have on STAR Line implementation. SEA conducted a field visit of the alignment to reconfirm the ability to physically accommodate the STAR Line along the EJ&E, and found that, despite constraints in some segments, it is feasible to implement the STAR Line.

SEA used the RTC model to examine the operational feasibility of freight trains and Metra passenger trains for various operating scenarios and combinations of infrastructure improvements for the entire STAR Line route on the EJ&E rail line for a 35 mile segment between Hoffman Estates and Joliet. The objective of the additional analysis was to utilize the RTC model to confirm that the Proposed Action would not preclude Metra from initiating the STAR Line service on the EJ&E rail line. The RTC modeling developed workable operating scenarios with associated delay ratios using combinations of infrastructure improvements. With this data, SEA developed approximate baseline Metra costs for implementing STAR Line service on the existing EJ&E rail line and then considered the incremental Metra implementation costs for additional alternatives that considered the Proposed Action.

The RTC analysis indicates that two scenarios that use EJ&E tracks provide for an acceptable level of service for both passenger and freight trains. The stand-alone option that also was tested performs without freight train interference and shows the best results for the STAR Line trains.

In conclusion, SEA determined that implementation of the STAR Line still would be physically possible and operationally feasible if the Proposed Action is approved. SEA acknowledges that the

Proposed Action would increase the cost and difficulty to implement the STAR Line but would not preclude it. See Chapter 2 of this Final Draft EIS, for details of SEA's analysis.

SEA also analyzed potential effects on the proposed Metra Southeast Service commuter trains operating at the Chicago Heights interlocking, and found that it would be physically possible for CN to operate the increased train traffic proposed as part of the Proposed Action without adversely affecting Metra commuter trains. SEA noted, however, that Metra and CN would have to work together to ensure efficiency of increased CN freight operations while maintaining the high level of on-time performance for the proposed Metra trains at that location. See Chapter 4 of this Final EIS for recommended mitigation measures pertaining to STAR Line implementation.

Dedicate Signal Maintainer at West Chicago/Metra

Metra's comment letter included a request that SEA insist that, at a minimum, one EJ&E maintainer be dedicated to cover only the West Chicago Interlocking from 4 a.m. to noon and from noon to 8 p.m., because inefficient operation and maintenance of the EJ&E rail line could undermine the priority that Metra and UP have at the UP/EJ&E crossing, given the close tolerances there. Metra requests that SEA oversee the interlocking management for 10 years, to ensure that CN efficiently and effectively operates and maintains the West Chicago interlocking.

Response

The Applicants have indicated that they intend to upgrade EJ&E's physical plant beginning soon after approval of the Proposed Action. However, implementation of the Operating Plan would take approximately three years to complete. While that plan does not include a full-time maintenance position for the West Chicago UP/EJ&E crossing, CN would be bound by the requirements in the applicable crossing maintenance agreement. For a complete discussion of SEA's recommended mitigation conditions, see Chapter 4 of this Final EIS.

Create Mitigations for Range of Future Scenarios

CMAP commented that, "Ideally, potential medium- and long-term consequences of additional volumes need to be understood at the time of the Board's decision. Thus, even if the exact trajectory of growth is unknown, a variety of possible scenarios could be simulated to assess potentially negative impacts. If systematic problems are revealed in such simulations, a plan for addressing those problems could be developed as conditions for approval or mitigation where appropriate."

Response

SEA analyzed conditions and scenarios based on realistic assessment of train volumes and conditions that were reasonably foreseeable. Chapter 2 of this Final EIS incorporates updated information pertaining to train volumes, speeds and roadway traffic data that were used to perform new analyses of projected grade crossing delays and the proposed STAR Line's viability, as well as a more detailed review of the potential impacts on the proposed NICTD West Lake Corridor Expansion. Recommended mitigation based on SEA's updated and new analyses is presented in Chapter 4 of this Final EIS.

Require CN to Offer Waukesha Capacity to Metra

Commenter requested that CN be required to offer to Metra any capacity on the Waukesha Subdivision as a result of the Proposed Action.

Response

Metra could negotiate directly with the Applicants if it desired to use additional capacity that would become available if the Proposed Action is approved. The Applicants have indicated that, by removing many of their trains from the Waukesha Subdivision, considerable capacity would be freed up and Metra would be expected to take advantage of it. If and when CN transitions from operating on its Waukesha Subdivision to the EJ&E rail line, complete implementation would require approximately three years. Therefore, the new Waukesha capacity would not be immediately available.

Delay Rerouting of Trains until Higher-Speed Connection is Built at Mundelein

Commenter wrote, "Another open issue with the CN is what happens between the date of any Board approval and the date the higher-speed connection between the CN and the EJ&E rail lines is built. According to CN's Operating Plan, trains here will be rerouted 'effective day one,' but building this connection will take at least two years. Given that wetlands are in the way and land must be acquired, even this is optimistic. How many years will Mundelein suffer as CN uses the existing 10 mph connection? We ask that some condition be imposed if the Proposed Action is approved, either delaying any rerouting until the new connection is built or limiting allowable train lengths until it is built."

Response

According to the Applicants' Operating Plan, the information as submitted by the commenter is correct. CN will begin to construct connections and related corridor capacity improvement soon after "day one." CN also has indicated that it will begin to reroute rail traffic onto the EJ&E alignment using an existing connection at Leithton. However, until such time as CN can construct the connections and double-tracking projects, it has indicated it would reroute only a limited number of trains onto the EJ&E rail line. CN also has acknowledged that the relatively slow-speed connection at Leithton would be upgraded to 25 mph.

Craft Legislation to Require Review of Operational Changes

Commenter suggested rewriting current Federal law requiring all railroads "to be subject to regular reviews and approvals when they significantly change their rail operations, such as the recently proposed House Bill 6707. Should this bill fail, then the Board should promote the passage of a bill to address this major shortcoming in our system of monitoring railroads in the U.S."

Response

Comment acknowledged. The commenter could pursue this suggestion through applicable legislative and regulatory processes.

Transition from One to Two Tracks Outside New Lenox

Commenter suggested that CN be required to transition from one to two tracks outside the Village of New Lenox.

Response

Currently, EJ&E's Frankfort Siding extends from just west of Old Sauk Trail to just west of 116th Avenue. In their Operating Plan, the Applicants indicated that they intend to install a second main track from East Joliet Yard (near MP 2) east to connect with the Frankfort Siding. Under this scenario, the current Frankfort Siding would be integrated into and become the eastern end of a 12-

mile long segment of double track. Therefore, the transition from one track to two tracks that now exists in New Lenox would be eliminated under the Proposed Action.

Mitigation of Proposed Action Impacts CREATE Funding

Commenter stated, "The congressionally authorized and funded CREATE project has stalled for lack of full funding but remains the region's planned freight congestion solution. CN will now establish a competitive rail corridor and any Federal funds it secures for mitigation along the EJ&E rail line will rob resources that could have advanced CREATE."

Response

Many of the impacts of the Proposed Action constitute exacerbations of existing conditions, and it is likely that regional funding already is focused on the topic areas. The environmental document identifies issues and impacts, but does not dictate how the region should handle them, or reprogram resources from areas where existing impacts are lessened.

Create an Alameda Corridor-Like Project in Chicago

Commenter suggested creation of an Alameda Corridor-style partnership in the Chicago area.

Response

The Alameda Corridor was the result of an organized effort of local jurisdictions and rail operators to form a public-private partnership with political support. There are regional organizations in Chicago that could sponsor a similar effort. However, such an effort would need to be a local initiative rather than a mitigation measure recommended by SEA as a condition of approval of the Proposed Action.

Air Line Abandonment Concern and Amtrak Mitigation Funding Request

Commenter expressed concern that the St. Charles Air Line eventually would be abandoned as a result of approval of the Proposed Action. Related comments suggest that CN be required to fully or substantially fund the Grand Crossing/NS track improvements (estimated to be between $30 and 35 million) and require CN to disclose to Amtrak the track maintenance costs.

Response

It is SEA's understanding that CN remains a participating member of the CREATE program. CN has committed to continuing use of the Air Line by Amtrak under current terms. There has been no indication of intent to abandon the Air Line. Given that CN has committed to capping Amtrak costs and maintaining the level of service on the Air Line, SEA will not require CN to contribute to the future Grand Crossing connection. It is not within the Board's authority to require funding for a regional rail improvement program without any actual adverse effect on which to base the requirement.

Limit Trains During School Bus Crossing Hours

Commenter suggested that train movements be limited or prohibited during periods when school buses cross the EJ&E railroad tracks.

Response

Options for reduced frequencies in rail traffic and elimination of traffic during school bus crossing periods were not included in the mitigation sections of the Draft EIS. It is not the Board's practice to try to control day to day operations.

Require CN to Implement Automated Switching

Commenter suggested that SEA require CN to automate switching mechanisms on both the Illinois River Branch and the EJ&E rail line as a condition of approval of the Proposed Action.

Response

As part of the Proposed Action, the Applicants state they will install remote-control power-operated track switches on portions of the EJ&E rail line currently equipped with hand-operated (manual) track switches, to increase capacity for train volumes on the EJ&E rail line. Applicants do not at this time plan to install remote-controlled, power-operated track switches on the EJ&E Illinois River Branch.

ADA Access to Metra Park-n-Ride at Matteson

Commenter expressed concern that the proposed alignment connecting CN to the existing EJ&E rail line in Matteson would interfere with access to the Matteson Metra Station.

Response

See Chapter 4 for a description of the Applicants' voluntary mitigation, which includes maintenance of ADA access to the pedestrian tunnel during and after construction from the Metra Park-n-Ride lot to the Metra train station on the east side of the Chicago Subdivision rail line at Matteson. This means that any proposed connection construction by CN will not interfere with the public's access along Front Street. The Applicants shall include Metra in preliminary and ongoing discussions regarding tunnel access, track construction, impacts, and pedestrian safety.

Limit Trains on EJ&E Rail Line .

Commenter suggested that SEA require CN to limit increases in train volumes on EJ&E rail line until mitigation measures are implemented.

Response

The Applicants' Operating Plan and SEA's discussions with CN's operating personnel contain a three-year operation implementation schedule that will incrementally divert the Applicants' trains from their current route through Chicago (using the Waukesha/Elsdon/Chicago Subdivisions) to the EJ&E rail line around Chicago. The principal factor in the Applicants' implementation schedule, in addition to the time it takes to secure necessary permits and to construct the connections and double track sections, would be to develop yard capacities, operational experience, and acceptable performance levels at both East Joliet and Kirk yards. Until this is accomplished, the Applicants will continue to use the Belt Railway Company of Chicago's Clearing Yard to classify its trains. SEA has no information or reason to believe that the Applicants will increase train volumes on the EJ&E rail line in excess of the Applicants capability to move trains over the EJ&E rail line at total trip times less than existing trip times on the Applicant's existing rail routes through Chicago.

CN's phased approach to implementation is described in Section 2.2.1.4 of the Draft EIS.

3.4.16.2 Rail Safety Mitigation

Lake Zurich Mitigation Solutions

Commenter suggested that barrier walls be constructed along the rail lines adjacent to residential and school property, and that pedestrian crossing bridges and controlled access points should be provided at no cost to the communities. Hazardous materials transportation, local emergency service response training, evacuation planning, and response and recovery resources as it relates to the hazards being transported should be provided at no cost to Lake Zurich and the quiet zone currently in place through Lake Zurich, and the surrounding areas should be maintained and honored by CN.

Response

In Chapter 4 of the Draft EIS, SEA analyzed the Proposed Action's effects on rail safety and identified specific safety issues and/or locations that would be adversely affected. Chapter 6 of the Draft EIS presented SEA's preliminary recommended mitigation measures, including the voluntary mitigation measures offered by CN. As a result of the public comments on the Draft EIS, SEA performed additional analysis. Chapter 4 of this Final EIS presents SEA's recommended mitigation conditions; these recommendations also address the extent to which CN would be required to pay for mitigation measures.

Trains on the line pose the risk of a release of hazardous materials, and local emergency service providers are trained and equipped to respond accordingly. In addition, CN has its own emergency response capabilities and contracted emergency response firms.

Requests for Mitigation

Numerous individuals, communities, municipalities, and agencies expressed concern over rail safety and asked that SEA require CN to implement mitigation measures to address their concerns. Commenters included the Town of Griffith, City of Naperville, Chicago Metropolitan Agency for Planning, Town of Schererville, Village of Mundelein, Village of Deer Park, DuPage County Forest Preserve, Illinois Commerce Commission, Town of Frankfort, Hoffman Estates, Village of Lake Zurich, Village of New Lenox, Village of Plainfield, and Village of Vernon Hills. Requested mitigation measures included establishing new quiet zones, installing new equipment, requiring the Applicants to modify train operations, and the constructing of safety structures.

Response

Chapter 4 of the Draft EIS analyzed the Proposed Action's consequences for rail safety and identified specific safety issues and/or locations that are expected to experience an adverse effect. Chapter 6 of the Draft EIS presented SEA's preliminary recommended mitigation measures, including the voluntary mitigation measures offered by CN. As a result of the public comments on the Draft EIS, SEA performed additional analysis. Chapter 4 of this Final EIS presents the mitigation options that SEA recommends that the Board impose, should the Proposed Action be approved. The recommendations also address the extent to which CN would be required to pay for mitigation measures.

Wayne, Illinois Operation Lifesaver

Commenter suggested that CN should fund Wayne's Operation Lifesaver for 3 years following the full implementation of the proposed Operating Plan (assumed to be 6 years from the date of Board approval).

Response

Operation Lifesaver is a non-profit education and awareness organization that provides information to the public regarding hazards and safety awareness issues focused on the railroad industry. This information includes written and video materials as well as speakers who make presentations for interested groups. The Applicants have offered voluntary mitigation to provide Operation Lifesaver programs to communities, schools, and other organizations located along the affected rail line segments and to provide these materials in Spanish, if requested. SEA has recommended additional mitigation to supplement the voluntary mitigation, as appropriate, that includes the timeframe in which these services would be made available. Mitigation measures can be found in Chapter 4 of this Final EIS.

Hazmat Spills and Emergency Response Planning

Concern was expressed regarding the increased volume of shipped hazardous materials and the potential spills and accidental release of these materials. Commenters also felt that a comprehensive emergency response plan should be prepared to address such issues.

Response

CN submitted a Safety Integration Plan (SIP) as part of its initial application package to the Board on December 28, 2007. The SIP was filed with FRA at the same time. A revised SIP was submitted by CN on June 27, 2008 and included in Appendix D of the Draft EIS. Based on its review of the revised SIP as stated in its letter of September 12, 2008, FRA found that "CN has now satisfactorily addressed each of the SIP elements required as per 49 CFR 244.13." If CN's Application is approved by the Board, "FRA will monitor CN's implementation of the SIP during the operations integration period." FRA also will consult with the Board at all appropriate stages of implementation and will advise the Board of CN's status implementing the SIP, as appropriate. As described in the Draft EIS, the Applicants have prepared, and routinely update, Emergency Response Plans (ERP) for their system and individual facilities. The Applicants' ERP would be updated if the Proposed Action is approved.

CN will provide information about hazardous materials being transported and will work with emergency response organizations as explained in the voluntary mitigation in Section 4.3 of this Final EIS. The types of hazardous materials carried are provided in Chapter 2 of this Final EIS.

FRA/SIP

The Federal Railroad Administration (FRA) commented that, assuming the Proposed Action is approved, FRA will monitor CN's implementation of the SIP during the operations integration period. In accordance with regulatory requirements, FRA also will consult with the Board at all appropriate stages of implementation and will advise the Board of CN's status implementing the SIP, as appropriate. (See 49 CFR § 244 .17(g).) Finally, FRA supports adoption of the standard relevant conditions in rail merger cases, i.e., requiring the merging carriers to comply with the final SIP and to continue to coordinate with FRA during the implementation of the Proposed Action. (See, for example, Draft EIS at ES-35)

Response

Thank you for your input and participation in the public comment process.

3.4.16.3 Transportation Systems Mitigation

Summary (6c)

Many commenters expressed concern with the limited number of crossings chosen for mitigation. Commenters highlighted communities where no roadways have been selected for mitigation, including Frankfort, IL and Schererville, IN. Their concerns included calling for more grade-separated crossings in all affected communities. Some of the comments included identification of roadways already chosen by SEA for required mitigation. Others noted roadways that were analyzed but not included on the substantially affected list as they did not meet the threshold for vehicle delays. Grade separation is the primary form of mitigation requested in the comments. Commenters seeking a more comprehensive mitigation strategy expressed concerns about traffic congestion, blocked roadways, and emergency response delays.

Response

SEA identified a range of mitigation in Chapter 6 of the Draft EIS for 15 highway/rail at-grade crossings because they would be "potentially substantially affected" by the Proposed Action. "Potentially substantially affected" means that the at-grade crossings likely would experience delays substantial enough to adversely affect overall mobility of the communities served by the affected crossings. Factors considered in this designation include a substantial increase in queue length, vehicle delays, and a decrease in highway/rail at-grade crossing level of service (LOS). A detailed discussion of the delays calculated is included in Section 4.3 and Appendix E of the Draft EIS.

SEA suggested a range of mitigation with the hope that state agencies, or agencies with a regional perspective, would assist affected communities and the Applicants in developing shared mitigation for the potentially substantially affected at-grade crossings. Based on public comment on the range of mitigation alternatives, SEA is recommending specific mitigation conditions in this Final EIS. The Board may adopt some or all of SEA's recommendations in its final decision, if it approves the Proposed Action. The Applicants' voluntary mitigation measures and SEA's recommended mitigation conditions are described in Chapter 4 of this Final EIS.

Individual communities also have the option to negotiate mitigation agreements with the Applicants. Any such community agreements are included in SEA's recommended conditions.

SEA also identified potential effects on 11 emergency service providers in Section 4.c of the Draft EIS. SEA's recommended mitigation strategies to address those designated as "potentially substantially affected" included a range of options discussed in Chapter 6 of the Draft EIS.

In Chapter 4 of this Final EIS, SEA has identified specific mitigation recommendations for each of the affected emergency service providers that are not addressed in the Applicants' community negotiated agreements.

Barrington

Numerous commenters identified the need to build grade-separated crossings in the Barrington area, including roadways in addition to Hough Street (IL 59 & 63), which was identified in the Draft EIS as "potentially substantially affected." Additional roadways identified include Cuba Road, Northwest Highway (US 14), and Lake Cook Road/Main Street. Commenters noted major congestion problems in the area beyond Hough Street that could lead to potential emergency response delays.

Response

In response to the comments, SEA performed simulation modeling to closely analyze current and predicted conditions involving potentially affected at-grade crossings in Barrington, and studied

possible mitigation strategies. The results of SEA's analysis are described in Chapter 2 of this Final EIS. SEA's recommended mitigation conditions are presented in Chapter 4 of this Final EIS.

Lake Zurich

SEA received comments regarding potential emergency response delays in Lake Zurich, and the need to construct more grade-separated crossings in the community. Concerns related to traffic congestion included numerous at-grade crossings in the area.

Response

Additional analysis, presented in Chapter 2 of this Final EIS determined that mitigation is not required or recommended for Ela Road in Lake Zurich.

Grade Separation

SEA received many comments expressing concern with the limited number of crossings chosen for mitigation. Comments highlighted communities where no roadways were selected for mitigation, including Mundelein and Frankfort, Illinois, and Schererville, Indiana. These concerns included calling for more grade-separated crossings in all affected communities. Others noted roadways that were analyzed but not included on the list because they did not meet the threshold for total vehicle delays under the Proposed Action. Grade separation was the primary form of mitigation requested in the comments. Traffic congestion, blocked roadways, and emergency response delays were prevalent as the basis for requests for more comprehensive mitigation strategy.

Response

SEA identified a range of mitigation in Chapter 6 of the Draft EIS for 15 highway/rail at-grade crossings because they would be "potentially substantially affected" by the Proposed Action. "Potentially substantially affected" means that the at-grade crossings likely would experience delays significant enough to adversely affect the overall mobility of the communities served by the affected crossings. Factors considered in this designation include a substantial increase in queue length, vehicle delays, and a decrease in highway/rail at-grade crossing level of service (LOS). Section 4.3 and Appendix E of the Draft EIS include a detailed discussion of the highway/rail at-grade crossing analysis, while updates to the analysis are presented in Section 2.5 and Appendix A of this Final EIS.

SEA determined that many communities requested grade separations to mitigate effects of existing traffic congestion. Many highway/rail at-grade crossings identified in public comments did not meet the thresholds that SEA established for warranting consideration of mitigation. SEA determined that many communities would benefit from additional grade-separated crossings, but notes that many of these areas experience major traffic congestion issues without increased rail usage or even with no rail usage. Therefore, SEA determined that these conditions were not caused by the Proposed Action, and the grade separations needed to address this congestion would not be appropriate as part of the mitigation requirements of the Proposed Action.

Emergency Response

SEA received several comments concerning potential emergency response delays due to blocked crossings in affected communities. Some of these communities were identified in the Draft EIS as potentially substantially affected under the Proposed Action, while others, including Frankfort, IL, were not. Commenters specifically asked for outreach programs to educate residents of affected communities about the potential hazards related to increased rail traffic. Commenters also highlighted potential hazardous materials transportation issues, including the need for information

about materials being transported, to ensure that emergency service providers would be equipped to respond to accidents in a timely manner. Commenters specifically addressed the need for railway operators to avoid blocking crossings, in addition to communicating directly with local emergency service providers about the location of trains, especially those stopped along the tracks.

Response

The Draft EIS outlined mitigation measures that have been proposed to reduce emergency vehicle delays in affected communities. SEA's recommended mitigation measures addressing hazardous materials and emergency services are described in Chapter 4 of this Final EIS, including outreach programs and training for local emergency response providers.

West Chicago

Several commenters identified Washington Street in West Chicago as a crossing in need of mitigation and questioned its absence from the list of roadways in the Draft EIS that warrant mitigation. Concerns included traffic congestion and the proximity of a second rail line and subsequent railroad crossings. Commenters noted that Washington Street was very near the threshold for required mitigation as set by the FHWA. Combined with the significant level of delay and the complexity of the area, commenters argued that this crossing should be identified for mitigation even though it was not on SEA's original list.

Response

SEA further analyzed the West Chicago Washington Street grade crossing for potential effects of the Proposed Action on area mobility, congestion, and emergency services. SEA found that a combination of conditions affect this crossing, including current railroad operations that are not part of the Proposed Action. The Board may not impose mitigation to correct pre-existing conditions. *United States v. Chesapeake & O. Ry.*, 426 U.S. 500, 514-515 1976 SEA concluded that approval of the Proposed Action would not contribute substantially to increases in traffic delays or congestion. Therefore, SEA has not proposed the Washington Street grade crossing for mitigation in this Final EIS. SEA recommends monitoring selected locations with closed circuit television (CCTV) to provide the West Chicago Fire Protection District Headquarters and Stations 1 and 3 with real-time monitoring of train crossings.

IL 60/83 Mitigation Plans

Commenters were concerned by existing congestion and that the IL 60/83 crossing was not included in the seriously affected crossings.

Response

Existing crossing congestion was a concern expressed by many commenters. In the Draft EIS SEA reported concerns about the seriousness of the effects of the Proposed Action effects and strategies for mitigating these effects.

The primary reason for identifying the IL 60/83 at-grade crossing as potentially seriously affected was the total delay calculated. The slower train speeds experienced across the at-grade crossing were a major factor in the amount of total delay. CN responded to this situation and redesigned new connections at Leithton increasing train speeds, thus reducing total delay experienced at the crossing to a value less than the threshold of effect value. Therefore, the IL 60/83 at-grade crossing no longer is considered a seriously affected crossing.

Unsatisfactory Mitigation Recommendation in Draft EIS

Commenters believed that the mitigation provided in the Draft EIS was inadequate and did not include specific mitigation measures to be required of CN as part of the Proposed Action.

Response

In response to public comments presented in Chapter 3 of this Final EIS and the analyses reported in Chapter 4 and Appendix E of the Draft EIS final mitigation recommendations have been developed. Chapter 6 of the Draft EIS presented a spectrum of mitigation activities that could be applied to the locations noted as substantially affected. These locations have been studied further. CN has taken steps to mitigate effects at some locations and SEA has recommended other actions. Final mitigation recommendations are contained in this Final EIS in Chapter 4.

Timing of Traffic Data Collection

Commenters expressed concern regarding the accuracy and whether traffic volumes used in the analysis were current.

Response

SEA collected all data used in transportation system analyses from authoritative sources including FRA, state transportation agencies, and local counties and towns. Supplemental data were collected for the Barrington area after the school year commenced in early September 2008. The data were used in development of a regional traffic simulation. Updated traffic data also were obtained from IDOT and Plainfield. SEA used the most current traffic counts that had been made available to FRA, IDOT, or directly to SEA.

Substantially Affected Mitigation Options

Commenters noted various cases throughout the corridor raising concerns that adequate mitigation was not being proposed at specific locations.

Response

Chapter 4 and Appendix E of the Draft EIS discuss the methodology and analysis findings of the regional traffic study. This analysis identifies potential effects on study area roadways. Only those roadways experiencing substantial delays or queue length issues were recommended for mitigation analysis. SEA has recommended a number of mitigation options be considered for those at-grade crossings found to be seriously affected. Chapter 6 of the Draft EIS presents recommendations for mitigation of traffic effects. Chapter 4 of this Final EIS makes recommendations for specific actions for locations where reasonable and feasible mitigation activities could be undertaken. Lake-Cook Road, one of the intersections mentioned by the commenters, is one of the locations where SEA recommends installing CCTV for monitoring.

It should be noted that mitigating impacts at these crossings likely will benefit traffic operations along adjacent roadways.

Park Forest Fire Department

SEA received comments from Park Forest residents requesting that additional considerations be made to the equipment and staffing needs of the Park Forest Fire Department.

Response

SEA identified emergency service facilities serving communities in the Study Area and listed them in Section 3.3.2 of the Draft EIS. Facilities meeting the screening threshold of being within 2.0 miles of the rail line were considered for further analysis of effects on emergency service vehicle delays. Park Forest Fire Department Headquarters was not initially identified as being potentially affected because there is a grade-separated crossing at Orchard Drive approximately 1 mile north of this facility. Additionally, Chicago Heights Fire Department – Station No. 4 and Matteson Fire Department Headquarters/Station No. 1 are north of the EJ&E rail line (approximately 1.5 miles northeast and 2.0 miles northwest of Park Forest Fire Department Headquarters, respectively). Therefore, SEA does not recommend specific mitigation for this facility.

AAR

The American Association of Railroads (AAR) questioned the methodology of the Draft EIS and expressed concern that it used methods that would set a new precedent in mandating grade separations and the extent of railroads participation in grade separations in similar circumstances.

Response

As part of its environmental review responsibilities, SEA must analyze potential changes resulting from the Proposed Action and must identify potential environmental effects that those changes would cause. However, SEA recognizes that railroads have the flexibility to use their most efficient routings to meet shippers' needs. Existing railroads ordinarily can make improvements to their rail lines or rail facilities, add additional trackage to better serve their shippers, and reroute, increase, or decrease their level of operations on particular lines without Board approval or an environmental review. NEPA requires agencies to identify mitigation measures to minimize or avoid the adverse environmental consequences of an action.

SEA need not use the same approach to analysis for every proposal. SEA has used FHWA's method for evaluating grade crossings (FHWA 2007)[3] in previous studies, specifically the Bayport Loop EIS, SEA used both total delay and at-grade LOS criteria. The Conrail study used average delay factors. SEA believes these criteria are appropriate and reasonable for this case. SEA has not abandoned the practice of evaluating LOS to determine the need for grade separations, but has included with those criteria the total delay criteria and queue length analysis to fully evaluate potential effects and corresponding mitigation needs.

SEA used three different measures of delay and congestion to determine which at-grade crossings would experience a substantial effect due to the Proposed Action: LOS, total delays, and queue-length increases. While SEA listed 16 substantially affected locations the Draft EIS, when new data regarding train speeds and traffic counts were considered, the number of substantially affected locations was reduced to eight (see Chapter 2 of this Final EIS). Of the eight, only two received a recommendation for a grade separation to mitigate the expected effects.

SEA's recommended mitigations are based on the analyses and findings presented in Chapters 2 and 4 of this Final EIS, and SEA has determined that they are reasonable and feasible means to mitigate the substantial effects identified. Grade separation mitigation was proposed only for those locations that could experience a substantial increase in delays and that were likely to reap a significant benefit from a grade separation. The significance of the increases in delays is discussed in Chapter 4 of the Draft EIS and further defined in Chapter 4 of this Final EIS.

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[3] FHWA. 2007. *Railroad-Highway Grade Crossing Handbook.* Revised 2nd Edition. FHWA-TS-86-215. August 2007

While queue length increase due to the Proposed Action were reviewed and considered a sign of substantial effect, these were not the only criteria evaluated. In all cases, SEA's recommendations for grade separation mitigation were only at locations where the effects of the Proposed Action would be mitigated by a grade separation. The Draft EIS and Final EIS present and discuss a spectrum of mitigation actions. Chapter 4 of this Final EIS discusses in detail the recommendations for mitigation at the eight substantially affected locations, and provides recommendations on an appropriate level of the Applicants' share of the costs of the two separations.

Mitigation for Town Road in West Chicago, Illinois

Commenter stated that Town Road must be improved under the Proposed Action to accommodate increased traffic diverting away from highway/rail at-grade crossings at Ann, Aurora, and Church streets along the EJ&E rail line.

Response

SEA studied the effects of the Proposed Action on roadways crossing the EJ&E rail line. Results of these studies are presented in Section 4.3 and Appendix E of the Draft EIS. Aurora and Church streets were determined not to be substantially affected by the Proposed Action. The ADT on Ann Street fell below the traffic required for the crossing to be analyzed and was not studied. Therefore, SEA did not consider mitigation for these at-grade crossings, nor for any of the connecting roadways, including Town Road.

3.4.16.4 Hazardous Waste Sites Mitigation

Support for Community and Emergency Responders

Commenter was concerned that the Draft EIS did not address any resources or educational support programs offered by CN to local communities and emergency responders.

Response

In a September 30, 2008, letter from Harkins Cunningham, LLP, representing CN, several voluntary mitigation actions addressed efforts by CN to work with affected communities relating to education, sharing of emergency response plans, and other means of improving communications regarding hazardous materials transportation and spill response. SEA is in agreement with these voluntary mitigation actions; they are presented in Chapter 4 of this Final EIS.

3.4.16.5 Land Use Mitigation

Additional Mitigation: Consultation with FPDDC

Commenter stated that the Forest Preserve District of DuPage County (FPDDC) should be treated as a community and have a district-designated liaison concerning all CN matters as was offered in the Draft EIS mitigation measures.

Response

SEA is proposing that the Applicants establish a resource agency liaison to work closely with water and natural resource agencies and stakeholders for the purpose of improved adaptive natural resource management and mitigation.

Suggested Mitigations by FPDDC

Commenter stated that the Proposed Action would contribute to proximity effects on public lands. The FPDDC stated that a negative effect would likely occur to the administration, management, and implementation of the prescribed burn program due to highway/rail at-grade crossing blockages and train staging blockages, fragmenting access/egress over large preserve landscapes such as Pratt's Wayne Woods Preserve.

Response

Currently, three rail lines run through the Pratt's Wayne Woods Forest Preserve, including one of the Applicants' lines. Since rail lines run through this and other FPDDC preserves, coordination between the District and the involved railroad companies already takes place on an as-needed basis.

SEA and the Applicants agree that the District should be notified if any flagging was planned either outside the Applicants' ROW or on the ROW boundary line. In addition, the Preserve's adaptive Management Plan calls for coordination with the railroads prior to initiating the burn program. SEA is proposing that the Applicants establish a resource agency liaison to work closely with water and natural resource agencies and stakeholders for the purpose of improved adaptive natural resource management and mitigation.

Additional Mitigation: Maintenance of Culvert

Commenter stated that the Forest Preserve District of Will County (FPDWC) would like to keep its trail crossing at the box culvert in Lake Renwick Nature Preserve but have CN assume future upgrade and management responsibility.

Response

Your comment has been noted and is addressed in Chapter 4 of this Final EIS.

Additional Trail Connection

Commenter asked SEA to consider the possibility of a recreational trail along the proposed CN ROW to make a regional trail connection from Wauponsee Glacial Trail to Old Plank Trail and identify directly affected areas.

Response

If the trails' discontinuity would be due to the Proposed Action, SEA then could recommend a new trail connection. SEA's recommended specific mitigation measures are included in Chapter 4 of this Final EIS.

Voluntary Mitigation Clarification

In the land use section of its comment letter, Plainfield, Illinois, supported mitigation recommendations set forth in the Draft EIS and requested that the Applicants be required to comply with all of the voluntary mitigation measures in addition to those imposed by SEA.

Response

The voluntary mitigation measures included in the Draft EIS were submitted by the Applicants as part of their Application to the Board. Based on comments received on the Draft EIS and discussions with SEA, they have submitted an amended list of voluntary mitigation measures which are included in

Chapter 4 of this Final EIS. In addition to recommending that all voluntary measures proposed by the Applicants be conditions to approval of the Proposed Action, SEA has recommended additional mitigation conditions in Chapter 4 of this Final EIS.

Code and Plan Upgrade

SEA received a comment stating that if the Proposed Action is approved, any and all costs associated with updating the Village of Lake Zurich's 2003 Comprehensive Plan, 2004 Zoning Code, Downtown Redevelopment Master Plan, Form Based Code, and all other associated legal documents should be paid for by the Applicants. The commenter estimated the cost to be approximately $500,000.

Response

The Applicants are private entities that would not normally be asked to finance a municipality's updates to codes and plans. The Proposed Action would not change land use or zoning in the Village of Lake Zurich.

Consultation with IDNR

Commenter disagreed with mitigation in the Draft EIS that requires CN to "consult with General Land Office (GLO) of Illinois to coordinate an Easement Agreement for crossing State-owned parks…" If the statement is to convey the idea that the appropriate state landowner/managing authority will be contacted for easement agreements, it should be generic and not be specific to parks. If it is a statement specific to Illinois DNR, then GLO should be dropped as it no longer exists, and the Illinois Department of Natural Resources should be inserted. The correction also should be reflected in the Mitigation Section of this Final EIS.

Response

CN consultation to coordinate Easement Agreements will take place with Illinois Department of Natural Resources (IDNR). SEA's recommended mitigation measures in Chapter 4 of this Final EIS have been updated to reflect this commenter's suggestion.

General Public Lands Mitigation

Commenters stated that the negative environmental impact to forest preserves, nature preserves, state parks, or trails was greatly downplayed in the Draft EIS. No activities are proposed to monitor proximity effects and no mitigation activities are proposed to offset them. This essentially equates to taking of these public properties. The Final EIS should accurately portray impacts and detail mitigation and accountability for mitigation.

Response

As described in this Final EIS, the Applicants have proposed voluntary mitigation, and SEA has recommended enhancements to this mitigation that would require the Applicants to flag the boundaries of any construction near a forest preserve, nature preserve, protected area, or land and water reserve, and coordinate with the respective owners/managers.

Old Plank Road Trail Delays

Commenter stated that their subdivision links up with Old Plank Road Trail and many people cross the railroad tracks on the way to the trail. With the increase in railroad traffic it is more likely that these people will be delayed.

Response

The official Old Plank Road Trail is north of the EJ&E rail line. Two existing branches of the Old Plank Trail extend north from the Main Trail to access Hickory Creek Junction and Hickory Creek Bikeway-East Branch. According to the Old Plank Road Trail Brochure Map, none of the official trails cross the EJ&E rail line in Frankfort, Illinois.

Intention of Transaction

Commenter stated that if CN is granted this entitlement to run as many trains as they want, then the Board should demand that any "Windfall Profits" received from related abandoned ROW should be used to make the EJ&E Rail Line a complete "sealed safety corridor" as defined by the FRA and the USDOT. CN has created a real estate transaction that it believes will provide offsetting profits that appear to be the unstated purpose and need. By eliminating this profit objective via the "Windfall" mitigation the true CN colors may be seen.

Response

Board approval of the Proposed Action would not create an entitlement as described by the commenter. Railroads have the right to operate their rail lines as they see fit. The assertion that the Proposed Action is primarily to acquire real estate and profit from its sale is not consistent with the Applicants' statement of purpose of the Proposed Action.

West Chicago Annexation Request Comment Summary

West Chicago, Illinois, noted that some of the EJ&E ROW within its planning area is within unincorporated county land and is not currently under City jurisdiction. To remedy the situation of multiple jurisdictions within the City's planning area, West Chicago requested that CN cooperate with the City's efforts to annex the portions of the EJ&E rail line that are currently in unincorporated areas. West Chicago also requested that, if the Proposed Action is approved, the Applicants submit an annexation petition and plats to the City within 6 months of taking control of EJ&E.

Response

Existing jurisdictional issues are pre-existing conditions. The Board's practice has consistently been not to require mitigation for pre-existing conditions. SEA encourages West Chicago to work directly with CN on issues related to annexation.

3.4.16.6 Socioeconomics Mitigation

Compensation for Loss of Property Values

Commenters expressed concern about restitution for families whose homes will lose significant value, and asked if this loss will be quantified and mitigated. Another commenter stated that the Draft EIS mistakenly assumes that affected communities know what can and should be mitigated and that they have negotiating power against CN.

Response

If increased train traffic reduces residential property values along the line, the homeowners would bear the loss. Because the majority of homes along or adjacent to the track were constructed after the track was built, buyers knew or should have known that the track was a feature of the environment. When they purchased property in the vicinity of the tracks, they incurred the latent risk that the number of trains running on the line might increase at some future time. In many respects, the situation is analogous to changes in vehicular traffic associated with adding new lanes to a highway.

Section 4.6 of the Draft EIS cites a study that estimated that increased train traffic could result in a decline in residential property values of 5.35 percent for residences within 250 feet of the tracks. Chapter 2 of this Final EIS includes a count of the houses within 300 feet of the EJ&E rail line and estimates of the impacts of the losses to the tax base for each jurisdiction.

Loss of Business Opportunities and Reduced Tax Revenue

Commenter stated that home values will decrease substantially due to the weak economy and mortgage crisis and that increasing the number of freight trains through Lake Zurich is not the solution. Other commenters have voiced concern that home values near the rail line will decrease, thus rendering areas planned or approved for residential and other uses no longer viable projects.

Response

Expected impacts on property values are discussed in Section 4.6 of the Draft EIS. Many people commented that they expect property values to decrease more than the 5.35 percent maximum potential loss described in the Draft EIS, but no research or data to support these claims was provided. Additional property value information obtained after publication of the Draft EIS (see Chapter 2 of this Final EIS) is generally consistent with the findings of the Draft EIS. The information and analysis presented in the Draft EIS and the supplemental information provided is considered a sufficient analysis regarding potential property value effects associated with the Proposed Action.

The Draft EIS describes the current weakness of the local and national economies, including the lack of demand for commercial and residential properties. Given the current poor economic conditions, it is certainly possible that developers might cancel plans to develop property adjacent to the EJ&E rail line.

School Safety

Commenter expressed concern with the safety of area youth, and considers mitigation factors such as fences and signs with 800 emergency numbers too limited.

Response

The Final EIS includes the Applicants' voluntary mitigation and SEA's recommended conditions to enhance safety. The Applicants have volunteered to work with school and park districts to provide fencing along the EJ&E ROW where schools or parks are within 0.25 mile of the ROW. The Applicants also would continue ongoing efforts with community officials to identify elementary, middle, and high schools within 0.50 mile of the EJ&E's ROW and provide, upon request, informational materials concerning railroad safety to such identified schools. In addition to the suggested mitigation measures, some safety measures are in place, such as the training received by school bus drivers and safety education programs conducted within the schools. SEA considers these measures reasonable and adequate.

Tax Revenues Would Decrease

Commenter asked if there is any tangible revenue for affected communities from the EJ&E or CN rail lines for disrupting the citizens.

Response

The CN railroad proposes to spend $300 million to purchase the EJ&E rail line, invest $100 million to improve the EJ&E rail line and other facilities, not including costs for voluntary mitigation or additional funds for SEA recommended mitigation measures. CN stated that it expects the total cost of their voluntary mitigation measures would total approximately $60 million. CN would operate the EJ&E rail line and switch cars at the Kirk Yard in Gary, Indiana. Although each of these would generate economic activity in the Chicago area and generate tax revenues, overall tax revenues are not expected to change substantially as a result of the Proposed Action.

Mitigation is Inadequate

Commenter contends that CN will not make a reasonable effort to mitigate the risks resulting in a decline in quality of life that will be imposed on residents near the rail line and for those that cross over the tracks on a daily basis.

Response

The Applicants anticipate providing mitigation valued at approximately $60 million. The Final EIS includes voluntary mitigation from the Applicants, along with SEA's recommended conditions, to mitigate substantial adverse effects.

Need to Provide Access to the Line for Shippers

Commenter requested that SEA require CN to honor all current local service agreements along the rail line and renew all such agreements automatically until such time as the businesses being serviced cancel the agreement preventing loss of business due to loss of rail service.

Response

As part of the proposed sale, CN would be obligated to continue to provide service to existing customers along the EJ&E rail line, although the price of this service may change with the new ownership. As part of its decision-making process, the Board will consider the Proposed Action with respect to reduction of competition in the freight rail market or rising prices. If the Board determines that the merger would reduce competition or place CN in a position to control prices in the freight shipping market, the Board could apply additional conditions or not approve the Proposed Action.

Project Would Adversely Affect Economy

Commenter requested that the Board not approve the Proposed Action without performing a full-blown economic analysis of the true effects on all affected industries and regions in the U.S.

Response

Other than an increase in the efficiency of freight rail transport in North America, project-related effects generally would not extend beyond the Chicago metropolitan area. In Section 4.6.4 of the Draft EIS, SEA determined that any adverse economic effects of the Proposed Action would be minor compared with the existing economic activity in the Chicago metropolitan area. Therefore, SEA believes a "full-blown" economic analysis is not warranted.

Section 4.6 of the Draft EIS discusses the economic effects of the Proposed Action; SEA concluded that project-related traffic delays at highway/rail at-grade crossings would have only a minor adverse effect on local businesses, and that the project may have minor, localized, adverse effects on property values and quality of life. Chapter 2 of this Final EIS provides additional information regarding expected residential property value and property tax effects of the Proposed Action. Based on objective research by the Board, the Proposed Action and the proposed track and rail improvements are expected to have negligible effects on the socioeconomic conditions of the Chicago metropolitan area.

Project would Destroy Community Cohesion

Commenter requested a study of the adverse impacts on community cohesion identifying how the effects on communities can be mitigated so as not to destroy the existing quality of life.

Response

The Draft EIS evaluates factors that affect community cohesion including public travel times, access to area schools, critical response times for police, fire, rescue, and ambulance services, interference with other functions of government services, and adverse effects on local businesses and industries. The voluntary mitigation measures and SEA's recommended conditions are intended, in part, to avoid or reduce potential adverse effects on community cohesion.

Mitigation for Schools and Parks

Commenter noted that there is no mitigation proposed for the safety of schoolchildren while near the tracks.

Response

The Final EIS includes the Applicants' voluntary mitigation and SEA's recommended conditions to enhance safety. The Applicants have volunteered to work with school and park districts to provide fencing along the EJ&E ROW where schools or parks are within 0.25 mile of the ROW. The Applicants also will continue ongoing efforts with community officials to identify elementary, middle, and high schools within 0.50 mile of the EJ&E's ROW and provide, upon request, informational materials concerning railroad safety to such identified schools. In addition to the suggested mitigation measures, some safety measures already are in place, such as the training received by school bus drivers and safety education programs conducted within schools.

Impact to Matteson Residents

Commenter stated that the Draft EIS fails to mention that there are three houses that will be surrounded within the circumference of the proposed Matteson Connection. CN should make a good-faith offer to either buy out these property owners or offer to relocate them within Matteson.

Response

The three houses located on East Main Street in Matteson would be mostly surrounded by the new CN connection and clearly would be affected by the Proposed Action. However, the Proposed Action would not require any property from these parcels and access would be maintained. CN is, therefore, not obligated to purchase the properties and the Board cannot force it to do so.

Broad Street, Griffith, Mitigation

Commenter noted that an overpass will not remedy the effect on businesses located within the approach zone of the Broad Street overpass. Griffith, Indiana, requests that the Board require the Applicants pay the entire cost of an overpass, along with rebuilding and relocation of all affected businesses and beautification of the downtown area.

Response

At present, Broad Street in Griffith, Indiana, is a highway/rail at-grade crossing that crosses seven sets of rail tracks. The Proposed Action would shift rail traffic from the CN line to the EJ&E rail line; train traffic is not expected to substantially increase at this crossing and speeds are not expected to decrease. The EJ&E tracks east of Broad Street would be realigned to allow for greater speeds at this point.

The Proposed Action would not change the current physical layout of the Broad Street rail crossing and is not expected to worsen traffic conditions on Broad Street. Thus, the situation at Broad Street is an existing condition that would not be exacerbated by the Proposed Action.

If Griffith sponsors a project to construct an overpass at Broad Street, the town would be responsible for property acquisition and managing any adverse effects on local businesses. Griffith can negotiate with the owners of the railroad lines that cross Broad Street about cost-sharing arrangements and seek to obtain project funds. CN has agreed to provide voluntary mitigation that they expect would cost $60 million to benefit communities adversely affected by the Proposed Action. Griffith could participate in discussions with the Applicants and seek funds for a Broad Street overpass.

The Final EIS includes the Applicants' voluntary mitigation and SEA's recommended conditions to enhance safety.

Stop Sale and Spend Mitigation on Existing Line

Commenter expressed opinion that the railroad should take the $300 million that CN is offering and provide it to the people who already have these issues and make them better instead of moving the issues to a new location.

Response

The Applicants propose to spend $300 million to purchase the EJ&E rail line, invest $100 million to improve the line, not including costs for voluntary mitigation. CN stated that it expects the total cost of their voluntary mitigation measures would total approximately $60 million.. Expenditure of these funds as suggested would not meet the purpose and need for the Proposed Action.

Continue to Use Tracks in Downtown Chicago

Commenter asked if CN will use the services of the harbor or the belt railway of Chicago in the future.

Response

If the Proposed Action is approved, CN may or may not use the freight lines in downtown Chicago; this is an operational decision that is beyond the regulatory purview of the Board. As part of the Proposed Action, the Applicants would be obligated to continue to provide service to existing customers.

Add Further Train Traffic Restrictions

Commenter noted that limiting the number of freight trains during rush hour does not aid the library because its hours of operation are until 9:00 p.m., Monday through Friday.

Response

Restricting train traffic during rush hour is intended to reduce traffic backups and delays. This measure would benefit the library and its users who wish to use the library during peak traffic hours. Because automobile traffic is less in the evenings, traffic delays would not be as great an issue for evening programs at the library.

Taxes are High, Especially for Senior Citizens

Commenter expressed concern that taxes already are high for many, especially for senior citizens and older people who have lived in the area for 50 or more years.

Response

Tax impacts are discussed in Chapter 2 of this Final EIS. Property tax effects are expected to be minor (no more than $69,000 for any jurisdiction) and because the potential effect is so small, tax payments for any individual taxpayer would not need to be increased to a noticeable degree to offset this loss. As stated in Section 4.6 of the Draft EIS, other tax revenues are not expected to be adversely affected by the Proposed Action.

3.4.16.7 Environmental Justice Mitigation

General Environmental Justice

Commenters stated that some communities that may experience adverse effects from vehicle delays or emergency response could not afford to pay for mitigation.

Response

SEA performs analyses of effects under Executive Order 12898 based on whether adverse impacts are high and adverse and if so, whether those impacts are disproportionately experienced by minority and low-income populations. The analysis showed that the adverse impacts either were not high and adverse, or they were not disproportionately experienced by minority and low income communities.

Dual-Language Signage

Commenters said dual-language signage was not included in the mitigation.

Response

Advanced warning signage for railroad crossings with roadways is the responsibility of the agency that has jurisdiction over the roadway. Signage provided at grade crossings is the responsibility of the railroad.

3.4.16.8 Air Quality Mitigation

Local AQ Effects Due to Operations

Commenters raised concerns about additional pollutant emissions from locomotives. Comments focused on either general air pollution due to trains or a specific pollutant such as particulate matter.

Response

In response to concerns about localized air quality impacts due to locomotive emissions, SEA has performed additional air quality impact analysis in this Final EIS. The additional analysis addresses potential impacts due to both moving locomotives along the EJ&E rail line, and impacts from locomotives that may idle for a period on sidings, while waiting for other rail traffic to clear the line ahead. The additional analysis, described in detail in Chapter 2 of this Final EIS, shows that the local air quality impacts of moving and idling trains are minimal in comparison to National Ambient Air Quality Standards (NAAQS), which have been established by EPA to protect public health and welfare, including protection against damage to natural resources. The additional analysis in Chapter 2 of this Final EIS also shows that there would be minimal impacts due to emissions of mobile source air toxics (MSATs) from locomotives.

SEA acknowledges the potential for trains to cause resuspension of dust along the rail line. However, any such dust resuspension would be in brief, intermittent pulses as a train moves through and is not expected to measurably degrade air quality. SEA does not believe this is a substantial issue, especially compared with the same situation with roadways, for example. There is far greater potential for dust resuspension from city streets and highways, given the much larger surface areas involved and much greater frequency of disturbance by motor vehicle traffic. Therefore, if this were a serious issue for rail lines, dust resuspension would be an overwhelming issue for freeways and arterial highways in the area, which is clearly not the case.

Potential impacts from motor vehicles delayed near highway rail at-grade crossings were explicitly analyzed in the Draft EIS, and impacts were found to be below National Ambient Air Quality Standards (NAAQS) and other thresholds of concern. Therefore, no additional analysis of such impacts is included in this Final EIS.

Newly Available Capacity on CN Lines

Commenters asserted that freed-up capacity on the existing CN line will be used up by other rail carriers, and CN should provide documentation that this is not the case.

Response

As noted in the response to this issue in Chapter 2 of this Final EIS, while the Proposed Action would free up a certain amount of capacity on the current CN line through Chicago, there is available capacity on the EJ&E rail line. So if there is growth in freight demand, some growth could be accommodated on either the EJ&E rail line by various carriers without the Proposed Action, or on the existing CN corridor by various carriers with the Proposed Action. Thus, growth could happen in either case, and any such growth is not a result of the Proposed Action. Mitigation or other commitments by CN as suggested in this comment is not warranted.

Construction-Related Emissions

Commenters stated that the Draft EIS lacks construction impact details and mitigation, and requested that the Final EIS must include these items.

Response

SEA does not propose mitigation of construction emissions because the Board does not believe it is warranted. An analysis of construction-related emissions was included in Section 4.9 of the Draft EIS. This analysis determined that air emissions from construction activities will be small in relation to other sources of such emissions and their effect would be minimal.

Emissions Due to Idling Vehicles

Commenter expressed concern about the emissions and effects of motor vehicles delayed near highway rail at-grade crossings while waiting for trains to pass. Commenters stated that increasing these emissions without adding underpasses would have undesirable results relating to air quality.

Response

SEA's air quality analysis conducted for the Draft EIS evaluated the effects of idling vehicles delayed near high traffic at-grade crossings. The analysis used EPA-approved emissions and dispersion modeling techniques. The analysis results, detailed in Section 4.9 of the Draft EIS, showed that pollutant (including carbon monoxide and mobile source air toxics) effects near these crossings would be below levels that present a threat to public health. Therefore, no further analysis is provided in this Final EIS.

Many commenters who raised concerns about emissions from idling vehicles also remarked about other air quality concerns, such as local air quality impacts of locomotives, general metropolitan area-wide emissions increases, etc. Responses to these other air quality and climate concerns are provided in other portions of Chapter 2 of this Final EIS.

Applicable Rules of Other Agencies

Commenter stated that regulations that must be complied with regardless of the Proposed Action should not be included as mitigation.

Response

In cases where Air Quality mitigation measures listed in the Draft EIS already are required under applicable rules of other agencies, it still is appropriate for these measures to be listed in this Final EIS because this allows for enforceability by the STB.

Mitigation of Locomotive Emissions

Commenters stated that CN should be required to modify locomotives and other railroad equipment to mitigate pollution.

Response

SEA does not propose any mitigation of locomotive emissions because the Board has no authority to regulate these emissions. However, EPA emissions standards for both locomotives and motor vehicles are dramatically reducing emissions and will continue to do so with turnover of the locomotive and motor vehicle fleets. The Applicants and other railroads will bear the cost of enhanced emissions controls on new and remanufactured locomotives, thus mitigating air emissions.

To mitigate idling locomotive emissions, the Applicants have agreed to turn off idling locomotives when temperatures are above 40°F.

Funding in Proportion to Emissions Generated in Forest Preserves

The Forest Preserve of DuPage County requests that funding be provided to the District that is proportional to emissions generated by the locomotives passing through the forest preserve. The money would be earmarked for agency sustainability measures and would serve as an incentive for the Applicants to convert all train engines to high fuel economy and low emission output units.

Response

SEA's air quality analyses, detailed in Section 4.9 of the Draft EIS and Section 2.10 of this Final EIS, demonstrate that the effects of the Proposed Action on air quality would be minimal. Because the effects on air quality would be minimal, SEA has determined that the mitigation of air quality emissions would not be required.

EPA has implemented rules that are intended to continue to drive down fleet emissions. SEA believes the Applicants should meet with forest preserve staff and other natural resource representatives to pursue adaptive management strategies. Therefore, SEA has recommended that the Applicants work with the USFWS, forest preserve districts, and others to establish monitoring programs and to identify baseline conditions and those under the Proposed Action in areas adjacent to forest preserves and designated natural areas. SEA's recommended mitigations are in Chapter 4 of this Final EIS.

3.4.16.9 Noise and Vibration Mitigation

Summary

Commenters stated that the Proposed Action would increase noise in areas adjacent to the EJ&E rail line and asked what would be done to mitigate noise in their community.

Response

SEA evaluated potential noise from construction and operations associated with the Proposed Action. The Draft EIS identified land uses that would experience an increase of 3 dBA or a day-night noise level (Ldn) of 65 dBA, and also identified noise-sensitive land uses predicted to experience a 5 dBA increase and an Ldn of 70 dBA (a noise level that SEA uses to identify opportunities to reduce noise levels associated with the Proposed Action). Chapter 4 contains SEA's recommended mitigation conditions and the Applicants' voluntary mitigation measures.

Voluntary Mitigation

Commenters stated that CN should be required to implement noise mitigation, specifically citing the need for noise barriers and potential quiet zones.

Response

The Applicants committed to voluntary mitigation that states they would work with affected communities with sensitive receptors (those that would experience an increase of at least 5 dBA [A-weighted decibel] and reach 70 dBA) to mitigate train noise to levels as low as 70 dBA by such means as are agreed to by the affected community and CN. For more information on the Applicants' voluntary mitigation and SEA's recommended conditions, see Chapter 4 of this Final EIS.

SEA assessed the reasonability and feasibility of noise walls using criteria established by the Illinois and Indiana departments of transportation, in their respective portion of the project area. Chapter 2 of this Final EIS contains the results. Quiet zones generally are implemented by local communities, but the Applicants have proposed voluntary mitigation to assist affected communities that have sensitive noise receptors with enhanced warning devices.

Residential Sound Insulation

Commenters stated that a residential sound insulation program, similar to that currently in place for residences near O'Hare and Midway Airports, should be used to mitigate noise for residences falling in the 65 dBA contour.

Response

Chapter 4 of this Final EIS presents SEA's noise mitigation assessment. Residential sound insulation generally is appropriate for mitigating airport noise, but is not recommended for rail noise associated with the Proposed Action.

Vibration Mitigation

Commenters stated that vibration needed to be addressed and asked how vibration would be mitigated.

Response

Train-induced ground vibration may be perceptible and sometimes will result in annoyance to building occupants. Vibration test results show that vibration levels from individual trains using the CN and EJ&E tracks are comparable. Therefore, SEA does not expect the Proposed Action to increase train-induced ground-borne vibration levels. However, the number of trains would increase along the EJ&E rail line, resulting in more vibration events. Chapter 4 of this Final EIS addresses vibration mitigation requirements.

Construction Mitigation

Commenters stated that the EIS needed to address issues concerning noise and vibration from construction activities. Commenters also stated that the EIS needed to provide a specific time schedule for construction activities.

Response

The project proposes to modify portions of the EJ&E rail line; therefore, construction activities will likely occur at different times and in different locations throughout the Study Area. Construction activities often generate noise and sometimes ground-borne vibration; however, these emissions vary greatly depending upon the duration and complexity of the project. SEA has proposed a mitigation condition for construction activities to minimize vibration effects.

The Applicants have proposed voluntary mitigation requiring them to work with affected communities to minimize construction noise disturbance near residential areas and to maintain construction equipment with properly functioning mufflers.

Matteson Historic District

Commenters representing the Old Matteson District and other areas adjacent to the Proposed Matteson Connection asked that mitigation measures and alternatives to minimize potential noise effects on residences be considered in the EIS.

Response

Chapter 4 of this Final EIS contains the Applicants' voluntary mitigation and SEA's recommended conditions relative to sensitive noise receptors. The Applicants' voluntary mitigation includes working with affected communities with sensitive noise receptors to mitigate increased train noise under certain conditions, and complying with FRA decibel limits.

Tree Preservation

Commenters requested noise barriers and funding from CN for noise mitigation measures. Commenters also asked that noise barriers be built in accordance with local tree preservation municipal codes.

Response

Per their voluntary mitigation measure, the Applicants will negotiate noise mitigation measures, including construction details, with affected communities. Mitigation measures are included in Chapter 4 of this Final EIS.

Wheel/Rail Noise Mitigation

Commenters stated the need for wheel noise to be mitigated to minimize potential noise effects on residences adjacent to the EJ&E rail line.

Response

The Applicants have committed to voluntary mitigation that addresses wheel/rail wayside noise, including lubrication of curves and regular maintenance of wheels to reduce noise caused by wheel/rail interaction. SEA has proposed further wheel noise mitigation conditions as reflected in Chapter 4 of this Final EIS.

Train Noise Limit

Commenters stated that the mitigation should include an absolute limit in allowable train noise to minimize noise effects on residences adjacent to the EJ&E rail line.

Response

Proposed noise mitigation from the Applicants and SEA are included in Chapter 4 of this Final EIS. These include a number of measures to minimize effects on residences.

Quiet Zones

Commenters stated that CN should be required to fund the establishment of quiet zones in their communities to eliminate the use of horns at grade crossings.

Response

The Applicants have committed to voluntary mitigation that states they would work with affected communities with sensitive receptors (those that would experience an increase of at least 5 dBA [A-weighted decibel] and reach 70 dBA) to mitigate train noise to levels as low as 70 dBA by such means as are agreed to by the affected community and the Applicants. Noise mitigation measures include providing enhanced warning devices to support affected communities' applications to FRA for quiet zones. Proposed mitigation is included in Chapter 4 of this Final EIS.

Noise and Vibration Mitigation

Commenters stated that both noise and vibration mitigation needed to be addressed in the EIS.

Response

Chapter 4 of the EIS includes a number of proposed noise and vibration voluntary mitigation measures along with SEA's recommended conditions.

Request for Further Noise Analysis

Commenters stated that as part of the mitigation CN should be required to perform a more detailed noise analysis in their community.

Response

The Applicants have proposed voluntary mitigation measures that include working with affected communities to mitigate train noise under certain conditions as described in Chapter 4 of this Final EIS. SEA also has proposed conditions further defining the analytical methodologies used to determine the effectiveness of these measures. The results are included in this Final EIS.

Negotiated Settlements

Commenters stated that the Board should require CN to work with communities to install noise barriers, sharing the cost with residents equally.

Response

The Applicants have proposed voluntary mitigation measures that include working with affected communities to mitigate train noise under certain conditions as described in Chapter 4 of this Final EIS. The funding for noise barriers would be subject to subsequent agreements between the Applicants and affected communities, although the Applicants have voluntarily committed to mitigating increased noise in the absence of such agreements.

Noise Hotline

Commenters stated that the Board should establish an ongoing noise hotline for future noise concerns.

Response

The Applicants have proposed voluntary mitigation measures that include working with affected communities to mitigate train noise under certain conditions as described in Chapter 4 of this Final EIS.

Noise Mitigation Threshold

Commenters disagreed with the use of the 70dB mitigation threshold. Commenters also stated that noise in parks and other land uses should be included in the noise analysis.

Response

The Board's environmental regulations in Part 49 of the Code of Federal Regulations (CFR), Section 1105.7(e) (6) require that if any of the thresholds identified in item (5)(i) of this section are surpassed (these are activity-based thresholds), state whether the Proposed Action will cause: 1) incremental increase in noise levels of three decibels Ldn or more; or 2) increase to a noise level of 65 decibels Ldn or greater. If so, identify sensitive receptors (e.g., schools, libraries, hospitals, residences, retirement communities, and nursing homes) in the project area, and quantify the noise increase for these receptors if the thresholds are surpassed. Park lands are not included in the list of

sample noise-sensitive land uses in the Board's environmental regulations. The analysis in the EIS is consistent with the Board's regulations.

3.4.16.10 Biological Resources Mitigation

Protection Strategy for Chicago Wilderness

Commenter indicated that there were no protection strategies or impact estimations to the communities within the Chicago Wilderness.

Response

SEA recognizes that numerous Resource Protection Areas are located within the Study Area. Those areas include, but are not limited to: Poplar Creek Division, Fox River Corridor, Fox River Fen Complex and Brewster Creek, West Branch of the DuPage River, Fermi, Mainstem of the DuPage River, Lake Renwick Rookery, Lockport Prairie Recharge Zone, Thorn Creek, Hoosier/Oak Ridge, Lower Little Calumet River Corridor, and Grand Calumet Corridor.

SEA has proposed conditions in Chapter 4 of this Final EIS that the Applicants create a liaison to work with local natural and water resource agencies for the purpose of improved adaptive natural resource management.

Hine's Emerald Dragonfly and Plant Community Mitigation

Commenter indicates that although mitigation will be implemented for the Hine's emerald dragonfly, there is no discussion of specifics in the Draft EIS.

The Draft EIS provides a discussion that is not pertinent to the mitigation of plant impacts. Fire suppression, prevention, and rehabilitation by themselves do not address plant impacts, if there are any. Restoration methods that will be used after construction is completed must be identified, as well as the plant communities along the entire route.

Response

SEA met with the USFWS on October 23, 2008, to discuss project specific issues related to Federally listed species, including the Hine's emerald dragonfly. As part of this Final EIS, a Biological Report is included in Appendix A including a more detailed discussion on the Hine's emerald dragonfly. The Applicants will abide by the special conditions of the 1996 COE Permit # 199600211 for train operations on the Paul Ales Branch to minimize further effects on larval Hine's emerald dragonflies. The Biological Report also includes a more detailed discussion on the Eastern prairie fringed orchid.

The Draft EIS indicates that disturbed areas will be re-seeded with species native to the vicinity. Additionally, effects on wetland plants will be identified and mitigated as a result of required Section 404, Clean Water Act permitting. SEA has proposed conditions in Chapter 4 of this Final EIS that the Applicants create a liaison to work with local natural and water resource agencies for the purpose of improved adaptive natural resource management. This will include improving habitat away from the rail line.

Establish a Liaison

Commenter indicated a liaison with expertise in environmental and natural resource management should be established to work with the forest preserve districts for improved adaptive natural resource management.

Response

SEA has proposed conditions in Chapter 4 of this Final EIS that the Applicants create a liaison to work with local natural and water resource agencies for the purpose of improved adaptive natural resource management.

Fund a Study of Impacts for Five Years

Commenter indicated that the Applicants should fund a study of impacts for five years at two designated preserves to document any adverse effects of the rail operations on wildlife species within 1,500 meters of the EJ&E rail line.

Response

SEA has proposed conditions in Chapter 4 of this Final EIS that the Applicants create a liaison to work with local natural and water resource agencies for the purpose of improved adaptive natural resource management. The liaison will work with stakeholders to identify species to be monitored, protocol for monitoring, and develop adaptive management measures. An example includes identifying and improving habitat away from the rail line.

The specifics of the proposed monitoring should be addressed by the Applicants' liaison and the Federal, state, and local natural resource stakeholders. Studies will include surveys prior to and following the Proposed Action to determine effects; monitoring shall be conducted for five years.

Illinois Natural Area Inventory Areas

Commenter indicated that the Draft EIS does not address measures to protect Illinois natural area inventory areas from increased CN operations.

Response

The Study Area included rail segments where operational increases associated with the Proposed Action were proposed. Sections 3.11 and 4.11 of the Draft EIS identify locations of all Illinois Natural Areas Inventory (INAI) sites in the Study Area, and potential effects on those sites from the Proposed Action and constructions. Additionally, SEA recognizes that there are potential benefits to biological and natural resources along the CN lines, as traffic along the lines within the EJ&E arc will decrease.

SEA has proposed conditions in Chapter 4 of this Final EIS that the Applicants create a liaison to work with local natural and water resource agencies for the purpose of improved adaptive natural resource management.

High Quality Natural Areas

Commenters inquired as to how CN proposes to protect high quality natural areas (Illinois natural inventory areas) and if CN would agree to trains traveling at 4-6 mph to reduce mortality and minimize impacts on the ground.

Response

SEA has proposed conditions in Chapter 4 of this Final EIS that the Applicants create a liaison to work with local natural and water resource agencies for the purpose of improved adaptive natural resource management.

The requirement for CN trains to operate between 4-6 mph is only along the Paul Ales Branch along the Des Plaines River. This speed restriction is part of the special conditions of the 1996 COE Permit # 199600211 for train operations to minimize further effects on both adult and larval Hine's emerald dragonflies. The only other location along the line with a train speed restriction is in Segment 9B on the EJ&E rail line. Speeds are restricted to 10 mph to cross the lift bridge over the Des Plaines River. The Applicants do not propose to restrict train speeds adjacent to INAI sites.

Noise and the Lake Renwick Heron Rookery

Commenter indicated a need for elevated trains over Renwick Road above the forest preserve to reduce noise levels affecting the Lake Renwick Heron Rookery (LRHR).

Response

Lake Renwick Preserve was studied in detail by Marcella DeMauro in 1993 (DeMauro 1993). While the main focus of this study was not trains, observations of rookery species and their responses to passing trains were documented. Birds exhibited various responses to passing trains, and 75 percent of the passing trains (N=4) did not evoke a response. One passing train was documented to cause flushing of the rookery; however, observations indicated the birds returned to their nest sites. Based on the findings of this study, and continued success of the rookery, it is likely that rookery birds using the LRHR have become acclimated to human activities around the nesting islands, including passing trains. Noise monitoring conducted by SEA at 500 feet from the rail line found existing noise levels range from 51 to 63 dBA. As noted in Section 4.11 of the Draft EIS, beyond 500 feet, minimal effects on bird populations would be expected. These measurements corroborate the above study by DeMauro (1993), indicating that these birds have become accustomed to noise and/or adjusted to repeated noises resulting from human activity (Dooling and Popper 2007).

The EJ&E rail line bisects the preserve, dividing Lake Renwick. Habitat located south of the railroad contains the two breeding island complexes, known as the Lake Renwick Heron Rookery (LRHR) Nature Preserve. Raised tracks could create a physical barrier, causing habitat fragmentation between the two island complexes. Elevated train tracks might also cause additional mortality because elevated trains would then be directly in the flight path of the birds. Without solid land to dampen the vibrations of passing trains, raised tracks could result in even more disturbance to the Heron Rookery.

Need for Quantifiable Conclusions

Commenter indicated that the Draft EIS offered no mechanism for monitoring, evaluating, or mitigating long term effects on natural resources. The District believes the Final EIS needs to provide quantifiable conclusions for effects on biological resources and appropriate mitigation measures.

Response

SEA has proposed conditions in Chapter 4 of this Final EIS that the Applicants create a liaison to work with local natural and water resource agencies for the purpose of improved adaptive natural resource management. These adaptive management strategies include monitoring to assess potential impacts and tiered-mitigation to minimize realized impacts.

The specifics of the proposed monitoring should be addressed by the Applicants' liaison and the Federal, state, and local natural resource stakeholders. Monitoring locations, duration, and methodology will be developed as a result of this coordination.

Vegetation Management

Commenter stated that invasive species control must be targeted and completed at appropriate times of the year to be effective. Excessive control of vegetation through chemical treatments to prevent vegetation growth within the ROW represents a significant threat of drift effects on adjacent vegetation. Other than a statement that all chemical applicators are qualified, no discussion is provided on the methods, materials, or precautions in place to ensure proper treatment of invasive and nonnative species. Even if effective control of invasive and nonnative species within the ROW is accomplished, it does not address the ability of trains to serve as a mode of transportation and introduction. The District recommends the following:

- CN should retain a full-time preservation consultant who has knowledge and experience developing management plans for all protected pubic properties and known sensitive areas.
- CN should be required to have adaptive management or cooperative management agreements within all protected pubic properties and known sensitive areas.

Response

The Applicants' vegetation management process calls for certified applicators using approved USEPA products. If regional, state, or local laws have specific requirements for minimal distance to streams or sensitive habitat, it is CN practice to verify those requirements and ensure the certified applicator is cognizant of such restrictions.

SEA has proposed conditions in Chapter 4 of this Final EIS that the Applicants create a liaison to work with local natural and water resource agencies for the purpose of improved adaptive natural resource management.

Wildlife Passages and Ongoing Dialogue w/CN

Commenter indicated that where new construction would fragment wildlife habitat, mitigation such as installation of wildlife passages through berms to facilitate movement of reptiles and small mammals should be considered.

Construction or modifications at stream crossings should be evaluated and improved, if necessary, to accommodate larger mammal movement and maintain fish passage.

To address future impacts, an ongoing dialog should take place with the railroad company regarding natural areas and wildlife management issues.

Response

Potential mitigation for wildlife habitat fragmentation and wildlife mortality could include construction of underpasses, culverts, and barriers in the EJ&E rail line. Similar measures have been successful in Europe (Trocme 2006) and these measures have been suggested at Pratt's Wayne Woods (PWW) (Christopher B. Burke Engineering 2003). The PWW Pressures Study suggested using old railroad ties as barriers along the EJ&E rail line (Christopher B. Burke Engineering, 2003). These approaches could be implemented to mitigate where effects on wildlife fragmentation and mortality from the Proposed Action are realized. Specific culvert, underpass, and barrier requirements should be evaluated and determined by the CN liaison in conjunction with natural resource agencies.

SEA has proposed conditions in Chapter 4 of this Final EIS that the Applicants create a liaison to work with local natural and water resource agencies for the purpose of improved adaptive natural resource management.

Mitigation for Bird Populations

Commenter indicated that there are no monitoring plans to detect potential effects on bird populations and no mitigation activities proposed to address them if observed.

Response

SEA has proposed conditions in Chapter 4 of this Final EIS that the Applicants create a liaison to work with local natural and water resource agencies for the purpose of improved adaptive natural resource management. Part of this effort will include pre-construction monitoring of the potential impacts of the Proposed Action, under the supervision of CN's resource agency liaison, to establish baseline conditions. Monitoring will continue for five years after completion of construction to evaluate potential effects on several biological resources. These include wildlife, plants, state and local conservation and natural areas, and Federal, state threatened and endangered species, including migratory birds.

If effects due to the Proposed Action or construction of the connections and double-tracking are verified, CN shall work with Federal, state, and local natural and water resource stakeholders to develop tiered mitigation strategies for habitat improvements, restoration of habitat, and further monitoring. The CN's resource agency liaison would serve as a local contact person to the resource stakeholders. Chapter 4 in this Final EIS outlines these mitigation measures.

Management Plan for Adjacent Habitat

Commenter suggested that CN be required to identify a liaison from natural resource agencies to develop a long-term protection and management plan for adjacent habitat, nature preserves, and INAI sites along the entire length of existing EJ&E tracks.

Commenter recommends conducting wetland delineations and habitat assessments in all construction areas to determine if suitable habitat is present for the eastern prairie fringed orchid.

Commenter recommended the use of turtle ramps, drop boxes, or other structures that reduce the possibility of turtles becoming trapped within railroad rails, in all locations where an EJ&E arc crosses through or is adjacent to wetland areas. CN should also construct turtle crossings in areas where turtles are concentrated.

Commenter recommended that CN conduct wetland delineations and associated habitat assessments to determine the floristic quality of wetlands that would be affected by construction activities. The habitat assessments would be useful in determining the wetland mitigation replacement ratios, which could be higher than the 3:1 ratio noted in Section 6.3.14.7.

Commenter recommended that CN consider conducting wetland and habitat restoration at one or more sites more remote from the rail lines to offset any reduced breeding bird productivity.

Commenter believes that areas adjacent to the existing rail lines that currently support breeding grassland and wetland birds would be less suitable areas for mitigation due to the increased number of trains and associated noise.

Response

SEA has proposed conditions in Chapter 4 of this Final EIS that the Applicants create a liaison to work with local natural and water resource agencies for the purpose of improved adaptive natural resource management. Adaptive management measures include monitoring to assess potential impacts from the Proposed Action and construction areas and subsequent tiered-mitigation to minimize those realized impacts.

In addition, the Applicants will be required to perform wetland delineations, including FQA assessments according to county and Federal guidance in all construction areas. Additionally, in October and November 2008, SEA conducted habitat assessments for the Eastern prairie fringed orchid in coordination with the USFWS. SEA and USFWS agreed that the Proposed Action may affect, but is not likely to adversely affect, the Eastern prairie fringed orchid. Details of the habitat assessment and mitigation are found in the Biological Report in Appendix A.

Chapter 4 of this Final EIS details proposed mitigation measures that include further coordination for threatened and endangered species, mitigation for turtle passages where habitat occurs on both sides of the EJ&E rail line, and off-site mitigation.

Alert Forest Preserve District of Additional Construction

Commenter indicated that the Draft EIS lacks information on future double track and new connections. Commenter requested CN be required to seek Forest Preserve District review and comment for any subsequent changes along tracks.

Response

The Draft EIS analyzed all reasonably foreseeable effects of the Proposed Action and construction and determined that there would be no double track or connection construction beyond those identified in the Draft EIS as part of the Proposed Action.

Vermont Cemetery Nature Preserve

Commenter suggested that surveys be conducted for endangered and threatened species (i.e. Mead's milkweed and Franklin's ground squirrel). Level of impact should be determined and losses mitigated.

Response

Mead's milkweed was evaluated in Section 4.11 of the Draft EIS. Surveys and mitigation, as appropriate, would be required.

Elemental occurrence records (EOR) were obtained from IL and INDNR and suggest that *S. franklinii* is known to occur within segments EJ&E 1 and EJ&E 3 within the Indiana portion of the Study Area (see Table 4.11-5). EJ&E 3 is a segment that is expected to see no new construction and no changes in rail traffic. While no construction impacts are proposed for segment EJ&E 1, there is a potential for the Proposed Action to impact the species through potential increased disturbance or mortality due to increased train traffic.

Several remnant prairie communities have been identified within the Study Area by an INHS survey (Handel and Koontz 2004). While the INHS prairie remnant survey only included areas accessible from public roadways and thoroughfares, it is possible that other prairie remnants (that have the potential to contain state-listed species) were not identified in the INHS study and may exist within the Study Area.

SEA presumes that Federal- or state-listed species (such as Franklin's ground squirrel) within the Study Area may be affected by the cumulative long-term effects of the Proposed Action (increased rail operations) and proposed construction areas (new connections and double-tracking).

The Applicants will be required to comply with state laws regarding endangered and threatened species as outlined in Chapters 3 and 4 of the Draft EIS, and provide necessary mitigation and best management practices to compensate for effects on state-listed species. SEA has proposed conditions

in Chapter 4 of this Final EIS that the Applicants create a liaison to work with local natural and water resource agencies for the purpose of improved adaptive natural resource management.

Lake Renwick and Herons

Commenter suggested determining effects on existing heron nesting structures from noise, vibration, and pollution.

Use environmentally friendly chemicals for track maintenance.

Response

Wildlife species live in patches of natural habitat along segments of the EJ&E rail line that could be exposed to increased noise. These populations experience noise from existing train traffic (See Table 3.10-2 in Chapter 3). Monitoring at 500 feet from the rail line found existing noise levels range from 51 to 63 dBA, indicating wildlife may have become accustomed to noise and/or adjusted to repeated noises resulting from human activity (Dooling and Popper 2007). The projected average noise increase from additional trains at 500 feet from the rail line is 5 to 6 dBA Ldn (average 24-hour noise level, see Section 4.10 for a detailed explanation).

Bird populations and migratory species within the Study Area, especially those within 500 feet where train traffic is projected to increase, may experience auditory, behavioral, and/or physiological effects and/or masking of communication signals because of the additional noise during train pass-bys. Beyond 500 feet from the ROW, fewer effects would likely be expected. Effects on wildlife from noise likely vary between species, location, and season. Wildlife in populated areas may be more acclimated than in remote areas (Huff and Huff, 2003a; 2003b).

Mitigation measures have been developed in Chapter 4 that include best management practices; the development of a liaison that will allow Federal, state, and local natural and water resource agencies to interact with CN to complete various adaptive management mitigation measures and monitoring including vegetation control. Once monitoring is completed, the CN liaison and natural resource agencies can develop and implement appropriate site-specific mitigation measures once potential effects of the Proposed Action are realized. Chapter 4 of this Final EIS contains proposed mitigation conditions for areas with high occurrences of and probabilities for train strikes.

Lockport Prairie NP and Future Track Use

Commenter stated that Draft EIS indicates no changes to this spur. Commenter believes forest preserve district consultation should be conducted before track changes are implemented.

Response

The Draft EIS analyzed all reasonably foreseeable effects of the Proposed Action and proposed construction and determined that there would be no double track or connection construction beyond those identified in the Draft EIS as part of the Proposed Action.

General Wildlife and Habitat Fragmentation

Commenter stated that SEA's finding that wildlife (general species) will not be adversely affected by the Proposed Action and that no mitigation is proposed at this time for wildlife is unacceptable. The Biological Section 3.11, page 10, acknowledges that railroads fragment habitat and that rail cars cause wildlife mortality, but that the specific mortality numbers are unknown in this case.

Response

SEA presumes that wildlife, plant communities, Federal- and state-listed species, migratory species, conservation and natural areas within the Study Area may experience be affected by direct, indirect, and cumulative long-term effects of the Proposed Action. This includes habitat fragmentation and wildlife mortality. Potential impacts are likely to vary among species, location, and season.

Mitigation measures have been developed in Chapter 4 of this Final EIS that include best management practices; the development of a liaison that will allow Federal, state, and local natural resource stakeholders to interact with CN to complete various adaptive management mitigation measures along the EJ&E ROW. In addition, CN will conduct or will supply financial support for pre- and post- construction monitoring to evaluate and document potential effects and subsequent impacts of the Proposed Action. Once monitoring is completed, the CN liaison and natural resource agencies can develop and implement appropriate site-specific mitigation measures as potential effects of the Proposed Action are realized.

Burn Plan and Notification

Commenter from Wayne, Illinois recommended at least 12 hours notification before open burning and submission of a plan to ensure the burning is controlled.

Response

SEA has proposed conditions in Chapter 4 of this Final EIS that the Applicants create a liaison to work with local natural and water resource agencies for the purpose of improved adaptive natural resource management.

Local and Adaptive Management

Commenter suggested a liaison with expertise in environmental and natural resource management works closely with water resource agencies (to include Fermi Lab) for the purpose of improved adaptive natural resource management. The liaison should be named within one month of any approval of the Proposed Action by the Board.

Response

SEA has proposed conditions in Chapter 4 of this Final EIS that the Applicants create a resource agency liaison to work with local natural and water resource agencies for the purpose of improved adaptive natural resource management.

Effects on Natural Areas from Maintenance

Commenter suggested the Applicants be required to enter into management agreements with adjacent public landowners to ensure natural areas are not affected by the control of vegetation or maintenance of the rail line.

Response

SEA has proposed conditions in Chapter 4 of this Final EIS that the Applicants create a resource agency liaison to work with local natural and water resource agencies for the purpose of improved adaptive natural resource management. The CN vegetation management process calls for certified applicators using approved EPA products. If regional, state, or local laws have specific requirements for minimal distance to streams or sensitive habitat, it is CN practice to verify those requirements and ensure the certified applicator is cognizant of such restrictions.

Incidental Take Permits

Commenter suggested that the Applicants should be required to develop Incidental Take Permits with the Illinois Department of Natural Resources.

Response

SEA has proposed conditions in Chapter 4 of this Final EIS that the Applicants create a liaison to work with local natural and water resource agencies for the purpose of improved adaptive natural resource management. Part of this effort will include pre-construction monitoring of the potential impacts of the Proposed Action, under the supervision of CN's resource agency liaison, to establish baseline conditions. Monitoring will continue for five years after completion of construction to evaluate potential effects on several biological resources. These include wildlife, plants, state and local conservation and natural areas, and Federal, state threatened and endangered species, including migratory birds.

If effects on from the Proposed Action or construction of the connections and double-tracking are verified, CN shall work with Federal, state, and local natural and water resource agencies to develop tiered mitigation strategies for habitat improvements, restoration of habitat, and further monitoring. The CN's resource agency liaison would serve as a local contact person to the Federal, state, and local natural and water resource agencies.

Turtle Mitigation

Commenter suggested that use of turtle ramps, drop boxes, or other structures that reduce the possibility of turtles becoming trapped within railroad rails, in all locations where an EJ&E arc crosses through or is adjacent to wetland areas.

Response

SEA has proposed conditions in Chapter 4 of this Final EIS that the Applicants create a liaison to work with local natural and water resource agencies for the purpose of improved adaptive natural resource management. CN developed a turtle crossing mitigation measure that includes working with natural resource stakeholders to identify locations to install turtle crossings where there are operational increases and where habitat occurs on both sides of the rail line.

Sound Walls and Tree Preservation

Commenter stated that sound walls will be needed along the tracks, but that they need to be constructed without affecting existing trees (per Deer Park Municipal Code).

Response

SEA completed an analysis with regard to noise walls, including where such walls would be feasible and cost-effective. Chapter 4 of this Final EIS contains the Applicants' voluntary mitigation and SEA's recommended conditions. These include a requirement that the Applicants work with affected communities with sensitive noise receptors to mitigate increased train noise under certain conditions. Noise wall design would be developed in cooperation with affected communities.

INDNR and Wetland Mitigation

INDNR requested the opportunity to work with the Applicants to develop suitable mitigation measures for wetlands.

Response

SEA has proposed conditions in Chapter 4 of this Final EIS that the Applicants create a liaison to work with local natural and water resource agencies for the purpose of improved adaptive natural resource management.

The Applicants also would be required to perform wetland delineations, including FQA assessments according to county and Federal guidance and mitigation as appropriate.

BMPs are not the Same as Mitigation

INDNR agreed with USFWS that BMPs listed in Chapter 6 of the Draft EIS are not mitigation efforts.

Response

SEA has proposed conditions in Chapter 4 of this Final EIS that the Applicants create a liaison to work with local natural and water resource agencies for the purpose of improved adaptive natural resource management. SEA's conditions include regulatory requirements so they can be enforced through actions by the Board.

Voluntary Mitigation Measures 61 and 62

INDNR agreed with CN Voluntary Measures 61 and 62 in the Draft EIS and requested that the Applicants work with the appropriate DNR manager responsible for the preserves when working in proximity to these properties.

Response

SEA has proposed conditions in Chapter 4 of this Final EIS that the Applicants create a liaison to work with local natural and water resource agencies for the purpose of improved adaptive natural resource management. Stakeholders can work with CN to develop strategies when working in close proximity to natural areas.

Voluntary Mitigation Measure 68 Native Plant Seeds

Commenter requested the use of seed from native plant species common to northwest Indiana. INDNR is willing to help develop such a list.

Response

SEA has proposed conditions in Chapter 4 of this Final EIS that the Applicants create a liaison to work with local natural and water resource agencies for the purpose of improved adaptive natural resource management. Stakeholders can work with CN to develop a native plant seed mix.

Dune and Swale Restoration

Commenter indicated it may be difficult to implement a plan for the restoration of dune and swale habitat because this has been problematic. Enhancement of existing land with dune and swale characteristics has proven more feasible.

Response

SEA has proposed conditions in Chapter 4 of this Final EIS that the Applicants create a liaison to work with local natural and water resource agencies for the purpose of improved adaptive natural

resource management. In addition, the Applicants have agreed, in consultation with appropriate natural resource stakeholders, including the USFWS, INDNR, and TNC, to designate EJ&EW-owned areas of prime prairie and dune and swale habitat for a potential land management and/or conservation easement. This is a voluntary mitigation measure proposed by the Applicants.

Liaison and R/W Maintenance

Commenter indicated that where rail lines pass through or are adjacent to natural lands, a formal liaison be appointed, so that communication can take place prior to right-of-way maintenance activities.

Response

SEA has proposed conditions in Chapter 4 of this Final EIS that the Applicants create a liaison to work with local natural and water resource agencies for the purpose of improved adaptive natural resource management. Natural resource stakeholders can work with the CN to discuss concerns with regard to ROW maintenance. If regional, state, or local laws have specific requirements for minimal distance to streams or sensitive habitat, it is CN practice to verify those requirements and ensure the certified applicator is cognizant of such restrictions.

Kirk Yard Prairie and Wetland

Commenter indicated that a high quality natural area, composed of prairie and wetlands, occurs within Kirk Yard. Permanent protection and enhancement should be considered as mitigation.

Response

Chapter 4 of this Final EIS contains the Applicants' voluntary mitigation relative to effects on this area. The Applicants have agreed, in consultation with appropriate natural resource stakeholders, including the USFWS, INDNR, and TNC, to designate EJ&EW-owned areas of prime prairie and dune and swale habitat for a potential land management and/or conservation easement. This is a voluntary mitigation measure proposed by the Applicants.

Invasive Species Cleanup

Commenter suggested that CN set aside money for cleanup of invasive species.

Response

SEA has proposed conditions in Chapter 4 of this Final EIS that the Applicants create a liaison to work with local natural and water resource agencies for the purpose of improved adaptive natural resource management. The Applicants have proposed voluntary mitigation and SEA has proposed enhanced conditions that address invasive species management.

FPD of Cook County Disagrees with Findings

Commenter stated that the Draft EIS estimated there would be no additional effects on Forest Preserve District of Cook County holdings and, therefore, mitigation was not recommended. The Forest Preserve District of Cook County disagrees with this finding.

Response

SEA has proposed conditions in Chapter 4 of this Final EIS that the Applicants create a resource agency liaison to work with local natural and water resource agencies for the purpose of improved adaptive natural resource management.

SEA determined that there would be no direct effects on Forest Preserve District of Cook County holdings because no construction would occur in the vicinity of the holdings. The Forest Preserve District is one of the natural resource stakeholders invited to work with CN to discuss implementing adaptive management measures along the EJ&E rail line.

Protection of Chicago Wilderness

Commenter contended that no protection, strategy, or estimate of impact to natural communities in the Chicago Wilderness has been provided in the Draft EIS.

Response

SEA assessed the environmental consequences for biological resources including Chicago Wilderness natural areas using data from published reports, feasibility studies, regulatory agency documents, guidance manuals, discussions with resource personnel, aerial photographs, United States Geological Survey (USGS) topographic maps, field visits (February 2008 field inspections using public access areas and April 2008 field inspections using hi-rail vehicles), and analysis of Geographic Information Systems (GIS) databases. SEA also conducted observational surveys within selected, accessible sections of the Study Area and consulted with local, state, and Federal resource agencies. SEA analyzed operation and maintenance effects on natural areas including wildlife sanctuaries, refuges, state parks, wetlands, and vegetation communities. Sections 3.11 and 4.11 of the Draft EIS provide an inventory of natural areas within the Study Area and potential effects on these areas under the Proposed Action. These inventories and potential effects have been updated in Chapter 2 of this Final EIS based on further coordination with local natural resources stakeholders.

SEA recommends mitigation measures in Chapter 4 of this Final EIS that include developing a liaison that will allow Federal, state, and local natural and water resource agencies such as public land managers to interact with CN to complete various adaptive management measures along the EJ&E ROW. SEA also recommends that CN conduct or supply financial support for pre- and post-construction monitoring to evaluate and document potential effects and subsequent impacts of the Proposed Action. Once monitoring is completed, the CN liaison and natural resource agencies can develop and implement appropriate site-specific mitigation measures once potential effects of the Proposed Action are realized.

Inadequate Mitigation to Protect Endangered and Threatened Species

Commenter stated that the proposed mitigation activities are inadequate to protect unknown Federal- and state-listed endangered and threatened species populations from construction activities, and stated that there is insufficient information on how the presence of these species will be assessed before the impacts or takings.

Response

In response to the USFWS's concerns, SEA gathered additional data and conducted additional field visits. This information is included in a Biological Report (Appendix A of this Final EIS). The purpose of the Biological Report is to review the Applicants' proposed acquisition of the EJ&E and determine to what extent the Proposed Action and related constructions may affect Federally threatened, endangered, candidate, or proposed species and designated or proposed critical habitat.

Five species [Indiana bat, Hine's emerald dragonfly, Karner blue butterfly, Eastern prairie fringed orchid (EFPO), and leafy prairie clover] were evaluated because preliminary information indicated that they do occur or might occur in or near the Action Area. An additional four plant species (Mead's milkweed, Prairie bush clover, Lakeside daisy and Pitcher's thistle) were eliminated from further consideration because they do not presently occur in proximity to the Action Area, or because they occur only in areas where no construction or operational impacts are reasonably anticipated.

After a detailed review of the best scientific and commercial information available and habitat-level field surveys, determinations of "may affect but not likely to adversely affect" were made for all five species. For one species, the EPFO, the Applicants have agreed to conduct pre-construction surveys, and SEA will re-initiate consultation if the species is found within an area of proposed activity.

Additional mitigation conditions have been developed in Chapter 4 of this Final EIS that include best management practices; the development of a liaison that will allow Federal, state, and local natural resource stakeholders to interact with the Applicants to complete various adaptive management measures and monitoring. Once monitoring is completed, the liaison and natural resource stakeholders can develop and implement appropriate site-specific mitigation measures to mitigation potential impacts.

Wetland Delineations/Habitat Assessments for Federal- and State-listed Species

The Lake County Forest Preserve recommended conducting wetland delineations and habitat assessments in all proposed and potential increased traffic and construction areas to determine if suitable habitat is present for Federally and state listed species. If suitable habitat is present, CN should conduct surveys for all probable species.

Response

Since publication of the Draft EIS, SEA met with the USFWS on October 23, 2008, to discuss project specific issues related to Federally listed species. Based on these discussions, it was determined that additional field investigations were needed for the Hine's emerald dragonfly and Eastern prairie fringed orchid. SEA subsequently conducted additional field investigations for the Hine's emerald dragonfly and suitable habitat for the Eastern prairie fringed orchid in October and November 2008. Further details can be found in the Biological Report within Appendix A of this Final EIS.

The Applicants will be required to perform wetland delineations, including FQA assessments according to county and Federal guidance. Local, state, and Federal regulations allow these agencies to require the Applicants to perform habitat assessments before wetland disturbing activities are permitted.

3.4.16.11 Water Resources Mitigation

Supports Mitigation Requested by Will County

Commenter stated that "The Village of Plainfield supports whatever alternate or supplemental mitigation measures are requested by Will County and/or the Will County Forest Preserve District."

Response

Comment noted.

Voluntary Mitigation

Commenter stated that some voluntary mitigation measures agreed to by CN actually are required by law. Commenter also stated that the voluntary mitigation needs clarification.

Response

SEA recommends conditions that also are written in applicable regulatory requirements so that they can be enforced through the Board as well as by the regulating agency. To determine construction effects on jurisdictional wetland and non-jurisdictional wetland habitat in construction areas along the EJ&E rail line, the Applicants shall delineate wetlands and conduct floristic quality assessments. Chapter 4 of this Final EIS includes the Applicants' voluntary mitigation along with SEA's recommended conditions. Many of SEA's conditions enhance or clarify the voluntary mitigation measures.

Will County Ordinances

Commenter stated that there was no mention of Will County ordinances relative to water resources in mitigation measure 66.

Response

SEA has recommended a condition in Chapter 4 of this Final EIS.

INDNR Consultation on Water Issues

Commenter requested that the Applicants work with Indiana DNR on water issues.

Response

SEA has proposed conditions in Chapter 4 of this Final EIS that the Applicants create a liaison to work with local natural and water resource agencies for the purpose of improved adaptive natural resource management.

Wetland Delineations

Commenter requested that the Applicants conduct wetland delineations and habitat assessments to determine floristic quality of the potentially affected wetlands.

Response

The Applicants are required to perform on-site wetland delineations and obtain all required Federal, state, county and local permits for all direct wetland effects if the Proposed Action is approved. In areas where isolated wetland impacts are regulated, the Applicants are required to follow all local guidance for delineation, including functions and values assessments, and are required to provide mitigation according to local rules, including buffers and replacement at rates specified by ordinance. The USACE defers to and recognizes Lake, Will, and DuPage Counties in Illinois and Indiana Department of Environmental Management as the local agencies that administer wetland impacts and mitigation in those areas. To satisfy the requirements of Lake, Will, and DuPage Counties in Illinois and Lake County, Indiana, the Applicants would be required to perform FQA of all wetlands. The Section 404 permit process and local ordinance procedures determine if wetland mitigation replacement ratios of greater than 3:1 are warranted.

Mitigation for Lost Wetlands

Commenter asked about mitigation for lost wetlands.

Response

The acreage of wetlands directly affected or lost due to the Proposed Action is estimated in Section 4.12 of the Draft EIS. The Draft EIS, Section 4.12.3.2, explains the Federal, state, and local regulatory requirements to mitigate these losses. Updated information is also provided in Chapter 2 of this Final EIS.

Mitigation for Effects on Wells

Commenter asked that CN take measures to eliminate risks to private water supply.

Response

The Proposed Action does not create additional threats to wells or water supplies. The environmental consequence of the Proposed Action is a small increase in the probability of a spill due to increased train traffic.

If a spill were to occur, CN would be required by law to mitigate the impacts by remediating the groundwater resource and/or providing an alternate supply of water to the property owner. Mitigation measures would be negotiated with governmental agencies.

Utilizing a Higher Level of BMPs

Commenter suggested that CN use "State of the Science Technologies and BMPs for all construction areas and address all future capital improvements made to the rail system."

Response

The Draft EIS outlines the permitting process for construction activities as required under NPDES Phase II regulations including provisions for post-construction stormwater management and the use of a higher level of protection for discharges to 303d listed streams or wetlands.

Future capital improvements to the entire CN rail system are not included in the Proposed Action because these possible improvements are not directly relevant to the Proposed Action.

3.4.16.12 Mitigation Thresholds

Mitigation Thresholds

Commenters expressed concern that the analysis methods and mitigation thresholds applied to this project were not acceptable to the U.S. Environmental Protection Agency and other Federal agencies.

Response

SEA used analysis methodologies and mitigation thresholds it has used in previous projects; these methodologies and thresholds have been developed over time as the Board considered such projects. SEA is not required to use analysis methodologies or mitigation thresholds employed by or developed by other agencies, however, SEA did consult extensively with EPA and other Federal agencies.

3.4.16.13 Applicants' Voluntary Mitigation Measures

Voluntary Mitigation Is Inadequate

Commenters stated that the voluntary mitigation measures proposed by CN and reported in the Draft EIS are absent or inadequate for the effects described. No specifics with regard to mitigation were included in the Draft EIS. Commenters also stated that the Draft EIS lacks tangible mitigation, that

proper mitigation has not been proposed, and that the mitigation described in the Draft EIS is lacking in detail and real relief for citizens along the EJ&E rail line.

The commenters contended that the voluntary mitigation efforts outlined in the Draft EIS are significantly deficient to community safety and do not fully address the primary regional concerns of affected communities, especially with regard to vehicle traffic flow and congestion. Commenters are concerned that CN has offered no serious commitment to mitigation.

Response

SEA conducted an extensive analysis pertaining to each resource that could potentially be affected by the Proposed Action. SEA discusses the results of its analyses in Chapter 4 of the Draft EIS. To supplement the Applicants' voluntary mitigation measures, SEA proposed additional mitigation measures, as described in Chapter 6 of the Draft EIS, and specifically asked the public to review and comment on the mitigation. In response to public comment, and with further analysis by SEA, Chapter 4 of this Final EIS provides the detailed recommended mitigation measures for each resource area.

CN has presented more than 100 voluntary mitigation proposals that SEA recommended be imposed by the Board if the Proposed Action is approved. Chapter 4 of this Final EIS contains these voluntary mitigation proposals. Many would be supplemented by conditions SEA has recommended in Chapter 4. In addition, CN has negotiated and reached agreements with Joliet and Crest Hill, which SEA recommends also be made conditions of approval of the Proposed Action. (See Section 4.4.15.) It is in CN's best interest to reach and honor agreements with communities that serve both parties and avoid Board directed mitigation measures. Finally, SEA has proposed monitoring and enforcement conditions in Chapter 4 that would allow it to maintain oversight and to enforce conditions the Board imposes for up to five years during construction and implementation of the Proposed Action.

Mitigation Timing

Commenters noted that major changes on rail lines that require major mitigation to address the significant environmental impact issues, as previously stated, must be firmly established, funded, and in place before any consideration be given to an acquisition of this magnitude. Commenters requested that conditions be revised so that monitoring and enforcement shall continue until all mitigation measures are implemented, and that all mitigation measures be implemented prior to any operational change on the EJ&E rail line. Commenters said they cannot understand why mitigation-related improvements would require 3 or more years.

Response

SEA has proposed conditions relating to monitoring and enforcement of the required mitigation. One such condition would require that the Applicants retain a third-party contractor to assist SEA in the monitoring and enforcement of mitigation measures on an as-needed basis until the Applicants have completed construction activities. Another would require that the Applicants submit quarterly reports to SEA on the progress of, implementation of, and compliance with mitigation measures for five years following the Board's approval of the Proposed Action or for any period the Board imposes. See Chapter 4 for SEA's recommended mitigation conditions concerning monitoring and enforcement. With regard to mitigation timing, CN would be required to undertake all measures with reasonable diligence, depending on the particular effort involved. Therefore, some mitigation measures would be implemented more quickly than others.

Is Voluntary Mitigation Actually Required by FRA?

Commenters stated that what has been called "voluntary mitigation" in the Draft EIS proposed by CN appears to be items that are required by the FRA or other agencies. Commenters request a more accurate list of the mitigation that is truly voluntary.

Response

SEA encourages the Applicants to propose voluntary mitigation. In some situations, voluntary mitigation could replace mitigation that the Board might otherwise impose, or it could supplement mitigation that the Board might impose. In addition, the Board includes otherwise applicable regulatory requirements as conditions so that they can be enforced through the Board as well as the implementing agencies. The Applicants submitted their proposed voluntary mitigation measures to SEA for the Board to consider in issuing its final decision. SEA has reviewed the analysis, the new analysis, and numerous comments containing mitigation suggestions. Based on this input, SEA is recommending a set of conditions that include the Applicants' voluntary measures, some additions and modifications thereto, as well as other mitigation measures that address impacts not covered by the list of voluntary measures. See Chapter 4 of this Final EIS for SEA's recommended mitigation conditions and CN's voluntary mitigation.

Revisions to Specific Voluntary Mitigation Measures

Commenters expressed concern about specific voluntary mitigation measures and offered suggestions on modifications regarding voluntary mitigation measures proposed by CN that should be considered if the Board approves the Proposed Action.

Response

SEA has reviewed the analysis of each individual resource that could potentially be affected by the Proposed Action, the new analysis in this Final EIS, and numerous comments containing mitigation suggestions. Based on this input, SEA recommends a set of conditions that include the Applicants' voluntary measures, some additions and modifications thereto, and other mitigation measures that address impacts not covered by the list of proposed voluntary measures. See Chapter 4 of this Final EIS for CN's voluntary mitigation proposals and Section 4.4 for SEA's final recommended mitigation conditions.

3.4.16.14 Suggested Mitigation

Summary

Many commenters suggested that the mitigation measures identified in the Draft EIS were insufficient to reduce or avoid potential effects, or that the measures failed to adequately address community concerns. Some commenters stated that affected communities were not equipped to respond to the Proposed Action in the time frame allotted. Other commenters recommended additional or alternative mitigation actions.

Some commenters highlighted issues unique to their communities that warranted further analysis or detailed opinions of the noise threshold used for the analysis.

Commenters, in some cases, suggested mitigation for pre-existing conditions, where no significant environmental effect would occur as a result of the Proposed Action. Other commenters raised economic concerns associated with the Proposed Action.

Response

In response to comments on the Draft EIS, SEA was able to more thoroughly analyze the circumstances, determine whether mitigation was warranted, and recommend reasonable mitigation actions, if applicable. Additional studies were performed in Barrington, Illinois and for Advocate Good Shepherd Hospital in Barrington, Illinois. Results of these studies are discussed in Chapter 2 of this Final EIS. SEA's recommended mitigation measures presented in Chapter 4 of this Final EIS are in response to the potential effects due to the proposed operational changes and construction associated with the Proposed Action, along with the Applicants' voluntary mitigation. SEA recognizes the need for comprehensive mitigation and believes the recommended mitigation adequately and reasonably responds to the potential environmental effects resulting from the Proposed Action.

The mitigation planning methodology, recommended actions, and methods for assessing a fair share of CN participation are summarized in Chapter 4 of this Final EIS.

The purpose of the EIS is to assess the regional benefits and effects of the Proposed Action to determine the appropriate actions, if necessary, as a condition of approval of the Proposed Action. Therefore, SEA does not address mitigation of existing conditions in its recommendations to the Board.

Special Mitigation Suggestions

Commenters suggested special mitigation measures outside the purview of the STB or the NEPA process. Suggested mitigation included a fund for lawsuits, earmarks for local businesses; and CN purchase of homes affected by air and noise pollution.

Response

Comment noted. SEA recommended specific mitigation measure and these are presented in Chapter 4 of this Final EIS.

3.4.16.15 Community Agreements

Inadequate Community Coordination by CN

A number of town and village representatives noted that CN had not contacted them or presented any type of mutually acceptable mitigation agreement. In cases where CN did meet with village representatives, no follow-up meetings or correspondence had taken place. Some communities noted that no substantive progress has been made in dealing with most significant issues. Representatives of one small community observed that it had been overlooked for any sort of mitigation.

Response

CN has continued to meet and negotiate with elected officials and community representatives, and has participated in the public meetings for the Draft EIS as required by the NEPA process. SEA has facilitated this process as the environmental analysis has progressed over the past year. The intention is for CN to involve communities in the process of developing mutually satisfactory mitigation along the EJ&E rail line.

The Board's Encouragement that Communities Negotiate with CN

Some commenters noted that the Draft EIS encouraged communities to negotiate with CN, but that this conflicts with the tenets of good regional planning and could make for haphazard solutions. A

piecemeal approach through individual negotiations has been criticized by regional planning agencies as problematic.

Response

SEA has consistently asked that representatives of all affected communities negotiate with CN regarding their specific concerns and potential effects on to their areas. SEA believes that these representatives know and understand the needs of their communities.

Extent of Communities' Power to Negotiate with CN

A number of communities observed that they were uncertain what can and should be mitigation for the potential effects of the Proposed Action and what power they have to negotiate with CN. Other communities questioned if they did not reach agreement with CN and the Proposed Action is approved by the Board, what incentive would CN have to continue negotiating with them. Further, what assurances are there that CN will be reasonable in making accommodations to these communities. A resident observed that the SEA mistakenly assumes that affected communities know what should be mitigated and the extent of their negotiating power with CN; and although they can see what is wrong with the project they need SEA to help.

Response

All communities affected by the Proposed Action are empowered to negotiate with CN and to establish agreements for mitigation based on the analyses and conclusions of the EIS and their community-specific needs and priorities. See Chapter 4 of this Final EIS for SEA's recommended mitigation conditions and CN's voluntary mitigation.

Extent of Mitigation Required of CN

Some communities requested that CN be held to the same standard as any organization proposing a project and they bear the responsibility for mitigating effects. One commenter recommended that CN be held to the same corporate community standards as American businesses. Some observed that the act of negotiating with local communities is not mitigating in itself. In addition, CN has publicly and privately stated that they will only do what is required and will not invest more than the customary 5-10 percent of the acquisition. One government official observed that as long as the Board has set no specific enforceable mitigation parameters for CN. The company has no incentive to negotiate in good faith and commit to mitigation projects. Thus, recommending that communities enter into negotiations is not an acceptable solution.

Response

The extent of mitigation will be primarily settled through the analyses and conclusions of the EIS as determined by the Board. In addition, community specific requirements will be negotiated and settled individually along the EJ&E rail line. Specific community agreements allow for representatives and residents to achieve mitigation for particular concerns and deficiencies caused by the Proposed Action. See Chapter 4 of this Final EIS for SEA's recommended mitigation conditions and CN's voluntary mitigation.

Communities' Request for More Time and Assistance from the Board

Some communities indicated that they have been negotiating with CN and have made some progress although they acknowledge the need for more time and assistance to prepare themselves.

Response

All communities will have adequate time and support from the Board in their negotiations with CN within the framework of the NEPA process and schedule. For now, this schedule is based on the established timeline set by the Board. The Final EIS includes various mitigation recommendations relating to working with affected communities and agencies where adverse effects would occur.

Lack of Mitigation Details in Draft EIS and CN Commitments

Many commenters observed that the Draft EIS detailed little tangible mitigation and that CN had not committed to local communities in any specific manner. Another resident stated that SEA's report does not require CN to meet a timeline for mitigation. Several communities asked that the negotiations and tentative agreements for quiet zones be stated in this Final EIS to hold CN accountable for implementation. A commenter asked to what extent CN is committed to work with a community to alleviate or eliminate noise levels. Additional discussions need to take place between CN and the municipalities. Managers and mayors have discussed with CN specific roadway at-grade crossings and potential mitigation, but have received no specific reply. These officials will continue to work with CN to develop funding for necessary crossing improvements. One resident offered that agreements to protect areas and towns must be in writing, concise, and thorough.

Response

Most of the mitigation commitments to be made by CN will be based on the conclusions of the EIS and the requirements of the Board. Critical at-grade crossings that will be substantially affected by the Proposed Action are known and have been evaluated for improvement measures and funding requirements. As this information becomes known more details will be available to aid communities and residents in reaching mutually satisfactory agreements with CN. See Chapter 4 for SEA's recommended mitigation conditions and CN's voluntary mitigation.

Inadequate Mitigation Proposed by CN

Some community residents noted that mitigation commitments - including fences, safety training, and public education -have been modest. Some observed that CN has not demonstrated a willingness to meet the needs of communities along the EJ&E rail line either through long-term commitments to the region or through Memorandums of Understanding with affected municipalities. Another commenter stated that CN has not demonstrated a willingness to meet the needs of the communities, provide long-term commitments, or guarantee full cooperation with the STAR Line and Amtrak.

Response

Early agreements have been made by CN with some communities and agencies to develop and implement mitigation in several ways. Because not all mitigation has been evaluated and settled for the entire project, it is too early to assess the adequacy of these plans across all communities. The NEPA process is designed to develop satisfactory mitigation for impacts caused by the Proposed Action. Chapter 4 of this Final EIS includes SEA's recommended mitigation conditions and CN's voluntary mitigation. This Final EIS includes recommended mitigations measures relative to working with affected communities and agencies where adverse affects could occur.

3.4.16.16 SEA's Approach and Limits of the Board's Power

Commissioner Buttrey's Comments Regarding Mitigation

Commenters agreed with Commissioner Buttrey's expression in Decision 13 that the environmental effects on communities along the EJ&E rail line, both now and in the future, appeared to be high. Communities located along the EJ&E rail line north of Joliet would end up bearing Chicago's long-term rail congestion problem and that mitigation would not offset the potential effects.

Response

Comment noted.

Board Authority to Mandate Mitigation

Commenters requested that the Board mandate grade separations at rail/rail crossings, such as at the UP NW line crossing in Barrington and enforce the required mitigation before the Proposed Action can proceed.

Commenters requested mandatory mitigation measures be placed on CN to address potential adverse effects of the Proposed Action, such as noise and vehicle traffic delays and oppose the Proposed Action without them. Commenters believe that greater emphasis must be placed on mandatory mitigation measures including cooperative multijurisdictional coordination for grade separations to address traffic flow, congestion, public safety, and emergency vehicle access.

Commenters expressed a need for additional laws enabling the Board to be more involved in the process so that communities are not destroyed by CN or any railroad. Commenters also requested that Congress should work with the Board to impose restrictions and regulate freight traffic as a whole to limit overall impact to communities. Some commenters felt that no amount of mitigation that can be enforced by the Board will be sufficient to offset the negative impacts of the proposed increase in freight traffic, either locally or for the Chicago region as a whole.

Response

In Chapter 4 of the Draft EIS, SEA discussed its extensive analysis of each resource that could potentially be affected by the Proposed Action. To supplement the Applicants' voluntary mitigation measures, SEA proposed additional mitigation conditions, as described in Chapter 6 of the Draft EIS, and specifically asked the public to review and comment on the mitigation. In response to public comments, and with further analysis by SEA, Chapter 4 of this Final EIS provides the final detailed recommended mitigation measures for each resource area.

The Board has authority to impose conditions to mitigate potential environmental effects, but within limits. As a government agency, the Board can only impose conditions that are consistent with its statutory authority. Any conditions the Board imposes must relate directly to a specific transaction, must be reasonable, and must be supported by the record before the Board.

The Board cannot require mitigation for existing environmental conditions, such as the effects of current railroad operations. Many communities along the EJ&E rail line experience traffic congestion, and traffic congestion is not caused solely by the EJ&E rail line, but also by multiple freight lines, commuter trains, and insufficient roadway capacity. It would be inappropriate and contrary to the Board's consistent practice to hold the Applicants responsible for "pre-existing" traffic problems and congestion.

SEA makes its final recommendations on environmental mitigation to the Board in Chapter 4 of this Final EIS and believes that its final recommended mitigation, which includes two grade separations,

additional mitigation for emergency response, and noise mitigation including funding to maintain a quiet zone in Barrington, Illinois, is reasonable and appropriate. SEA's recommended mitigation is mandatory in the sense that the Applicants would be required to implement it. SEA's recommended mitigation would also impose a quarterly reporting requirement by the Applicants to keep the Board apprised on the Applicants' progress, and allow the Board to take appropriate action should circumstances change.

SEA Authority to Oversee Mitigation or Specify Accountability for Mitigation

Commenters noted that there is no objective authority overseeing fulfillment of conditions and regulations agreed to by CN, no set punishments for violations of agreements, and no laws in place to force CN to follow through on mitigation, therefore, no incentive for CN to follow any agreements or conditions. Commenters questioned who would enforce mitigation measures, and requested that SEA detail specific accountability for mitigation in this Final EIS.

Commenters requested that the Board use its authority to hold CN responsible for implementation of mitigation projects. Commenters maintain that as long as the Board has set no specific enforceable mitigation parameters to which CN must adhere, CN has no incentive to negotiate in good faith and commit to mitigation projects. Commenters also requested that compliance requirements be a contractual requirement of the purchase.

Commenters questioned why SEA doesn't have the authority of the former Interstate Commerce Commission to force railroads into mitigating conditions if they seek a merger. One commenter noted that the time limits under the ICC were longer and more drawn-out. The commenter questioned what would happen to mitigation enforcement after two years when the merger has been approved, if SEA does not have sufficient authority to require that mitigation be carried out.

Response

SEA has proposed conditions relating to monitoring and enforcement of the required mitigation. These conditions would require that the Applicants retain a third party contractor to assist SEA in the monitoring and enforcement of mitigation measures on an as-needed basis until the Applicants have completed construction activities. The third party contractor would submit quarterly reports to SEA on the progress of, implementation of, and compliance with the mitigation measures for five years following the Board's approval of the Proposed Action or for any period the Board imposes. SEA's recommended conditions related to monitoring and enforcement are described in Section 4.4.16 of this Final EIS.

3.4.16.17 Mitigation Funding

General Mitigation Funding

SEA received numerous comments concerning who would have the responsibility to fund mitigation required by the Proposed Action, particularly construction of grade-separated crossings and ongoing maintenance of them. Residents of many communities feel that CN should be held responsible for financing all mitigation before the Proposed Action is approved.

Response

SEA agrees that many communities along the EJ&E rail line would benefit from more grade separations. However, many of them already face traffic congestion at highway/rail at-grade crossings that would potentially be affected by the Proposed Action. In addition, traffic congestion is not only caused by the EJ&E rail line, but by the presence of multiple rail-freight lines, some of which are also used by commuter trains. SEA believes it would be inappropriate to hold the

Applicants responsible for the presence of the many existing at-grade rail crossings in the communities along the EJ&E rail line, and the rarity (and in some communities, the absence) of grade-separated crossings.

Railroads and local jurisdictions typically cooperate to fund at-grade crossing improvements. Historically, railroads have paid for a small share (5 to 10 percent) of grade separations because the separations primarily benefit the community and not the railroad. However, because the potential safety effects identified in SEA's analysis would be the direct result of increased train traffic on the EJ&E rail line, should the Board approve the Proposed Action, SEA recommends that the Applicants fund 15 percent of the cost of the two grade separations determined to mitigate substantially affected highway/rail at-grade crossings. The reasons for that determination are set forth in Chapter 4 of this Final EIS.

Transportation infrastructure, including roadways and bridges that make up a transportation network, belong to local and state agencies. Maintenance of roadway network elements constructed under the mitigation strategies presented in Chapter 4 of this Final EIS would be the responsibility of the agency that owns and operates the roadway.

SEA believes that the recommended mitigation measures in Chapter 4 of this Final EIS provide reasonable measures to ensure safety and protect resources that would occur as a result of the Proposed Action.

Hazardous Spill Response Training

SEA has received comments from community members who are concerned that the Proposed Action will bring hazardous wastes through their communities and create a potential for a chemical spill. Residents believe CN should be responsible for funding response training for all community members to prepare residents in case of emergency.

Response

SEA believes that the current emergency responder training should be appropriate because the hazardous materials to be transported as a result of the Proposed Action would be the same as those transported today.

If the Board approves the Proposed Action, CN would be required to conduct Transportation Community Awareness and Emergency Response Program (TRANSCAER) workshops (training for communities through which dangerous goods are transported) in those communities along the EJ&E rail line that request this training. CN would participate in the workshops with community leaders and/or emergency response personnel to assist with training and testing for emergency preparedness. All workshops would be completed within 3 years of the date CN initiates operational changes associated with the Proposed Action.

CN would also make Operation Lifesaver programs available to communities, schools, and other organizations located along the affected segments. Chapter 4 of this Final EIS contains SEA's recommended mitigation conditions and the Applicants' voluntary mitigation.

Availability of Federal and State Funding

Commenters expressed concern about the lack of state and Federal funding available to help pay for mitigation. They believe state and Federal funding is needed to upgrade or build the infrastructure necessary to accommodate each municipality that will be affected by the Proposed Action.

Response

Funding for infrastructure improvements by state agencies and the Federal government is based on need as determined through deliberative analysis at the local level. The analysis prepared for this EIS has provided this deliberative analysis for improvements to streets crossing the EJ&E rail line and therefore has focused the attention of community leaders and state and Federal officials on these infrastructure needs. Additional discussions, and perhaps more detailed analysis by each community, may be necessary to secure the funding needed for the local agency share of mitigation warranted by the Proposed Action, and to address the need for actions that will greatly alleviate existing mobility deficiencies in the local community.

Increased Tax Burden to Fund Local Share

Commenters expressed concern that the need for mitigation funding will result in increased local taxes that will be the responsibility of the residents.

Response

An alternative to the Proposed Action is to approve the Proposed Action with conditions, including mitigation measures designed to eliminate or minimize potential environmental effects. Chapter 6 in the Draft EIS presented SEA's preliminary recommended environmental mitigation measures, including voluntary mitigation measures submitted by CN. Chapter 4 of this Final EIS contains the mitigation options that SEA recommends the Board impose should the Proposed Action be approved, including the extent to which CN would be required to pay for mitigation measures.

SEA recognizes that approval of the Proposed Action would directly benefit CN. However, the Proposed Action could also provide needed regional transportation benefits by improving efficiency and reducing rail congestion in the Chicago area, a rail hub of national importance. In addition, communities along the CN subdivisions would experience a decrease in freight rail traffic under CN's proposed Operating Plan.

Request for Additional Financing Studies

Community members expressed concern about the total cost of the proposed mitigation. Residents believe more research needs to be done regarding the financial implications of the Proposed Action.

Response

SEA has performed additional deliberation and analysis since the issuance of the Draft EIS to determine potential costs associated with the mitigation recommended in Chapter 4 of this Final EIS.

Benefit to CN, Cost to Taxpayers

Commenters questioned why residents will be paying tax dollars to fund a foreign corporation, they believe, has no interest protecting the needs of the local community.

Response

CN is a multinational transportation company that operates and owns assets in Canada and the United States. CN owns Grand Trunk Corporation, a holding company for CN's properties in the United States. If the Board approves the Proposed Action, the EJ&E rail line would become part of CN's Chicago Division, which is in CN's Southern Region. Management of the Chicago Division and Southern Region is headquartered in Homewood, Illinois. There are no legal restrictions in the United States that prevent a Canadian company from acquiring assets in the United States.

SEA recognizes that approval of the Proposed Action would directly benefit CN. However, the Proposed Action could also provide needed regional transportation benefits by improving efficiency and reducing rail congestion in the Chicago area, a rail hub of national importance. In addition, communities along the CN subdivisions would experience a decrease in freight rail traffic under CN's proposed Operating Plan.

An alternative to the Proposed Action is to approve the Proposed Action with conditions, including mitigation measures designed to eliminate or minimize potential environmental effects. Chapter 6 in the Draft EIS presented SEA's preliminary recommended environmental mitigation measures, including voluntary mitigation measures submitted by CN. This Final EIS contains all of the mitigation options that SEA recommends the Board impose should the Proposed Action be approved, including the extent to which CN would be required to pay for mitigation.

CMAP Request for Mitigation Fund

CMAP requested a mitigation provision requiring CN to place $150 million in escrow for a traffic impact mitigation fund. This fund would be used to implement CN's share of improvements for up to a 10-year period.

Response

SEA believes that creation of a traffic impact mitigation fund would not reasonably and efficiently achieve the goals of mitigating for specific effects of the Proposed Action for the following reasons:

- Contributions to the fund would be in lieu of participation in specific projects. This action does not effectively address mitigation of specific identified potential effects. SEA determined that requirements for specific actions would be more effective and efficient.
- The $150 million contribution far exceeds the mitigation SEA determined to be reasonable and feasible in Chapter 4 of this Final EIS.
- SEA was concerned that because the funding would not address specific reasonable and feasible mitigation measures that the strategy would not accurately address its regulatory charge.
- While 15 substantially affected at-grade crossings were identified in the Draft EIS, only 2 have been designated for grade separation in this Final EIS. Therefore, SEA does not consider creation and management of a mitigation fund appropriate. Administration of mitigation funding would be performed directly with the affected local agency.

Funding Noise Mitigation

Commenters expressed concern about an increase in noise in their communities resulting from the increased freight traffic along the EJ&E rail line. Residents believe CN should pay for all noise mitigation.

Response

CN committed to voluntary mitigation that states they would work with affected communities with sensitive receptors (those would experience an increase of at least 5 dBA [A-weighted decibel] and reach 70 dBA) to mitigate train noise to levels as low as 70 dBA by such means as are agreed to by the affected community and CN. In the absence of such an agreement, CN would implement effective mitigation that could include such measures as 1) constructing noise control devices such as noise barriers, 2) installing vegetation or berming, or 3) installing, or providing funding for installation of, enhanced warning devices to provide the level of warning necessary to allow the

community to request a waiver from FRA of the requirement to sound the horn and achieve quiet zone requirements.

3.4.16.18 Construction Mitigation

Construction Mitigation Needs More Detail (6t-1)

Commenters requested that CN study the construction impacts and detail proper mitigation in the Final EIS, since the commenters felt that an evaluation of the construction impacts are inadequate in the Draft EIS. Commenters requested that the Final EIS address mitigation for construction noise, vibration, traffic, and air quality. For instance, commenters asked that construction be completed at times when children are not in school for their safety and to promote an environment that does not pollute or disrupt their education. Commenters also requested that construction be limited to certain hours of the day to not interfere with residents.

Commenters requested that plans for construction of additional track be outlined so the public can properly consider the impact and suggested mitigation. Commenters requested that if another track is added next to a sensitive receptor such as a school, the dates/hours of construction, estimated project length, construction noise levels, etc. need to be reported. Commenters believe that construction of 19 miles of tracks will have an enormous negative impact on the environment.

Response

The project proposes to modify portions of the EJ&E rail line, therefore construction activities will likely occur at different times and in different locations throughout the Study Area. Construction effects would be temporary and localized around the connections and double track, and typically would be subject to local ordinances, state and Federal permitting requirements, etc. Best Management Practices, such as limiting construction activities to typical weekday business hours, would be implemented and would minimize the influence of noise and other potential effects of construction activities. In addition, SEA recommends mitigation to coordinate vehicle movement during construction, both for general traffic and for emergency services. The Applicants' voluntary mitigation measures and SEA's recommended mitigation measures during construction are described in Chapter 4 of this Final EIS.

3.4.16.19 Mitigation Methodology

Inaccurate and Unenforceable Mitigation (6y)

Commenters expressed concern that the methods used to determine mitigation costs were inaccurate. Others expressed concern that the mitigation proposed in the Draft EIS was either inadequate or lacked enforceability.

Response

Please refer to Chapter 4 and Appendix A of this Final EIS for a detailed explanation of the methodology for the proposed mitigation and the costs used for those mitigation options. If the Board approves the Proposed Action, it will enforce all mitigation required as a part of the approval independent of any other agency.

Mitigation Required by FRA

Several commenters expressed that the CN voluntary mitigation is required by FRA.

Response

CN's voluntary mitigation has been included as required actions by SEA. If the Board approves the Proposed Action, the Board will enforce all mitigation required as a part of the approval independent of any agency.

3.4.16.20 Other Comments on Mitigation

Insufficient Detail of Mitigation in the Draft EIS (6z-1)

Commenters expressed concern that the Draft EIS did not contain sufficient detail on what mitigation measures would be required if the Proposed Action was approved. They were especially concerned about funding and oversight measures.

Response

Resource and locations mitigation measures have been fully developed as part of this Final EIS and are detailed in Chapter 4 of the document. Please see that chapter for specifics regarding mitigation, as well as oversight and funding.

Schedule for Construction

Commenter asked that the construction schedule be considered before the project is approved.

Response

Section 2.2 of the Draft EIS contains information regarding phasing of project construction and when it is expected to be complete.

Timeframe for Mitigation (6z-3; ~~1e-21~~)

Commenters were concerned that the timeframe for mitigation oversight proposed in the Draft EIS was not sufficient for the mitigation to be completed after construction of the project. It was also unclear as to when it would begin and end and how the Board would hold CN responsible to ensure that the mitigation would be completed, especially if it affected CN operations. Commenters stated that the EIS should provide "a time frame for when the increase in rail traffic would begin as compared to when the necessary mitigation measures would be implemented if the Proposed Action is approved."

Response

SEA sought public and agency comment on the preliminary environmental mitigation strategies described in Chapter 6 of the Draft EIS and encouraged mutually acceptable negotiated agreements between CN and the affected communities. Based on public comments and input received, SEA developed final mitigation recommendations to the Board, which are described in Chapter 4 of this Final EIS. SEA's mitigation recommendations address the timing and financing of mitigation measures as well as how long the Board will oversee the implementation of mitigation. Additionally, the Applicants proposed further voluntary mitigation in response to comments on the Draft EIS.

The Board will consider both the environmental record (the Draft and Final EISs and all comments received) and the record on merits or economic issues to decide whether to authorize the Proposed Action as proposed, deny the proposal, or approve it with conditions, including environmental conditions (see 49 CFR 1105.10(a) and (f)). The Board has the ability to initiate an enforcement action against CN should they fail to comply with the measures required by this Final EIS and the Board's decision.

3.4.17 Comments on Short-term Use versus Long-term Productivity of the Environment

Long-Term Effects from Hazardous Materials

Commenters noted that an increase in the number of trains could create long-term effects due to the potential for an increase in hazardous materials releases. They also disagreed with SEA's conclusion that there would be no short- or long-term effects of hazardous-material releases in the proposed construction areas.

Response

As discussed in Section 7.2 of the Draft EIS, the release of hazardous materials during construction (primarily diesel fuel and lubricants) is unlikely due to limited use of hazardous materials used during construction, regulatory requirements for storage, use, and disposal of the materials; and management practices. In accordance with a spill-response plan, CN or the construction contractor would have personnel and equipment on-site in the event of a spill. Measures to prevent siltation of water bodies in accordance with National Pollutant Discharge Elimination System (NPDES) requirements also would limit the movement of hazardous material in the event of a spill during construction. In accordance with regulatory requirements, spills of reportable quantities would be contained and cleaned up promptly.

As discussed in Section 4.2.5 of the Draft EIS, the probability of a release of hazardous materials during rail transportation is extremely low and the probability of a release under the Proposed Action would remain remote. Intervals between anticipated hazardous materials releases under the Proposed Action varied from 71 years to 90,356 years, depending on the rail segment. As discussed in Section 4.2.5.7 of the Draft EIS, according to Pipeline and Hazardous Material Safety Administration data no hazardous materials were released to sewers, waterways, or the environment from hazardous materials incidents involving CN or EJ&E trains from 2003 to 2007. Section 4.2.5.4 of the Draft EIS indicates, due to the increased number of hazardous materials carloads projected for the EJ&E rail line, most of the route would be designated a key or major key route, and most hazardous materials would be transported by key trains subject to greater safety requirements for both track and trains.

SEA also considered the potential effects of hazardous materials on surface water, groundwater, and biological resources in the Study Area. SEA anticipates that a release of hazardous materials into the environment could lead to environmental exposure of relatively short duration because the release would be contained and remediated within a relatively short time as mandated by Federal, state, and local requirements. In the event of a hazardous materials release the Applicants would take immediate action to protect human health and the environment in accordance with 40 CFR 263, and notify the appropriate Federal and local authorities in accordance with 49 CFR 171.15 and 171.16. The amount and duration of a release would be limited by the volume in the affected railcar(s). As discussed in Sections 3.2.3.3 and 3.2.3.4 of the Draft EIS, the capabilities for response to a hazardous materials incident in and around the Chicago area are extensive. Furthermore, while the amount of hazardous materials transported on the EJ&E rail line would increase, the amount transported on existing CN lines in densely populated areas of Chicago would decrease, lowering the overall risk. (This is because overall risk is measured as the relationship of the volume of material carried, its time in transit, and miles traveled, to the population exposed to a hazardous materials incident in the Chicago area.

Long-Term Effects on Wetlands

Commenters disagreed with SEA's conclusion that long-term wetland functions would not be affected because the wetlands and wetland functions would be restored or replaced via mitigation.

They also suggested that wetlands mitigation would not be adequate to compensate for long-term effects on wetlands from construction and operation of the project.

Response

The Proposed Action would be designed to avoid effects on wetlands to the extent practicable, while the Applicants would compensate for unavoidable wetland impacts in accordance with the U.S. Army Corps of Engineers (USACE), and applicable state and county regulations. The amount of wetlands created for mitigation generally would be greater than the area affected, as USACE generally applies a wetland mitigation replacement to impact ratio of between 1.5:1 and 3:1.

Mitigation could take the form of restoring on-site wetlands, constructing new wetlands on-site, constructing new wetlands off-site, and/or purchasing wetland banking credits. Mitigation often can often produce more and higher quality wetlands than those affected by construction. CN would establish a resource agency liaison to interact with Federal, state, and local natural resource agencies to complete adaptive mitigation measures along the EJ&E ROW. SEA's recommended wetland mitigation measures are located in Section 4.4 of this Final EIS.

The Draft EIS outlines the permitting process for construction activities as required under the National Pollutant Discharge Elimination System (NPDES) Phase II regulations, including provisions for post-construction storm water management and the use of a higher level of protection best management practices (BMPs) for discharges to streams or wetlands that do not meet state water-quality standards. The Applicants must prepare a Storm Water Pollution Prevention Plan (SWPPP), which describes the erosion and sediment control BMPs to be implemented during and after construction when applying for coverage under NPDES. As part of the Clean Water Act permitting process, this SWPPP document would be reviewed by Federal, state and local regulatory agencies.

Long-Term Effects on Wildlife

A commenter expressed concern that there would be additional long-term effects on wildlife beyond those resulting from project construction. Issues such as noise, train collisions with wildlife, and wildlife being trapped between rail lines would create potential long-term effects.

Response

Although SEA acknowledges these concerns, SEA believes that bird habitat near the EJ&E and CN rail lines currently experiences noise and vibration, and that wildlife is affected by both train/animal collisions and being trapped between rail lines. SEA recognizes that, in the long-term, the Proposed Action may adversely affect wildlife in the Study Area, but anticipates that the effects would be slight.

In response to agency and stakeholder comments, mitigation measures incorporating BMPs have been developed. In addition, a resource agency liaison would be established to facilitate interaction between Federal, state, and local natural resource agencies, and CN, to complete various adaptive-management measures along the EJ&E ROW. Before beginning construction, the Applicants would survey all habitats potentially affected by the construction activity for Federal and state-listed threatened or endangered species. In addition, CN would conduct or financially support pre- and post-construction monitoring to evaluate and mitigate potential effects of the Proposed Action. Chapter 4 of this Final EIS discusses SEA's recommendations to the Board for final environmental mitigation measures to be imposed as a condition of its approval of the Proposed Action.

In addition, potential adverse effects of noise and vibration on birds and effects of train/animal collisions and entrapment between rails may decrease along existing CN rail lines where rail traffic is projected to decrease under the Proposed Action.

3.4.18 Comments on Irreversible and Irretrievable Commitments or Resources

Effects on Protected Species

Commenters disagreed with SEA's conclusion that the Proposed Action would not irreversibly or irretrievably affect animal populations. They also suggested that there would be chronic effects on wildlife that would not be fully mitigated and would exist for the foreseeable future.

Response

SEA acknowledges these concerns regarding potential effects of noise and vibration on protected species, and of train/animal collisions, wildfires, and potential releases of hazardous materials. However, SEA believes that protected species in habitat near EJ&E and CN rail line ROW currently experience such effects; SEA recognizes that, in the long-term, the Proposed Action may adversely affect wildlife in the Study Area.

Protected species would continue to be at risk from potential effects of wildfires and releases of hazardous materials transported on trains, but the probability of these events would remain very low. Mitigation measures would be implemented to further reduce the probability of these events and to limit the effects of an incident should it occur. Chapter 4 of this Final EIS discusses the final environmental mitigation measures that SEA recommends the Board impose should it approve the Proposed Action.

In the event of a hazardous materials release, the Applicants would take immediate action to protect human health and the environment, in accordance with 40 CFR 263, and would notify appropriate Federal and local authorities in accordance with 49 CFR 171.15 and 171.16. The Applicants would work with agencies such as the United States Fish and Wildlife Service, Illinois Environmental Protection Agency, and Indiana Department of Environmental Management to respond to and remediate hazardous materials releases with the potential to affect wetlands or wildlife habitats, particularly those of Federal listed threatened or endangered species.

In response to agency and stakeholder comments, SEA has developed mitigation measures that include BMPs. Establishment of a resource agency liaison also would facilitate interaction among Federal, state, and local natural resource agencies and CN to complete various adaptive management measures along the EJ&E ROW. Before beginning construction, the Applicants would survey all habitats potentially affected by construction for Federal- and state-listed threatened or endangered species. In addition, CN would either conduct, or supply financial support for pre- and post-construction monitoring to evaluate and mitigate potential effects of the Proposed Action.

Finally, in habitat along existing CN rail lines where rail traffic is projected to decrease under the Proposed Action, effects of noise and vibration, train/animal collisions, wildfires, and potential releases of hazardous materials may decrease.

Irreversible Effects on Land, Water, and Wildlife

The Forest Preserve District of DuPage County expressed concern that the Proposed Action would adversely affect the character of the Pratt's Wayne Woods Forest Preserve, resulting in an irreversible and irretrievable commitment of land, water, and protected species resources.

The District stated that two of the Munger alternatives would require forest preserve land and that development of the land for the connections would cause an irreversible and irretrievable commitment of resources due to significant disruption to soils and subsurface materials considered protected and preserved. These soil and mineral resources and their associated ecological function in an unaltered state are valuable resources with connectivity to surrounding resources.

The District also stated that the construction of the proposed Munger connection would cause an irreversible and irretrievable commitment of resources due to the loss of wetlands connected to adjacent landscapes, therefore, the District believes that mitigation should be made within the same sub-watershed as the losses.

Finally, the District does not concur with SEA's conclusions regarding the four primary categories of risk (effects of noise and vibration, train/animal collisions, wildfires, and potential releases of hazardous materials) within Federal, state, and local conservation and natural areas. According to the District, the loss of wildlife would not be fully mitigated with proposed mitigation measures and the loss of protected species would continue into the foreseeable future.

Response

Land: In the majority of situations, land converted to rail use can be reconverted to the previous land use. SEA concurs that development of land whose soils and ecological functions are in an unaltered natural state would be an irreversible commitment of resources. SEA acknowledges that use of some of the land for development of two of the Munger Alternative - Original Proposal and the Munger Alternative - Northwest Quadrant, could be an irreversible commitment. In response to concerns about conversion of natural lands to rail line and ROW, the Applicants modified their Munger alternative Original Proposed Munger Alternative to eliminate acquisition of a portion of the Pratt's Wayne Woods Forest Preserve. The proposed connection would be constructed within existing EJ&E and Commonwealth Edison ROW and would not require the acquisition of forest preserve land. Since the land proposed for construction of this revised alternative is used for transportation and utility purposes, use of this land by the Applicants would not constitute an irreversible commitment of resources.

Water Resources: Design of the selected alternative would avoid and minimize wetland losses to the extent practicable. The Applicants would compensate for unavoidable wetland losses in accordance with USACE, state, and applicable county regulations. The extent of wetlands created under mitigation would be greater than the affected area because USACE permitting generally requires a wetland mitigation replacement to impact a ratio of between 1.5:1 to 3:1. Mitigation can take the form of restoring on-site wetlands, constructing new wetlands on-site, constructing new wetlands off-site, and/or purchasing wetland banking credits. Mitigation often can produce more and higher-quality wetlands than those affected by construction. CN would establish a resource agency liaison to interact with Federal, state, and local natural resource agencies to complete adaptive mitigation measures along the EJ&E ROW. The wetland mitigation process would address whether restoration or replacement of wetlands could practicably be performed in the affected sub-watershed.

Protected Species: SEA acknowledges the District's concerns regarding effects on protected species from noise and vibration, train/animal collisions, wildfires and potential releases of hazardous materials. SEA believes that protected species in habitat near EJ&E and CN rail line ROW currently experience noise, vibration, and train/animal collisions, but recognizes that, in the long term, the Proposed Action may adversely affect wildlife in the Study Area. Protected species would continue to be at risk from potential effects of wildfires and releases of hazardous materials transported on trains, but the probability of these events would remain remote, and mitigation measures would be implemented to further reduce the probability of these events and to limit the effects of any incident. SEA's recommend mitigation measures are in Section 4.4 of this Final EIS.

In response to stakeholder and agency comments, SEA has developed mitigation measures that include best-management practices and establishment of a resource agency liaison to facilitate interaction among Federal, state, and local natural resource agencies, and with CN to complete various adaptive management measures along the EJ&E ROW. Before beginning construction, the Applicants would survey habitats potentially affected by construction for Federal- and state-listed

threatened or endangered species. In addition, CN would conduct, or supply financial support for pre- and post-construction monitoring to evaluate and mitigate effects of the Proposed Action.

Finally, effects of noise and vibration, train/animal collisions, wildfires, and potential releases of hazardous materials may decrease in habitat along existing CN rail lines where rail traffic is projected to decrease under the Proposed Action.

3.4.19 Comments on Outreach and Coordination

3.4.19.1 Public Input

Summary

Commenters questioned the process SEA is using to analyze and incorporate comments, voicing concerns that not all comments would be considered, and that consequently not all issues would be addressed or reviewed before the decision is made.

Response

SEA has fully considered each comment submitted during the comment period on the Draft EIS. All comments received have been used in preparing this Final EIS and will be part of the record before the Board when it issues its final decision on this matter. To encourage broad participation in the NEPA process, SEA offered numerous ways for the public to provide comments, including:

- Submitting comments on forms provided at the public open house/meetings
- Letters to SEA postmarked by September 30, 2008
- Statements dictated to a court reporter at a public open house
- Oral statements given during a public meeting
- Statements recorded on the project hotline
- Comments electronically filed on the Board's "E_FILING" system
- E-mails sent to Board staff

Because SEA received a large number of comments, a systematic process was established to ensure that each comment was fully considered, reviewed by SEA, and responded to appropriately. The comment and response process is described in Section 3.1.4 in this Final EIS.

Meeting Schedule

Commenters expressed the opinion that the dates of public meetings on the Draft EIS did not allow sufficient time to review the Draft EIS thoroughly before the meetings and then not enough time to formulate comments after the meetings.

Response

SEA's schedule allowed the public the opportunity to review the Draft EIS prior to the meetings and formulate comments after the meetings prior to the comment deadline. The Draft EIS was released on July 25, 2008, and the first public meeting was not held until August 25, 2008. The last public meeting was held on September 11, 2008, and the comment period did not close until September 30, 2008. SEA believes all parties were allowed adequate time to provide meaningful comments.

Speaker Time Limit

Commenters doubted they were allowed to properly comment on the Draft EIS because they were limited to 3 minutes for oral comments during public meetings.

Response

SEA wanted to ensure that all parties desiring to speak at the public meetings had an opportunity to do so and therefore established the 3-minute limitation. While limited to 3-minutes to present oral comments, all speakers were encouraged to submit further comments using any of the appropriate modes, and many commenters did use other modes.

Multilanguage Needs

Commenters questioned the amount of multilanguage materials available during public outreach efforts.

Response

The Board provided multilingual materials whenever possible to encourage public participation. Notifications for public meetings were placed in Spanish as well as English newspapers. Throughout the process, the project toll-free hotline included Spanish options. Handout materials at the scoping and Draft EIS public meetings were available in Spanish and a Spanish translator was provided. At the Draft EIS public meetings, comment forms were available in English, Spanish, Polish, Russian, and Chinese. Anyone requiring assistance due to language restraints was encouraged to use the project toll-free hotline to request additional assistance.

3.4.19.2 Information Requests

Summary

Commenters requested information including additional analysis, maps, data, construction plans, or records.

Response

The results of all the analyses conducted by SEA regarding the Proposed Action are contained in the Draft and Final EIS documents. Further information can be found on the Board's website www.stb.dot.gov under Environmental Matters as well as on the project website: www.stbfinancedocket35087.com. The analysis and further information available in this Final EIS addresses all comments and information requests submitted during the Draft EIS comment period.

Draft EIS Request

Commenters requested copies of the Draft EIS.

Response

Copies of the Draft EIS were distributed as requested.

Final EIS Contents

Commenters requested information that would be contained in this Final EIS, such as a report of comments submitted, or responses to submitted comments.

Response

SEA has distributed this Final EIS to the parties on the environmental distribution list and made it available at public libraries. All comment documents on the Draft EIS postmarked between July 25 and September 30, 2008 are located in Appendix E of this Final EIS; responses to those comment documents are located in this chapter.

3.4.19.3 Process Improvements

Insufficient Information

A commenter expressed concern that information disseminated to the public by the Board was insufficient.

Response

SEA performed extensive public outreach during the scoping phase of the NEPA process and after the release of the Draft EIS. Public outreach throughout the NEPA process is described in Chapter 9 of the Draft EIS and Chapter 5 of this Final EIS.

Lack of Notification for Public Meetings

A commenter suggested that SEA did not notify the public of upcoming meetings.

Response

SEA provided notice for public meetings through mailings to the environmental distribution list that was maintained throughout the project, as well as through newspaper ads, press releases, and posters that were placed in public libraries within the Chicago area. Information regarding SEA's actions to provide notice of public meetings is described in Chapter 9 of the Draft EIS and Chapter 5 of this Final EIS.

Mailings on the Proposed Action

A commenter requested that SEA send mailings to interested parties.

Response

SEA has provided project information through mailings to the environmental distribution list, which was maintained throughout the project. Public outreach throughout the NEPA process is described in Chapter 9 of the Draft EIS and Chapter 5 of this Final EIS.

Timing of the Public Meetings

A commenter suggested that SEA should have held the public meetings much earlier in the process to get input.

Response

SEA held 14 scoping meetings after the release of the Draft Scope of Study in January 2008 to receive public input. Interested parties were encouraged to read the Draft Scope of Study, attend public meetings for further project information, and provide input on the project. Public outreach efforts early in the review process are discussed in Chapter 9 of the Draft EIS and Chapter 5 of this Final EIS.

Project-Related Meeting in South Holland

A commenter expressed concern about a public meeting in South Holland; there was less than a 24-hour notice and the meeting was held at an inconvenient time.

Response

SEA appreciates all public participation; however, this meeting was not sponsored, attended, or administered by SEA. Therefore, SEA had no input in or control over the advertising, timing, and location of the South Holland meeting. SEA's understanding is that this meeting was sponsored and run by local officials without the SEA's input or attendance. SEA performed extensive public outreach as discussed in Chapter 9 of the Draft EIS and Chapter 5 of this Final EIS.

Continue Community Liaison

A commenter representing Wayne, Illinois suggested continuing the community liaison for 2 years after the proposed changes in operations are complete.

Response

SEA performed public outreach above and beyond the basic requirements of NEPA throughout the environmental review process. SEA's public outreach activities performed in completing the EIS are discussed in Chapter 9 of the Draft EIS and Chapter 5 of this Final EIS. Further outreach beyond that performed as part of the environmental review process will not be performed.

ADA Accessibility

Commenters made requests for wheelchair access to public meetings.

Response

All venues for public meetings were ADA-accessible.

3.4.19.4 Special Meeting Requests

Summary

Commenters requested additional meetings, different meeting locations, or made general comments regarding the selection of meeting locations.

Response

The Board carefully considered locations for public meetings on the Draft EIS. To encourage public participation and comment, SEA held eight public meetings and open houses in selected areas within the Chicago metropolitan region.

Two primary considerations were used to determine the number and location of the public meetings: 1) the need to choose locations that would not be too far from potential commenters given the impossibility of scheduling meetings in every community in the Study Area and 2) comment activity during scoping. Also, SEA looked for available public venues to serve as meeting sites. Schools and universities with adequate capacity, availability, and centrality were chosen where possible. To the extent practical SEA coordinated the meeting locations with local officials.

While meetings could not be held in every community, meetings were advertised in local newspapers and flyers were posted in public areas in more than 50 communities to ensure all concerned citizens

knew of the dates, times and locations. Working with the media also allowed for additional press coverage.

To encourage participation of low-income and minority groups, SEA held meetings with local citizens' groups and elected officials and sent information packages to educate them on the project and the environmental review process. Comments were gathered and included for the Board's review. In short, while the meeting locations did not please everyone, SEA did provide enough meetings and open houses to enable all interested parties to participate.

CN Petition

Commenters requested additional meetings if the Board granted CN's petition for a bifurcated decision, filed August 14, 2008.

Response

In Decision No. 14, dated September 8, 2008, the Board denied CN's request for a bifurcated decision process.

Indiana Meetings

Commenters objected that no meetings were held in Indiana and that all meetings were held in Illinois.

Response

SEA held a public scoping meeting to solicit comments on the draft scope of the EIS in Gary, Indiana on January 16, 2008. SEA held a second public meeting in Gary on September 11, 2008, to solicit comments on the Draft EIS. During the Draft EIS comment period two stakeholder group meetings were held in Indiana. There also were several community meetings in Indiana with representatives of environmental justice populations.

3.4.19.5 Information Corrections

Incorrect Graphics

One comment was received stating that the graphics in meeting announcement materials were out of date and misleading to readers.

Response

The graphics used in all materials announcing the Draft EIS public meetings were created using the most current information available for the project area.

3.4.20 Comments on Non-NEPA Topics

Homeland Security

Commenters were concerned about how the Proposed Action could affect homeland security, and questioned why the Draft EIS did not address direct or indirect effects on homeland security. Other commenters were concerned about the security risks of bringing imported goods through Canadian rather than U.S. ports, or how the increase in trains owned by a foreign company would affect the security of U.S. citizens.

Response

SEA did not address homeland security in the Draft EIS because whether or not the Proposed Action is approved, CN will continue to implement existing homeland security programs in collaboration with U.S. agencies. U.S. Customs and Border Protection (CBP), an integral part of the Department of Homeland Security (DHS), and Canada Border Services Agency (CBSA) cooperate to expedite transborder shipping while minimizing the risk of terrorist threat. CN is a fully certified participant in CBP's Customs-Trade Partnership Against Terrorism (C-TPAT) program and CBSA's Partner in Protection Program (PIP). CN has partnered with U.S. Customs in this initiative to build cooperative government-business relationships that strengthen overall supply chain and border security. This program is intended to enhance procedures in conveyance and physical plant security, access controls, manifest accuracy, personnel security, education, and training awareness.

H.R. 6707: The Taking Responsible Action for Community Safety Act

Commenters supported the bill and requested that the Board consider H.R. 6707 as the review process continues.

Response

H.R. 6707 was not passed into law. Therefore it does not apply to the Board's requirements for the Proposed Action.

Approximate Amount of CN Track in U.S.

Commenter wanted to know how much U.S. track CN already controls and owns and where it is located.

Response

CN's U.S. network comprises 6,400 route miles in 16 states, connecting the Canadian network to the U.S. Midwest and to the Gulf of Mexico ports of Mobile, Alabama and New Orleans.

Claims for Damages

A commenter stated that her window had been broken by a rock from a passing train and that the EJ&E rail line would not pay for the damage.

Response

Claims for damages can be filed with the railroad for evaluation. Compensation is made only if the railroad is determined to be responsible for the damage.

Limited Access to Public Water Supply Information

A commenter asked to know why access to public water supply information was "limited for purposes of homeland security."

Response

To improve the ability of the U.S. to prevent, prepare for, and respond to bioterrorism and other public-health emergencies, Congress passed the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (the Bioterrorism Act). In response to this new act, local water agencies now limit access to information that could affect the vulnerability of their system to a

terrorist attack. Each agency determines what information should not be made available to the public. More detailed information related to the Bioterrorism Act can be found at http://www.fda.gov/oc/bioterrorism/Bioact.

Materials and Products CN Ships

A commenter asked what materials and products CN ships.

Response

CN ships automotive parts and finished vehicles, bulk commodities, coal, consumer products, fertilizer, forest products (e.g., pulp, paper, lumber and panels), grain, hazardous materials or dangerous goods, metals and minerals (e.g., steel and non-ferrous metals), petroleum products and chemicals, alternative energy products and components, such as, ethanol, biodiesel, wood pellets, and wind towers and turbine components, and construction materials.

Comment Letter was Not Legible

Several comment documents were not legible.

Response

Because SEA could not read the comments, it could not respond.

Trackage Rights

Commenters wanted to know how the project would impact CN's competitors.

Response

The trackage rights of UP, BNSF and CP should not be affected by the Proposed Action because trackage rights agreements are legal documents binding all signatories per the language of the specific agreement. SEA assumes that CN will adhere to all existing trackage agreements; basing analysis on scenarios in which CN would abrogate existing agreements is speculative and beyond the scope of this EIS.

Understanding of Future Use of EJ&E Rail Line

A commenter understood that the EJ&E rail line was designated for future commuter trains and did not expect increases in freight trains.

Response

The EJ&E rail line is a current provider of freight rail service to approximately 100 customers, including steel mills, coal utilities, plastics and chemical producers, steel processors, distribution centers, and scrap processors. While there are plans to route commuter trains on segments of the EJ&E rail line, freight traffic will continue on the rail line as well.

Nationalizing the CN System in the U.S.

A commenter asked why the Canadian government does not nationalize the U.S. CN system.

Response

If the Board approves the Proposed Action, the EJ&E rail line would be a Canadian asset located in the U.S. The Canadian government cannot nationalize assets located in the U.S.

General Environmental Comments

Commenters expressed general concerns about the effect the Proposed Action would have on the environment without referencing specific resource issues. They also believed that SEA had not listened to nor properly responded to these concerns. Although they did not disapprove of progress, they felt it required proper planning.

Response

SEA followed the entire NEPA process, including public scoping and involvement. Through the process SEA addressed potential effects on the individual resource categories as part of the overall environmental context, for example, air quality, noise, and biology among others. The results of SEA's analyses are included in Chapter 4 of the Draft EIS; additional information and analysis results are presented in Chapter 2 of this Final EIS.

3.4.21 Comments in Support of the Proposed Action

Support and Benefits

A number of commenters indicated support for the Proposed Action. They believe it would improve the rail system function in the Chicago area by relieving rail traffic congestion and delays on the rail lines that run through central Chicago. Commenters also indicated the Proposed Action would reduce vehicle traffic congestion and delays, reduce noise, improve safety, and reduce air emissions in their communities. Some indicated that many communities experience higher levels of rail traffic than noted in the Proposed Action and have acclimated to the traffic.

Response

The Draft EIS describes a variety of potential benefits for those communities where train traffic would be reduced. Additional information on potential benefits is included throughout this Final EIS. For example, reduced vehicle delays at various highway/rail at-grade crossing on the affected CN line segments.

Support and At-Grade Crossings Mitigation

Commenters shared their support for the Proposed Action and requested mitigation for potential effects from at-grade crossings on traffic and safety. The Effingham Railroad Company supports the Proposed Action and states that it would be beneficial to the economy of the Effingham region, which includes towns within and near the City of Effingham, Illinois. They believe that SEA provided a thorough and balanced evaluation of potential effects of the Proposed Action and that CN should not be required to bear any burden beyond the joint public and private sector approaches to at-grade crossing matters that now exist in most states.

Response

Mitigation measures have been identified for traffic delays and safety to reduce effects on in the Study Area communities along the EJ&E rail line. SEA's recommended mitigation requirements are included in Chapter 4 of this Final EIS.

Support and Reduced Rail Congestion Benefits

Several commenters noted that the Draft EIS talks slightly about the benefits to communities inside the EJ&E arc and that the document should have placed more emphasis on benefits. They stated that reduced rail congestion under the Proposed Action would benefit their communities. Benefits would include reduced risk for vehicle, pedestrian, and cyclist accidents with trains. Commenters also expressed concern that without the Proposed Action the Chicago region may not be as competitive as freight companies look elsewhere for new routes. Lastly, some commenters specifically requested that this Final EIS include their comments.

Response

The Draft EIS describes a variety of potential benefits, which are included throughout this Final EIS, for those communities where train traffic would be reduced. SEA reviewed more than 9,500 comment documents and identified the issues and concerns within each comment document. SEA's responses to the identified issues and concerns are contained in this chapter. For example, several communities indicated that they would benefit from less train noise on the affected CN rail line segments.

Support and Request for Final EIS Schedule

Commenters from the Indiana Chamber of Commerce stated their support for the Proposed Action and requested a schedule for completion of the Final EIS.

Response

The Board established a procedural schedule for completion of this Final EIS in Decision 13, issued on July 25, 2008. In that decision, the Board stated it would complete this Final EIS sometime between December 1, 2008 and January 31, 2009.

Support, Land Use and Socioeconomic Concerns

Commenters stated that they support the Proposed Action, but have concerns regarding infrastructure, growth patterns, property values, and economic development.

Response

Generally, the Proposed Action is not anticipated to create a substantial negative effect on infrastructure, growth, property values, and economic development. SEA has evaluated the mentioned socioeconomic resources in Sections 3.6 and 4.6 of the Draft EIS and Section 2.7 of this Final EIS.

Support and Air Quality Benefits

Several commenters stated that the Proposed Action would improve air quality.

Response

The Draft EIS describes a variety of potential benefits for those communities where train traffic would be reduced, including improving air quality. Additional information on potential benefits is included throughout this Final EIS.

Support and Travel Time Savings Benefits

Commenters stated their support for the Proposed Action and mentioned that they would experience benefits through travel time savings.

Response

The Draft EIS describes a variety of potential benefits for those communities where train traffic would be reduced, including travel time savings. Additional information on potential effects, both beneficial and adverse, is included throughout this Final EIS.

Outreach to Supportive Communities

Commenters stated their support for the Proposed Action, but generally mentioned that public hearings should have been conducted in areas that would potentially benefit from the Proposed Action.

Response

The Draft EIS describes a variety of potential benefits for those communities where train traffic would be reduced. Additional information on potential benefits is also included in this Final EIS. SEA held eight public meetings during the Draft EIS comment period throughout the Chicago region. Comments received as part of the public outreach process, which includes those in support of and opposition to the Proposed Action, are addressed in this Final EIS.

Support and Overpass/Tunnel Safety

Commenters stated their support for the Proposed Action and inquired about overpass and pedestrian tunnel safety requirements.

Response

The Draft EIS describes a variety of potential benefits for those communities where train traffic would be reduced. Overpass and pedestrian tunnel safety requirements are considered as part of the railroad design standards. Details regarding rail safety are provided in Section 4.3 of the Draft EIS.

Support and Noise Benefits

Commenters stated their support for the Proposed Action and mentioned that they would experience beneficial noise reductions.

Response

The Draft EIS describes a variety of potential benefits for those communities where train traffic would be reduced including a decrease in noise levels. Train traffic and noise levels would be reduced because some, but not all, train traffic would be redistributed onto the EJ&E rail line.

Support and Resolution

The Thornton Township High School District No. 205 Board of Education and the Board of Trustees of the Village of Buffalo Grove, Illinois expressed their support for the Proposed Action and provided resolutions.

Response

The resolutions provided by the Thornton Township High School District No. 205 Board of Education and the Trustees of the Village of Buffalo Grove are included in Appendix E (CD version) of this Final EIS.

Support and Business Service Request

The Chicago Southland Economic Development Corporation (CSEDC) commented that the Proposed Action would offer several economic development benefits to the Chicago Southland area. The CSEDC also requested that this Final EIS include a measure that CN agree to provide daily business service to existing and proposed industrial developments in Sauk Village, Chicago Heights, Matteson, and Richton Park, Illinois which border the EJ&E rail line.

Response

The Draft and Final EIS describe a variety of potential benefits including potential economic development benefits. The existing EJ&E rail line traverses the communities of Sauk Village, Chicago Heights, Matteson, and Richton Park, Illinois. The Applicants' operations plan did not include plans to develop a spur or siding to accommodate daily service for the existing or proposed industrial developments within the mentioned communities. This request has been brought to the attention of the Applicants for their consideration.

Support and Mitigation Funding

Commenters expressed concern that the Applicants would use their own resources to accommodate affected communities, building overpasses where possible, trenches, etc. The commenters requested that corporations that utilize the railroad pay for the use of community resources, potential environmental effects, and safety improvements.

Response

The Applicants have established voluntary mitigation measures that they perceive as reasonable for minimizing adverse effects or providing safety, travel time, air quality, noise, economic, and other benefits throughout the region. Chapter 4 of this Final EIS describes SEA's recommended mitigation.

3.5 Comments from the Applicants

The Applicants submitted extensive comments on the Draft EIS on September 30, 2008; SEA is addressing those comments as an individual letter and response. Summaries of CN's comments and SEA's responses to those comments are provided below. CN's comment letter is provided in its entirety in Appendix E.

3.5.1 NEPA Process

Expeditious Review

The Applicants complained SEA and the Board did not conduct a sufficiently expeditious enough review process and raise concerns that as a result there is a real risk that CN's stock purchase agreement with EJ&E West Company will be terminated before the Board has finished its review.

Response

The Board has acted as expeditiously as possible. Depending on the proposal and the extent of potential environmental effects, completion of the NEPA process can take from several months to several years. In its Decision No. 2 in this proceeding, the Board determined that a full EIS would be needed to fulfill the Board's NEPA obligations and that issuance of a final decision on the merits would not occur until the NEPA review was complete. The Board, through SEA, proceeded to prepare the Draft EIS in as expeditious manner as possible in keeping with the requirements of NEPA and recognizing CN's business need for a decision by the end of 2008. The Board issued the Draft EIS on July 25, 2008, seven months after the issuance of the Notice of Intent to prepare an EIS.

The Board issued Decision No. 13 on July 25, 2008, addressing CN's May 13, 2008, Request for Establishment of Time Limits for NEPA Review and Final Decision. In that decision, the Board set a schedule that projects completion of this Final EIS between December 1, 2008, and January 31, 2009, with issuance of a final decision anticipated as soon as possible thereafter. Notwithstanding the need to respond to the approximately 9,500 comments received on the Draft EIS, this comprehensive Final EIS is being issued in December 2008, less than 5 months after issuance of the Draft. Thus, SEA has completed the EIS process here in less time than the time NEPA review has taken in other cases with similar issues without jeopardizing the ability to conduct a thorough and complete environmental review process.

Draft EIS Reflects a Reaction to Controversy

The Applicants stated that the scope of study for the EIS presented no significant issues and that the "extraordinary length and cost of the Board's process" is almost entirely attributable to its response to the controversy that had been generated by a number of opposing communities along the EJ&E rail line. The Draft EIS reflects a reaction to public controversy rather than an independent, professional environmental review.

Response

SEA has prepared the EIS in accordance with NEPA and all applicable regulations. As noted above, SEA has completed the EIS process in less time than in other cases with similar issues, while still conducting a thorough and complete environmental review. SEA believes that taking the time necessary to allow for meaningful public participation and to address public comments and concerns is an important part of the NEPA process.

Draft EIS Abandoned Rigorous Objectivity

The Applicants are concerned that the Draft EIS "abandoned rigorous objectivity" with respect to the analysis of increased delays at railroad grade crossings and gives "short shrift" to potential beneficial impacts of the Proposed Action on "the majority of the affected population in the region." The Applicants suggested that Barrington, Illinois' "well-funded activism" may have influenced the Board's approach to the Proposed Action, and that the Board's approach is not in the broad public interest. The Applicants emphasized that the number of citizens who would be positively affected by the Proposed Action is "far more" than the number who would be negatively affected. In their review, the Board made no attempt to reach out to the people in Harvey, Illinois, who will see a reduction in average delay per vehicle "which almost exactly matches the average increase in delay per vehicle" for Barrington.

Response

As the EIS shows, SEA's analysis of increased delays at railroad grade crossings was thorough and well documented. SEA did not give short shrift to beneficial impacts; both the Draft and Final EIS explain that there would be potential benefits associated with the Proposed Action in certain areas, and potential adverse impacts in others, and that many of the communities where rail traffic would increase under the Proposed Action already face serious delays at railroad grade crossings. SEA conducted an extensive public outreach program to encourage broad participation in the environmental review process. This included outreach to citizens along the CN rail lines In the Chicago area, where rail traffic is expected to decrease, thereby resulting in environmental benefits.

Using NEPA to Prevent Change

CN stated that NEPA was not intended to be a tool to be used to prevent change that has demonstrable economic, environmental, and social benefits for the region generally and for minorities and other environmental justice communities in particular.

Response

SEA understands that the purpose of NEPA is to fully disclose the potential environmental effects of a proposed action and all reasonable alternatives and to provide that information to decisionmakers and the public before decisions are made.

Final EIS Should Reflect a Balanced Perspective

CN stated that, rather than "bending its standards in the face of controversy," the Board should revert to its prior standards and produce a Final EIS "based on solid law, science, reason, and economics from a balanced perspective, informed by generally applicable public policies."

Response

SEA has proceeded as expeditiously as possible given NEPA requirements and its obligation to conduct a thorough and complete environmental review. SEA used its best efforts to analyze and document both the adverse and beneficial impacts of CN's Proposed Action in the EIS. To provide a thorough and balanced environmental review, SEA collected and verified environmental information from CN, consulting agencies, other interested parties, and the general public; conducted independent environmental analyses; developed appropriate environmental criteria and methodologies for analyzing particular environmental issues; and prepared environmental documentation and mitigation options. SEA has considered all of the public comments submitted on the Draft EIS and, as a result, has made changes that are reflected in this Final EIS.

In this EIS, SEA has analyzed the potential environmental effects of the Proposed Action in accordance with the best available information and science. While the methodology used for some analyses in the EIS may differ from those prepared in other proceedings, SEA believes that different circumstances and information warrant the application of different analysis methods. The EIS thoroughly explains the reasons why SEA's methodology for each environmental impact area was chosen.

SEA's Analysis is Far More Extensive than Required

The Applicants stated that SEA's comprehensive assessment of the environmental effects of the Proposed Action generally satisfies the requirements of NEPA and the Board's environmental regulations. They agree, however, that the level of scrutiny of potential environmental effects is

unprecedented in a "minor" proceeding. The Applicants suggest that the analysis in the Draft EIS may be "far more extensive than NEPA would require for this relatively small transaction."

Response

The EIS contains an appropriate environmental analysis of the potential environmental effects of the Proposed Action. This acquisition requires authorization from the Board and thus qualifies as a "major Federal action" under the CEQ regulation. The Board never has never taken the position that NEPA review should be different in an acquisition case classified as a "minor action" for purposes of the transportation-related analysis under 49 USC 11323-11325.

Need for Timely Decision

The Applicants reiterated their position that the Board should make a final decision on the Proposed Action that would be effective by December 31, 2008. If that is not possible, the Applicants asked that the transportation merits be addressed by that date. Assuming it finds that the Proposed Action otherwise qualifies for approval, the Board should condition its approval on CN's submitting to such additional environmental analysis as may reasonably be required and to such reasonable further mitigation as the study indicates is necessary.

Response

The Board, through SEA, has prepared the EIS in this case in as expeditious a manner as possible and is issuing the Final EIS in December 2008, ahead of the Board's December 2008-January 2009 target date set in Decision No. 13. Consistent with Decision No. 13, the Board will issue a final decision as soon as possible after issuance of the Final EIS consistent with the CEQ regulations.

Foreign Ownership

CN stated that the fact that CN is a profitable company headquartered in Canada should be irrelevant to the issues before the Board.

Response

SEA agrees. There are no legal restrictions in the United States that prevent a Canadian company from acquiring assets in the United States.

Scope of NEPA Analysis

The Applicants indicated that NEPA does not require analysis of impacts for which the agency action is not the legally relevant cause. "NEPA requires no more than an examination of the reasonably foreseeable environmental effects that are caused by the agency action."

Response

In accordance with the CEQ regulations, agencies are required to analyze the direct, indirect, and cumulative impacts of a proposed action as well as connected actions. (40 CFR §§ 1508.8 and 1508.25) The scope of the EIS is consistent with these requirements.

NEPA May not Apply

The Applicants stated that the Board's authority over "minor" transactions is limited and that a minor transaction may not be disapproved on environmental grounds under 49 USC 11324(d). According to the Applicants, because it is unclear whether the Board's decision regarding a minor transaction may

be affected by the findings of a NEPA document, it is unclear whether NEPA applies to such a transaction at all.

Response

Comment noted.

Increased Rail Traffic not Subject to Review

The Applicants stated that the base for any NEPA study are those changes in traffic that would not happen "but for" the Proposed Action. The Applicants noted that the EJ&E rail line is free to accept additional traffic from the urban Chicago routes and make improvements to the capacity of its line today so long as the improvements do not constitute the construction of rail lines that invade new territorial markets without regulatory approval. Because these actions could take place without any regulatory action, the Applicants suggested that environmental review of these actions and imposed mitigation to address potential effects of these actions is not warranted.

Response

In this EIS, SEA appropriately analyzed potential changes, such as rail traffic increases and decreases that would result from the Proposed Action. SEA recognizes that railroads have the flexibility to operate using their most efficient routings so as to meet the needs of their shippers, and that existing railroads ordinarily can make improvements to their rail lines or rail facilities; add additional trackage to better serve their shippers; and reroute, increase, or decrease their level of operations on particular lines without Board approval or an environmental review. Here, however, the Applicants have sought approval from the Board for a Proposed Action. Therefore, the potential changes in traffic are properly part of the EIS analysis and the Board can impose mitigation to minimize or avoid the adverse environmental consequences of the traffic changes related to the Proposed Action.

3.5.2 Proposed Action and Alternatives

Proposed Action Would Reduce Fuel Consumption and Air Pollutants

Increased rail capacity would make it more likely that increases in freight traffic in the Chicago area would move on trains rather than trucks, reducing fuel consumption and air pollutants per unit of freight transported.

Response

SEA agrees that, in a situation where there is growth in overall freight demand, an increase in rail capacity would tend to minimize possible increases in fuel use and air pollutant emissions. SEA also agrees that transport by rail (as opposed to truck) would generate less fuel consumption and air pollutant emissions per unit of freight transported.

True Benefits are Greater than those Indicated in Draft EIS

The Applicants stated that the "true benefits" of the Proposed Action—which must be weighed against its adverse impacts—are much greater than indicated in the Draft EIS. In addition, they suggested that portions of the Draft EIS are based on flawed data or faulty assumptions, which resulted in overestimating the potential negative impacts and underestimating the potential positive impacts. In some cases, the Applicants questioned the need for some of the mitigation in the Draft EIS.

Response

In addition to the discussion of the potential benefits associated with the Proposed Action in the Draft EIS, SEA presents additional analysis of that issue in Chapter 2 of this Final EIS. For the reasons explained in the EIS, SEA believes that the data methodology and assumptions used in the EIS here are reasonable and appropriate and addresses in detail below the Applicants' specific comments.

CREATE

The Applicants stated that SEA properly discounted CREATE as an alternative to the Proposed Action.

Response

Comment noted.

Outer Rail Bypass

The Applicants stated that SEA also properly rejected as an alternative the construction of an outer rail bypass.

Response

Comment noted.

3.5.3 Rail Operations

STAR Line

The Applicants stated that Metra STAR Line project is not reasonably foreseeable because capital improvements for the project have not been planned, approved, and funded. CN stated that considering the STAR Line as reasonably foreseeable is inconsistent with SEA's past practice.

Response

SEA presented an appropriate level of discussion of the Proposed STAR Line in the Draft and Final EIS.

Train Lengths

The Applicants explained that, contrary to the view of some commenters, communities would not be divided by 10,000-foot CN trains as a result of the Proposed Action and that the Applicants proposed voluntary mitigation to prevent lengthy blockages of road crossings by CN trains.

Response

SEA based its transportation system impact assessments on the Applicants' reported number, mixture of trains lengths, and speeds. Data describing these factors are included in Appendix E of the Draft EIS. The variation in train lengths and speeds is discussed in Chapter 4 and Appendix E of the Draft EIS. Chapter 2 of this Final EIS lists revisions to the Applicants' train data and discusses resulting changes in delays due to the revisions. The Applicants' operations strategies that provide for the storage of trains on sidings also are disclosed in the Draft EIS.

As explained in detail elsewhere in the EIS, the Applicants' Voluntary Mitigation includes a measure stating that the Applicants would agree to comply with U.S. Operating Rule No. 526 which evidences

a willingness to operate the railroad in a way that minimizes the effects of train movements on motorists in communities along the EJ&E rail line. A complete list mitigation measures are included in Chapter 4 of this Final EIS.

Enhanced Capacity

The Applicants stated that the rail traffic volumes described in their proposed Operating Plan are a reasonable basis for SEA's environmental analysis of the Proposed Action. CN also stated that its "theoretical ability" to enhance capacity along the EJ&E rail line without regulatory review does not provide a reason to believe that rail traffic would grow to fill it. Projections of greater rail traffic volumes would be "unreliably speculative and unnecessary for SEA's purposes." The Applicants take particular exception to the suggestion that rail traffic projections should include rail traffic that would be possible as a result of the completion of Phase 2 of the Port of Prince Rupert's Fairview Container Terminal. The Applicants argued that construction of Phase 2 is not reasonably foreseeable because no decision to undertake the expansion has been made; demand for trans-Pacific intermodal traffic is lower than expected; West Coast ports that compete with the Port of Prince Rupert are expected to expand their capacity, and expansion would require environmental permitting and the resolution of Canadian Native American claims.

Response

The EIS contains ample basis to support the conclusion that the rail traffic volumes in the Applicants' Operating Plan were reasonable. In preparing this Final EIS, SEA has carefully examined the rationale put forward by the Applicants as to why Port of Prince Rupert Phase 2 is not reasonably foreseeable, and weighed it with other comments, new information from the Port of Prince Rupert, and professional judgment.

SEA concurs with the Applicants that the Applicants' plans for the EJ&E rail line are independent of Prince Rupert Phase 2 and there is no guarantee that traffic from the Port of Prince Rupert would ultimately be routed through Chicago prior to 2015.

3.5.4 Safety

CN and EJ&E Rail Lines Safety Records

The Applicants agreed with SEA's conclusion in the Draft EIS that there would be an overall system-wide decrease in accidents. They note that CN has a better safety record than EJ&E and that the safety record of Illinois Central and Wisconsin Central improved after CN acquired those railroads.

Response

SEA's safety analysis confirms that CN's safety record is better than the EJ&E's on a per-train-mile basis. SEA used CN's historic safety record as a basis for projecting accidents under the Proposed Action.

Shift to Rail Transport will Enhance Hazardous Materials Safety

The Applicants stated that to the extent that reduction in rail congestion in Chicago makes shippers less likely to shift from rail transportation to inherently more unsafe truck transportation, it will enhance overall hazardous materials safety

Response

SEA agrees.

FRA Satisfied with CN Safety Integration Plan

The Applicants stated that they submitted a Safety Integration Plan pursuant to Board and Federal Railroad Administration regulations and that FRA has indicated that it is satisfied with the plan.

Response

Comment noted.

Only CN's U.S. Safety Record is Relevant

The Applicants, referencing a Canadian Parliamentary report concerning CN safety matters in Canada submitted by other commenters, stated that only CN operations in the U.S. are relevant for purposes of the EIS because those are the only ones that can be properly compared with EJ&E.

Response

SEA received numerous requests that the Board consider CN's safety record within Canada. In response, SEA conducted a brief analysis of this matter. Results are presented in Appendix A of this Final EIS.

Requirement for Low-Spark Brake Shoes

The Applicants objected to SEA's proposed mitigation requiring low-spark brake shoes on railcars in addition to locomotives. The Applicants stated that they cannot require shippers and other railroads to install brake shoes on their equipment and that retrofitting the Applicants' railcars to install low-spark brake shoes would be "prohibitively expensive" and not justified by the expected reduction in the incidence of accidental fires.

Response

SEA agrees.

Vehicle Safety

The Applicants objected to a proposed mitigation measure in the Draft EIS that would have required the Applicants to hold public meetings to notify the public of increased operations.

Response

SEA concurs. The Applicants' proposed voluntary mitigation measures include sufficient outreach, media campaigns, and educational programs for the public.

Reduced Exposure Time Improves Hazardous Material Safety

The Applicants stated that the Proposed Action would result in the more rapid movement of hazardous materials across the Chicago region, thus improving safety by reducing the time during which people would be exposed to risk and reducing the time during which hazmat railcars would be vulnerable to vandalism, terrorism, or other malicious activities that could lead to a harmful release.

Response

Comment noted.

Hazardous Material Volumes will Increase under the No-Action Alternative

CN stated that, even under the No-Action Alternative, the volume of hazardous materials moving on the EJ&E rail line may increase because of recent Federal regulations that require rail carriers to alter existing routes for hazardous materials to avoid dense urban populations.

Response

SEA agrees that it is possible that, even under the No-Action Alternative, hazardous materials shipments may increase along the EJ&E rail line.

Public Notification and Response Plan Requirements Unreasonable

The Applicants objected to portions of SEA's proposed mitigation measures (Nos. 11 and 12) in the Draft EIS requiring notification of individuals residing in communities affected by hazardous materials and requiring the Applicants to submit emergency response plans to relevant agencies 60 days after the effective date of the Board's final decision. In addition, they argued that it would be unreasonable to obligate the Applicants to establish more than one toll-free number and to require CN to establish a Spanish-language option.

Response

SEA took the Applicants' comments into account in developing final mitigation recommendations for the Board, which are described in Chapter 4 of this Final EIS.

3.5.5 Transportation

Candidates for Grade Separation

The Applicants stated that, using criteria the Board applied in past proceedings, the only candidates for grade separation would be the at-grade crossings at Woodruff Road and Washington Street in Joliet, Illinois. The Applicants explained that they have negotiated a settlement agreement with the City of Joliet that addresses all of Joliet's concerns regarding the environmental effects of the Proposed Action, including delays at the Woodruff Road and Washington Street crossings. CN requests that the terms of the agreement be imposed as a condition in lieu of other location-specific mitigation SEA may otherwise impose at these crossings.

Response

As this Final EIS explains, SEA used the most appropriate methodology for this case to evaluate impacts on transportation.

Given the negotiated agreement between the Applicants and the City of Joliet, SEA did not recommend additional mitigation for the crossings at Woodruff and Washington Streets in Joliet.

Improperly Used FHWA Guidelines

The Applicants stated that SEA has offered no rational basis for the consideration of the imposition of grade-crossing separations based on analysis other than level of service (LOS).

Response

The Final EIS explains why SEA properly used factors in addition to LOS in this proceeding to fully evaluate grade separation-related issues.

Funding Grade Separations

The Applicants raised concerns that SEA's methodology would require the Applicants to construct and fund grade separations that are not warranted as a result of the Proposed Action.

Response

Comment noted. The Final EIS contains a full discussion of the methodology SEA used to identify at-grade locations that might warrant grade separation. SEA believes all of its determinations on grade separation issues are reasonable and appropriate for this case.

SEA Did Not Properly Analyze Impacts on Vehicular Traffic

The Applicants stated that SEA did not properly analyze impacts on vehicular traffic and overstated the potential impact on delays at grade crossings. The Applicants stated that SEA's analysis should use the train counts most recently reported by CN, updated train speeds, and the most recent reports of average daily traffic (ADT) information. The Applicants also stated that SEA's analysis should not use projected ADTs or, if projected ADTs are used, such projections should be based on reasonable growth assumptions rather than the ones used in the Draft EIS.

Response

SEA used the most recent data available in its analysis of vehicle delays. Local and regional traffic data sources were contacted and their most recent traffic counts used. The Applicants' most recent data regarding train operations were reviewed by SEA and used in this Final EIS. Chapter 2 of this Final EIS shows the most recent data, updated with new input from the Applicants, IDOT, and Plainfield. Chapter 3 the Draft EIS lists the agencies contacted and the data used in the analyses prepared for the Draft EIS.

SEA's vehicle travel demand forecasts correspond with CN's forecast of rail activity to predict the effects of the Proposed Action. Travel demand forecasts for 2015 are not available from the local agencies responsible for regional travel demand modeling. To forecast 2015 travel demand, SEA used available traffic counts and factored them by assumed yearly growth rates. The growth rates, presented in Chapter 4 of the Draft EIS, vary by county. These rates were discussed with local planning agencies and SEA believes that they fairly represent travel demand growth rates in the region.

Queue Length Is Not a Rational Basis for Mitigation

The Applicants complained that queue length is not a rational basis on which to require a grade separation or other mitigation.

Response

SEA used three different measures of delay and congestion to determine the at-grade crossings that would experience a substantial effect due to the Proposed Action and would warrant mitigation, queue length increases were not the only criteria evaluated. Chapter 4 of this Final EIS discusses the recommendations for mitigation at the substantially affected locations.

Only Washington Street and Woodruff Road are Candidates for Mitigation

The Applicants stated that, in their view, only Washington Street and Woodruff Road could be candidates for mitigation.

Response

Comment noted.

Allocation of Responsibility for Grade Separations

CN stated that, even if there were a rational basis for prescribing grade separations at crossings other than in Joliet, Illinois, the Applicants' contribution should be no more than 5 percent of the cost of grade-crossing upgrades, including grade separations.

Response

Because of the substantial effect of the Proposed Action on traffic delays, regional and local mobility, and grade crossing safety, SEA believes that the Applicants' share of the costs for design and construction of the two grade separations SEA is recommending should be set at 15 percent,. Details discussing this issue can be found in Chapter 4 of this Final EIS.

Emergency Response

The Applicants raised various concerns about emergency response analysis in the Draft EIS.

Response

In response to comments received from the Applicants and others, SEA presents additional analysis of this issue in this Final EIS. Chapter 4 includes recommended mitigation to reduce transaction-impacts on emergency response service along the EJ&E rail line related to the Proposed Transaction.

3.5.6 Property Values

Analysis of Socioeconomic Effects

The Applicants questioned the need to address socioeconomic impacts in this EIS.

Response

Comment noted.

Significant Positive Effect on Employment in the Chicago Region

The Applicants stated that the Proposed Action would have a significant positive effect on employment in the Chicago region and on the national economy. The Applicants contended that the Draft EIS miscalculated employment impacts and did not take into account positive labor impacts other than those related to planned construction.

Response

SEA has conducted the appropriate analysis of socioeconomic impacts in Section 4.6 of the Draft EIS. The Applicants' position that the Proposed Action would improve operational efficiency is consistent with the discussion of socioeconomics in the Draft EIS. Please note that Draft EIS, Appendix H, Attachment H-1 is incorrect. The corrected information is contained in Appendix A of this Final EIS. Any information in the Draft EIS regarding decreased employment in the trucking sector should be disregarded.

Benefits from the Net Reduction in Vehicle Delays

The Applicants pointed to economic benefits from the net reduction in vehicle delays at highway/rail at-grade crossings in the Chicago area that they contend would result from the Proposed Action.

Response

In response to comments from the public and the Applicants, SEA has prepared an estimate of the potential economic costs and benefits from changed vehicle delays at highway/rail at-grade crossings in the Chicago area. This analysis is provided in Chapter 2 of this Final EIS.

Effects on Property Values would be Minimal

The Applicants stated that effects on property values along the EJ&E rail line would be minimal and would be offset by increases in property values where train operations are to be reduced.

Response

Many commenters raised concerns about the property value impact analysis in the Draft EIS. In response, SEA conducted additional research on this issue. The findings of this additional research are presented in Chapter 2 of this Final EIS. As discussed more fully in this Final EIS, the additional research is consistent with the findings of the Draft EIS that property values are likely to be somewhat adversely affected by an increase in train traffic on the EJ&E rail line. SEA's analysis shows that property values could be expected to decrease by 5.35 percent for nearby residences. Neither additional analysis nor the studies cited in the Draft EIS support the statements from some residents that an increase in train traffic along the EJ&E rail line would reduce adjacent property values by 15 to 60 percent.

Chapter 2 of this Final EIS provides a table showing the number of residences with 300 feet of the EJ&E rail line that would experience more train traffic, and the number within 300 feet of the four CN lines that would experience less train traffic. Nothing in the literature suggests that a reduction in rail traffic causes a comparable increase in property values.

3.5.7 Environmental Justice

Environmental Justice Methodology

The Applicants raised questions about the methodology used to identify environmental justice communities.

Response

SEA's methodology is appropriate and consistent with the approach used by SEA in previous cases. As explained in more detail elsewhere in this Final EIS, the 400-foot contour SEA used is a generalized distance associated with noise effects. The 1,500-foot contour was used in the past for rail segments that would be designated as key routes for hazardous materials transport. SEA concluded that it would be appropriate to use the 1,500-foot contour along segments of the EJ&E rail line with eight or more additional trains/day because these segments also would be key routes. SEA concluded that it would be appropriate to use the 400-foot contour along the CN lines with at least eight fewer trains/day because these rail segments no longer would be key routes but would experience fewer trains and therefore less noise.

Proposed Environmental Justice Mitigation Measures are Unreasonable

The Applicants stated that one of SEA's proposed mitigation measures relating to environmental justice (No. 20) is unreasonable.

Response

SEA considered the Applicants' comments in developing final mitigation recommendations in Chapter 4 of this Final EIS.

3.5.8 Noise

Noise Methodology

The Applicants stated that SEA used an unreasonably small sample size when conducting noise measurements. Further, the Applicants raised concerns that SEA measured noise impacts based on existing operations on the EJ&E rail line and did not take into account that CN locomotives that would operate over the EJ&E rail line under the Proposed Action are newer, better maintained, and "much quieter" than the locomotives currently operating along the rail line. As a result, the Applicants believe that SEA's noise analysis "likely overstates" the potential effects of the Proposed Action.

Response

SEA appropriately measured pass-by noise from CN, EJ&E, and other trains in the project area, on both the EJ&E and CN rail lines in the EIS.

Feasible and Reasonable Noise Mitigation

The Applicants asked that the Board impose only reasonable noise mitigation.

Response

The Applicants have proposed voluntary noise mitigation that SEA concludes would result in meaningful and appropriate noise mitigation. SEA's additional final recommended noise mitigation is reasonable.

Unreasonable Vibration Mitigation Measure

The Applicants stated that one of SEA's proposed mitigation measures relating to vibration (No. 26) is unreasonable because it does not specify what type of operational changes would trigger a reporting requirement and because it was proposed to mitigate vibration impacts that SEA has not determined would take place.

Response

Chapter 4 of this Final EIS clarifies this mitigation requirement.

3.5.9 Water Resources

Unreasonable Water Resources Mitigation Measure

The Applicants stated that one of SEA's proposed mitigation measures relating to water resources in the Draft EIS (No. 66) is unreasonable to the extent that it imposes obligations in addition to CN's

ordinary practice of consulting with the U.S. Army Corps of Engineers and obtaining all required wetlands permits from all levels of government.

Response

As isolated wetlands are not within the jurisdiction of the U.S. Army Corps of Engineers, and the State of Illinois defers to the local level, it is reasonable for SEA to recommend mitigation under which the Applicants would need to mitigate potential effects on isolated wetlands according to the regulations of Lake and DuPage counties. See mitigation No. 59.

3.5.10 Mitigation

Applicants' Voluntary Mitigation

The Applicants noted that they have proposed extensive voluntary mitigation.

Response

Comment noted. SEA notes that the Applicants have continued to provide voluntary mitigation following the due date for comment on the Draft EIS. SEA recommends that all such mitigation be imposed should the Proposed Action be approved.

Commitment to Voluntary Mitigation

The Applicants stated that, although the Proposed Action would produce almost entirely positive regional benefits, it has committed to voluntarily provide mitigation of all impacts at levels that would meet or exceed the Board's prior standards for impact analysis, prescription of mitigation, and sharing of mitigation costs. The Applicants have agreed to mitigate two crossings in Joliet, Illinois. The Applicants have also agreed to work with other communities interested in grade separations to identify sources of funding.

Response

Comment noted.

Applicants' Commitment to Pay a Fair Share

The Applicants have committed to paying a fair share of mitigation costs.

Response

Comment noted.

Applicants' Commitment to Noise Mitigation

With respect to noise mitigation, where noise levels would exceed SEA's established levels, CN agrees to work with affected communities to implement cost-effective mitigation.

Response

Comment noted.

SEA Should Consider Those Recommendations That Are Factually Warranted

The Applicants stated that, in preparing this Final EIS, SEA should carefully consider what mitigation recommendations are factually warranted, within the legal purview of the Board, and are consistent with the appropriate balance of public benefits and interests related to the Proposed Action.

Response

SEA believes that its final recommended mitigation is reasonable and appropriate.

Applicants Remain Willing To Negotiate With Communities

The Applicants stated that they have sought to enter into agreements with all communities along the EJ&E rail line to provide reasonable mitigation. They state that they remain willing to negotiate with any community that seeks to do so in good faith. The Applicants also are willing to have the Board's approval of their Application be conditioned on CN's adherence to agreements it reaches with affected communities "in lieu of any location-specific environmental conditions which the Board might otherwise impose."

Response

Comment noted. SEA continues to encourage the Applicants to enter into mutually acceptable agreements with affected communities and other government entities.

Negotiated Agreement with Joliet

The Applicants stated that they have reached a mutually acceptable agreement with the City of Joliet, Illinois, and that this agreement addresses all of Joliet's concerns regarding the environmental effects of the Proposed Action, including delays at crossings on Washington Street and Woodruff Road. CN requests that the terms of the agreement be imposed as a condition "in lieu of other location-specific mitigation SEA might otherwise impose."

Response

This Final EIS does so.

Exploring Options with METRA

The Applicants stated that if Metra's proposed service were to move forward, their voluntary mitigation plan includes a commitment to work with Metra to explore all options for service on the proposed STAR Line, including use of the EJ&E rail line.

Response

SEA recommends adoption of the Applicants' voluntary measure that states that the Applicants shall work with Metra to explore all options for service on the proposed STAR Line, including use of the EJ&E rail line. A complete list of recommended mitigation measures is in Chapter 4 of this Final EIS.

Monitoring and Enforcement

The Applicants objected to SEA's proposed mitigation measure relating to monitoring and enforcement (No. 72) because it is more burdensome than environmental monitoring and enforcement conditions imposed in other cases. CN stated that it should be required to report on its progress in

complying with all mitigation conditions no more frequently than semi-annually, rather than quarterly as SEA proposed.

Response

See Chapter 4 for SEA's final recommended mitigation conditions.

NEPA Requirements

The Applicants stated that NEPA does not require the imposition of mitigation.

Response

Comment noted.

Board May not have Authority to Impose Mitigation Conditions

Finally, the Applicants stated that the Board may not have authority to impose environmental review or mitigation conditions on a "minor transaction" such as the Proposed Action.

Response

Comment noted.

Chapter 4
Final Recommended Conditions

SEA identified both potential beneficial and adverse environmental effects associated with the Proposed Action during its environmental review. Chapter 4 presents the final environmental mitigation measures that SEA recommends the Board impose as environmental conditions, should it approve the Proposed Action. These mitigation measures address the potential adverse environmental effects that SEA determined could be significant, and include the voluntary mitigation measures supplied by the Applicants.

4.1 Overview of SEA's Approach

In conducting the environmental review, SEA has taken a hard look at the environmental consequences of the Proposed Action and alternatives as required by the National Environmental Policy Act of 1969, as amended (NEPA). SEA's final environmental mitigation recommendations reflect the variety and complexity of the environmental issues and offer a reasonable and feasible way of minimizing some of the environmental effects discovered. SEA developed these recommendations after completing a thorough, independent analysis of the potential environmental effects. This environmental analysis included:

- Careful and thorough review of all public comments
- Consultations with Federal, tribal, regional, state, and local agencies
- Full consideration of environmental and railroad operating information
- Extensive site visits
- Comprehensive public outreach that included environmental justice communities

4.1.1 Limits of Conditioning Power

The Board has authority to impose conditions to mitigate potential environmental effects, but that authority is not limitless. As a government agency, the Board can only impose conditions that are consistent with its statutory authority. Any conditions that the Board imposes must relate directly to a specific transaction, be reasonable, and be supported by the record before the Board. The Board's practice consistently has been to mitigate only those impacts that result directly from a proposed action. The Board does not require mitigation for existing environmental conditions, such as the effects of current railroad operations.

4.1.2 Voluntary Mitigation and Negotiated Agreements

SEA encourages applicants to propose voluntary mitigation. In some situations, voluntary mitigation can replace mitigation that the Board might otherwise impose. Because applicants seeking Board authority may gain substantial knowledge about the issues involved during project planning, and because they consult with regulatory agencies and communities during the regulatory process, applicants often propose detailed, relevant voluntary mitigation, as is the case here. SEA presents the Applicants' voluntary mitigation in Section 4.3, below.

As an alternative to the mitigation that the Board might unilaterally impose upon applicants, SEA encourages applicants to negotiate mutually acceptable agreements with affected communities and other government entities to address potential environmental effects, if appropriate. Negotiated agreements can be with neighborhoods, communities, cities, counties, regional coalitions, states, or other entities. The Applicants have reached a negotiated agreement with Joliet, Illinois (Applicants and City of Joliet 2008), and Crest Hill, Illinois (Applicants and City of Crest Hill 2008) and SEA recommends that the Board impose conditions (see Condition 65 and 66, below) requiring that the Applicants comply with the terms of those agreements as committed to in their voluntary mitigation (see VM 27, below). The Applicants state they are actively negotiating with affected communities and remain willing to negotiate with any community that seeks to do so (Applicants 2008a). If the Applicants submit any negotiated agreements with communities or other entities to the Board following publication of this Final EIS, the Board then would require compliance with the terms of any such agreements. The negotiated agreement would supersede any local mitigation that the Board might otherwise impose for that particular community or other entity.

4.2 SEA's Process in Developing Final Conditions

SEA studied the effects of the Proposed Action as well as the Applicants' proposed connections and their alternative alignments. In the Draft EIS, SEA presented its analysis and proposed mitigation measures for the potential environmental effects. In addition, SEA presented the Applicants' voluntary mitigation, verbatim, from their letter dated June 26, 2008 (Applicants 2008b). In the Draft EIS, SEA asked the public and the agencies for comments on all aspects of the proposed mitigation, and for alternative mitigation options, including alternatives to requiring grade-separated crossings at all of the highway/rail at-grade crossings identified as substantially affected in the Draft EIS.

In their Draft EIS comment letter dated September 30, 2008, the Applicants submitted updated voluntary mitigation measures to SEA for the Board to consider in issuing its final decision (Applicants 2008a). The Applicants refined and supplemented their 70 voluntary mitigation measures from their letter dated June 26, 2008 (Applicants 2008b), and included additional measures proposed by SEA in the Draft EIS. The Applicants anticipate spending $60 million on mitigation (Applicants 2008a). In Section 4.3, below, SEA presents the Applicants' 101 voluntary mitigation measures (identified by the Applicants as VM #), verbatim, from their letter dated September 30, 2008 (Applicants 2008a). The Applicants organized the individual mitigation measures by the Environmental Impact Categories found in the Corrected Final Scope of Study, served April 28, 2008 (FR 2008). The Applicants state that they plan to implement their voluntary mitigation within 3 years after the Board's approval of the Proposed Action or within 3 years after the completion of the capital improvements described in the Operating Plan (Applicants 2007a).

On November 13, 2008 (Applicants 2008d), the Applicants provided SEA with additional voluntary mitigation to deal with the issues involving Federally- or state-listed threatened or endangered species or other species of concern, which also is included in Section 4.3, below. In total, the Applicants have proposed 108 voluntary mitigation measures.

SEA has reviewed all voluntary mitigation measures, and should the Proposed Action be approved, SEA recommends that the Board require the Applicants to comply with all voluntary mitigation measures submitted (see Condition 1, below). In some cases, SEA has recommended additional conditions intended to enhance or modify some of the Applicants' voluntary mitigation measures (presented in Section 4.4, below).

As previously noted, the Applicants entered into negotiated agreements with the City of Joliet as of August 25, 2008 (Applicants and City of Joliet 2008) and the City of Crest Hill as of November 18, 2008 (Applicants and City of Crest Hill 2008). SEA recommends that the Board require the

Applicants to comply with the Joliet and Crest Hill negotiated agreements as shown in the conditions set forth below.

Based on comments received on the Draft EIS from the public, agencies, other railroads, and the Applicants, SEA re-evaluated the effects of the Proposed Action in this Final EIS where new data or new information was provided by the commenter. Chapter 2, Revised Information, contains all of the revised information, any additional analyses, and errata to the Draft EIS.

The remainder of this section summarizes the potential environmental effects, if any, on each resource area attributable to the Proposed Action, and presents SEA's rationale for recommending mitigation beyond what is offered by the Applicants, if applicable. SEA's final recommended environmental mitigation, in Section 4.4, addresses potentially substantial effects from the Proposed Action not addressed by the Applicants' voluntary mitigation. For convenience, the final recommended mitigation measures set out in Section 4.4 are identified with a number, and organized by the section headings in Chapter 4 of the Draft EIS. For some environmental resource areas analyzed in the Draft EIS (such as navigation and navigable waterways), SEA concluded that the effects of the Proposed Action would be negligible and proposed no mitigation. In other areas, SEA concluded that the Applicants' voluntary mitigation was sufficient and proposed no additional recommendations or only proposed recommendations for construction-related effects (such as passenger rail safety, hazardous waste sites, socioeconomics, and energy). Sometimes, SEA removed mitigation originally proposed in the Draft EIS if the Applicants' voluntary mitigation was sufficient, if the agencies or other commentors did not feel it was appropriate, and/or if the mitigation was replaced with another condition. SEA also included recommended mitigation for effects related to Applicants' proposed construction activities set out in Section 4.4.10, below. In most conditions, SEA uses the term "transaction"[1] to refer to the Proposed Action. Table 4.2-3 summarizes SEA's final recommended conditions by resource area.

SEA notes that even with all of SEA's final recommended conditions, the Proposed Action still would have adverse environmental effects that could not be fully mitigated. For example, horn noise from train operations could not be fully mitigated without compromising safety. Even with mitigation, there could be vehicle delays at highway/rail at-grade crossings, visual effects on forest preserves, and construction-related effects on wetlands and riparian habitat. However, many of the potential effects (such as vehicle delay) pertain to existing conditions that are present today. Moveover, at the same time that the Applicants would increase rail traffic along the EJ&E rail line as a result of the Proposed Action, there would be corresponding decreases in rail traffic, and potential environmental benefits, in communities where CN rail traffic is routed today. The traffic reductions would not necessarily be permanent, however. Applicants could decide to reintroduce more trains back onto the CN rail lines at some point in the future if the demand for Applicants' service increases beyond what is reasonably foreseeable today.

4.2.1 Rail Operations

SEA concluded that there would be no substantial adverse effects on rail operations attributable to the Proposed Action if recommended mitigation measures are implemented. In addition to the Applicants' voluntary measures (see Section 4.3) and/or as supplements to them, SEA recommends its final additional conditions related to rail operations in Section 4.4, based on the Draft EIS analysis, public input, and further analysis as described in Chapter 2, Revised Information.

The Applicants propose voluntary measure (VM) 35, which states that they shall operate trains in accordance with U.S. Operating Rule No. 526 (Public Crossings). This provides in part that a public

[1] Transaction refers to the proposed acquisition by the Applicants of control of EJ&E West Company.

crossing must not be blocked longer than 10 minutes unless it cannot be avoided, and if the blockage would be likely to exceed this time, then the train shall be promptly cut (separated in two and opened across the highway/rail at-grade crossing) to clear the blocked crossing or crossings. Additionally, the Applicants propose VM 36, which states that the Applicants shall develop and submit to SEA a report on frequency and duration of train delay at crossings for a period covering the first 3 years of operational changes. SEA recommends Conditions 2 and 3 (in Section 4.4) to enhance the Applicants' commitment to prevent or reduce blocked highway/rail at-grade crossings.

In response to Metra's concerns, SEA recommends mitigation in addition to VM 40 regarding the pedestrian tunnel and Front Street access at the Metra train station in Matteson, Illinois (see Condition 42).

4.2.2 Rail Safety

4.2.2.1 Safety Integration Plan

Pursuant to the Board's regulations at 49 CFR 1106, the Applicants prepared a Safety Integration Plan (SIP) that specifically addresses the process the Applicants propose to safely integrate the two rail systems. The Applicants filed the SIP with the Board on December 28, 2007, and submitted the SIP to the Federal Railroad Administration (FRA) for review (Applicants 2007b). On June 27, 2008, the Applicants submitted a revised version of their SIP addressing certain points raised by FRA. The Draft EIS provided the Applicants' SIP in Appendix D.

SEA has independently reviewed both versions of the SIP. On September 12, 2008, FRA found that the Applicants' SIP satisfactorily addresses requirements under 49 CFR 244.13 (FRA 2008). Consistent with the Board's practice, if the Proposed Action is approved, SEA recommends the Board impose conditions requiring the Applicants to comply with the terms of the SIP (which may continue to be modified) until FRA advises the Board that this Transaction has been safely implemented (see Conditions 4 and 5).

4.2.2.2 Freight Rail Safety

SEA determined that under the Proposed Action, the potential for accidents involving railroad equipment on the CN rail lines would decrease and the potential for accidents on the EJ&E rail line would increase, although the predicted number of additional accidents would be small, less than one additional accident per year. Although the Applicants did not specify any voluntary mitigation under the heading "Freight Rail Safety," many voluntary mitigations would improve freight rail safety on the EJ&E rail line (such as VM 32). In these circumstances, SEA recommends only mitigation, Conditions 6 and 43, to further address freight rail safety.

4.2.2.3 Vehicle Safety

High Accident Frequencies

Should the Proposed Action be approved and implemented, three highway/rail at-grade crossings would see an increase in predicted accidents that exceeds the threshold used by SEA in prior proceedings as a measure of high incidence of predicted accidents (more than one every seven years). The three highway/rail at-grade crossings are:

- Woodruff Road, Joliet, Illinois, milepost (MP) 0.82, Segment EJE-8, U.S. Department of Transportation (USDOT) #260597M
- Lake Street, Griffith, Indiana, MP 36.77, Segment EJE-4, USDOT #260661J
- Miller Street, Griffith, Indiana, MP 36.89, Segment EJE-4, USDOT #260662R

However, as discussed in more detail below, the Applicants agreed to mitigation at Woodruff Road as part of the negotiated agreement between the City of Joliet and the Applicants (Applicants and City of Joliet 2008). Therefore, SEA does not recommend additional mitigation for Woodruff Road.

Lake Street and Miller Street are adjacent to each other in Griffith, Indiana, and therefore improvements at one crossing could affect the second crossing. For that reason, SEA recommends mitigation specific to these two highway/rail at-grade crossings. The Town of Griffith commented that Lake Street and Miller Street do not have crossing gates (Town of Griffith 2008). SEA believes that the most effective mitigation for the Lake Street and Miller Street high accident frequency areas would be for the parties to reach an agreement that might include improving the warning devices at one street and closing the other.

To address this issue, the Applicants commit to a corridor study to evaluate safety at highway/rail at-grade crossings for the entire EJ&E rail line in VM 7. As a part of that study, SEA recommends that the Applicants specifically look at the corridor surrounding Lake and Miller Streets in Griffith. If the Applicants do not initiate a corridor study within 6 months from the effective date of the Board's final decision, SEA recommends in Condition 7 that the Applicants and local jurisdictional agencies initiate a diagnostic review at Lake and Miller Streets. SEA also recommends a contingency mitigation measure should the parties fail to come to an agreement concerning Lake Street and Miller Street (see Condition 8, below). SEA believes that this mitigation would be adequate.

Vehicle Exposure

Should the Proposed Action be approved and implemented, three highway/rail at-grade crossings would see a substantial increase in the number of highway vehicles that would be exposed to freight trains (a unitless number called exposure, or the number of trains per day multiplied by the number of vehicles per day). At two locations, exposure would exceed 1 million, which is a threshold identified by the Federal Highway Administration (FHWA) at which construction of a grade separation should be considered. A third highway/rail at-grade crossing would have a substantial increase in exposure to nearly 1 million. SEA found that exposure would exceed 1 million at the following locations:

- Ogden Avenue (US 34), Aurora, Illinois, MP 19.05, Segment EJE-10, USDOT #260560X
- Montgomery Road, Aurora, Illinois, MP 18.18, Segment EJE-10, USDOT #260562L

SEA found that exposure would approach 1 million at the following location:

- Lincoln Highway (US 30), Lynwood, Illinois, MP 30.69, Segment EJE-5, USDOT #260651D

From a vehicle delay standpoint, SEA also identified the highway/rail at-grade crossings at Ogden Avenue (US 34) in Aurora and Lincoln Highway (US 30) in Lynwood as crossings that likely would experience a substantial increase in vehicle delay as a result of the Proposed Action (see Section 4.2.3.1). Therefore, SEA is recommending a grade separation for these two highway/rail at-grade crossings because of concerns related to both vehicle delay and vehicle safety (see Condition 17, below).

The at-grade crossing at Montgomery Road is less than 1 mile south of the Ogden Avenue highway/rail at-grade crossing, so the recommended mitigation for Ogden Avenue would provide an alternate route for traffic using Montgomery Road. Thus, SEA believes there is no need for additional mitigation for Montgomery Road.

Industry Tracks

During a stakeholder meeting on October 8, 2008, the Illinois Commerce Commission (ICC) raised a concern regarding highway/rail at-grade crossings at industry tracks adjacent to the EJ&E rail line (HDR 2008a). According to ICC, in some locations along the EJ&E rail line, the highway/rail at-grade crossing at the industry tracks adjacent to main tracks that cross the same roadway at-grade is protected with a different system of warning devices (that is, passive signs, flashers, or gates). ICC further noted that the selection of the warning devices for the industry track may have been based on the time of day that EJ&E proposed to provide service to the industries. ICC's concern is that if the Applicants change the typical time of service to those industries, the potential exists for vehicles to be trapped between these crossings and the queuing distance may be insufficient.

ICC cited as an example Gifford Road in Spaulding, Illinois. Gifford Road crosses an industry track at-grade; EJ&E currently uses the industry track between 12:00 a.m. and 6:00 a.m. to provide rail service to an asphalt plant. The highway/rail at-grade crossing of the industry track is approximately 200 feet south of a highway/rail at-grade crossing of the Metra Milwaukee District rail line. The signals at the two at-grade crossings are not interconnected. ICC is concerned that, should the Applicants change the hours of service to a time of day when more vehicular traffic is present and when there is more frequent service of Metra Milwaukee District commuter trains, greater potential exists for: 1) vehicle drivers to be confused by the warning devices not working in unison, and 2) queuing distances for vehicles waiting for the industry track signals to extend back onto the Metra rail line. ICC further stated that the time of day that EJ&E proposed to provide service was a significant factor in its decision to specify what warning devices were appropriate at the industry track crossing. In response to ICC's concern, SEA recommends Condition 9, below.

4.2.2.4 Passenger Rail Safety

SEA concluded that there would be no substantial adverse effects on passenger rail safety attributable to the Proposed Action if its final recommended mitigation measures are implemented. The Applicants propose VM 37, assuring Amtrak's continued use of the St. Charles Air Line (Air Line) (including the approximately 19.9 miles of track from Markham Yard to the northern limits of the Applicants' rights) under current terms, and VM 38 and VM 41, regarding operation of key interlockings at West Chicago and Barrington, Illinois, and continued compliance with existing agreements and curfews affecting passenger or commuter train service. In addition, the Applicants propose VM 39, assuring continued discussion and cooperation with Metra on development of the proposed STAR Line, including possible use of the EJ&E rail line, and VM 40, assuring continued access to the pedestrian tunnel between the Metra Park-n-Ride lot and the Metra Matteson train station. In SEA's view, the voluntary mitigation would be adequate to address the potential passenger rail safety issues resulting from the Proposed Action.

4.2.2.5 Quiet Zones

The Applicants have agreed to provide mitigation for quiet zones under VM 3, VM 4, and VM 5. In addition, SEA believes that mitigation would be warranted to retain the established quiet zone in Barrington should the Proposed Action be approved and implemented (see Condition 10 in Section 4.4).

4.2.2.6 Hazardous Materials Transportation Safety

The Applicants proposed voluntary mitigation measures for hazardous materials transport (see VM 14 through VM 26 that include five of SEA's proposed mitigation measures from the Draft EIS. In addition to the voluntary mitigation proposed by the Applicants, SEA recommends conditions to supplement VM 21 and VM 25 presented in Conditions 11 and 12, below.

4.2.2.7 Pedestrian and Bicycle Safety

The Applicants propose VM 10 through VM 12, VM 43, and VM 44 to improve pedestrian safety near schools and parks near the EJ&E rail line. In addition, the Applicants propose VM 61 to maintain access to or provide detours for trails during Transaction-related construction. SEA recommends other conditions to supplement VM 10, VM 43, and VM 44 in Conditions 13 through 15, below.

USDOT expressed concern for West Chicago High School students who may attempt to cross the pedestrian at-grade crossing at George Street in West Chicago, Illinois, when trains would be slowed or stopped at the crossing (USDOT 2008). SEA shares USDOT's concern regarding stopped trains blocking pedestrian crossings, especially those frequently used by students traveling to and from school. SEA has observed, and EJ&E staff has confirmed, that northbound (railroad westbound) trains holding for the Union Pacific Railroad Company (UP) interlocking signals stop south of Ann Street, which is approximately 0.1 mile south of the pedestrian crossing and 0.3 mile south of the signal. EJ&E holds its trains at this location to avoid blocking the at-grade crossing of Ann Street (USDOT # 260545V, MP 28.50), the pedestrian crossing at George Street (USDOT # 260806T, MP 28.27), and the at-grade crossing of Church Street (USDOT # 260543G, MP 28.77). South of Ann Street, there are several miles of track without an at-grade crossing in which train(s) can wait with a clear line of sight to the signal. Upon obtaining a clear signal, the EJ&E trains advance, without stopping again. SEA has included a recommended condition that would require the Applicants to continue this practice (see Condition 16, below).

4.2.3 Transportation Systems

SEA analyzed the effect of the Proposed Action on the communities along the EJ&E rail line as well as on the communities along the CN subdivisions. The Proposed Action would increase train operations and associated negative effects in those communities along the EJ&E rail line, but would remove trains from the CN subdivisions, reducing delay and increasing safety at the highway/rail at-grade crossings along the CN subdivisions.

Several of the Applicants' voluntary mitigation measures would mitigate for the effects of the Proposed Action on regional and local highway systems (including highway/rail at-grade crossings) and emergency response (see VM 27 through VM 48) along the EJ&E rail line. In the following sections, SEA describes the mitigation needs for regional and local highway systems (Section 4.2.3.1), emergency response (Section 4.2.3.2), and airports (Section 4.2.3.3). SEA's final recommended conditions include both the Applicants' voluntary mitigation and tailored mitigation developed by SEA, as discussed below.

4.2.3.1 Regional and Local Highway Systems

SEA's Criteria for Substantially Affected At-Grade Crossings

From a transportation perspective, SEA used three thresholds to determine if highway/rail at-grade crossings would be substantially affected by the Proposed Action: 1) crossing level of service (LOS), 2) effects on queue length, and 3) total amount of delay for all vehicles delayed at a crossing in a 24-hour period.

SEA occasionally has used only crossing LOS in previous cases to determine substantially affected crossings. Crossing LOS determines the effects of the Proposed Action at a single point along a roadway at the affected highway/rail at-grade crossing. Crossing LOS, however, does not take into account the effects of the Proposed Action on mobility in a community or region. There are many locations along the EJ&E rail line where roadways are important to regional mobility. As an example, Hough Street (IL 59) in Barrington, Illinois, is an important commuter route in the region. SEA

calculated the crossing LOS at this location to be LOS A for the No-Action and Proposed Action Alternatives. However, the Proposed Action queue length blocks a major thoroughfare (Northwest Highway) not blocked by the No Action queue length. This example reflects a location where crossing LOS doesn't identify potential regional mobility affects, thus other factors such as Proposed Action queue length affects are appropriate to use for mobility analysis in this transaction.

Solely using the crossing LOS criteria can be adequate in cases when at-grade crossings are less influenced by existing congestion. Contrary to the claims of some commenters on the Draft EIS, the existing congestion in communities along the EJ&E rail line warrants further consideration of the Proposed Action effects beyond crossing LOS. Roadways with existing high traffic volumes, as well as the proximity of existing signalized intersections, reflect the existing limited capacity of the roadway network in the region. This existing limited capacity presents mobility challenges to communities along the EJ&E rail line beyond those that would occur if there were less existing congestion. Thus, typical crossing LOS criteria applied to the Proposed Action effects would not adequately address mobility challenges in the region.

This is not the first case in which, in addition to crossing LOS to determine substantially affected crossings, SEA has also used queue length and total vehicle delay to better understand the effects of the Proposed Action on mobility (Board 1998 and 2002). As SEA explained in the Draft EIS, queue length and total vehicle delay are appropriate analyses when evaluating the effect of the Proposed Action on regional mobility. However, in the Chicago metropolitan area, simply exceeding the thresholds used by SEA does not mean that the crossing must be grade-separated or even requires mitigation, as some commenters have suggested. For example, SEA identified six locations along the CN subdivisions that currently experience more than 40 hours of total vehicle delay in a 24-hour period but are not planned by either the community or the region for grade separations. FHWA considers the 40 hours of total vehicle delay in a 24-hour period as just one factor to use in considering a grade separation. Just as the Proposed Action has multiple effects on a community, such as on transportation, safety, and socioeconomic impacts, SEA considered several factors when evaluating mitigation alternatives. These factors included existing rail operations, proposed changes to rail operations, existing and potential vehicular delays, existing mobility, existing physical attributes of the community (that is, roadway configuration, buildings, and mature trees) and safety.

Substantially Affected Highway/Rail At-Grade Crossings

In the Draft EIS, SEA identified 16 highway/rail at-grade crossings as "Substantially Affected" by the Proposed Action and considered 15 of those crossings for mitigation. SEA set forth mitigation options ranging from adopting the Applicants' voluntary mitigation, to modifying the roadway, to grade-separating the crossing, to modifying train operations, and invited the public to comment specifically on the options or try to enter into a negotiated agreement with the Applicants (see Section 6.3 of the Draft EIS).

SEA noted that some comments received on the Draft EIS at the public meetings indicated that the public had the impression that SEA would require that a grade-separated crossing be constructed at each of the 15 highway/rail at-grade crossings discussed above and that the Applicants would be required to pay all or a substantial amount of the cost. However, the Draft EIS only provided a range of mitigation options. Moreover, as SEA noted in the Draft EIS, any conclusions on mitigations here must reflect that many communities already experience traffic congestion that is not caused solely by the EJ&E rail line. Rather, multiple freight lines, commuter trains, and insufficient roadway capacity all contribute to existing congestion. Many comments on the Draft EIS confirmed that traffic congestion currently is a substantial problem in many communities along the EJ&E rail line. Accordingly, it would be inappropriate to hold the Applicants responsible for existing traffic problems and congestion.

As discussed in Section 2.5 of this Final EIS, SEA has re-evaluated the highway/rail at-grade crossings that would be substantially affected by the Proposed Action using new or updated data provided by the Applicants or by other agencies and determined that 13 crossings would be substantially affected, and that 8 of those crossings would warrant mitigation due to the effects under the Proposed Action (see Table 4.2-1). For a discussion of why SEA excluded the other substantially affected crossings from mitigation, see Chapter 2, Revised Information, Section 2.5. SEA appropriately tailored site-specific mitigation for some of the affected at-grade crossings based on geometry of the current crossing, proximity to other at-grade or grade-separated crossings, other data collected during site visits, community needs, and public and agency comments. SEA considered the substantially affected crossings from a holistic perspective, with numerous mobility factors, existing conditions, and the lack of available alternate routes. Finally, SEA explained why it did not recommend mitigation for three of the affected highway/rail at-grade crossings.

Mitigation Approaches For the Substantially Affected At-Grade Crossings

As described above, SEA used three thresholds to determine if highway/rail at-grade crossings would be substantially affected by the Proposed Action: 1) crossing LOS, 2) effects on queue length, and 3) total amount of delay for all vehicles delayed at a crossing in a 24-hour period. This section describes the mitigation approaches for effects due to crossing LOS, vehicle queue length and total vehicle delay.

Woodruff Road and Washington Street in Joliet, Illinois are the only two highway/rail at-grade crossings that would be substantially affected under crossing LOS criteria. As discussed further below, the Applicants address these two roadways in the negotiated agreement with the City of Joliet (Applicants and City of Joliet 2008) (see Table 4.2-1, below) If the negotiated agreement were not in place, SEA would have evaluated and recommended mitigation for these two crossings, given the level of potential impacts of the Proposed Action. However, because the parties have been able to come to terms on tailored mitigation for Joliet designed to address local concerns, SEA recommends only that the Board impose mitigation requiring the Applicants to comply with the terms of their negotiated agreement.

The effect of the Proposed Action on queue length would be a result of the queue length of waiting vehicles at the highway/rail at-grade crossing blocking a major thoroughfare that would not be blocked under the No Action alternative. Mitigation to reduce the effects of increased train traffic on nearby queue length generally may be accomplished by the following:

- Traffic Advisory Signs
- Roadway Modifications
- Grade Separations

Traffic advisory signs placed in proximity to a signalized roadway intersection blocked by a vehicle queue resulting from increased train traffic advise drivers to stay clear of the intersection, thereby eliminating blocking other movements within the intersection. Traffic advisory signs would be cost-effective, unobtrusive, and provide a legal foundation for enforcement against the blockage of an intersection by vehicle queues.

Roadway modifications such as widening a roadway also would allow the storage of more vehicles on a road when a train passes. For example, widening a single-lane roadway to a two-lane roadway creates twice the storage capacity, cutting queue length in half and potentially eliminating vehicle queues into a major thoroughfare elsewhere. However, widening a roadway can be constrained by existing geometrics, and widening potentially creates a bottleneck where two lanes merge. Roadway widening also would have to be consistent with local and regional planning for the roadway network. Finally, the roadway widening impacts may be greater to a community than the effects of increased

train traffic, due to existing conditions (such as structures or mature trees that would need to be removed to allow for the widening of the roadway).

Grade separating a highway/rail at-grade crossing would eliminate any effect on vehicle queue lengths as a result of increased train traffic; however, it would not eliminate any queuing from signalized intersections within a community. In some locations, the proximity of signalized intersections to a highway/rail at-grade crossing may be the cause of existing congestion that a grade separation would not address. The construction of a grade separation also could potentially modify community character. Existing structures, mature trees, and local roadways near the highway/rail at-grade intersection might need to be removed to construct a grade separation. Grade separations are extremely costly (ranging from approximately $20 million to $50 million). Finally, because grade separations typically benefit primarily the community and not the railroad, railroads typically pay a small share (5 to 10 percent) of the total cost.

Total vehicle delay is a measure of the delay that all vehicles experience at a particular crossing in 24 hours. If a highway/rail at-grade crossing experiences more than 2,400 minutes (40 hours) of vehicle delay in a 24-hour period, SEA considered it to be substantially affected. Traffic advisory signs and roadway modifications would not be appropriate to mitigate total vehicle delay. Traffic advisory signs influence driver behavior, but not total vehicle delay because vehicles still would be delayed by passing trains. Roadway modifications such as widening allow for more storage of vehicles, but all of the vehicles still would be delayed by a passing train. On the other hand, grade separating a highway/rail at-grade crossing eliminates total vehicle delay by removing the conflict between the roadway and the rail line.

Grade separating a highway/rail at-grade crossing also removes safety-related exposure concerns. Exposure is a measurement of the number of highway vehicles that are exposed to freight trains. The FHWA considers an exposure of 1 million or more to warrant consideration of a grade separation. Grade separations eliminate any vehicle exposure to freight trains at a highway/rail at-grade crossing by removing the conflict between the roadway and the rail line.

SEA considered the individual characteristics of each highway/rail at-grade crossing site, in determining what if any mitigation would be appropriate for the substantially affected at-grade crossing at issue here. As part of its analysis, SEA considered existing congestion, existing structures (such as, mature trees, and local roadways) near the highway/rail at-grade intersection, and the cost of a grade separation when determining the type of mitigation recommended for each substantially affected highway/rail at-grade crossing. As discussed below, SEA recommends that the Board require two grade separations (one in Aurora, Illinois, and one in Lynwood, Illinois). SEA also recommends a condition requiring traffic advisory signs for four at-grade crossings, and two at-grade crossings at Joliet, Illinois, would be mitigated under the terms of the negotiated agreement Joliet executed with the Applicants. In SEA's view, it would be inappropriate to impose mitigation requiring roadway modifications (including closures in this case). But this is something the communities could consider and negotiate with the Applicants should the Proposed Action be approved and implemented.

Recommended Mitigation for Substantially Affected At-Grade Crossings

SEA identified two highway/rail at-grade crossings that should be grade-separated. These crossings are Ogden Avenue (US 34) in Aurora, Illinois, and Lincoln Highway (US 30) in Lynwood, Illinois. These two crossings have a predicted high exposure level (see Section 4.2.2.3) and exceed 40 hours of total vehicle delay in a 24-hour period. Both roadways have a projected traffic volume in 2015 of approximately 30,000 vehicles per day or more and are designated by their Illinois Department of Transportation (IDOT) as Strategic Regional Arterials, reflecting the importance to their respective communities and to the entire region. SEA believes that the Applicants should work with state and

local officials to implement grade-separation improvements. Since Ogden Avenue (US 34) and Lincoln Highway (US 30) are state routes, it is appropriate for IDOT to be the lead agency for planning and programming these two grade separations.

The other substantially affected highway/rail at-grade crossings are not recommended for grade separations, but SEA recommends mitigation with traffic advisory signs or mitigation under the Applicants' negotiated agreement. Generally, these roadways have alternate routes, meet only one of the thresholds, or experience delays in mobility due to existing conditions. Table 4.2-1 and the discussion following the table summarize SEA's recommended mitigation for each of these affected at-grade crossings.

Table 4.2-1. Highway/Rail At-Grade Crossings In The Study Area That Require Mitigation Due To Effects Under The Proposed Action

At-Grade Crossing Location	Milepost	Segment[a]	USDOT Identification Number	Criteria for Inclusion[b]	Recommended Mitigation
Western Subdivision					
Old McHenry Road, Hawthorn Woods, Illinois	55.45	Segment EJE-14C	USDOT# 260503J	> 40 hrs delay/day; Queue blocks major thoroughfares	Traffic advisory signs
Main Street, Lake Zurich, Illinois	53.44	Segment EJE-14C	USDOT# 260507L	Queue blocks major thoroughfares	Traffic advisory signs
Hough Street (Illinois Route 59), Barrington, Illinois	49.80	Segment EJE-14C	USDOT# 260515D	Queue blocks major thoroughfares	Traffic advisory signs
Ogden Avenue (US 34), Aurora, Illinois	19.05	Segment EJE-10A	USDOT# 260560X	Exposure; >40 hrs delay/day	Grade separation
Plainfield-Naperville Road, Plainfield, Illinois	9.62	Segment EJE-9B	USDOT# 260580J	Queue blocks major thoroughfares	Traffic advisory signs
Woodruff Road, Joliet, Illinois	0.82	Segment EJE-8A	USDOT# 260597M	High incidence of predicted accidents; > 40 hrs delay/day; At-grade crossing Level of Service (LOS) reduction	Mitigation under Applicants-City of Joliet Memorandum of Agreement
Eastern Subdivision					
Washington Street, Joliet, Illinois	0.95	Segment EJE-7A	USDOT# 260601A	> 40 hrs delay/day; At-grade crossing Level of Service (LOS) reduction	Mitigation under Applicants-City of Joliet Memorandum of Agreement
Lincoln Highway (US 30), Lynwood, Illinois	30.69	Segment EJE-5A	USDOT# 260651D	Exposure[c]; > 40 hrs delay/day; Queue blocks major thoroughfares	Grade separation

Notes:

[a] See Figure 3.1-1 in Chapter 3 of the Draft EIS for locations of the EJ&E and CN rail segments.

[b] >40 hrs delay/day = There would be excess total vehicle delay (more than 40 hours/day);
Queue blocks major thoroughfares = The 2015 queue blocks the crossing of major thoroughfares;

At-grade crossing Level of Service (LOS) reduction = A reduction in LOS from LOS D or better to worse than LOS D;
Exposure = Exposure would exceed the threshold of 1 million;
High incidence of predicted accidents = The increase in predicted accidents exceeds the threshold.

[c] Exposure at Lincoln Highway (US 30) would be 999,905 under the Proposed Action, which approaches the 1 million threshold.

Old McHenry Road, Hawthorn Woods, Illinois

Old McHenry Road would be a substantially affected highway/rail at-grade crossing under the Proposed Action because the queue length of approximately 1,186 feet could potentially block Midlothian Road and the total vehicle delay for a 24-hour period would be 2,540.3 minutes, more than SEA's 2,400-minute (40-hour) threshold (see Figure 4.2-1, below).

SEA recognizes that Old McHenry Road would meet criteria for both queue length and total vehicle delay as a result of the Proposed Action. SEA considered mitigating this at-grade crossing with traffic advisory signs or a grade-separated crossing. SEA determined that traffic advisory signs placed at key locations near the vicinity of the Old McHenry Road and Midlothian Road intersection could alleviate the potential for a blocking during a queue. Traffic advisory signs would be a cost effective measure to potentially minimize Proposed Action queue lengths from blocking a major thoroughfare such as Midlothian Road.

Therefore, to address the queue length affecting Midlothian Road, SEA recommends traffic advisory signs to alert drivers not to block the roadway intersection while a train passes on the EJ&E rail line. Traffic advisory signs placed at key locations near the vicinity of the Old McHenry Road and Midlothian Road intersection should alleviate the potential for a blocking during a queue. SEA's condition provides that the Applicants would coordinate with local and Illinois transportation agencies to place traffic advisory signs to minimize the potential for motorists to block the roadway intersection at Midlothian Road (see Condition 18, below).

SEA decided that it would be inappropriate to require mitigating this at-grade crossing with a grade-separated crossing, for the following reasons:

- SEA would not require a grade-separated crossing to mitigate for total vehicle delay[2] only as discussed above. As SEA noted in the analysis, above, the Chicago metropolitan area has not consistently used the threshold of total vehicle delay greater than 2,400 minutes (40 hours) in a 24-hour period, as the determining threshold when making decisions to invest in a grade-separated crossing
- The exposure risk does not meet established threshold criteria at this location
- The effects of queue length could be adequately mitigated with traffic advisory signs

SEA does not recommend a grade-separated crossing at Old McHenry Road.

Main Street, Lake Zurich, Illinois

SEA identified the highway/rail at-grade crossing on Main Street as substantially affected under the Proposed Action because its queue length of 577 feet could potentially block traffic on IL 22. The Main Street at-grade crossing is approximately 350 feet from IL 22 (see Figure 4.2-1).

[2] Total vehicle delay in a 24-hour period is a measure of the amount of vehicular traffic present (that is, average daily traffic [ADT]), the amount of delay at the highway/rail at-grade crossing, and the effect of the train blocking the at-grade crossing.

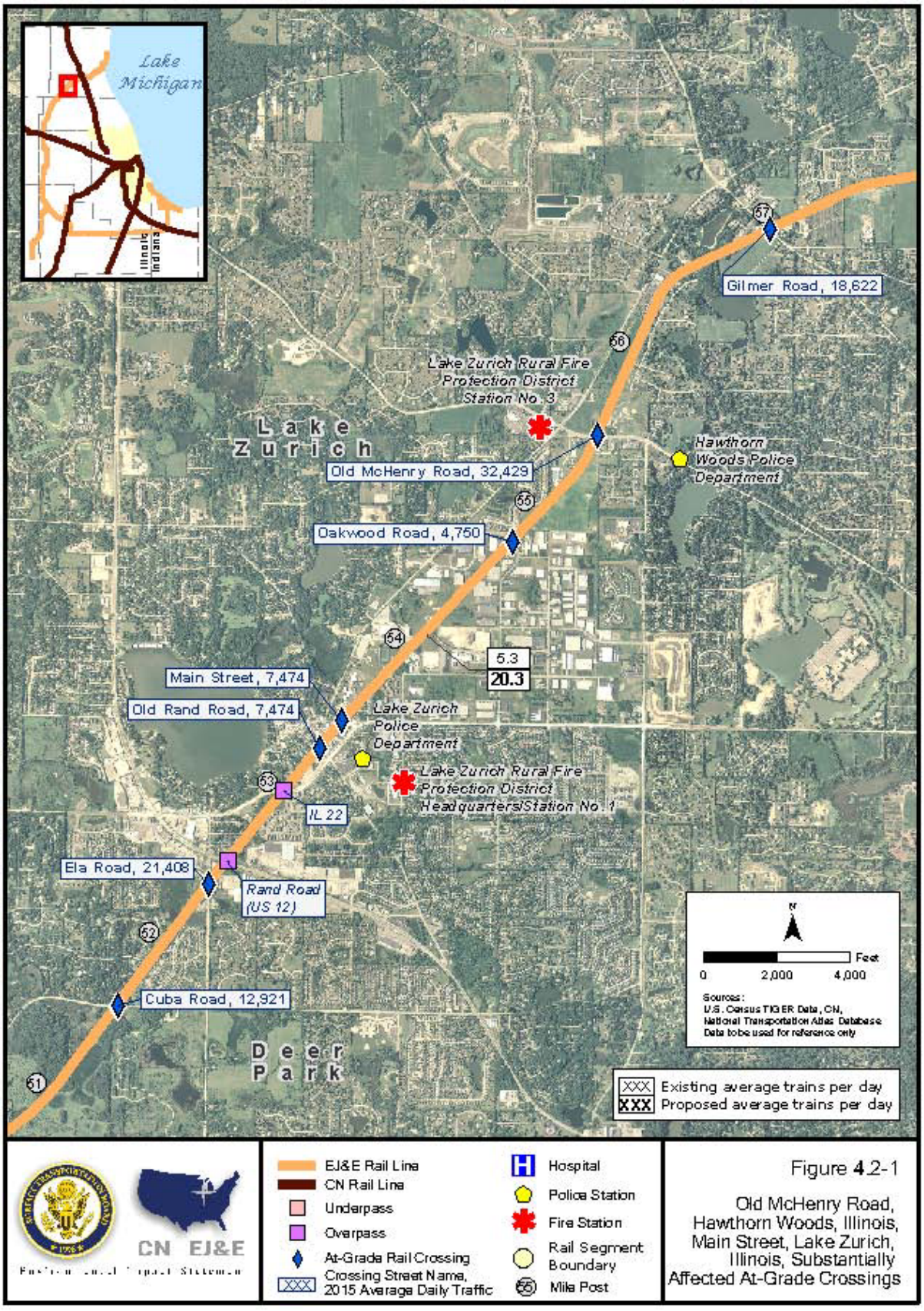


Figure 4.2-1

Old McHenry Road, Hawthorn Woods, Illinois, Main Street, Lake Zurich, Illinois, Substantially Affected At-Grade Crossings

SEA does not recommend a grade separation at this location for the following reasons:

- A grade separation exists on IL 22 less than 0.5 mile away, providing an alternate route for Main Street
- Existing roadway geometry would complicate the construction of a grade separation at this location
- Effects from constructing a grade separation would be substantial at this location
- The effect of the Proposed Action on queue length does not justify a grade separation

Traffic advisory signs would be adequate mitigation at this location, since the IL 22 grade separation southwest of the Main Street highway/rail at-grade crossing provides motorists an alternate route. Instead of crossing the rail at Main Street, southwest-bound traffic could remain on IL 22, travel under the EJ&E rail line at the grade separation, and connect to West Main Street, approximately 0.5 mile away. SEA recommends that the Applicants coordinate with local and Illinois transportation agencies to place traffic advisory signs to keep motorists from blocking the roadway intersection of Main Street and IL 22 (see Condition 18, below).

Hough Street (IL 59), Barrington, Illinois

SEA identified the highway/rail at-grade crossing at Hough Street (IL 59) as substantially affected under the Proposed Action because the queue length of approximately 1,500 feet would block Northwest Highway (Figure 4.2-2).

SEA received several comments on the Draft EIS that traffic congestion in this area is excessive and that motorists are frustrated by the delay caused by existing congestion. Contributing factors include limited roadway capacity, high traffic volumes, multiple nearby traffic signals, and the nearby location of the UP/Metra rail line that also crosses through Street at-grade. As noted by the Chicago Metropolitan Agency for Planning (CMAP), IL 59 is a Strategic Regional Arterial (CMAP 2008). Although this designation reinforces the importance of IL 59 to the region's mobility, existing physical conditions and traffic congestion limit traffic flow along this roadway. SEA's analysis in Section 2.5.4 and 2.5.9 shows that the addition of trains on the EJ&E rail line, while increasing the delay, would not substantially modify the basic nature of the traffic congestion that motorists are currently experiencing. The Board's practice is to not impose mitigation for existing conditions, but only for Proposed Action-related effects.

SEA recognizes that many commenters consider a grade-separated crossing in Barrington, either at IL 59 or at Northwest Highway (US 14), or placing the EJ&E rail line in a trench through Barrington, as necessary and appropriate mitigation in this case. SEA believes that a grade separation at IL 59 would not be warranted because of existing vehicle delay conditions and the fact that a grade separation would severely affect the character of the community by removing trees and/or buildings as well as potentially affecting access to local businesses

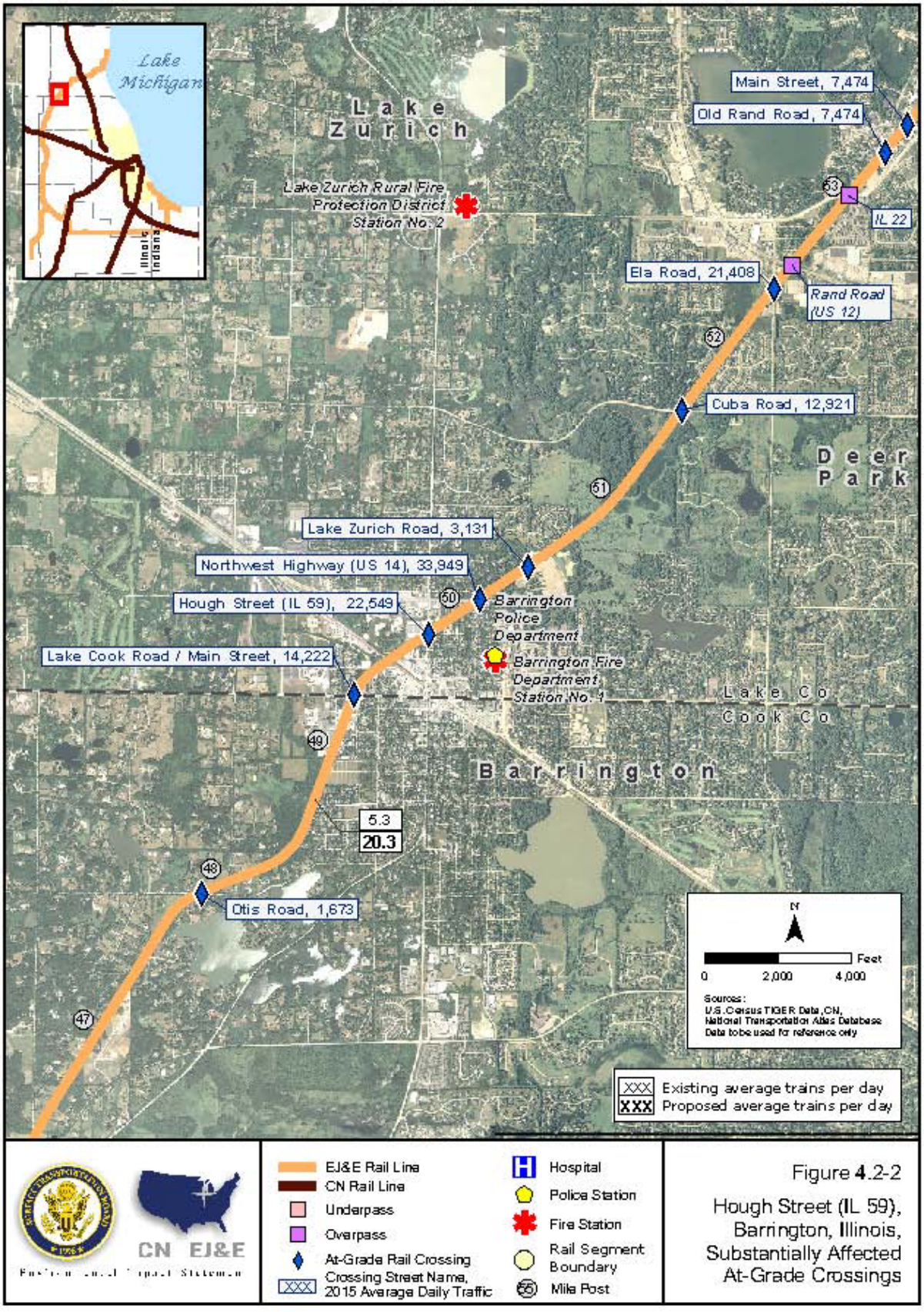


Figure 4.2-2
Hough Street (IL 59), Barrington, Illinois, Substantially Affected At-Grade Crossings

SEA evaluated a grade separation at US 14 to alleviate traffic delay in the vicinity of the IL 59 at-grade crossing by providing alternate access across the railroad via the grade separation. As a part of its analysis, SEA created a traffic model of downtown Barrington to evaluate mitigation options due to the complex congestion in the community (see Appendix A in this Final EIS). The traffic model shows that a grade separation at US 14 would have minimal benefit to traffic flow in the Barrington area. Even if a grade separation were constructed, existing traffic signals in proximity to one another, as well as the UP/Metra rail line, would result in substantial queuing along IL 59 and US 14. As mentioned above, motorists are frustrated by the traffic congestion that now exists in the vicinity of the crossing. However, SEA believes it is not the responsibility of the Applicants to mitigate for existing traffic congestion in the community by grade separating US 14, nor would that mitigation option provide a successful solution to congestion in the Barrington area.

SEA has also evaluated the concept of placing the EJ&E rail line in a trench through Barrington. SEA determined that placing the rail line in a trench would be neither reasonable nor practical. While the trench would remove any effects of the EJ&E rail line on at-grade crossings, construction effects of the trench would physically disrupt the character of the community. In addition, the costs of constructing such a trench for the EJ&E rail line would be prohibitive. SEA notes that under VM 38 and VM 41, the Applicants have agreed to provide priority to commuter rail operations, which would limit freight train operations across IL 59 during the morning and evening peak traffic periods.

Based on all of its analysis, SEA is satisfied that to address the effect on queue length at the intersection of IL 59 and US 14, traffic advisory signs would be useful because the signs would alert drivers not to block the roadway intersection during a train pass. Traffic advisory signs placed at key locations near the vicinity of the roadway intersection should alleviate the potential for intersection blocking due to the queuing at IL 59. SEA recommended mitigation would provide that the Applicants coordinate with local and Illinois transportation agencies to place traffic advisory signs at appropriate locations to keep motorists from blocking the roadway intersection of IL 59 and US 14 (see Condition 18, below). SEA recognizes that roadway modifications also could improve conditions in Barrington, but this is something that would have to be a negotiation between the community and the Applicants.

Ogden Avenue (US 34), Aurora, Illinois

SEA identified the highway/rail at-grade crossing at Ogden Avenue as substantially affected because the total delay, 4,377.0 minutes, substantially exceeds SEA's 2,400-minute (40-hour) threshold and the crossing has an exposure greater than 1 million (see Figure 4.2-3).

Ogden Avenue (US 34) presently carries a very high volume of traffic, reflecting its importance to mobility in the region. Indeed, as noted by CMAP, US 34 is a Strategic Regional Arterial (CMAP 2008). This designation confirms the importance of US 34 to the region's mobility. Moreover, alternate routes are not readily available in the vicinity of the highway/rail at-grade crossing. US 34 also meets the total vehicle delay and exposure criteria used in SEA's analysis of the Proposed Action. Because of these transportation and safety factors, as well as high vehicle volume on the roadway, the excessive amount of delay, the importance of the roadway, and the lack of viable alternate routes, SEA has concluded that grade separation would be warranted and appropriate mitigation for this roadway.

Constructing a grade separation at US 34 would eliminate the increase in vehicle delay and vehicle exposure as a result of the Proposed Action. However, the vehicle delay effect at US 34 would only partly be the result of the Proposed Action. Therefore, SEA believes that it is appropriate for the cost of the grade separation to be shared by the public sector and the Applicants under the formula as discussed, below. SEA's recommended mitigation would require the Applicants to consult with local and Illinois transportation agencies to plan and construct a grade-separated crossing at US 34. SEA

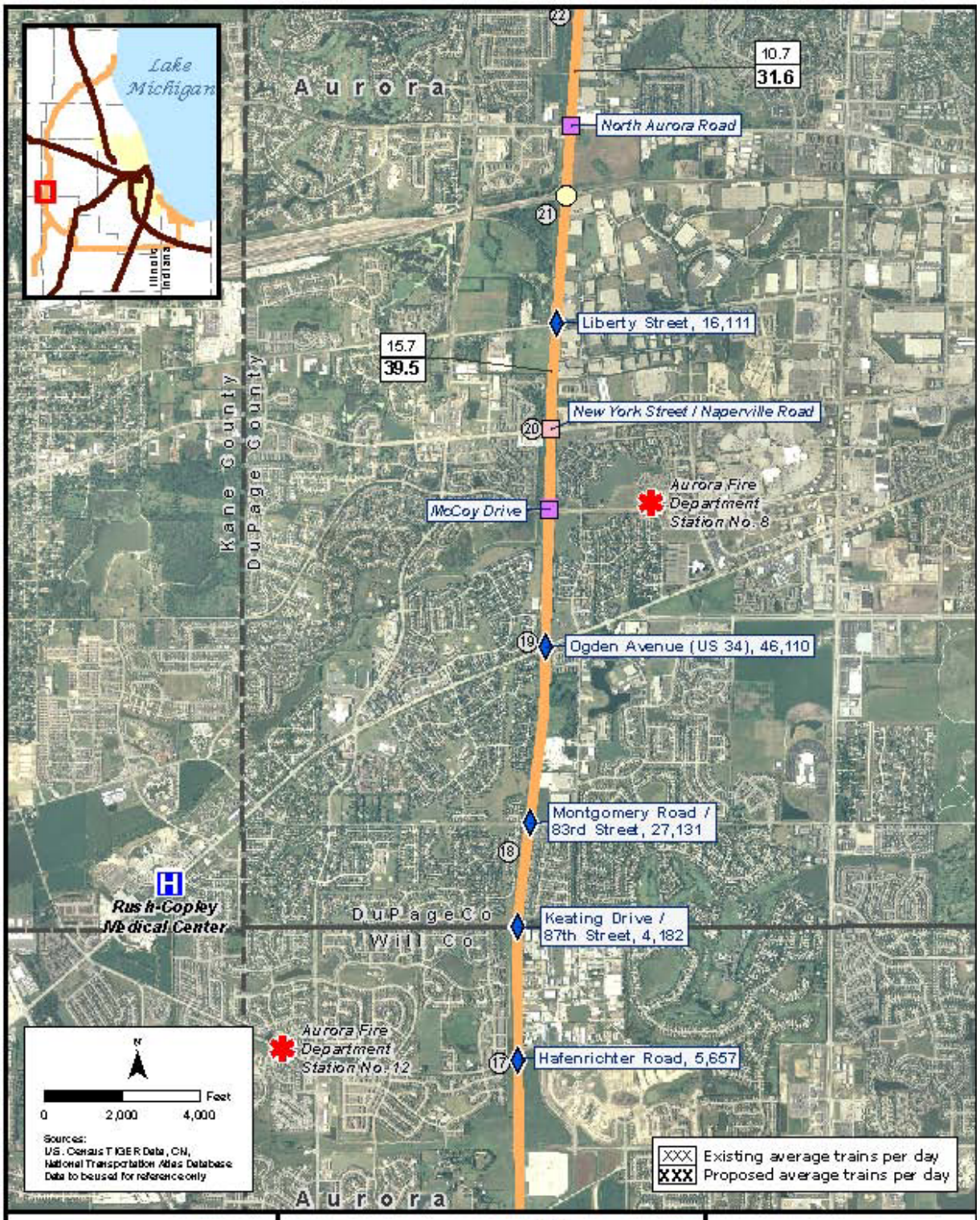


Figure 4.2-3

Ogden Avenue (US 34), Aurora, Illinois, Substantially Affected At-Grade Crossings

anticipates that IDOT would be the lead agency for the development of these grade separations (see Condition 17, below).

Plainfield-Naperville Road, Plainfield, Illinois

SEA identified the highway/rail at-grade crossing at Plainfield-Naperville Road as substantially affected under the Proposed Action because the queue length of 440 feet would block IL 59. The intersection of IL 59 and Plainfield-Naperville Road is located 380 feet southwest of the highway/rail at-grade crossing (see Figure 4.2-4, below).

An alternate route is available to northbound motorists on IL 59 and 135th Street. A grade-separated crossing at IL 59 is approximately 500 feet from the intersection of IL 59 and Plainfield-Naperville Road. Placing traffic advisory signs at the intersection of IL 59 and Plainfield-Naperville Road, as well as the availability of the alternate route on IL 59 and 135th Street, would potentially keep motorists from blocking the intersection of Plainfield-Naperville Road and IL 59. Therefore, SEA recommends mitigation requiring that the Applicants coordinate with local and Illinois transportation agencies to place traffic advisory signs in appropriate locations to keep motorists from blocking the roadway intersection of Plainfield-Naperville Road and IL 59 (see Condition 18, below).

Woodruff Road and Washington Street, Joliet, Illinois

SEA identified the highway/rail at-grade crossing at Woodruff Road as substantially affected because the total delay of 9,381 minutes substantially exceeds SEA's 2,400-minute threshold, the crossing LOS reduces from LOS B to LOS F, and there is a high number of predicted accidents (see Figure 4.2-5, below).

SEA identified the highway/rail at-grade crossing at Washington Street as substantially affected because the total delay of 9,879 minutes substantially exceeds SEA's 2,400-minute threshold and the crossing LOS reduces from LOS B to LOS F (see Figure 4.2-5, below).

The Applicants agreed to mitigation for Woodruff Road and Washington Street under a negotiated agreement with the City of Joliet (Applicants and City of Joliet 2008). SEA recommends that, should the Board approve the transaction, the Applicants be required to comply with the terms of the negotiated agreement.

If the Applicants' negotiated agreement with the City of Joliet were not in place, SEA would have evaluated and recommended mitigation for both Woodruff Road and Washington Street, which could have included grade separations, given the level of potential effects of the Proposed Action. Grade separations at those locations could have eliminated the increase in vehicle delay, the reduction in crossing LOS, and for Woodruff Road, lowered the number of predicted accidents.

However, the Applicants and the City of Joliet have negotiated a mutually acceptable agreement that includes tailored mitigation that Applicants will provide for the City of Joliet. The negotiated agreement is more far-reaching in certain respects than mitigation that the Board might otherwise have imposed. Because Joliet and the Applicants have been able to come to terms that both the Applicants and the City of Joliet find satisfactory to address potential local concerns, SEA does not recommend mitigation for either Woodruff Road or Washington Street beyond requiring compliance with the parties' own agreement (see VM 27 in Section 4.3.3).

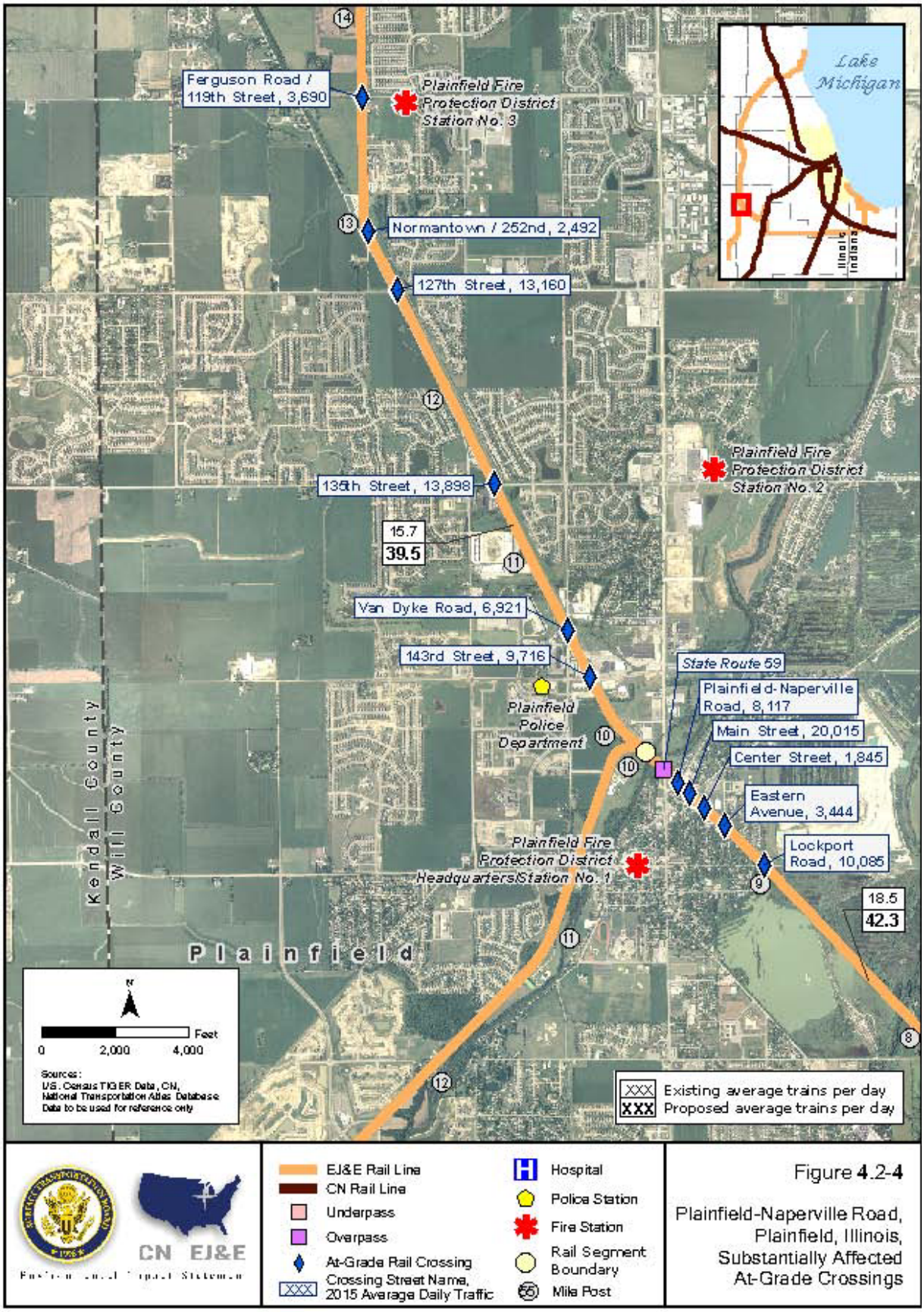


Figure 4.2-4

Plainfield-Naperville Road, Plainfield, Illinois, Substantially Affected At-Grade Crossings

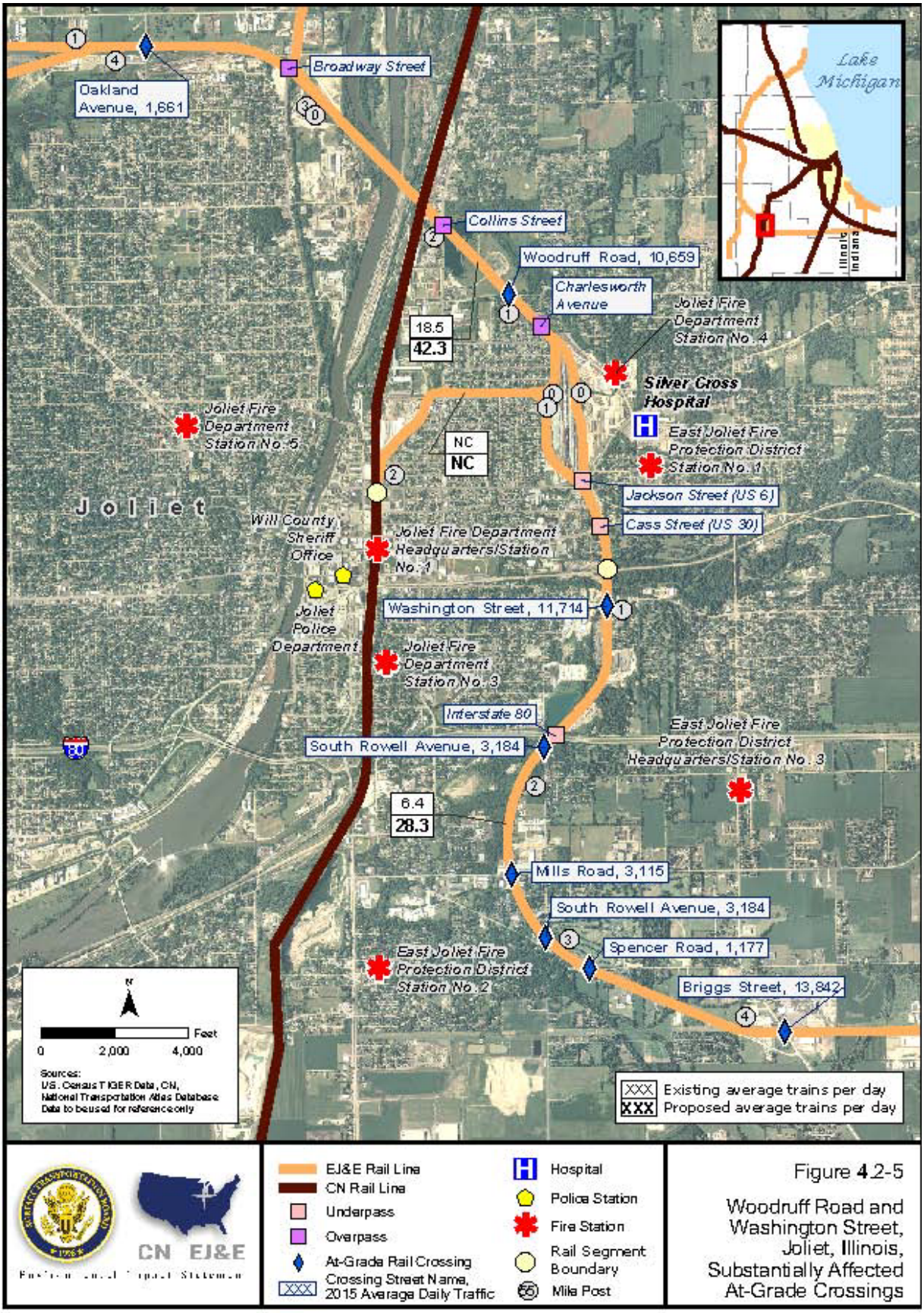
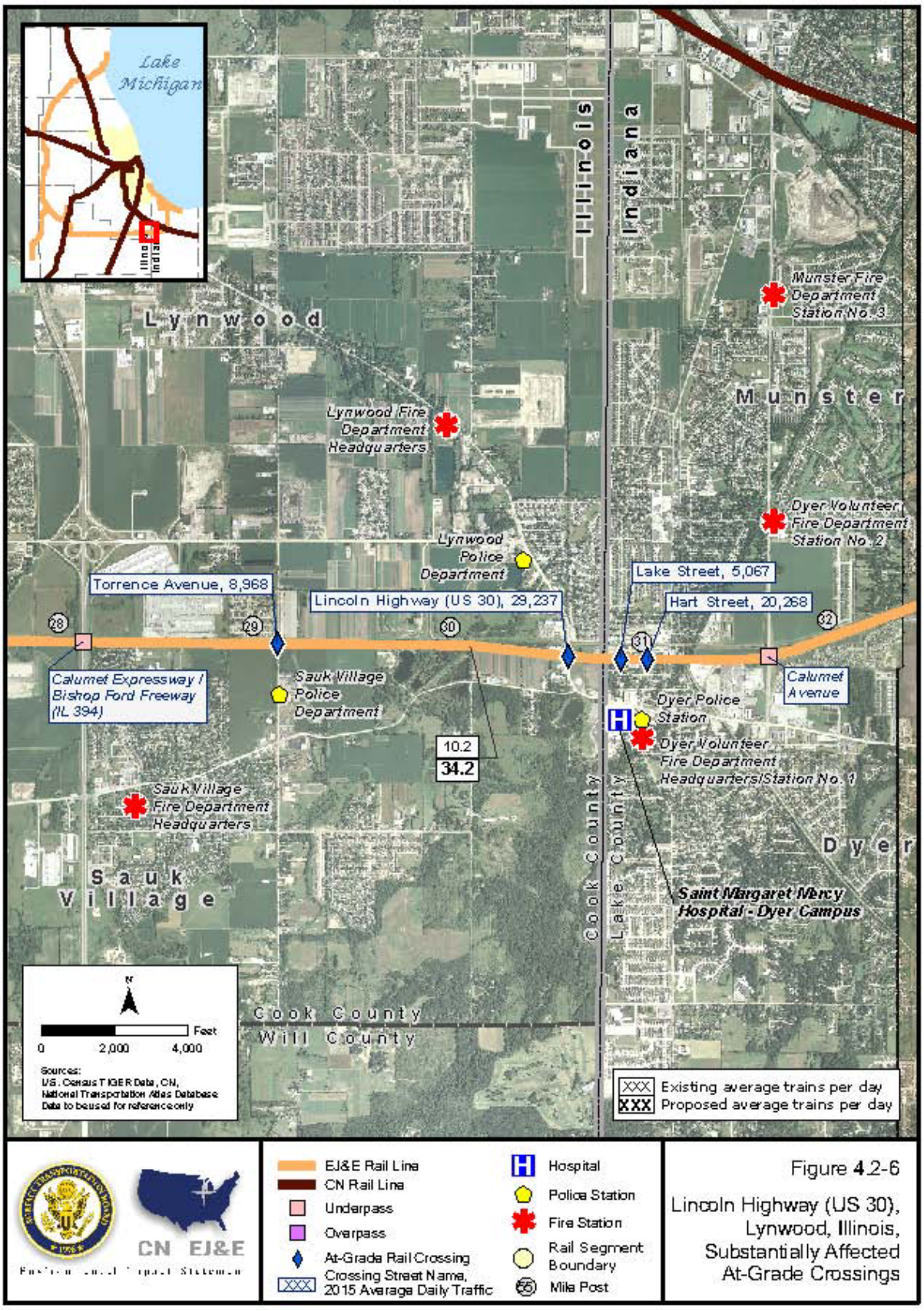


Figure 4.2-5

Woodruff Road and Washington Street, Joliet, Illinois, Substantially Affected At-Grade Crossings


Lake Michigan
Illinois
Indiana
Lynwood
Munster
Munster Fire Department Station No. 3
Lynwood Fire Department Headquarters
Dyer Volunteer Fire Department Station No. 2
Lynwood Police Department
Torrence Avenue, 8,968
Lincoln Highway (US 30), 29,237
Lake Street, 5,067
Hart Street, 20,268
28
29
30
31
32
Calumet Expressway / Bishop Ford Freeway (IL 394)
Sauk Village Police Department
Calumet Avenue
Dyer Police Station
Dyer Volunteer Fire Department Headquarters/Station No. 1
10.2
34.2
Sauk Village Fire Department Headquarters
Sauk Village
Dyer
Cook County
Lake County
Saint Margaret Mercy Hospital - Dyer Campus
Cook County
Will County
N
Feet
0
2,000
4,000
Sources:
U.S. Census TIGER Data, CN,
National Transportation Atlas Database
Data to be used for reference only
XXX Existing average trains per day
XXX Proposed average trains per day
CN EJ&E
EJ&E Rail Line
CN Rail Line
Underpass
Overpass
At-Grade Rail Crossing
Crossing Street Name, 2015 Average Daily Traffic
Hospital
Police Station
Fire Station
Rail Segment Boundary
Mile Post
Figure 4.2-6
Lincoln Highway (US 30), Lynwood, Illinois, Substantially Affected At-Grade Crossings

Lincoln Highway (US 30), Lynwood, Illinois

SEA identified the highway/rail at-grade crossing at Lincoln Highway (US 30) as substantially affected by the Proposed Action because the queue length would block Sauk Trail (a major thoroughfare), the total vehicle delay of 3,034.5 minutes would substantially exceed SEA's 2,400-minute (40-hour) threshold, and the exposure would be nearly 1 million. The intersection of US 30 and Sauk Trail is located 850 feet south of the highway/rail at-grade crossing. The queue length under the Proposed Action would be approximately 940 feet (see Figure 4.2-6, above).

US 30 carries a very high volume of traffic, reflecting its importance to mobility in the region. As noted by CMAP, US 30 is a Strategic Regional Arterial (CMAP 2008). This designation confirms the importance of US 30 to the region's mobility. US 30 is an important roadway for Illinois and Indiana because it is a significant conduit between communities in both states. Alternate grade-separated routes are not readily available in the vicinity of the highway/rail at-grade crossing. Because of these transportation and safety factors, as well as a high volume of vehicles on the roadway, the increased delay that would result from the Proposed Action, the possibility for the traffic queue at the EJ&E at-grade crossing to block an important regional roadway, and the lack of alternate routes, SEA concludes that a grade separation would be an appropriate mitigation for this roadway.

Grade-separating US 30 at the highway/rail at-grade crossing would eliminate the total vehicle delay, vehicle queuing, and vehicle exposure. Total vehicle delay and exposure reflect too many vehicles stopped while a train passes through the crossing. The grade separation would eliminate this problem by separating vehicular traffic from train traffic. The fact that a grade separation is recommended at this location does not mean that the Applicants should bear the entire cost. SEA's analysis shows that the vehicle delay effect at US 30 would be only partly the result of the Proposed Action. Therefore, SEA believes that it is appropriate for the cost of the grade separation to be shared by the public sector and the Applicants under the formula discussed below. But SEA's final recommendation would require the Applicants to consult with local and Illinois transportation agencies to plan and construct a grade-separated crossing at US 30. SEA anticipates that IDOT would be the lead agency for the development of these grade separations (see Condition 17, below).

Grade-Separated Crossing Funding

SEA received many public comments requesting that the Board require the Applicants to fully fund numerous grade-separated crossings throughout the Study Area. SEA agrees that many communities along the EJ&E rail line would benefit from more grade separations. However, many of these communities already face traffic congestion on the roadways and at highway/rail at-grade crossings on the same roadways that would be potentially affected by the Proposed Action, as discussed in detail in Chapters 4 and 6 of the Draft EIS and Section 2.5 of this Final EIS. In addition, the primary cause of the existing traffic congestion in the communities along the EJ&E rail line is the high number of vehicles and lack of capacity on the current roadway system. Even where trains are responsible for it, traffic congestion would not be caused solely by the Applicants' trains on the EJ&E rail line but also by the presence of multiple freight railroads on the lines that pass through the communities outside the EJ&E arc, some of which also are used by commuter trains. It would be inappropriate to hold the Applicants responsible for the inadequate roadway system that exists in the communities along the EJ&E rail line and the rarity (and in some communities, the absence) of grade-separated crossings. Moreover, as a number of commenters have pointed out, railroads historically have not paid for more than a small share (5 to 10 percent) of the total cost of grade separations because grade separations primarily benefit the community and not the railroad.

SEA considers many of the traffic problems along the EJ&E rail line to be existing conditions, thus making it particularly inappropriate to require the Applicants to bear all or most of the cost. However, as explained above, the Proposed Action would, in the two cases where grade crossing

separations are recommended as mitigation, exacerbate the existing problems and cause substantial effects. As discussed above, SEA recommends grade-separated crossings for two substantially affected highway/rail at-grade crossings: one at Ogden Avenue (US 34) in Aurora, Illinois, and one at Lincoln Highway (US 30) in Lynwood, Illinois. As discussed above, SEA also identified both Woodruff Avenue and Washington Street in Joliet as substantially affected and would have evaluated and recommended mitigation for both Woodruff Road and Washington Street. Such mitigation could have included grade separations, given the level of potential effects of the Proposed Action. Grade separations at those locations could have eliminated the increase in vehicle delay, the reduction in crossing LOS, and for Woodruff Road, removed the high incidence in the number of predicted accidents.

However, Applicants and the City of Joliet have negotiated a mutually acceptable agreement, which is more far-reaching in certain respects than mitigation that the Board might otherwise have imposed. Because Joliet and Applicants have been able to come to terms that both Applicants and the City find satisfactory to address potential local concerns, SEA does not recommend mitigation for Woodruff Road or for Washington Street beyond requiring compliance with the parties' own agreement (see VM 27 in Section 4.3.3). A negotiated agreement is preferable to an imposed mitigation solution because the agreement can be implemented immediately, would be fully funded by the Applicants, and is tailored to specific community needs.

With respect to funding of the two grade separations SEA recommends for mitigation, vehicle congestion problems at Ogden Avenue (US 34) and Lincoln Highway (US 30) would be a combination of existing conditions and potential effects resulting from the Proposed Action. Therefore, SEA believes that the grade separation mitigation appropriately should be funded by a combination of entities and not by the Applicants alone.

Comments received in response to the Draft EIS from the Applicants (Applicants 2008a), Union Pacific (UP) (UP 2008), and the American Association of Railroads (AAR) (AAR 2008) indicate that if SEA finds grade separations appropriate for mitigation, precedent in grade separations using Federal funds requires the railroad to pay no more than 5 percent of the grade separation cost. The Applicants state that "… under the current funding scheme, a railroad's contribution to a grade separation is capped at 5 percent when federal dollars are used…" and that "…simply because a crossing has been identified as a candidate for a grade separation in an environmental review does not provide any basis for imposing a greater burden on the Transaction[3] than the law imposes on railroads generally when crossing delay call for separation" (Applicants 2008a). Similarly, UP states that "…where grade crossing elimination projects are involved, Federal Highway Administration regulations cap a railroad's share of costs at 5 percent" (UP 2008). On the other hand, a number of commenters have maintained that, notwithstanding existing traffic congestion, the Applicants should pay the entire cost of any grade separations that might be ordered by the Board.

SEA concludes that it would be appropriate to require the Applicants to bear somewhat more than the typical cost share of the two grade separations SEA recommends. In most situations involving a grade crossing separation, a public entity is pursuing a grade separation to address highway congestion or to improve highway infrastructure unrelated to rail operations. Because the railroad receives only limited benefit from a grade separation, its contribution is capped at a relatively low percentage of the cost. In the current case, SEA's analysis shows that a portion of the traffic delay would be created by the Proposed Action. In similar circumstances, the Board has in previous cases

[3] The Applicants use the term Transaction to refer to the Proposed Action.

required applicants to contribute more than the typical 5 percent share toward the cost of grade separation.[4]

At the same time, SEA rejects the argument of some commenters that the Applicants should be required to bear all or nearly all of the cost of the two grade separations SEA is recommending. While some mitigation measures should be the Applicants' sole responsibility, others, such as grade separations, by necessity must involve the participation, cooperation and approval of outside parties. In addition, grade separations typically are very expensive and provide a substantial benefit to communities with existing congestion. Because the grade separations involved here would mitigate both existing conditions and some of the effects of the Proposed Action, SEA believes that the Applicants should cover only a portion of these grade separation costs.

In preparing this Final EIS, an important issue was how to determine a reasonable and appropriate approach for the Applicants' cost participation for the two grade separations recommended as mitigation. As part of its consideration, SEA applied two different approaches to determine a reasonable and appropriate level of cost participation for the Applicants, based on all circumstances presented here. First, SEA applied a regional approach that considered all highway/rail at-grade crossings affected by the Proposed Action on both the EJ&E rail line and the CN rail line segments. Second, SEA considered only the potential impact of the Proposed Action on vehicle traffic delay at Ogden Avenue (US 34) and Lincoln Highway (US 30) (the site-specific approach).

In order to evaluate the net impact of the Proposed Action on regional transportation delay, SEA calculated the total vehicle delay at all of the affected highway/rail at-grade crossings on both the EJ&E rail line and the affected CN rail line segments. Specifically, SEA evaluated 88 highway/rail at-grade crossings on the EJ&E rail line and 134 highway/rail at-grade crossings on the CN rail line segments, a total of 222 crossings. As explained in detail elsewhere in the Final EIS, vehicle delay would generally increase at the highway/rail at-grade crossings along the EJ&E rail line and would generally decrease at the highway/rail at-grade crossings along the CN rail line segments. Overall, SEA calculated that the Proposed Action would cause a net increase in vehicle delay in the Chicago region of 356 hours per day out of a total of 2,259 hours per day for all of the highway/rail at-grade crossings examined. This means that the Proposed Action would be responsible for approximately 15 percent of the total future delay. SEA's estimate of a 15 percent impact on vehicle delay as a result of the Proposed Action represents a regional perspective that seeks to balance the reduction in vehicle delay because of reduced train traffic with the increase in vehicle delay due to additional train traffic. SEA believes that basing the share of the cost of these grade separations that the Applicants should bear on the results of this regional analysis would be reasonable and appropriate because this cost allocation reflects both the anticipated beneficial and detrimental effects of the Proposed Action. This traffic delay analysis is presented in full in Section 2.5 of this Final EIS.

In order to produce the most thorough analysis practical, SEA also conducted an evaluation of a cost-sharing approach based on the contribution of the Proposed Action on the specific delay at both the Ogden Avenue (US 34) and Lincoln Ave (US 30) at-grade crossings of the EJ&E rail line. As shown in the Draft EIS and updated in Appendix A of this Final EIS (see Table A.5-1), for each highway/rail at-grade crossing analyzed, SEA calculated the total delay for all delayed vehicles under both the No Action and Proposed Action alternatives. In the case of Ogden Avenue, SEA determined that the total delay per day under the No Action alternative would be 1,133 minutes. The total delay per day under the Proposed Action would be 4,377 minutes, which means that the Proposed Action could

[4] The Final EIS for the Conrail Acquisition, states on page 7-31, that "because of the significant impact of Acquisition-related actions on traffic delay, the Board believes that the CSX share of the costs for design and construction of the grade separation should be substantially more than the traditional railroad share for similar projects, which is 5% for Indiana" (Board 1998).

contribute 74 percent of the total delay at Ogden Avenue (US 34). Based only on this site-specific analysis the Applicants' contribution could be deemed to be as high as 74 percent of the cost of the US 34 grade separation.

For Lincoln Highway (US 30), SEA's site-specific analysis showed that the total delay under the No Action alternative would be 395 minutes, and that this would rise to 3,035 minutes under the Proposed Action, which means that the Proposed Action could add 87 percent to the vehicle delay.

However, the site-specific analysis summarized above does not factor in any of the Proposed Action's countervailing benefits that would arise from train traffic decreases on the CN lines. Moreover, SEA's site-specific analysis focuses solely on vehicle delay. As discussed in this Final EIS, SEA considered several other factors (level of service, change in risk profile, vehicle safety exposure, emergency response, and queue length) in evaluating the impacts of the Proposed Action on highway/rail at-grade crossings and whether, and what type of mitigation was warranted. Grade separations at Ogden Avenue and Lincoln Highway would address not only vehicle delay, but also both the substantial pre-existing traffic congestion and existing issues at each of those locations involving the level of service, risk profile, vehicle safety exposure, emergency response, and queue length backups. Because railroads are not responsible for the portion of a grade separation that would benefit the community by improving existing conditions, it would, in SEA's view, be reasonable to balance the benefit of reducing or eliminating these pre-existing issues against the increase in transaction-related traffic delay to reduce Applicants' contribution to these grade separations. In other words, SEA believes that, since it has not been the Board's practice to provide mitigation for pre-existing problems such issues should be accounted for in the Board's determination of Applicants' contribution of funds for the grade separations. Finally, grade separations are an expensive solution; SEA estimates that the Ogden Avenue (US 34) grade separation would cost $40.4 million and the Lincoln Highway (US 30) grade separation would cost $52.5 million.

For these reasons, SEA believes that the regional approach discussed above provides the most reasonable basis for assigning the Applicants' portion of the cost of the recommended grade separations in this case. Therefore, SEA's final recommendation is that the Board should make the Applicants responsible for 15 percent of the cost of these two grade separations, and impose a condition requiring the Applicants to abide by the terms of their negotiated agreement in lieu of other mitigation for the crossings in Joliet.

Revised Connections

As discussed in Section 2.5.3, the Applicants revised some of their original proposed connections along the EJ&E rail line. The Applicants revised the double track connection at Leithton (near Mundelein, Illinois) and the connection at Matteson, Illinois (as described in the Applicants' letters dated September 17, 2008, and August 21, 2008, respectively (Applicant 2008e, Applicant 2008f). The Applicants proposed the revised connections in order to improve train operation speeds, therefore reducing Proposed Action-related delay at the highway/rail at-grade crossings on the EJ&E rail line and CN's Waukesha Subdivision. The modified connection at Leithton would allow for increased train speeds through the highway/rail at-grade crossings of Allanson Road, IL 60/83 and Diamond Lake Road, near Mundelein, while the modified connection at Matteson, Illinois, would allow increased train speeds through the highway/rail at-grade crossings of Cicero Avenue, Western Avenue, and Main Street. Because of these revisions, SEA is not proposing mitigation for these grade crossings that otherwise would have been affected. SEA is, however recommending that the Applicants be required to go forward with their revised connections at these two locations (see Condition 19).

Signalized Intersections

As discussed in Section 2.5.9, ICC asked the Board to impose a condition related to signalized intersections. SEA is recommending a condition requiring consultation with the ICC and INDOT (see Condition 20, below).

4.2.3.2 Emergency Response

The Applicants commit to minimizing emergency response vehicle delay under the Proposed Action and during construction in VM 42, VM 45, VM 47, and VM 48, below.

Based on public comments on the Draft EIS, SEA performed analysis for additional emergency service providers for the Final EIS and identified three additional emergency service providers that would be substantially affected by the Proposed Action but were not presented in the Draft EIS (see Chapter 2, above). In Table 4.2-2, SEA lists 13 emergency service providers that would be potentially substantially affected under the Proposed Action and for which SEA recommends mitigation.

As discussed above, the Applicants have negotiated an agreement with the City of Joliet; therefore, SEA is not recommending any mitigation for Joliet Fire Department – Station No. 8. For the remaining 12 of the 13 emergency service providers listed in Table 4.2-2, SEA proposes as mitigation requiring a real-time video monitoring system, Closed Circuit Television Surveillance System (CCTV), which would consist of a network of video cameras installed at selected locations along the EJ&E rail line. These video cameras would transmit a signal to a specific place where they would be directly linked to live video monitors at designated emergency response dispatch centers. CCTV differs from broadcast television in that the signal would not be openly transmitted, though it may employ point-to-point wireless links. The video cameras would be installed at locations that provide the emergency dispatcher information to reasonably predict train movements across selected highway/rail at-grade crossings (see Table 4.2-2). Under SEA's recommended mitigation, a minimum of two video cameras would be installed at each location facing opposite directions so that the viewer could see trains approaching in both directions, as well as trains stopped at at-grade crossings. Emergency response dispatchers could use this video feed to advise emergency vehicle operators to use alternate routes in the event that a grade crossing would be blocked or inaccessible.

SEA expects that the Applicants would coordinate with the appropriate agencies to select appropriate equipment and install a CCTV system. SEA also recommends that the Board require the Applicants to fund the initial installation of the video cameras and all ancillary equipment, including the poles, cables, controllers, and cabinet to house the camera controller and other equipment. The communication equipment to relay the video image to the emergency response dispatch facilities could be through fiber optic cable or radio transceiver. The receiver of the video image could use any type of monitor to view the video image. The Applicants and appropriate agencies should configure the video cameras so the movement of the trains can reasonably be predicted at affected highway/rail at-grade crossings listed in Table 4.2-2. The Applicants would train two individuals from each affected emergency service provider to use the system, while ownership, maintenance and service for this system would be funded and performed by the governing bodies of the fire protection districts/departments and emergency response dispatch centers that receive it after the system is installed and operational (see Condition 21, below). The locations at which SEA proposes CCTV systems also should be able to access the dispatching monitors that the Applicants committed to providing in VM 42 in Section 4.3.

Table 4.2-2. Emergency Service Providers That Require Mitigation Under the Proposed Action Due to Potential Effects

Community	Facility	Recommended Mitigation
Mundelein, Illinois	Countryside Fire Protection District - Station No. 1	Real-time video monitoring (CCTV) at selected locations
Lake Zurich, Illinois	Lake Zurich Rural Fire Protection District - Station No. 3	Real-time video monitoring (CCTV) at selected locations
Barrington, Illinois	Barrington Fire Department - Station No. 1	Real-time video monitoring (CCTV) at selected locations
Barrington, Illinois	Advocate Good Shepherd Hospital	Real-time video monitoring (CCTV) at selected locations
Bartlett, Illinois	Bartlett Fire Protection District - Future Station No. 3	Real-time video monitoring (CCTV) at selected locations
West Chicago, Illinois	West Chicago Fire Protection District Headquarters/Station No. 1	Real-time video monitoring (CCTV) at selected locations
West Chicago, Illinois	West Chicago Fire Protection District - Station No. 3	Real-time video monitoring (CCTV) at selected locations
Plainfield, Illinois	Plainfield Fire Protection District - Station No. 3	Real-time video monitoring (CCTV) at selected locations
Joliet, Illinois	Joliet Fire Department - Station No. 8	Mitigation under the Applicants-City of Joliet negotiated agreement
Chicago Heights, Illinois	Saint James Hospital and Health Centers - Chicago Heights	Real-time video monitoring (CCTV) at selected locations
Schererville, Indiana	Schererville Fire Department Headquarters	Real-time video monitoring (CCTV) at selected locations
Griffith, Indiana	Griffith Volunteer Fire Department Headquarters/Station No. 1	Real-time video monitoring (CCTV) at selected locations
Griffith, Indiana	Griffith Volunteer Fire Dept. - Station No. 2	Real-time video monitoring (CCTV) at selected locations

4.2.3.3 Airports

In response to concerns raised regarding the Gary/Chicago International Airport, SEA recommends a mitigation measure requiring the Applicants to adhere to the terms of the Preliminary Memorandum of Understanding (PMOU), announced on June 26, 2008, to prevent the Proposed Action from affecting the Gary/Chicago International Airport expansion plans (Gary/Chicago International Airport 2008) (see Condition 22, below). The PMOU provides a framework to address relocation of the EJ&E rail line, construction of a bridge over the existing Norfolk Southern Rail Road (NS) Gary Branch, and construction of a grade-separated crossing at Industrial Highway. SEA does not believe additional mitigation for Gary/Chicago International Airport is warranted.

4.2.4 Hazardous Waste Sites

SEA determined that the operations under Proposed Action would not affect hazardous waste sites (that is, sites that contain hazardous materials, including petroleum products that could potentially

harm human health or the environment). However, the Applicants may encounter undocumented hazardous waste during Proposed Action-related construction activities. Therefore, SEA recommends mitigation that would apply during construction in Conditions 44 and 45, below.

4.2.5 Land Use

SEA reanalyzed the effects of the Proposed Action on land use, zoning, public lands, and existing and potential development areas for this Final EIS. This additional assessment was in response to comments about land use either during the formal Draft EIS comment period or at SEA's public meetings. SEA also recalculated potential land use effects for the Revised Matteson Connection and the Revised Double Track - Leithton Connection, which were modifications presented by the Applicants after the Draft EIS was issued (Applicants 2008e; Applicants 2008f). As a result of this additional analysis and new information, SEA recommends retaining two land-use mitigation measures from the Draft EIS (regarding construction equipment storage and the Hawthorn Woods scenic corridor along Gilmer Road) and adding three new mitigation measures as conditions for a variety of sensitive land uses. In addition, the Applicants' voluntary mitigation for land use (see Section 4.3.4, Land Use) has been expanded. SEA's recommended conditions (Condition 23 and Conditions 46 through 49) are in Section 4.4.

4.2.6 Socioeconomics and Quality of Life

In the Draft EIS, SEA identified only minor effects on populations and demographics, economy, taxes, property values, housing, communities and community cohesion, travel patterns, and community facilities and public services. After issuance of the Draft EIS, the Applicants expanded their voluntary mitigation measures relating to schools and parks. The Applicants' revised voluntary mitigation measures would require that they confer with schools and parks within 0.25 mile of the EJ&E rail line about providing fencing along the EJ&E rail line right-of-way. In response to comments on the Draft EIS, SEA prepared additional analysis on school safety, property values, and other quality of life issues for this Final EIS. Based on its analysis, SEA recommends that the Board impose the Applicants' voluntary mitigation and also recommends additional mitigation for schools, parks, and pedestrians. All of this mitigation can be found below (see VM 10 through VM 12, VM 43 and 44, and Conditions 13 through 16, below).

4.2.7 Environmental Justice

SEA did not identify any disproportionately high and adverse effects on minority or low-income populations in the Draft EIS. However, in recognition of the large Spanish-speaking population in the Chicago metropolitan area and along many segments of the EJ&E rail line, the Applicants committed to distributing all media information in Spanish (see VM 2) and to providing Operation Lifesaver programs in Spanish upon request (see VM 44).

During the preparation of the Draft EIS, SEA conducted environmental justice outreach meetings with leaders who represented community groups and church congregations near the EJ&E rail line. At these meetings, SEA encountered instances when it needed a translator. As a result of this experience, SEA has included in several of its final recommendations requirements that materials and programs be made available in both English and Spanish, upon request. SEA's recommended conditions (Conditions 24 through 26) are in Section 4.4, below.

4.2.8 Energy

The Applicants proposed voluntary mitigation measures (see VM 73 and VM 74 in Section 4.3) that would increase the use of energy-efficient practices. SEA does not recommend additional mitigation.

4.2.9 Air Quality and Climate

In addition to the Applicants' voluntary mitigation measures (VM 73 through VM 76, SEA recommends mitigation in Conditions 27 and 28 to further address air quality and climate issues.

4.2.10 Noise and Vibration

SEA has carefully reviewed the Applicants' voluntary mitigation measures related to noise mitigation (VM 3 through VM 5 and VM 77 through VM 83, below), and believes that they would result in meaningful and appropriate noise reduction. SEA also includes in Section 4.4 mitigation recommendations that are intended to enhance and clarify the Applicants' voluntary mitigation (see Conditions 29 through 31, Condition 50, and Condition 51, below). For example, in addition to VM 80, SEA recommends the Applicants consult with affected communities to identify locations where wheel squeal is considered a nuisance (see Condition 29, below). SEA also recommends a quiet zone condition for Barrington, Illinois (see Condition 10, below).

Based on concerns raised by the Applicants, SEA clarified a proposed recommended condition from the Draft EIS that would have required the Applicants to notify staff at Fermi National Accelerator Laboratory (Fermilab) if operational changes potentially result in an increase in train induced ground-borne vibration. SEA modified that condition to provide examples of activities that would require notification, such as activities that could increase the train induced ground-borne vibrations including but not limited to: higher axle loads; use of larger, more powerful locomotives, and increasing train speeds (see Condition 30, below).

As part of SEA's noise analysis conducted for this Final EIS, SEA identified those locations where there are enough noise impacts to justify mitigation and where cost-effective noise mitigation could be possible. Locations where noise mitigation should be considered are identified on the noise analysis figures located in Appendix A of this Final EIS. Based on this analysis and the Applicants' voluntary mitigation, SEA recommends Condition 31 requiring the Applicants to document their voluntary efforts to provide noise reduction in areas that qualify under IDOT or INDOT criteria.

Finally, SEA recommends Conditions 50 and 51 for Transaction-related construction activities.

4.2.11 Biological Resources

The Applicants commit to voluntary mitigation measures for effects on biological resources in VM 49 through VM 52, VM 64, VM 84 through VM 88, VM 90, VM 92, VM 95 through VM 97 and VM 102 through VM 108. The Applicants offered VM 49 through VM 52 in response to SEA's recommendations in the Draft EIS.

Based on comments received on the Draft EIS, SEA has recommended conditions to enhance VM 51, VM 64, VM 86, VM 96, and VM 97. SEA also reanalyzed the Applicants' voluntary mitigation measures developed to mitigate the potential effects of the Proposed Action on biological resources in response to Draft EIS comments received on biological resources either during the formal Draft EIS comment period or at SEA's public meetings. As a result, SEA recommends mitigation measures (see Conditions 32 through 38 and 52 through 57, below), to supplement the voluntary mitigation measures to which the Applicants have committed.

During an Illinois Natural Resources and Water Resources stakeholder meeting, several state and regional agencies identified a need to modify the Applicants' VM 64 establishing a Community

Liaison (HDR 2008b). The agencies represented at the stakeholder meeting requested that SEA modify the condition to include a resource-agency-specific liaison(s) who has expertise in environmental and natural resource management. They agreed that the resource agency liaison(s) also should have experience working with the local natural and water resource agencies for the purpose of providing improved adaptive natural resource management and maintaining access agreements. The resource agencies and stakeholders also suggested that monitoring should be conducted to assess the existing conditions and subsequent potential effects on biological resources based on the Proposed Action and proposed construction areas. Further, the Applicants' resource agency liaison(s) should work with the resource agencies to develop protocols for the adaptive natural resource management, monitoring, and tiered-mitigation to address potential effects of the Proposed Action and proposed construction on conservation and natural areas in the Study Area. In response to these concerns, SEA is recommending a condition establishing this resource agency liaison. SEA's recommended condition (Condition 32) can be found in Section 4.4.

In preparing this Final EIS, SEA and the Applicants met with the U.S. Fish and Wildlife Service (USFWS) Chicago, Illinois, Field Office (CIFO), and USFWS Northern Indiana Ecological Services Sub-Office (NIESS), on October 23, 2008 to discuss concerns raised in the U.S. Department of the Interior's comments on the Draft EIS (U.S. Department of the Interior 2008). Specifically, the discussion focused on the Hine's emerald dragonfly, Karner blue butterfly, Indiana bat, Eastern prairie fringed orchid, turtle crossings, and noise effects on migratory birds. SEA met with the USFWS NIESS, The Nature Conservancy (TNC), and INDNR on October 29, 2008, to resolve USFWS NIESS's concerns. The USFWS NIESS determined that no suitable habitat exists for the Eastern prairie fringed orchid in the transaction-related construction areas in Indiana. The group also visited the dune and swale prairie remnant in Kirk Yard in Gary, Indiana, and discussed options for preservation. SEA met in the field with the USFWS CIFO on November 6, 2008, to look at suitable habitat for the Eastern prairie fringed orchid in proposed construction areas along the EJ&E rail line in Illinois. SEA and USFWS CIFO agreed that suitable habitat exists and surveys need to be conducted prior to the start of Proposed Action-related construction (the Biological Report is located in Appendix A of this Final EIS). In November, 2008, SEA and the Applicants consulted with the USFWS CIFO and Midwest Generation regarding effects to the Hine's emerald dragonfly (see Conditions 37 and 38, 52, and 55 related to Federally- or state-listed threatened or endangered species).

Based on extensive informal consultation and the Biological Report submitted to USFWS (See Appendix A of this Final EIS), SEA concludes that the Proposed Action may affect, but is not likely to adversely affect, listed threatened or endangered species. The Applicants provided SEA with additional voluntary mitigation to avoid impacts to Federally- or state-listed threatened or endangered species or other species of concern (Applicants 2008d) (see VM 102 through VM 108, below).

4.2.12 Water Resources

The Applicants' proposed voluntary mitigation measures (VM 89 through VM 100) are outlined in Section 4.3. The Applicants implemented two of SEA's proposed conditions from the Draft EIS, one regarding compensation for wetland impacts in accordance with USACE regulations (VM 90) and one regarding best management practices (BMPs) for aquatic biota (VM 95). The Applicants' remaining voluntary mitigation measures address a variety of potential stormwater, groundwater, and surface water protection issues. In addition to the Applicants' voluntary mitigation measures for water resources, SEA recommends mitigation in Conditions 39 through 41 and 58 through 63, below.

4.2.13 Cultural Resources

SEA found that the Proposed Action would not affect any National Register for Historic Places (NRHP)-listed or NRHP-eligible cultural resources. The Indiana Department of Natural Resources,

Division of Historic Preservation and Archeology (INDNR) and the Illinois Historic Preservation Agency concurred with this finding in their letters dated August 27, 2008, and September 29, 2008, respectively (INDNR 2008; Illinois Historic Preservation Agency 2008 in Appendix A). SEA recommends one mitigation measure (Condition 64, below) regarding encountering archeological resources during construction.

4.2.14 Constructions

In the Draft EIS, SEA assessed the potential environmental effects of the proposed connections and their alternative configurations and the double track because these constructions would take place only if the Proposed Action is approved. The Applicants propose mitigation for effects caused by construction in VM 13, VM 45 through VM 49, and VM 52 through VM 72, below. SEA recommends additional mitigation for the effects caused by construction of the proposed connections and double track in Conditions 42 through 64, below.

4.2.15 Monitoring, Enforcement and Decisionmaking Process

SEA's recommended quarterly reporting condition includes a 5-year reporting period (see Conditions 69 and 70, below). Many commenters requested a 10-year or 15-year reporting or oversight period; however, SEA, in most cases, recommends only a 3-year reporting period because that period generally is adequate to assess the full effects of the transaction at issue. In this case, the Applicants plan to implement their operational changes under the Proposed Action over a 3-year period. Based on this, SEA determined that a 5-year reporting period would ensure adequate monitoring of the Applicants' proposed operational changes. If the Board believes that the length of this reporting period in inappropriate, it could adopt a different time period.

Finally, SEA anticipates that the U.S. Environmental Protection Agency (EPA) will publish a notice of the availability of the Final EIS in the *Federal Register* on December 12, 2008. Under the CEQ regulations (40 CFR 1506.10(b)), agencies must wait 30 days from EPA's *Federal Register* notice before issuing a final decision unless they have an internal appeal process. The Board has such a process, which means that the Board could issue a final decision in less than 30 days from December 12, 2008. If the Board were to do so, SEA recommends that the Board's administrative review period be extended to permit parties to seek agency reconsideration of the final decision within 30 days after it is served, rather than the typical 20 days.

4.2.16 Summary of Final Recommended Conditions

Table 4.2-3 summarizes SEA's final recommended conditions by resource area.

Table 4.2-3. Final Recommended Conditions by Resource Area[a]

Resource Area	Recommended Environmental Conditions[b]
Rail Operations	VM 37 through VM 41, 2, 3, 42
Rail Safety	VM 1 through VM 13, 4 through 16, 43
Transportation Systems	VM 27 through VM 48, 17 through 22
Hazardous Waste Sites	44, 45
Land Use	VM 49 through VM 72, 23, 46 through 49
Socioeconomics	VM 10 through VM 12, VM 43, VM 44, VM 64, and VM 65, 13 through 16, 24 through 26
Environmental Justice	VM 64 and VM 65, 24 through 26
Energy	VM 73 and VM 74
Air Quality and Climate	VM 73 through VM 76, 27, 28
Noise and Vibration	VM 3 through VM 5, VM 77 through VM 83, 29 through 31, 50, 51

Table 4.2-3. Final Recommended Conditions by Resource Area[a]	
Resource Area	**Recommended Environmental Conditions[b]**
Biological Resources	VM 49 through VM 52, VM 64, VM 84 through VM 88, VM 90, VM 92, and VM 95 through VM 97, VM 102 through VM 108, 32 through 38, 52 through 57
Water Resources	VM 89 through VM 100, 39 through 41, 58 through 63
Cultural Resources	64
Constructions	VM 13, VM 45 through 49, VM 52 through VM 72, 42 through 64
Negotiated Agreements	65 through 67
Monitoring and Enforcement	VM 101, 68 through 70

Note:
[a] A single recommended condition could mitigate for the effects due to the Proposed Action for more than one resource area.
[b] VM # = Applicants' Voluntary Mitigation Measure; # = SEA's Recommended Condition

4.3 Applicants' Voluntary Mitigation Measures

On September 30, 2008, the Applicants submitted extensive voluntary mitigation measures to address a wide variety of environmental effects identified during the environmental review. These measures address issues including safety, transportation systems, hazardous materials, grade crossing delay, commuter passenger rail service, emergency vehicle delay, land use, air quality, noise and vibration, biological resources, and water resources. On November 13, 2008, the Applicants submitted supplementary mitigation measures to address concerns raised by the U.S. Department of the Interior related to potential effects on biological resources. SEA has made some minor editorial clarifications to the Applicants' voluntary mitigation where appropriate and recommends that all of the Applicants' voluntary mitigation be imposed should the Proposed Action be approved.

4.3.1 Safety

4.3.1.1 Grade Crossings

VM 1. Applicants shall consult with appropriate agencies to determine the final design and other details of the grade crossing protections or rehabilitations on EJ&EW's[5] rail line. Implementation of all grade crossing protections shall be subject to the review and approval of the Federal Railroad Administration ("FRA") and the appropriate state Departments of Transportation.

VM 2. Applicants shall coordinate with the appropriate state departments of transportation, counties, and affected communities along the EJ&E rail line to develop a program for installing temporary notification signs or message boards, where warranted, in railroad right-of-way ("ROW") at highway/rail at-grade crossings, clearly advising motorists of the increase in train traffic on affected rail line segments. The format and lettering of these signs shall comply with the Federal Highway Administration's (FHWA) *Manual on Uniform Traffic Control Devices* (FHWA 2007b) and shall be in place no less than 30 days before and six months after the acquisition by CN of the control of EJ&EW. The

[5] The Applicants use EJ&EW to refer to EJ&E West Company. EJ&E would transfer all of its land, rail, and related assets located west of the centerline of Buchanan Street in Gary, Indiana, to EJ&E West Company. The Applicants are seeking the Board's approval to acquire control of EJ&E West Company. Should the Board approve the Proposed Action, EJ&E would change its name to Gary Railway and EJ&E West Company would assume the EJ&E Company name. This Final EIS refers to EJ&E West Company as EJ&E.

Applicants shall conduct a media campaign throughout the affected counties and communities surrounding the EJ&E rail line advising the public of increased operations along the EJ&E rail line. The campaign shall include the use of different media (radio, television, newspaper, Internet). Applicants shall distribute all information in both English and Spanish, where appropriate.

VM 3. Where necessary for implementation of a Quiet Zone,[6] and in consultation with the affected community, FRA, and the appropriate state Department of Transportation, Applicants shall construct or install roadway median barriers to reduce the opportunity for vehicles to maneuver around a lowered gate.

VM 4. Applicants shall cooperate with the municipalities affected to determine which improvements would be necessary for existing Quiet Zones to maintain FRA compliance.

VM 5. Applicants shall cooperate with interested communities for the establishment of Quiet Zones and assist in identifying supplemental or alternative safety measures, practical operational methods, or technologies that may enable the community to establish Quiet Zones.

VM 6. Applicants shall consult with affected communities to improve visibility at highway rail at-grade crossings by clearing vegetation or installing lighting to illuminate passing or stopped trains.

VM 7. Within 6 months of acquisition by CN of the control of the EJ&EW, Applicants shall cooperate with the Illinois Department of Transportation, Indiana Department of Transportation and other appropriate local agencies to coordinate a review of corridors surrounding highway/rail at-grade crossings to examine safety and adequacy of the existing warning devices, and identify remedies to improve safety for highway vehicles.

VM 8. Where grade-crossing rehabilitation is agreed to, Applicants shall assure that rehabilitated roadway approaches and rail line crossings meet or exceed the standards of the State Department of Transportation's rules, guidelines, or statutes, and the American Railway Engineering and Maintenance of Way Association ("AREMA") standards, with a goal of eliminating rough or humped crossings to the extent reasonably practicable.

VM 9. For each of the public grade crossings on EJ&EW's rail line, Applicants shall provide and maintain permanent signs prominently displaying both a toll-free telephone number and a unique grade-crossing identification number in compliance with Federal Highway Regulations (23 C.F.R. Part 655). The toll-free number shall enable drivers to report accidents, malfunctioning warning devices, stalled vehicles, or other dangerous conditions and shall be answered 24 hours per day by Applicants' personnel. At crossings where EJ&EW's ROW is close to another rail carrier's crossing, Applicants shall coordinate with the other rail carrier to establish a procedure and share information regarding reported accidents and grade-crossing device malfunctions.

VM 10. Within 6 months of acquisition by CN of the control of EJ&EW, Applicants shall cooperate with school and park districts to provide fencing where schools or parks are within one-quarter mile of the right of way and to identify at-grade crossings where additional pedestrian warning devices may be warranted.

VM 11. Applicants shall continue ongoing efforts with community officials to identify elementary, middle, and high schools within 0.5 miles of EJ&EW's ROW and provide,

[6] A Quiet Zone is a location along a rail line where horns are not sounded at highway/rail at-grade crossings.

upon request, informational materials concerning railroad safety to such identified schools.

VM 12. Within 6 months of the effective date of the Board's final decision, Applicants shall initiate review of the locations of designated pedestrian and recreational trail at-grade crossings along the EJ&E rail line that would see an increase in train traffic under the Proposed Action. The Applicants shall cooperate in the review with local agencies and community trail groups to assess the adequacy of the existing warning devices, to ascertain if particular trail uses or issues reduce the effectiveness of these warning devices, and to identify appropriate remedies to improve safety for pedestrian and recreational trail users.

4.3.1.2 Construction

VM 13. Before starting any construction activities for the proposed connections or installation of double track, Applicants shall develop – in conjunction with the affected communities and local fire and emergency response departments along the EJ&E rail line – an adequate plan for fire prevention and suppression and subsequent land restoration during construction and operation along the EJ&E rail line. Applicants shall submit the plan to local communities and local fire and emergency response departments. Applicants' plan shall ensure that all non-turbocharged locomotives are equipped with functional spark arrestors on exhaust stacks, and carry fire extinguishers suitable for flammable liquid fires, electrical fires, and combustible materials fires, as well as provide for the installation of low-spark brake shoes on all locomotives.

4.3.2 Hazardous Materials Transportation

VM 14. Applicants shall comply with the current Association of American Railroads ("AAR") "key route" guidelines, found in AAR Circular No. OT-55-I, and any subsequent revisions.

VM 15. Applicants shall comply with the current AAR "key train" guidelines, found in AAR Circular No. OT-55-I, and any subsequent revisions.

VM 16. To the extent permitted and subject to applicable confidentiality limitations, Applicants shall distribute to each local emergency response organization or coordinating body in the communities along the key routes a copy of the Applicants' current Hazardous Materials Emergency Response Plans.

VM 17. Applicants shall incorporate EJ&EW into their existing Hazardous Materials Emergency Response Plan.

VM 18. Applicants shall comply with all hazardous materials regulations of the United States Department of Transportation (including the Federal Railroad Administration and the United States Pipeline and Hazardous Materials Safety Administration) and Department of Homeland Security (including the Transportation Security Administration). Applicants shall dispose of all materials that cannot be reused in accordance with applicable law.

VM 19. Upon request, Applicants shall implement real-time or desktop simulation emergency response drills with the voluntary participation of local emergency response organizations.

VM 20. Applicants shall continue their ongoing efforts with community officials to identify the public emergency response teams located along EJ&EW and shall provide, upon request, hazardous material training.

VM 21. Applicants shall conduct Transportation Community Awareness and Emergency Response Program (TRANSCAER) workshops (training for communities through which dangerous goods are transported) in those communities along the EJ&E rail line that request this training.

VM 22. Applicants shall assist in the hazardous materials training emergency responders for affected communities that express an interest in such training. Applicants shall support through funding or other means the training of one representative from each of the communities located along the EJ&E rail line segments where the transportation of hazardous materials would increase. Applicants shall complete the training within 3 years from the date that the Applicants initiate operational changes associated with the Proposed Action.

VM 23. Applicants shall develop internal emergency response plans to allow for agencies to be notified in an emergency, and to locate and inventory the appropriate emergency equipment. Applicants shall provide the emergency response plans to the relevant state and local authorities within 6 months of acquisition by CN of the control of EJ&EW.

VM 24. Applicants shall provide dedicated toll-free telephone number to the emergency response organizations or coordinating bodies responsible for communities located along the EJ&E rail line. This telephone number shall provide access to applicant personnel 24 hours per day, seven days a week, enabling local emergency response personnel to obtain and provide information quickly regarding the transport of hazardous materials on a given train and appropriate emergency response procedures should a train accident or hazardous materials release occur.

VM 25. In accordance with their Emergency Response Plan, Applicants shall make the required notifications to the appropriate Federal and state environmental agencies in the event of a reportable hazardous materials release. Applicants shall work with the appropriate agencies such as the United States Fish and Wildlife Service, Illinois Environmental Protection Agency and Indiana Department of Environmental Management to respond to and remediate hazardous materials releases with the potential to affect wetlands or wildlife habitat(s), particularly those of federally threatened or endangered species.

VM 26. Prior to initiating any Transaction[7]-related construction activities, Applicants shall develop a spill prevention plan for petroleum products or other hazardous materials during construction activities. At a minimum, the spill prevention plan shall address the following:

- Definition of what constitutes a reportable spill;
- Requirements and procedures for reporting spills to appropriate government agencies;
- Methods of containing, recovering, and cleaning up spilled material;
- Equipment available to respond to spills and location of such equipment; and
- List of government agencies and Applicants' management personnel to be contacted in the event of a spill. In the event of a reportable spill, Applicants shall comply with their spill prevention plan and applicable Federal, state, and local regulations pertaining to spill containment and appropriate clean-up.

[7] The Applicants use the term Transaction to refer to the Proposed Action. This Final EIS uses the term Proposed Action to define the Applicants' proposal to acquire the EJ&E rail line, land, and related assets.

4.3.3 Transportation Systems

4.3.3.1 Grade Crossing Delay

VM 27. Applicants shall comply with the Voluntary Mitigation Agreement concluded with the City of Joliet, which among other things addresses delay at the public highway/rail at-grade crossings at Woodruff Road and Washington Street.

VM 28. Although Applicants have not identified any grade crossings, other than Woodruff Road and Washington Street, that would require mitigation under SEA's established standards,[8] Applicants shall, upon request, cooperate with municipalities and counties in support of their efforts to secure funding, in conjunction with appropriate state agencies, for grade separations where they may be appropriate under criteria established by relevant state Department of Transportation. Applicants shall contribute their statutorily required amount of funding[9] to the cost of the grade separation.

VM 29. Applicants shall examine train operations for ways of reducing highway/rail at-grade crossing blockages.

VM 30. Applicants shall cooperate with the appropriate state and local agencies and municipalities to:

- Evaluate the possibility that one or more roadways listed in Table ES-1 [of the Draft EIS] could be closed at the point where it crosses the EJ&E rail line, in order to eliminate the at-grade crossing.
- Improve or identify modifications to roadways that would reduce vehicle delays by improving roadway capacity over the crossing by construction of additional lanes.
- Assist in a survey of highway/rail at-grade crossings for a determination of the adequacy of existing grade crossing signal systems, signage, roadway striping, traffic signaling inter-ties, and curbs and medians.
- Identify conditions and roadway, signal, and warning device configuration may trap vehicles between warning device gates on or near the highway/rail at-grade crossing.
- Cooperate with state and local agencies to develop and implement a plan to grade-separate the highway/rail crossing.

VM 31. Applicants shall install power switches along EJ&EW where Applicants determine that manual switches could cause stopped trains to block grade crossings for excessive periods of time and that power switches would increase the speed of rail traffic and reduce the likelihood of such blockages.

VM 32. In order to minimize the number of trains being stopped by operators at locations that block grade crossings on the EJ&EW system, Applicants shall work with other railroads to establish reasonable and effective policies and procedures to prevent other railroads' trains from interfering with Applicants' trains on EJ&EW.

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[8] SEA's environmental rules are silent on standards for at-grade crossing delay. Applicants frequently use criteria established in prior transactions as a basis for evaluating impacts.

[9] The Applicants' statutorily required amount of funding typically is 5 percent of the total cost of the grade-separated crossing.

VM 33. Applicant's design for wayside signaling systems shall be configured and implemented to minimize the length of time that trains or maintenance-of-way vehicles or activities occupy at-grade crossings or unnecessarily activate grade-crossing warning devices.

VM 34. Applicants shall install control signals ("A" block or absolute stop signals) at the ends of sidings, double track sections, crossovers, and other control switch locations (Applicants 2008a).

VM 35. Applicants shall operate under U.S. Operating Rule No. 526 (Public Crossings), which provides that a public crossing must not be blocked longer than 10 minutes unless it cannot be avoided and that, if possible, rail cars, engines, and rail equipment may not stand closer than 200 feet from a highway/rail at-grade crossing when there is an adjacent track (Applicants 2008a). If the blockage is likely to exceed this time frame, then the train shall then be promptly cut to clear the blocked crossing or crossings.

VM 36. Applicants shall develop and submit to SEA a report on frequency and duration of trains delay at crossing for a period covering the first three years of operational changes.

4.3.3.2 Commuter and Passenger Rail Service

VM 37. Applicants shall abide by the commitment made to Amtrak in a letter dated March 10, 2008 concerning Amtrak's use of the St. Charles Air Line (Air Line). In general, the commitment allows Amtrak to remain indefinitely on the Air Line after CN's trains are re-routed from the Air Line onto the EJ&E rail line should the Proposed Action be approved and implemented, thereby preserving Amtrak's access to Chicago's Union Station and Amtrak's ability to continue to provide service to and from points such as Champaign and Carbondale, Illinois. Applicants shall abide by the commitment to capping the cost to Amtrak for maintaining the Air Line at the current level, indexed for inflation (Applicants 2008p).

VM 38. Applicants shall operate the key interlockings at West Chicago and Barrington, Illinois, according to the current agreements under which EJ&E operates. Those agreements require EJ&E to give priority to passenger trains over either UP or EJ&E freight trains (Applicants 2008k).

VM 39. Applicants shall work with Metra to explore all options for service on the proposed STAR Line, including use of the EJ&E rail line. The timing and implementation of STAR Line service remain subject to numerous variables, including securing government funding, but the Applicants are committed to continuing discussions with Metra on the STAR Line (Applicants 2008j).

VM 40. During and after construction, Applicants shall maintain the pedestrian tunnel from the Metra Park-n-Ride lot to the Metra train station on the east side of the Chicago Subdivision rail line at Matteson (Applicants 2008l).

VM 41. Applicant shall comply with any written and executed curfew agreements that are now in effect regarding operations affecting passenger or commuter train service.

4.3.3.3 Emergency Vehicle Delay

VM 42. Applicants shall notify Emergency Services Dispatching Centers for communities along the affected segments of all crossings blocked by trains that are stopped and may be unable to move for a significant period of time. Applicants shall work with affected communities to minimize emergency vehicle delay by maintaining facilities for emergency communication with local Emergency Response Centers through a dedicated

toll-free telephone number; and providing, upon request, dispatching monitors that allow Emergency Response Center dispatching personnel to see real-time train locations.

VM 43. Applicants shall make Operation Lifesaver programs available to communities, schools, and other organizations located along the affected segments.

VM 44. For up to 3 years after acquisition by CN of the control of the EJ&EW, Applicants shall provide Operation Lifesaver programs in Spanish, upon request.

4.3.3.4 Construction

VM 45. At least one month prior to initiation of Transaction-related construction activities, Applicants shall provide the information described below regarding Transaction-related construction of sidings, double-tracking, or connections, as well as any additional information, as appropriate, to fire departments and the Local Emergency Planning Commissions ("LEPC") for communities within or adjacent to the construction area:

- The schedule for construction throughout the project area, including the sequence of construction work relating to public grade crossings and approximate schedule for these activities at each crossing;
- A toll-free number to contact Applicants' personnel, to answer questions or attend meetings for the purpose of informing emergency-service providers about the project construction and operations; and
- Revisions to this information, including changes in construction schedule, as appropriate.

VM 46. In undertaking Transaction-related construction activities, Applicants shall use practices recommended by AREMA and recommended standards for track construction in the AREMA Manual for Railway Engineering.

VM 47. During Transaction-related construction concerning at-grade crossings, when reasonably practicable, Applicants shall consult with the appropriate state Department of Transportation regarding detours and associated signage, as appropriate, or maintain at least one open lane of traffic at all times to allow for the quick passage of emergency and other vehicles.

VM 48. Applicants shall minimize temporary road closures during construction activities associated with the connections and double track. Applicants shall manage construction schedules to:

- Minimize highway/rail at-grade crossing closures
- Relay highway/rail at-grade crossing closure schedules to local emergency service providers

4.3.4 Land Use

4.3.4.1 General Land Use

VM 49. Before beginning construction activity, Applicants shall survey all suitable habitats potentially impacted by the construction activity for Federally- and state-listed threatened or endangered plant species. If any listed plant species are located, Applicants shall implement a mitigation plan in consultation with the appropriate Federal and state agencies.

VM 50. If identified in the area, Applicants shall coordinate with USFWS-Indiana and The Nature Conservancy (TNC) to monitor effects on the Karner blue butterfly in the West Gary Recovery Unit.

VM 51. Applicants shall continue with the existing agreements for Paul Ales Branch operation for the protection of the Federally-listed Hine's emerald dragonfly.

VM 52. Applicants shall identify suitable habitat for Franklin's ground squirrel within construction limits, and minimize mowing along the ROW beyond what is necessary for reasonable railroad maintenance and safety.

VM 53. Land areas that are directly disturbed by Applicants' Transaction-related construction and are not owned by the Applicants (such as access roads, haul roads, and crane pads) shall be restored to their original condition, as may be reasonably practicable, upon completion of Transaction-related construction.

VM 54. During construction, temporary barricades, fencing, and/or flagging shall be used in sensitive habitats to contain construction-related impacts to the area within the construction Right Of Way ("ROW"). Staging areas shall be located in previously disturbed sites and not in sensitive habitat areas.

VM 55. To the extent reasonably practicable, Applicants shall confine construction traffic to a temporary access road within the construction ROW or established public roads. Where traffic cannot be confined to temporary access roads or established public roads, Applicants shall make necessary arrangements with landowners to gain access from private roadways. The temporary access roads shall be used only during project-related construction. Any temporary access roads constructed outside the rail line ROW shall be removed and restored upon completion of construction unless otherwise agreed to with the landowners.

VM 56. During Transaction-related earthmoving activities, Applicants shall remove topsoil and segregate it from subsoil. Applicants shall also stockpile topsoil for later application during reclamation of disturbed areas along the ROW. Applicants shall place the topsoil stockpiles in areas that would minimize the potential for erosion and use appropriate erosion control measures around all stockpiles to prevent erosion.

VM 57. Applicants shall commence reclamation of disturbed areas as soon as reasonably practicable after Transaction-related construction ends along a particular stretch of rail line. The goal of reclamation shall be the rapid and permanent reestablishment of native ground cover on disturbed areas. If weather or season precludes the prompt reestablishment of vegetation, Applicants shall use measures such as mulching or erosion control blankets to prevent erosion until reseeding can be completed.

VM 58. Applicants shall limit ground disturbance to only the areas necessary for Transaction-related construction activities.

VM 59. Applicants shall review the limits of land disturbance prior to construction to determine whether any U.S. Department of Commerce, National Geodetic survey monuments (that is, a government owned permanent survey marker) would be disturbed. If any survey monuments would be disturbed, Applicants shall give a 90-day notification to the U.S. Department of Commerce.

VM 60. Applicants shall consult with the appropriate state, county personnel, Forest Preserve and trail managers prior to construction activities on state land and shall flag the boundaries of the ROW.

VM 61. Applicants shall notify the trail managers of new construction that intersects trails during final design. Where possible, Applicants shall maintain access to all existing trails, greenways, and scenic corridors during construction. If temporary trail closures are required during construction, Applicants shall provide appropriate signage to detour pedestrian and recreational trail users to a safe alternate route.

VM 62. Before construction of the Applicants' Proposed Munger Connection adjacent to the Pratt's Wayne Woods Forest Preserve, Applicants shall flag the boundaries of the CN ROW, the EJ&E ROW, and the portion of the Commonwealth Edison ROW required for construction. Applicant shall remain within the flagged boundaries. Unless agreed by the Forest Preserve Management, no construction shall take place outside of the flagged construction area. Where possible, Applicants shall maintain access during construction activities to all existing roads, trails, and facilities within the Pratt's Wayne Woods Forest Preserve.

VM 63. Applicants shall require contractors to dispose of waste generated during Transaction-related construction activities in accordance with all applicable Federal, State, and local regulations.

4.3.4.2 Community Outreach

VM 64. Prior to initiation of Transaction-related construction activities, Applicants shall name a Community Liaison to: consult with affected communities, businesses, and agencies; seek to develop cooperative solutions to local concerns regarding construction activities; be available for public meetings; and conduct periodic public outreach regarding Transaction-related construction activities. The Community Liaison shall be available to consult with businesses and agencies until all Transaction-related construction activities are complete. Applicants shall provide the name and phone number of the Community Liaison to mayors and other appropriate local officials in each community where Transaction-related construction activities will occur.

VM 65. Applicants shall continue their ongoing community outreach efforts by maintaining, throughout the period of construction of Transaction-related sidings, double-track, and connections, a website about the construction.

4.3.4.3 Residential

VM 66. Applicants' Transaction-related construction vehicles, equipment, and workers shall not access work areas by crossing residential properties without the permission of the property owner or occupant.

4.3.4.4 Business and Industrial

VM 67. Applicants' Transaction-related construction vehicles, equipment, and workers shall not access work areas by crossing business or industrial areas, including parking areas or driveways, without advance notice to the business owner.

VM 68. Applicants shall work with affected businesses or industries to appropriately redress Transaction-related construction activity issues affecting any business or industry.

VM 69. To the extent reasonably practicable, Applicants shall ensure that entrances and exits for businesses are not obstructed by Transaction-related construction activities, except as required to move equipment.

4.3.4.5 State Lands

VM 70. Applicants shall consult with the General Land Office ("GLO") of Illinois to coordinate an Easement Agreement for crossing State-owned parks to reach Transaction-related construction areas.

4.3.4.6 Utility Corridors

VM 71. Applicants shall make reasonable efforts to identify all utilities that are reasonably expected to be materially affected by the proposed construction within their existing ROW or that cross their existing ROW. Applicants shall notify the owner of each such utility identified prior to commencing Transaction-related construction activities and coordinate with the owner to minimize damage to utilities. Applicants shall also consult with utility owners to design the rail line so that utilities are reasonably protected during Transaction-related construction activities.

VM 72. Applicants shall use the services of a qualified pipeline engineering firm that is familiar with the project area to assist in the identification of the various pipeline crossings and to assist in the design of crossings as necessary for Transaction-related construction activities.

4.3.5 Air Quality

VM 73. Applicants shall accelerate implementation of EPA locomotive emissions reduction efforts[10] by installing idling control systems on their switching locomotives assigned to the Chicago area and shall accelerate replacement of switching locomotives that are excluded from EPA emission standards and are now in service at Chicago-area yards that will experience increased yard activity as a result of the Transaction with locomotives that are compliant with EPA Tier 0 or more stringent emission standards.

VM 74. Applicants, to the extent reasonably practicable, shall adopt efficient fuel saving practices that may include a range of operating practices that will help reduce locomotive emissions, such as shutting down locomotives when not in use and when temperatures are above 40 degrees.

VM 75. To minimize fugitive dust emissions created during Transaction-related construction activities, Applicants shall implement appropriate fugitive dust suppression controls, such as spraying water or other approved measures. Applicants shall also regularly operate water trucks on haul roads to reduce dust.

VM 76. Applicants shall work with their contractors to make sure that construction equipment is properly maintained and that mufflers and other required pollution-control devices are in working condition in order to limit construction-related air emissions.

4.3.6 Noise and Vibration

VM 77. Applicants shall work with affected communities that have sensitive receptors that would experience an increase of at least 5 dBA [A-weighted decibel] and reach 70 dBA to mitigate train noise to levels as low as 70 dBA by cost effective means as are agreed to by an affected community and Applicants. In the absence of such an agreement, Applicants shall implement cost effective mitigation that could include such measures as (1) constructing noise control devices such as noise barriers, (2) installing vegetation or

[10] EPA has issued rules designed to reduce locomotive emissions over time.

berming, or (3) installing, or providing funding for installation of, enhanced warning devices in order to provide the level of warning necessary to allow the community to request a waiver from Federal Railroad Administration (FRA) of the requirement to sound the horn and achieve quiet zone requirements.

VM 78. Applicants shall consult with affected communities and work with their construction contractors to minimize, to the extent reasonably practicable, construction-related noise disturbances near any residential areas.

VM 79. Applicants shall work with their construction contractors to maintain Transaction-related construction and maintenance vehicles in good working order with properly functioning mufflers to control noise.

VM 80. In addition to the development of other noise mitigation measures, Applicants shall consider lubricating curves where doing so would both be consistent with safe and efficient operating practices and significantly reduce noise for residential or other noise sensitive receptors. Applicants shall also continue to employ safe and efficient operating procedures that, in lieu of, or as complement to, other noise mitigation measures can have the collateral benefit of effectively reducing noise from train operations. Such procedures include:

- inspecting rail car wheels to maintain wheels in good working order and minimize the development of wheel flats;
- inspecting new and existing rail for rough surfaces and, where appropriate, grinding these surfaces to provide a smooth rail surface during operations;
- regularly maintaining locomotives, and keeping mufflers in good working order; and
- removing or consolidating switches determined by Applicants to no longer be needed.

VM 81. To minimize noise and vibration, Applicants shall install and maintain rail and rail beds according to AREMA standards.

VM 82. Applicants shall comply with FRA regulations establishing decibel limits for train operations.

VM 83. Applicants shall install or relocate a Wheel Impact Load Detector (WILD) on the EJ&E rail line within three years of acquisition by CN of control of EJ&EW.

4.3.7 Biological Resources

VM 84. For impacts to non-jurisdictional isolated wetlands habitat along the new line, Applicants shall survey the route to determine if the Hines Emerald Dragonfly is present along the ROW.

VM 85. Upon consultation with U.S. Fish and Wildlife Service, should the Hines Emerald Dragonfly be observed on the site of Transaction-related construction activities, Applicants shall implement appropriate measures prior to and during construction to reduce or eliminate impacts on the Hines Emerald Dragonfly.

VM 86. Prior to initiating Transaction-related construction activities, Applicants shall consult with the local offices of the Natural Resource Conservation Service ("NRCS") to develop an appropriate plan for restoration and re-vegetation of the disturbed areas (including appropriate seed mix specifications).

VM 87. During construction activity, Applicants shall take reasonable steps to ensure contractors use fill material appropriate for the project area.

VM 88. Applicants shall, to the extent reasonably practicable, revegetate the bottom and sides of the drainage ditches using natural recruitment from the native seed sources in the stockpiled topsoil.

4.3.8 Water Resources

VM 89. In the case where there is a potential for a railroad drainage ditch to influence wetland hydrology, Applicants shall construct low permeability clay berms (wetland berms adjacent to the drainage channels that would be proximal to the isolated wetlands). These berms would minimize the impact to surface water drainage from the proposed drainage ditch.

VM 90. Applicants shall compensate in accordance with USACE regulations in both Illinois and Indiana for wetland impacts that cannot be avoided and for impacts that are determined by USACE to be on waters of the U.S. for construction related to the proposed action.

VM 91. Applicants shall maintain drainage ditches as permanent vegetated swales to provide storm water retention and treatment. Removal of accumulated sediments shall be conducted only as necessary to maintain storm water retention capacity and function.

VM 92. To minimize sedimentation into streams and waterways during construction, Applicants shall use best management practices, such as silt fences and straw bale dikes, to minimize soil erosion, sedimentation, runoff, and surface instability during project-related construction activities. Applicants shall seek to disturb the smallest area possible around any streams and shall conduct reseeding efforts to ensure proper revegetation of disturbed areas as soon as reasonably practicable following Transaction-related construction activities.

VM 93. In order to control erosion, Applicants shall establish staging and lay down areas for Transaction-related construction material and equipment at least 300 feet from jurisdictional waters of the United States and in areas that are not environmentally sensitive. Applicants shall not clear any vegetation between the staging area and the waterway or wetlands. To the extent reasonably practicable, areas with non-jurisdictional isolated waters will not be used for staging and lay down and will only be impacted when necessary for construction. When Transaction-related construction activities, such as culvert and bridgework, require work in streambeds, Applicants shall conduct these activities, to the extent reasonably practicable, during low-flow conditions.

VM 94. During Transaction-related construction activities, Applicants shall require all contractors to conduct daily inspections of all equipment for any fuel, lube oil, hydraulic, or antifreeze leaks. If leaks are found, Applicants shall require the contractor to immediately remove the equipment from service and repair or replace it.

VM 95. Applicants shall employ best management practices to control turbidity and disturbance to bottom sediments of surface waters during Transaction-related construction. Applicants shall implement best management practices in wetlands or other waters of the United States to avoid adverse downstream impacts on fish, mussels, and other aquatic biota.

VM 96. Applicants shall implement their current noxious weed control program during construction and operation of Transaction-related sidings, double-track, and connections. All herbicides used by Applicants shall be approved by the U.S. EPA.

VM 97. Applicants shall ensure that any herbicides used in ROW maintenance to control vegetation are approved by the U.S. EPA and are applied by licensed individuals who shall limit application to the extent necessary for rail operations. Herbicides shall be applied so as to prevent or minimize drift off of the ROW onto adjacent areas.

VM 98. During construction, Applicants shall prohibit Transaction-related construction vehicles from driving in or crossing streams at other than established crossing points.

VM 99. Applicants shall, to the extent reasonably practicable, ensure that any fill placed below the ordinary high water line of wetlands and streams is appropriate material selected to minimize impacts to the wetlands and streams. All stream crossing points shall be returned to their pre-construction contours to the extent reasonably practicable and the crossing banks will be reseeded or replanted with native species immediately following project-related construction.

VM 100. Applicants shall obtain a National Pollutant Discharge Elimination System ("NPDES") storm water discharge permit from U.S. EPA or appropriate State agencies for Transaction-related construction activities.

4.3.9 Monitoring and Enforcement

VM 101. Applicants shall submit quarterly reports to SEA on the progress of, implementation of, and compliance with the mitigation measures for a period covering the first three years of operational changes.

4.3.10 Supplemental Voluntary Mitigation Measures

VM 102. Applicants shall cooperate with Midwest Generation, LLC ("MWG"), to identify locations on Applicants' property, or available to Applicants, on which loaded coal trains could be staged while awaiting delivery to MWG's Will County Generating Station and Joliet Generating Station and which would make unnecessary the construction of additional train storage capacity on MWG property that would adversely affect the Hine's emerald dragonfly or its habitat. If no adequate existing train storage locations can be identified, Applicants shall make reasonable efforts to acquire or construct, at MWG's expense, new train storage capacity, at locations where construction would not have adverse impacts on the Hine's emerald dragonfly or its habitat, and which would make construction of additional storage capacity on MWG's property unnecessary, and shall make that capacity available as needed for staging of coal trains destined for Will County and Joliet Stations.

VM 103. In consultation with the U.S. Fish and Wildlife Service (USFWS) and relevant natural resource stakeholders, Applicants shall participate in the development of a Habitat Conservation Plan for the Hine's emerald dragonfly or necessary work plans applicable to State and Federally listed threatened and endangered species and take the necessary measures to ensure that rail operations do not cause undue impact to those species.

VM 104. [Migratory Birds] Where warranted, Applicants shall work with relevant natural resource stakeholder groups, Forest Preserve Districts, the Indiana office of The Nature Conservancy (TNC), Illinois Department of Natural Resources (IDNR), Indiana Department of Natural Resources (INDNR), and USFWS to support the creation or enhancement of migratory bird habitat away from those segments of the EJ&E rail line on which Applicants project Transaction-related increases in rail traffic, and where there is proposed Transaction-related construction of double-track and new or improved connections.

VM 105. [Rare and Listed Turtles] In consultation with USFWS, Applicants shall construct and maintain adequate passages (that is, pipes or culverts) for turtles to cross through the track bed in areas on the EJ&E rail line between Leithton and Gary on which Applicants expect to increase rail traffic and where habitat for rare and/or listed turtle species (that is, Blanding's or spotted turtle) exists on both sides of the rail line.

VM 106. [Karner Blue Butterfly] In consultation with USFWS, Applicants shall identify areas of suitable habitat of the Karner blue butterfly within Kirk Yard and in the vicinity of all planned Transaction-related construction of double track and new or improved connections within the State of Indiana for potential habitat protection and/or enhancement. Applicants shall contact TNC about participation in the Safe Harbor Agreement for the Karner blue butterfly.

VM 107. [Indiana Dune and Swale] In consultation with appropriate Federal and State natural resource stakeholders, including USFWS, INDNR and TNC, Applicants shall designate EJ&EW-owned areas of prime prairie and dune swale habitat for potential land management agreement and/or conservation easement. Should modifications to Kirk Yard be proposed in the future, Applicants shall review proposed plans for upgrading and expansion of Kirk Yard in order to avoid construction in identified dune swale areas. In the event that unavoidable impacts are identified, the Applicants shall work with TNC to develop a plan for mitigation of those impacts and improvement of the quality of remaining dune swale areas.

VM 108. [Eastern prairie fringed orchid] Prior to any ground disturbing activities, Applicants shall hire a qualified biologist to survey for the Eastern prairie fringed orchid (Platanthera leucophaea) in areas containing suitable habitat. Applicants shall survey each area on at least three non-consecutive days between June 28 and July 11, as this is when the orchid typically flowers and is most identifiable. If the Applicants' biologist finds orchids, Applicants shall not conduct any construction activities in that area and Applicants shall notify USFWS and the Board immediately. The Board shall reinitiate consultation with USFWS. Applicants shall work with the Board and USFWS to determine appropriate measures to offset impacts, most likely providing funding for an ongoing hand pollination project, or providing funding to be used to enhance another orchid site (that is, brush cutting, prescribed burning).

4.4 SEA's Final Recommended Mitigation Measures

1) Applicants shall comply with their voluntary mitigation measures.

4.4.1 Rail Operations

2) As part of the Applicants' quarterly reports that would be required under VM 101, VM 36, and Condition 70, Applicants shall report quarterly to SEA and communities adjacent to or intersected by the EJ&E rail line on the frequency, cause, and duration of train blockages of crossings of 10 minutes in duration or greater, listing each delay and including any notifications from persons affected by the blockage and the time of the beginning and end of each delay. Applicants shall summarize the cause of each type of blockage that the Applicants self-report and shall state how the Applicants intend to reduce the incidence of all blockages not attributed to emergencies or weather-related incidents (sometimes called Acts of God) in the quarterly report.

3) Applicants shall distribute to communities adjacent to or intersected by the EJ&E rail line the contact information for the Applicants' community liaison established in VM 64 to

ensure that Applicants are aware of highway/rail at-grade crossing blockages lasting 10 minutes or more.

4.4.2 Rail Safety

4.4.2.1 Safety Integration Plan

4) Applicants shall comply with their approved final Safety Integration Plan (SIP), prepared pursuant to 49 CFR 1106, which may be modified and updated as necessary to respond to evolving conditions.

5) Applicants shall continue to coordinate with FRA in implementing the approved final SIP, including any amendments thereto. The ongoing safety integration process shall continue until FRA notifies the Board that the integration of the Applicants' operations has been safely completed.

4.4.2.2 Freight Rail Safety

6) Applicants shall adhere to all applicable Federal Occupational Safety and Health Administration (OSHA), FRA, and state construction and operational safety regulations to minimize the potential for accidents and incidents on the EJ&E rail line.

4.4.2.3 Vehicle Safety

High Accident Frequencies

7) If Applicants have not initiated a corridor study (as committed to in VM 7) in Griffith, Indiana, within 6 months of the effective date of the Board's final decision, or if the appropriate road authority having jurisdiction over the roadway prefers, Applicants shall meet with the appropriate road authority, Indiana Department of Transportation (INDOT), the City of Griffith, and other appropriate local agencies and shall participate in an on-site diagnostic review of the Lake Street and Miller Street highway/rail at-grade crossings. The purpose of the diagnostic review would be to examine the adequacy of the existing warning devices, to ascertain if there are particular roadway uses or localized issues that would reduce the effectiveness of these warning devices, to prescribe appropriate remedies to improve safety for highway vehicles, and to establish the time frame and funding for identified improvements. Because the at-grade crossings at Lake Street and Miller Street are less than 0.25 mile apart, the diagnostic review shall consider closure of one at-grade crossing or the other and make appropriate improvements to the other. In the absence of any other funding agreements, Applicants' funding participation for any improvements shall be limited to the cost of installation of a standard, automatic flashing light signal and automatic half roadway, gate-warning devices at one highway/rail at-grade crossing.

8) If the Applicants and the appropriate agencies do not come to an agreement concerning Lake Street and Miller Street within 2 years of the effective date of the Board's final decision, Applicants, with the concurrence of the other parties, shall participate in and assume the cost of binding arbitration or mediation to determine a solution for Lake Street and Miller Street, without further involvement or review by the Board. Applicants shall notify the Board within 30 days of completing the negotiations, the arbitration, or the mediation.

Industry Track

9) As requested by the Illinois Commerce Commission (ICC), Applicants shall notify ICC prior to modifying rail service to existing rail shippers along the EJ&E rail line during the morning and evening commuter rush hours, in areas where: 1) industry tracks cross highway/rail at-grade crossings, and 2) those industry track highway/rail at-grade crossings are protected with warning devices that are not interconnected with or part of the warning devices at a highway/rail at-grade crossing of the same roadway located within 300 feet which experiences commuter rail traffic. Before modifying the rail service Applicants shall, allow ICC to review the adequacy of the highway/rail at-grade crossing warning devices and abide by the ICC's reasonable determination(s), including contributing to funding any required modifications.

4.4.2.4 Quiet Zones

10) Applicants shall work with Barrington, Illinois, to determine which improvements would be necessary for the City to maintain its quiet zone designation, should the transaction cause it to fall out of compliance with FRA regulations. The existing Barrington Quiet Zone includes the highway/rail at-grade crossings at Lake/Cook Road, Otis Road, Penny Road, Old Sutton Road, Shoe Factory Road, Spaulding Road, and West Bartlett Road. For 3 years from the effective date of the Board's final decision, the Applicants shall fund reasonable improvements FRA deems necessary to maintain existing quiet zone.

4.4.2.5 Hazardous Materials Transportation Safety

11) To supplement Applicants' VM 21, Applicants shall conduct TRANSCAER workshops in English and Spanish upon request for 3 years from the effective date of the Board's final decision authorizing the Proposed Action.

12) In addition to Applicants' VM 25, Applicants shall adhere to all EPA regulations as described in 40 CFR 263 and shall coordinate with EPA, state agencies, and local agencies on spill responses.

4.4.2.6 Pedestrian and Bicycle Safety

13) To supplement Applicants' VM 10, Applicants shall coordinate with each affected community prior to installation of this fencing and shall install fencing where the community deems appropriate. Applicants shall furnish and install at their sole expense a standard 6-foot-high, galvanized, chain-link fence at all locations where an effective fence does not currently exist. Upon completion of construction, the fence shall be owned and maintained by the community unless both parties agree otherwise in writing. The community may decide to install fencing that differs from this standard, but Applicants shall only be obligated to provide funds sufficient to construct the standard fence.

14) Applicants shall coordinate with representatives from Camp Manitoqua in Frankfort, Illinois, to determine if fencing is warranted along the camp's property line. If it is, Applicants and Camp Manitoqua shall cooperate to determine a reasonable allocation of construction and maintenance costs, with the Applicants' cost share limited to an amount sufficient to construct the standard fence described in Condition 13, above.

15) To supplement Applicants' VM 43 and 44, Applicants shall make Operation Lifesaver programs available to communities, schools, and other appropriate organizations located along the EJ&E rail line for 3 years after the effective date of the Board's final decision. The programs will be designed and provided in coordination with ICC and INDOT.

16) To address concerns raised by the U.S. Department of Transportation, Applicants shall either continue EJ&E's practice of holding trains south of Ann Street in West Chicago, Illinois, or work with the community to replace the George Street pedestrian crossing. Ann Street is located approximately 0.1 mile south of the George Street pedestrian crossing and 0.3 mile south of the signal in West Chicago. Applicants shall hold their trains at this location to avoid blocking the at-grade crossing at Ann Street (USDOT # 260545V, MP 28.50), the pedestrian crossing at George Street (USDOT # 260806T, MP 28.27), and the at-grade crossing at Church Street (USDOT # 260543G, MP 28.77). Upon obtaining a clear signal, to the extent possible, Applicants' trains shall not stop and block the at-grade crossings.

4.4.3 Transportation Systems

4.4.3.1 Regional and Local Highway Systems

17) In addition to VM 28, Applicants shall coordinate with the following state and local officials for the expeditious implementation of a grade separation at:

- The highway/rail at-grade crossing of Ogden Avenue and the EJ&E rail line in Aurora (USDOT # 260560X). Coordinate with DuPage County, Illinois, and Aurora, Illinois, the Illinois Department of Transportation (IDOT), and ICC
- The highway/rail at-grade crossing of Lincoln Highway (US 30) and the EJ&E rail line in Lynwood (USDOT # 260651D). Coordinate with Cook County, Illinois, Lynwood, Illinois, IDOT, and ICC

The substantial effects of the Proposed Action on traffic delay, regional and local mobility, and grade-crossing safety warrant an increase over the traditional railroad share of the final design and construction cost of grade separations that are approved and funded. As explained in this Final EIS, Applicants' share of the responsibility for total vehicle delay in the Chicago metropolitan area is calculated to be 15 percent. Therefore, Applicants shall contribute 15 percent of the preliminary engineering and environmental analysis, final design, ROW acquisition, utility relocation, and construction costs of these grade separations. This obligation shall be in effect for projects where construction is initiated within 10 years of the effective date of the Board's final decision. SEA anticipates that IDOT would be the lead agency for the development of these grade separations.

18) Applicants shall coordinate with IDOT and the appropriate counties and affected communities to develop a program to install traffic advisory signs on roadway ROW at certain public highway/rail at-grade crossings along the EJ&E rail line. These signs shall clearly advise motorists not to block intersections, and the format and lettering of these signs shall comply with FHWA's *Manual on Uniform Traffic Control Devices.* These signs shall be in place within a year of the effective date of the Board's final decision, subject to the approval of the coordinating agencies, and shall be located near the following intersections:

a. Old McHenry Road/Midlothian Road, Hawthorn Woods, Illinois
b. Main Street/IL 22, Lake Zurich, Illinois
c. Hough Street (IL 59)/Northwest Highway (US 14), Barrington, Illinois
d. Plainfield-Naperville Road/IL 59, Plainfield, Illinois

19) Applicants shall construct the revised connection at Matteson, Illinois, and the revised double track connection at Leithton (near Mundelein, Illinois) as described in the Applicants' letters dated August 21, 2008 and September 17, 2008, respectively.

20) As requested by ICC, Applicants shall consult with ICC, as well as INDOT, to locate roadway intersections with traffic lights within 1,000 feet of existing highway/rail at-grade crossings along the EJ&E rail line to identify circumstances where queued cars could extend over the EJ&E rail line and to consider reasonable solutions.

4.4.3.2 Emergency Response

21) In addition to VM 42, to further assist with the timely response of the emergency service providers listed in Table 4.4-1 below, Applicants shall consult with all appropriate agencies to implement a CCTV system with video cameras placed in locations so that the movement of trains can reasonably be predicted at the highway/rail at-grade crossings listed in Table 4.4-1. Applicants shall pay for the necessary equipment, including cameras, monitors, poles, cables, controllers, cabinets, communications equipment, electrical connections, or other necessary components, the installation of the equipment, and equipment training for up to two individuals for each emergency service provider listed in Table 4.4-1. Applicants shall work with all appropriate agencies to determine specifications and scheduling for the installation of this system. Applicants shall not be responsible for the ongoing maintenance and operation of the CCTV system after the system is installed and operational.

Table 4.4-1. Emergency Service Providers Receiving CCTV at Affected Highway/Rail At-Grade Crossing Locations

Community	Facility	Highway/Rail At-Grade Crossings
Mundelein, Illinois	Countryside Fire Protection District - Station No. 1	Allanson Road Diamond Lake Road IL 60 & 83 Gilmer Road
Lake Zurich, Illinois	Lake Zurich Rural Fire Protection District - Station No. 3	Gilmer Road Old McHenry Road Oakwood Road
Barrington, Illinois	Barrington Fire Department - Station No. 1	Lake Zurich Road Northwest Highway (US 14) Hough Street (IL 59) Lake Cook Road/Main Street
Barrington, Illinois	Advocate Good Shepherd Hospital	Lake Zurich Road Northwest Highway (US 14) Hough Street (IL 59) Lake Cook Road/Main Street
Bartlett, Illinois	Bartlett Fire Protection District - Future Station No. 3	Spaulding Road West Bartlett Road Stearns Road
West Chicago, Illinois	West Chicago Fire Protection District Headquarters/Station No. 1	Washington Street Aurora Street Church Street Ann Street
West Chicago, Illinois	West Chicago Fire Protection District - Station No. 3	Washington Street Aurora Street Church Street Ann Street

Table 4.4-1. Emergency Service Providers Receiving CCTV at Affected Highway/Rail At-Grade Crossing Locations		
Community	**Facility**	**Highway/Rail At-Grade Crossings**
Plainfield, Illinois	Plainfield Fire Protection District - Station No. 3	111th Street Ferguson Road/119th Street 127th Street
Chicago Heights, Illinois	Saint James Hospital and Health Centers - Chicago Heights	Euclid Avenue Chicago Road West End Avenue/Halsted Street East End Avenue
Schererville, Indiana	Schererville Fire Department Headquarters	Kennedy Avenue Broad Street
Griffith, Indiana	Griffith Volunteer Fire Department Headquarters/Station No. 1	Broad Street East Main Street East Lake Street East Miller Street East Elm Street East 45th Avenue
Griffith, Indiana	Griffith Volunteer Fire Department - Station No. 2	Broad Street East Main Street East Lake Street East Miller Street East Elm Street East 45th Avenue

4.4.3.3 Airports

22) Applicants shall comply with the four-party Preliminary Memorandum of Understanding (PMOU) announced by the Gary/Chicago International Airport, EJ&E, CSX, and NS on June 27, 2008, regarding the airport's plan to extend its main runway and to relocate the EJ&E rail line.

4.4.4 Land Use

23) Applicants shall consult with and comply with the reasonable requirements of INDNR to demonstrate compliance with the Coastal Zone Management Act (CZMA) (16 USC 1451-1456) and the Indiana Lake Michigan Coastal Program in accordance with the guidelines found in the Indiana Natural Resources Commission's Information Bulletin #43 (Indiana Natural Resources Commission 2007). Applicants shall demonstrate CZMA compliance prior to initiating any project-related construction activities in Indiana.

4.4.5 Environmental Justice

24) In addition to VM 23, which requires Applicants to provide a copy of their emergency response plan to all appropriate state and local authorities within 6 months of the effective date of the Board's final decision, Applicants shall provide the appropriate authorities a Spanish-language version of the emergency response plan, upon request.

25) In addition to VM 11, all of Applicants' informational materials concerning railroad safety shall be provided to elementary, middle, and high schools within 0.5 mile of the EJ&E ROW in both English and Spanish, upon request. In addition to VM 65, Applicants shall make materials and information on their project-related website available in both English and Spanish.

26) In addition to VM 64, Applicants shall provide a Spanish-language translator to work with the Applicants' community liaison as needed to consult with affected communities and businesses, to attend public meetings, and to conduct public outreach.

4.4.6 Air Quality and Climate

27) Applicants shall comply with EPA emissions standards for diesel-electric railroad locomotives (40 CFR 92) when purchasing and rebuilding locomotives.

28) Applicants shall notify local fire departments along the EJ&E rail line at least 4 hours before any open burning activities along the EJ&E rail line ROW and in proposed construction areas and shall obtain oral or written permission from the fire departments prior to such burning activities.

4.4.7 Noise and Vibration

29) Upon request, Applicants shall consult with communities affected by wheel squeal at existing locations on the EJ&E rail line, and cooperate in determining the most appropriate methods for implementing VM 80.

30) Applicants shall make reasonable efforts to notify the U.S. Department of Energy Fermi National Accelerator Laboratory (Fermilab) in Batavia, Illinois, of potentially significant operational changes, such as substantial increases in train speed and/or axle loadings that could affect their vibration-sensitive equipment.

31) In addition to VM 77 through 83 and Condition 70, Applicants shall include in their quarterly reports documentation of their efforts to implement in a timely manner their voluntary noise and vibration mitigation, which is intended to provide effective and measurable noise reduction in areas that qualify for noise mitigation under IDOT or INDOT criteria, as discussed in Chapter 2 of the Final EIS.

4.4.8 Biological Resources

4.4.8.1 Resource Agency Liaison

32) In addition to VM 64, Applicants shall establish a local resource agency liaison(s) with expertise in environmental and natural resource management to work closely with Federal, state, and local natural and water resource agencies (including Fermilab) for the purpose of improved adaptive natural resource management. Applicants shall name their liaison(s) within 1 month of the effective date of the Board's final decision. Applicants' liaison(s) shall ensure that the adaptive management measures developed shall be incorporated into all relevant railroad ROW maintenance contracts. Applicants' liaison(s) shall be available to consult with resource agencies for 5 years following the effective date of the Board's final decision.

33) Applicants shall work with relevant natural resource stakeholder groups, forest preserve districts, TNC, INDNR, IDNR and USFWS to establish appropriate monitoring programs. These programs shall include identifying baseline conditions and post-transaction conditions, in areas adjacent to forest preserves and designated natural areas on species of concern to the above groups. Applicants shall fund the monitoring programs for a period of 5 years from the effective date of the Board's decision.

4.4.8.2 Plant Communities

34) In addition to VM 96 and VM 97, Applicants shall work with the natural resource agencies through the Applicants' resource agency liaison(s) (see Condition 32, above) to define sensitive areas where use of herbicides should be restricted.

35) In addition to VM 96, Applicants shall consult with and develop cooperative and adaptive management strategies with natural resource agencies to address invasive species spread directly by transaction-related operations. Applicants' local resource agency liaison(s) (see Condition 32, above) shall serve as coordinator(s).

36) Applicants, through the local resource agency liaison (established in Condition 32, above), shall work with the forest preserve districts to minimize disruptions and complications to the management and implementation of district-prescribed burn programs, to the extent possible.

4.4.8.3 Federally-Listed and State-Listed Threatened and Endangered Species

37) In addition to VM 51, Applicants shall continue to abide by the special conditions of the 1996 USACE Permit #19960211 for train operations on the Paul Ales Branch in order to minimize further effects on the Hines' emerald dragonfly.

38) To avoid any direct take of Indiana bats, Applicants shall not remove trees within the former EJ&E ROW with a diameter of 3 or more inches between April 15 and September 15. Applicants shall avoid or minimize tree clearing and snag removal within project-related construction area limits.

4.4.9 Water Resources

39) Within 6 months of the effective date of the Board's final decision, Applicants shall consult with EPA, Illinois Environmental Protection Agency (IEPA), and Indiana Department of Environmental Management (IDEM) regarding sensitive surface or groundwater resources along the EJ&E rail line and potential cost-effective preventative measures that could be taken to protect such resources from potential contamination in the unlikely event of a hazardous material release from a rail car on the EJ&E rail line. Applicants shall include in their quarterly reports documentation of the outcome of their consultations and shall abide by the consulting agencies' reasonable requirements.

40) In addition to VM 90, and in response to concerns raised by INDNR, Applicants shall coordinate project-related wetland mitigation planning with INDNR.

41) Applicants shall meet with EPA, USFWS, and USACE during the design of all project-related construction (including the locations of connections and double track) and shall comply with the reasonable requirements of those agencies in order to avoid and minimize, to the extent feasible, effects on wetlands and biological resources.

4.4.10 Constructions

4.4.10.1 Rail Operations

42) In addition to VM 40, Applicants shall maintain access to the pedestrian tunnel from the Metra Park-n-Ride lot to the Metra train station on the east side of the Chicago Subdivision at Matteson, Illinois. Construction of the Applicants' proposed connection shall not interfere with the public's access along Front Street in Matteson. Prior to the proposed construction, Applicants shall consult with Metra to devise reasonable

requirements pertaining to coordinating tunnel access, track construction and existing pedestrian safety.

4.4.10.2 Rail Safety

43) Applicants shall consult with state Departments of Transportation and other appropriate agencies and shall abide by the reasonable requirements of ICC or INDOT prior to constructing, relocating, upgrading, or modifying highway/rail at-grade crossing warning devices on the EJ&E rail line.

4.4.10.3 Hazardous Waste Sites

44) Applicants shall use established standards for recycling or reuse of construction materials, such as ballast and rail ties. When recycling construction materials is not a viable operation, the Applicants shall use disposal methods that comply with applicable solid and hazardous waste regulations.

45) Applicants shall follow American Society of Testing and Materials (ASTM) E1527-05, Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process, prior to construction activities related to the Proposed Action in areas where potential contamination may be encountered (ASTM 2005). If the Applicants encounter contamination (or signs of potential contamination) during these activities, Applicants shall perform a Phase 2 environmental investigation.

4.4.10.4 Land Use

46) In addition to VM 70, in response to concerns raised by IDNR, Applicants shall consult with IDNR or INDNR to coordinate a reasonable easement agreement for crossing state-owned parks in Illinois or Indiana, respectively, to reach project-related construction areas.

47) In addition to VM 54, VM 60, and VM 62, Applicants shall flag the boundaries of any project-related construction near a forest preserve, nature preserve, protected area, local park, scenic corridor, or land and water reserve and shall coordinate with the respective owners and/or managers and abide by their reasonable requirements.

48) Applicants shall store construction-related equipment and materials in established storage areas or on the Applicants' property.

49) Prior to construction of double track near Gilmer Road near Hawthorn Woods, Illinois, Applicants shall coordinate with and abide by the reasonable requirements of Hawthorn Woods regarding the Gilmer Road scenic corridor.

4.4.10.5 Noise and Vibration

50) Applicants shall implement best management practices when developing construction plans and performing transaction-related construction activities to ensure that construction-related noise and vibration effects are minimized to the extent possible.

51) Applicants shall design and build all new transaction-related, curved track sections of 3 degrees or above in a manner that minimizes or eliminates the potential for wheel flange squeal using guidance provided by AREMA standards.

4.4.10.6 Biological Resources

52) Applicants shall immediately cease transaction-related construction in the event that a previously unidentified Federally- or state-listed threatened or endangered species is encountered during transaction-related construction activities. In that event, Applicants shall consult with USFWS for Federally-listed species and IDNR and/or INDNR for state-listed species for guidance on how to minimize transaction-related effects and protect these species, and shall comply with the reasonable solutions suggested by those agencies. Applicants' resource agency liaison(s) (see Condition 32, above) shall serve as coordinator(s).

53) In addition to VM 86, Applicants shall not include any invasive weed species in seed mixes for revegetation of areas that would be disturbed during transaction-related construction activities.

54) Applicants shall avoid construction of the Munger connection within Pratt's Wayne Woods Forest Preserve, or any other identified migratory bird nesting or breeding area, during the bird breeding season (April through August) to avoid disturbance of breeding birds.

55) Prior to transaction-related construction activities, Applicants shall reexamine the Federal and state lists of threatened and endangered species for any newly listed species and shall consult with the appropriate resource agencies on any newly listed species. Applicants' resource agency liaison(s) (see Condition 32, above) shall serve as coordinator(s).

56) Applicants shall ensure that all equipment for transaction-related construction activities is washed prior to entering the construction site and after the construction activities are completed. Prior to leaving the construction site, Applicants shall inspect all construction equipment and remove any attached flora, fauna, mud or seeds.

57) Applicants shall maintain the current access to Pratt's Wayne Woods near Wayne, Illinois at the Applicants' Proposed Munger Connection in accordance with existing access and management agreements.

4.4.10.7 Water Resources

58) Applicants shall compensate for effects on isolated wetlands according to the regulations of the State of Indiana for transaction-related construction activities. Isolated wetlands in Indiana are regulated as State Regulated Wetlands (SRWs) under 327 Indiana Administrative Code (IAC) 17.

59) For transaction-related construction activities, Applicants shall mitigate for effects on isolated wetlands according to the regulations of Lake and DuPage counties in Illinois, both of which have specific mitigation requirements for effects on isolated waters and their associated buffer areas.

60) When performing transaction-related construction activities, Applicants shall not affect existing wetlands in order to create the ponds or stormwater detention that may be required for the management of stormwater runoff.

61) Applicants shall comply with the reasonable requirements of the Will County, Illinois Stormwater Management Ordinance for all transaction-related construction activities in Will County.

62) When performing transaction-related construction activities, Applicants shall avoid increasing upstream flood elevations in Federal Emergency Management Agency (FEMA)-regulated floodplains and shall obtain a Letter of Map Revision (LOMR) from

FEMA where construction of bridges, culverts, or embankments would result in an unavoidable increase in 100-year flood elevations greater than 0.1 foot.

63) Prior to beginning transaction-related construction activities, Applicants shall delineate wetlands and conduct floristic quality assessments in jurisdictional wetland and non-jurisdictional wetland habitat in transaction-related construction areas along the EJ&E rail line (including the six connections and the proposed double track).

4.4.10.8 Cultural Resources

64) During transaction-related construction activities, Applicants shall immediately cease excavation work if archeological resources are encountered during construction activities. Applicants shall inform and consult with the appropriate State Historic Preservation Office and/or appropriate Tribal Historic Preservation Office regarding appropriate measures for addressing the resource, and shall comply with the reasonable requirements those agencies suggest.

4.4.11 Negotiated Agreements

65) Applicants shall comply with the terms of the negotiated agreement that was executed by Joliet, Illinois, and the Applicants on August 25, 2008.

66) Applicants shall comply with the terms of the negotiated agreement that was executed by Crest Hill, Illinois, and the Applicants on November 18, 2008.

67) If Applicants enter into negotiated agreements with communities or other entities following publication of this Final EIS, Applicants shall submit a copy of the agreement to the Board, and the Board will impose a condition that requires the Applicants to comply with the terms of the agreement. The agreement then would substitute for any site-specific mitigation for that particular community or other entity.

4.4.12 Monitoring and Enforcement

68) If there is a material change in the facts or circumstances upon which the Board relied in imposing specific environmental mitigation conditions, and upon petition by any party who demonstrates such material change, the Board may review the continuing applicability of its final mitigation, if warranted.

69) Applicants shall retain a third-party contractor to assist SEA in the monitoring and enforcement of mitigation measures on an as-needed basis until the Applicants have completed transaction-related construction activities, as well as a period covering the first 5 years from the effective date of the Board's final decision, or for any period the Board imposes.

70) In addition to VM 101, Applicants shall submit quarterly reports to SEA on the progress of, implementation of, and compliance with these mitigation measures for a period covering 5 years from the effective date of the Board's final decision or for any period the Board imposes.

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Chapter 5
Outreach and Coordination

Chapter 5 provides information on SEA's public outreach activities, which were designed to encourage broad participation in the environmental review process. SEA invited interested members of the public, Federal, state, and local agencies, Federally recognized tribes, elected officials, low-income and minority populations, and potentially affected communities to participate by reviewing and commenting on the Draft Scope of Study and the Draft EIS. Public and agency comments allowed SEA to assess public concerns and issues and to determine the extent to which additional environmental analysis and mitigation measures were necessary in preparing the Final EIS.

5.1 Role of SEA and Its Independent Third-Party Contractors

SEA prepared this EIS to ensure that the Proposed Action complies with the regulatory requirements under NEPA, the Board's environmental regulations, and the applicable rules and regulations. SEA is responsible for conducting the environmental review of the Proposed Action on behalf of the Board. In preparing the EIS, SEA identified issues and areas of potential environmental impact of the Proposed Action and alternatives, reviewed agency and public comments, and analyzed and documented the anticipated impacts on the environment.

In conducting extensive environmental reviews, SEA typically encourages applicants to engage independent third-party contractors to assist SEA with environmental analyses and preparation of environmental documents. The use of agency-approved, independent third-party contractors is specifically permitted by both the Board's environmental regulations and those of CEQ (49 CFR 1105.10[d]; 40 CFR 1506.5[c]).

SEA supervises the third-party contractors' scope of work, approach, and activities in all Board proceedings. The contractors are, in effect, an extension of SEA staff. They work under SEA's direction to conduct independent environmental analysis; develop appropriate environmental methodologies, documentation, and mitigation options; and verify the environmental information provided by the Applicants, consulting agencies, and other interested parties. SEA's oversight of the third-party contractors' work is exclusive and extensive.

Having reviewed all of the public comments received on the Draft EIS, conducted additional environmental analysis, reviewed all other environmental information provided, and consulted with appropriate commenters and agencies, SEA prepared this Final EIS with the assistance of its third-party contractor. SEA's involvement, oversight, guidance, and participation in the preparation of the EIS has been exclusive and extensive.

5.2 Scoping Public Involvement and Outreach

SEA conducted an extensive outreach program to engage the public, agencies, and stakeholders. SEA invited interested members of the public, communities, and organizations to participate in the scoping process by reviewing and commenting on the Draft Scope of the EIS. In addition, SEA conducted targeted outreach activities to minority and low-income populations to engage them in the environmental review process. Appendix A of the Draft EIS, Public Outreach and Agency Coordination Materials,

presents the public participation materials that SEA developed and used to inform the public and government agencies about the Proposed Action and its potential environmental effects.

5.2.1 Scoping Process

During the scoping process, SEA informed the public about the Proposed Action, described the environmental review's purpose and process, and gathered public comments on the Draft Scope of the EIS. SEA's public involvement efforts in the scoping process are described below and include public notices, media outreach, announcement posters, an environmental distribution list, a website, public scoping meetings, Federal Register notices, a toll-free project information line, an electronic filing system for receiving comments, an extension of the comment period, and project update mailings. This discussion also includes data on meeting attendance and other scoping participation.

5.2.1.1 Public Notices

The Board published the Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) in the Federal Register on December 21, 2007, announcing the start of the scoping process and the dates and times of public meetings (FR 2007a). The Board published the Notice of Availability of the Final Scope of Study for the EIS in the Federal Register on April 28, 2008 (FR 2008).

The Board issued a press release announcing the availability of the Draft EIS on July 25, 2008, and EPA published a notice in the Federal Register announcing Draft EIS availability for review and comment on August 1, 2008.

5.2.1.2 Media Outreach

The Board issued four media releases on December 12 and 27, 2007, January 7, 2008, and July 25, 2008. To advertise the scoping meetings, public notices and quarter-page advertisements were placed in the following 27 Chicago-area newspapers (25 in Illinois and two in Indiana) during the weeks of December 27, 2007, and January 7, 2008:

- Barrington Courier-Review
- Batavia/Geneva/St. Charles Republican (three newspapers)
- Beacon News (Aurora)
- Chicago Sun-Times
- Chicago Tribune
- Courier News (Elgin)
- Downers Grove Reporter/Westmont Progress (two newspapers)
- Glen Ellyn News/Wheaton Leader (two newspapers)
- Grayslake Journal
- Herald News (Joliet)
- Lake Forester (Lake Forest)
- Lemont Reporter
- Naperville Sun
- News-Sun (Waukegan)
- Northwest Herald (McHenry County)
- Post-Tribune (Merrillville, Indiana)
- Regional News (Palos Heights)
- Southtown Star (Tinley Park, formerly the Daily Southtown)

- Times (Northwest Indiana)
- Warrenville-West Chicago-Winfield Press (three newspapers)
- Wauconda Journal

On July 25, 2008 the Board issued a press release announcing the availability of the Draft EIS.

5.2.1.3 Announcement Posters

SEA placed posters announcing the public scoping meetings in 38 public libraries and one village hall, which together serve 49 communities along the EJ&E rail system.

5.2.1.4 Environmental Distribution List

SEA maintained an environmental distribution list composed of individuals that have expressed an interest in the Proposed Action, local elected officials, and state and Federal agencies. SEA sent letters announcing the public scoping meetings to the approximately 350 individuals on the list as of December 28, 2008. SEA continued to update the environmental distribution list as individuals submitted environmental comments and if individuals requested to be added. The list grew to more than 30,000 contacts at the time of the release of this Final EIS.

5.2.1.5 Website

The Board maintained a website, available at http://www.stb.dot.gov. Along with general information about the Board and SEA, the website provides information specific to this Proposed Action and all environmental correspondence from the Applicants, Federal, state and local agencies, interested parties, and the general public.

To assist the public in accessing information related to the Proposed Action, SEA has developed a specific website to provide information on the environmental review. The website is available at http://www.stbfinancedocket35087.com. The website provides a project overview; public comment information; links to documents including the NOI, Draft Scope and Final Scope of the EIS, information requests from SEA to CN and responses to these information requests; links to the Board, CN, and EJ&E websites; and SEA contact information.

5.2.1.6 Public Scoping Meetings

SEA held 14 public scoping meetings at seven locations throughout the Chicago metropolitan area in January 2008. The meetings were held in an open-house format. Two meetings were held per location, one from 1:00 to 4:00 p.m., and one from 6:00 to 8:00 p.m. The meetings were held:

- January 8, 2008: Mundelein, Illinois
- January 9, 2008: Barrington, Illinois
- January 10, 2008: Joliet, Illinois
- January 15, 2008: Matteson, Illinois
- January 16, 2008: Gary, Indiana
- January 17, 2008: West Chicago, Illinois
- January 22, 2008: Chicago, Illinois

SEA contacted 301 local elected officials to notify them of these scoping meetings. At these meetings, 2,612 people signed the attendance sheets and 1,347 individuals provided oral and written comments. SEA received an additional 1,268 written comments by mail during the scoping period.

5.2.1.7 Project Information Line

SEA set up a toll-free project information line (1-800-347-0689) for public comments for the duration of the environmental review. A Spanish-language option was available (see Appendix A of the Draft EIS, Public Outreach and Agency Coordination Materials). The project information line received 219 individual comments during scoping.

5.2.1.8 Electronic Filing System

Commenters provided 858 individual comments during scoping using the Board's electronic filing system (http://www.stb.dot.gov).

5.2.1.9 Comment Period Extension

In response to comments from the public, SEA extended the scoping comment period from February 1 to February 15, 2008. To advertise the extension, the Board mailed 3,038 postcards to those on the environmental distribution list and sent 47 letters to Federal and state agencies during the week of January 28, 2008, SEA reissued its media release to the aforementioned 27 Chicago-area newspapers and sent 302 e-mails and faxes to elected officials, including congressmen and local officials, to inform them of the extension.

5.2.1.10 Project Update Mailings

SEA mailed approximately 5,000 project update postcards to those on the environmental distribution list on February 25, 2008, and mailed 20 project update letters to senators and congressmen during the week of March 10, 2008.

5.2.2 Targeted Outreach Activities to Minority and Low-Income Populations

Consistent with Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations, SEA placed special focus on outreach activities to minority and low-income populations to ensure that all parties had meaningful involvement in the environmental review process and that their issues and concerns are fully considered (FR 1994). Therefore, SEA created a strategy for targeted outreach to minority and low-income stakeholders (see Appendix A of the Draft EIS, Public Outreach and Agency Coordination Materials).

SEA identified 28 communities with minority and low-income populations potentially affected by the Proposed Action. The Illinois communities identified are Aurora, Bolingbrook, Chicago, Chicago Heights, Crest Hill, Elgin, Fairmont, Hoffman Estates, Joliet, Lynwood, Matteson, Mundelein, North Chicago, Park Forest, Richton Park, Rockdale, Romeoville, Sauk Village, South Barrington, Vernon Hills, Warrenville, Waukegan, and West Chicago. The Indiana communities are East Chicago, Gary, Griffith, Hammond, and Whiting.

SEA then conducted targeted and specific outreach efforts to ensure that these communities had, and continue to have, access to information on the Proposed Action and the opportunity to fully participate in the environmental review process, including direct calls to elected officials regarding the environmental review process, public scoping meetings, and meetings with local representatives. SEA initiated this outreach during the scoping phase, and it will continue throughout the environmental review process.

5.2.2.1 Direct Calls

SEA contacted elected officials who represent minority and low-income populations to remind them of the upcoming scoping meetings and to ensure that each representative had a copy of the NOI. SEA placed calls to aides of U.S. Representative Jesse Jackson, Jr. (Illinois), Illinois State Representative

William Davis (District 30), Illinois State Representative Al Riley (District 38), Illinois State Representative Fred Crespo (District 44), and Illinois State Representative Linda Chapa La Via (District 83).

5.2.2.2 Meetings with Local Representatives

SEA held 24 meetings with community representatives, church representatives, or state senators or representatives either on location or via telephone (see Table 5.5-1 in Section 5.5, below, for a list of dates and participants). When meeting with a state senator or representative, SEA worked with the elected official to identify key community representatives, including representatives of minority and low-income populations, who were not previously contacted. At the meetings, SEA distributed education materials on the Proposed Action, as well as Board contact information for questions about the process. In addition, SEA provided Spanish-language translators as needed.

5.3 Agency Coordination

SEA invited agencies with jurisdiction, expertise, or interest in the Proposed Action to participate in the environmental review process. The agencies identified in the following section were asked to help identify potential environmental issues and concerns within the Study Area. Their comments helped SEA determine what level of environmental analysis was warranted for the Proposed Action. In addition to consultations with Federal, state, and local agencies with interest or jurisdiction in the Proposed Action, SEA has also cooperated with staff from Congressional offices, concerned citizens, the Metropolitan Mayors Caucus, and others, describing the environmental review process, the Board's licensing role, the decision-making process, and responding to questions.

During the environmental review process, SEA worked closely with Federal agencies that have jurisdiction and expertise in railroad operations. This section discusses the agencies that are typically most involved in the Board proceedings, describes the other agencies and groups with which SEA has consulted during the environmental review process in this proceeding to date, and summarizes the agency scoping and stakeholder meetings.

5.3.1 Federal Agencies

Under 40 CFR 1503.2, "Federal agencies with jurisdiction by law or special expertise with respect to any environmental impact involved and agencies which are authorized to develop and enforce environmental standards shall comment on statements within their jurisdiction, expertise, or authority." Thus, Federal agencies shall review and comment on an EIS for a Proposed Action within their jurisdiction and area of expertise. An agency may reply that it has no comment on the EIS. Table 5.3-1 below identifies the key Federal agencies that are participating in the environmental review process.

Table 5.3-1. Federal Agencies

Agency	Agency Jurisdiction or Area of Expertise
U.S. Army Corps of Engineers (USACE), Chicago District	Under Section 404 of the Clean Water Act of 1977 (33 CFR 1344), USACE has jurisdiction over activities that result in the discharge of dredge or fill material into U.S. waters, including lakes, rivers, streams, oxbows, ponds, and wetlands. Activities that affect these systems require a permit from USACE.
U.S. Coast Guard, Eighth District	Section 9 of the Rivers and Harbors Act of 1899 (33 USC 401) requires approval of the location of, and plans for, bridges over navigable waters of the U.S. before construction begins. This requirement is administered by the U.S. Coast Guard.

Table 5.3-1. Federal Agencies	
Agency	**Agency Jurisdiction or Area of Expertise**
U.S. Environmental Protection Agency (EPA), Office of Strategic Environmental Analysis, Region 5, and Office of Federal Activities	EPA oversees and implements Federal environmental laws. EPA also provides guidance on compliance with certain Executive Orders that involve environmental considerations. Under Section 309 of the Clean Air Act (42 USC 7609), EPA reviews and comments on the environmental impacts of major Federal actions for which an EIS is prepared under NEPA. EPA's Office of Federal Activities, which is responsible for reviewing the EIS, evaluates the quality of analysis in the EIS and the extent of the proposal's impact on the environment.
U.S. Fish and Wildlife Service (USFWS), Midwest Region Office, Chicago Field Office, and the Northern Indiana Ecological Services Sub-Office	USFWS implements the Endangered Species Act (ESA). Under Section 7 of the ESA (16 USC 1536), USFWS reviews Federal agency actions and expected impacts to threatened or endangered species. USFWS can issue a determination, in the form of a biological opinion, which details the expected impacts to threatened or endangered species. The Board is responsible for initiating Section 7 consultation with USFWS.
U.S. Department of Energy, Fermi National Accelerator Laboratory (Fermilab)	Fermilab provides leadership and resources for qualified researchers to conduct basic research at the frontiers of high-energy physics and related disciplines.

5.4 DEIS Public Involvement and Outreach

The public involvement process for the review of the Draft EIS was similar to that for the scoping process. Consistent with SEA's outreach activities designed for scoping the Draft EIS, SEA outreach activities included public notices, media outreach in English and Spanish, direct mail, a website, a bilingual toll-free project information line, an electronic filing system for receiving comments, and eight public meetings held throughout the Chicago metropolitan area.

5.4.1.1 Public Notices and Media Outreach for the Draft EIS

On July 25, 2008, the Board issued the Draft EIS and a press release to regional media outlets announcing the availability of the Draft EIS. The press release distribution consisted of mainstream media outlets and those outlets targeting minority and low-income populations identified in the Study Area. Additionally, the press release was sent to 94 print publications for consideration in their community calendars. Public notices were printed in the *Chicago Tribune* and *Chicago Sun-Times*. Advertisements for the public meetings were printed in 19 area newspapers, including six which were part of SEA's environmental justice outreach. A table listing all media organization outreach is included in Appendix B.3 of this Final EIS. Table 5.4-1, below, shows the dates and the name of the publication in which notices were published.

Table 5.4-1 Notice Dates and Publications	
August 13, 2008	**August 27, 2008**
Daily Herald - Cook County	Chicago Crusader*
Daily Herald-Lake County	Chicago Defender*
Grayslake Journal	Citizen Newspapers*
Northwest Herald	Extra*
Pioneer Press-Northwest/Arlington Heights	Hoy!*
Pioneer Press-West	La Raza*
Examiner Publications, Inc.	Post-Tribune
	The Aurora Beacon News
	The Courier-News
	Daily Southtown (Tinley Park)
	The Southtown Star
	The Times

Note:
*Indicates newspapers serving minority and low-income populations.

5.4.1.2 Announcement Posters for the Draft EIS

SEA placed posters announcing the eight Draft EIS public meetings in 53 public libraries, 53 city halls, and 47 chambers of commerce in the Chicago metropolitan area. A copy of the poster can be found in this Final EIS, Appendix B.3.

5.4.1.3 Website

The SEA project website (http://www.stbfinancedocket35087.com) remains active. The website provides important project information including:

- Project background
- SEA's environmental review schedule
- Public involvement opportunities and project contact information
- Correspondence between SEA and the Applicants
- Published documents including the Scope of Study, Draft EIS, and Final EIS
- Transcripts of the public meetings for the Draft EIS
- Current news and project information
- Frequently Asked Questions

Website content at key stages of the environmental review process is provided in Appendix B.3 of this Final EIS. Since its launch in January 2008, the website has had over 7,000 individual visitors. The most activity occurred in conjunction with the Draft EIS public meetings and comment period, with 5,300 individual visitors from July through September 2008.

5.4.1.4 Public Meetings on the Draft EIS

SEA held eight public meetings in August and September 2008 and offered a registration process for oral comment opportunities at these meetings. Each meeting consisted of an open house that began at 4:00 p.m. and concluded at 9:00 p.m., with a formal public meeting beginning at 6:00 p.m. Figure 5-1, below, shows where meetings were held in relation to the rail lines.


2008 Public Meeting Dates and Locations
1 August 25 - Matteson
2 August 26 - Mundelein
3 August 27 - Barrington
4 August 28 - Bartlett
5 September 8 - Chicago
6 September 9 - Aurora
7 September 10 - Gary
8 September 11 - Joliet
N
Miles
0 5 10
Sources:
U.S. Census TIGER Data, CN,
National Transportation Atlas Database
Data to be used for reference only.
Lake Michigan
Waukegan
North Chicago
Green Oaks
Libertyville
Lake Bluff
Mundelein 2
Hawthorn Woods
Mettawa
Vernon Hills
Lincolnshire
Lake Zurich
Long Grove
Buffalo Grove
Deer Park
Barrington
Kane Co.
Cook Co.
Barrington Hills
Wheeling
Barrington 3
South Barrington
Prospect Heights
Hoffman Estates
Mount Prospect
Elgin
Des Plaines
South Elgin
Bartlett 4
Hanover Park
Bloomingdale
Wayne
Carol Stream
Addison
Franklin Park
River Grove
Glendale Heights
Elmhurst
Melrose Park
River Forest
Hillside
Villa Park
Chicago 5
West Chicago
Berwyn
Cicero
Westchester
Riverside
Warrenville
Summit
Aurora 6
Naperville
Bedford Park
Willow Springs
Justice
Kane Co.
Kendall Co.
DuPage Co.
Will Co.
Normantown
Lemont
Alsip
Blue Island
Plainfield
Romeoville
Dolton
Harvey
South Holland
Crest Hill
Lockport
Hazel Crest
Hammond
Lansing
7 Gary
Fairmont
Homewood
Munster
Highland
Joliet
Flossmoor
New Lenox
Frankfort
Matteson 1
Chicago Heights
Dyer
Brisbane
Griffith
Schererville
Merrillville
8 Joliet
Richton Park
Cook Co.
Will Co.
Sauk Village
Kendall Co.
Grundy Co.
Lake Co.
Minooka
Manhattan
University Park
Monee
Illinois
Indiana
CN | EJ&E
Environmental Impact Statement
EJ&E Rail Line
CN Rail Line
County Line
Figure 5.1
2008 Public Meeting Locations

The public meetings were attended by 4,645 people and 305 people provided oral comments. Meeting attendees received a *Public Meeting Guide* which included a mailing list registration form and other information on the environmental review process. More than 1,500 mailing list registration forms were filled out and submitted to SEA at these meetings.

Concerns raised by the public at the meetings included: traffic delays and congestion; emergency response; mitigation funding; communities and community cohesion; hazardous materials transport; vehicle safety; noise; economics and employment; number; frequency, and length of trains; and property values. The public was invited to make comments in one of the following ways: privately with a court reporter, publicly at the microphone, in writing via the preprinted comment forms provided by SEA, through SEA's website, on the toll-free project hotline, or by writing a letter.

During the formal public meetings, SEA and its third party contractor, HDR Engineering, Inc., delivered a brief presentation on SEA's environmental review process and an overview of the Draft EIS findings. Oral comment sessions for approximately 300 attendees who wished to publicly voice their opinions followed. A combination of elected officials, organization representatives, advocacy groups, and private citizens spoke at each of the meetings. Transcripts from the public meetings are contained in Appendices D-1 through D-8 of this Final EIS.

SEA retained a Spanish translator and several court reporters to transcribe oral comments and was prepared to provide a sign-language interpreter for the hearing impaired on request. All public meeting materials and Draft EIS Executive Summaries were translated into Spanish; comment forms were also provided in Polish, Russian, and Chinese. Examples of the comment form can be found in Appendix B.3 of this Final EIS, Public Outreach Materials.

The public meetings were attended by 4,645 people and 305 people provided comments (see Table 5.4-2, below).

Table 5.4-2 Summary of Draft EIS Public Meetings

Date	Location	Approximate # of Attendees	# of Speakers
Monday, August 25, 2008	Matteson, Illinois Holiday Inn Hotel & Conference Center	350	33
Tuesday, August 26, 2008	Mundelein, Illinois Crowne Plaza Chicago North Shore	200	35
Wednesday, August 27, 2008	Barrington, Illinois Barrington High School	3,000	69
Thursday, August 28, 2008	Bartlett, Illinois Bartlett High School	250	38
Monday, September 8, 2008	Chicago, Illinois Loyola University of Chicago	75	21
Tuesday, September 9, 2008	Aurora, Illinois West Aurora High School	420	55
Wednesday, September 10, 2008	Gary, Indiana Indiana University Northwest	100	19
Thursday, September 11, 2008	Joliet, Illinois Holiday Inn Hotel & Conference Center	250	35
TOTAL		**4,645 Attendees**	**305 Speakers**

5.4.1.5 Project Information Hotline

SEA maintained a bilingual toll-free project information hotline (1-800-347-0689) throughout the development of the Draft EIS. The hotline provided timely information including upcoming public involvement opportunities. Prior to and during the Draft EIS public meetings, interested persons could pre-register to speak at the meeting of their choice using the hotline. A total of 2,214 calls were received during the comment period, including 254 callers who registered to speak at the public meetings and 906 who submitted oral comments on the Draft EIS. The information hotline will remain in place for 30 days after the Final EIS is published.

5.4.1.6 Electronic Filing System

Commenters provided 1,620 individual comments on the Draft EIS using the Board's electronic filing system (http://www.stb.dot.gov) during the formal Draft EIS comment period.

5.4.1.7 Draft EIS Comment Period

EPA published the Notice of Availability of the Draft EIS in the Federal Register on August 1, 2008. The Notice of Availability also included information about the Draft EIS comment period, as well as the dates, times, and locations of public meetings. A copy of the notice is in this Final EIS, Appendix B.3.

The Draft EIS was distributed to Federal, state, and locally-elected officials, as well as members of the public who participated in the scoping process or requested a copy. In addition, it was housed in the reference section of 52 regional public libraries and in one village hall within the Study Area.

SEA established a 60-day comment period and encouraged verbal, electronic, and written submittal of comments, provided multiple comment submission methods, and stressed that all comments would receive equal weight in the Board's decision making on this matter. Table 5.4-3, below, provides an overview of how the public used each comment method throughout the environmental review process.

Table 5.4-3 Comments by Type of Submission

	Draft EIS Comment Period	Scoping Comment Period	Total
Electronic Filing on Board's Website	1,620	858	2,478
Toll-Free Project Hotline	912	485	1,397
Spoken Formally at Public Meeting	305	NA	305
Transcribed by Court Reporter at Public Meeting	309	140	449
Letter, Comment Form, or Petition	6,384	2,475	8,859
Total Comments Received	**9,530**	**3,958**	**13,488**

At the close of the comment period, 9,530 comments were received on the Draft EIS. Approximately 18,000 individuals signed petitions, including nearly 6,000 in support of and 12,000 in opposition to the Proposed Action. The full text of all comments can be found on the Board's website: www.stb.dot.gov, under E-Library; Correspondence; Environmental. Comments are also available on CD-ROM in this Final EIS, Appendix F. Comment summaries and SEA's responses are in Chapter 3 of this Final EIS.

5.4.1.8 Project Update Mailings

On July 30, 2008, a misprint of two meeting dates in the Draft EIS prompted SEA to mail approximately 5,440 postcards with corrected information to those on the environmental distribution list. A copy of the postcard can be found in Appendix B.3 of this Final EIS.

5.4.1.9 Public Briefing for Board Members

The Board held a public meeting on November 18, 2008, at its Washington, D.C. headquarters, to discuss the analysis and preliminary conclusions and recommendations in the Final EIS. SEA briefed the Board on the major issues raised in comments on the Draft EIS and how SEA proposed to address them in the Final EIS. Topics discussed including rail operations, rail safety, hazardous materials, transportation, noise and vibration, biological resources, water resources, mitigation and how it should be funded, and quality of life issues. SEA also briefed the Board on the extensive public outreach that was conducted for the Proposed Action. Following SEA's presentations, the Board questioned SEA staff on various issues. The meeting was open for public observation, but not public participation. The public meeting was at the Board's headquarters at Patriots Plaza, 395 E Street, S.W., Washington, D.C. A video broadcast of the hearing was accessible to all interested parties, including those in the Chicago area, via the website at http://www.stb.dot.gov, under "Information Center"/"Webcast"/"Live Video" on the home page.

5.5 Minority and Low-Income Outreach

SEA continued its outreach to minority and low-income populations throughout the entire environmental review process. Of the 28 minority and low-income populations identified during scoping, 13 of these communities have significant minority or low-income populations in the Study Area and SEA compiled a list of 109 community leaders, elected officials, and church leaders in those areas. SEA made phone calls to arrange one-on-one meetings with these individuals. SEA also mailed an informational letter and fact sheet which outlined the Proposed Action. Follow-up calls were made once the mailing had gone out. SEA visited each of the 13 communities to meet with specific individuals and community leaders to identify issues.

Twenty-four meetings took place (see Table 5.5-1, below) during which SEA distributed materials, including fact sheets, and discussed and listened to community concerns. In addition, copies of the Draft EIS were distributed at one meeting. Also, SEA provided a Spanish version of the information in identified Hispanic communities.

Table 5.5-1 Minority and Low-Income Outreach

Date	Community	Name/Organization
April 18, 2008	Elgin	Sen. Michael Noland
April 18, 2008	Lemont	Sen. Christine Radogno
April 21, 2008	Elgin	Rep. Ruth Munson
April 22, 2008	Gary, IN	(Pastor) Rev. R.T. Mitchell
April 22, 2008	Mokena	Rep. Renee Kosel
April 24, 2008	Buffalo Grove	Sen. Bill Peterson
April 29, 2008	Crest Hill	Mayor Nick Churnovic
April 29, 2008	Joliet	Fr. Raymond Corkery, Our Lady of Mount Carmel
April 29, 2008	Mundelein	Rep. Kathy Ryg
May 5, 2008	Aurora	Rep. Linda Chapa LaVia
May 8, 2008	Park Forest	Tom Mick, Village Manager
May 12, 2008	Matteson	James Bragg, Director of Development, New Faith International Church

Table 5.5-1 Minority and Low-Income Outreach		
Date	**Community**	**Name/Organization**
May 13, 2008	Chicago Heights	Frank Perez, Executive Administrator Michael Sobo, Director of Projects and Services
May 28, 2008	Joliet	Pastor Roberto Flores, Asamblea Apostolica
June 2, 2008	Plainfield	Rep. Tom Cross
June 2, 2008	Plainfield	Sen. Linda Holmes
June 2, 2008	Aurora	Mayor Tom Weisner
June 3, 2008	Aurora	Arthur Velasquez, President, LULAC #5218
June 10, 2008	Elgin	Jamie Garcia, Director Centro de Informacion
July 9, 2008	Park Forest	First Baptist Church of Park Forest
July 9, 2008	Joliet	NAACP
July 11, 2008	Chicago Heights	Frank Gonzalez, Latino Relations Committee
July 11, 2008	Aurora	Fr. Roberto Camacho, Sacred Heart Catholic Church
August 6, 2008	Chicago Heights	Fr. John, St. Agnes Church

5.6 Agency and Elected Official Outreach

SEA notified 20 Congressional members, 31 State of Illinois elected officials, and 10 State of Indiana elected officials of the public meetings and opportunities to comment. SEA consulted with agencies in the Chicago metropolitan area by letter, telephone, and meeting to coordinate issues, collect data, and provide information. Through its interaction with those agencies, SEA gathered data and information about the Chicago metropolitan area and related planning efforts.

SEA mailed copies of the Draft EIS to Federal, state, and local public agencies with a cover letter encouraging recipients to submit environmental comments for consideration in preparing the Final EIS. These agencies included:

- Federal agencies
    - U.S. Army Corps of Engineers
    - U.S. Coast Guard
    - U.S. Environmental Protection Agency
    - U.S. Fish and Wildlife Service
    - U. S. Department of Energy
    - U.S. Department of Transportation
- Federally-identified Tribal Groups
    - Forest County Potawatomi Community of Wisconsin
    - Hannahville Indian Community Council
    - Kickapoo Tribe of Kansas
    - Kickapoo Tribe of Oklahoma
    - Miami Nation of Indians of the State of Indiana
    - Miami Tribe of Oklahoma
    - Potawatomi Nation
    - Prairie Band of Potawatomi Nation
- State of Illinois agencies
    - Illinois Commerce Commission Transportation Bureau, Rail Safety Section
    - Illinois Department of Natural Resources
    - Illinois Department of Transportation, District 1

  - Illinois Department of Transportation, Division of Public and Intermodal Transportation, Bureau of Railroads
  - Illinois Environmental Protection Agency
  - Illinois Historic Preservation Agency
  - State of Illinois, Office of the Governor

- State of Indiana agencies
  - Indiana Department of Environmental Management
  - Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology
  - Indiana Department of Natural Resources, Indiana Lake Michigan Coastal Program
  - Indiana Department of Transportation
  - State of Indiana, Office of the Governor

- Illinois county governments
  - Cook
  - DuPage
  - Grundy
  - Kane
  - Kendall
  - Lake
  - Will

- Indiana county government
  - Lake

- Regional governments
  - Barrington Area Council of Governments
  - DuPage Mayors and Managers Conference
  - Lake County Council of Mayors
  - Northwest Municipal Conference
  - Northwestern Indiana Regional Planning Commission
  - South Suburban Mayors and Managers Association
  - Will County Governmental League

- Forest preserve districts
  - Cook County
  - DuPage County
  - Lake County
  - Will County

- Other groups
  - Amtrak
  - Chicago Metropolitan Agency for Planning
  - Gary/Chicago International Airport
  - Metra
  - Northern Indiana Commuter Transportation District
  - Pace

- Regional Transportation Authority
- Environmental Law and Policy Center
- Save the Dunes Council

5.6.1 Local Governments

On June 25, 2008, SEA attended a Metropolitan Mayors Conference meeting with 27 leaders from the Chicago metropolitan area. An attendance list can be found in Appendix B.3 of this Final EIS. SEA made a brief presentation that included background on the Board, SEA's environmental review process, NEPA guidelines, and the Applicants' stated Purpose of and Need for the Proposed Action. Handouts and display materials included a project map, fact sheets, Final Scope of Study, and display materials from the scoping meetings held in January.

As a result of stakeholder group coordination held during the formal Draft EIS comment period, the West Central Municipal Conference and Northwest Municipal Council requested additional comment forms and copies of the *Public Meeting Guide.*

On September 30, 2008, HDR Engineering, Inc., SEA's third-party contractor, attended a meeting of the South Suburban Mayors and Managers Association, a group of stakeholders representing cities on the south side of Chicago. They answered general questions regarding the revised connection at Matteson, Illinois. Materials distributed included a project map, Frequently Asked Questions, and Scoping Guidelines.

5.6.2 Stakeholder Meetings

To provide agencies a greater role in the development of the Draft EIS, SEA established five stakeholder groups composed of agencies in Illinois and Indiana. During the comment period on the Draft Scope of Study, participants with similar concerns were given the opportunity to participate in stakeholder group meetings to facilitate discussion. In similar fashion, five stakeholder meetings organized by common interest took place during the Draft EIS comment period the week of September 1, 2008. SEA established the following five stakeholder groups:

- Illinois Natural Resources/Water Resources Agencies
- Illinois Transportation/Safety Agencies
- Illinois Local Governments
- Northern Indiana Agencies/Governments
- Indiana State Agencies

SEA invited 74 agencies to attend the meetings and provide feedback in their areas of expertise. A total of 31 agencies participated. There were 11 natural and water resources representatives, 14 Illinois transportation and safety representatives, seven Illinois local government agencies, 17 northern Indiana agencies or governments, and four Indiana state agencies in attendance. Meetings were held in Chicago, Illinois, and Hammond and Indianapolis, Indiana. The meeting schedule and attendees are listed in

Table 5.6-1 Stakeholder Meetings: Schedule and Participants

Table 5.6-1 Stakeholder Meetings: Schedule and Participants

Date	Stakeholder Group Focus Area	Agency in Attendance
April 29, 2008	Illinois Natural Resources/	Barrington Area Council of Governments Chicago Metropolitan Agency for Planning

Table 5.6-1 Stakeholder Meetings: Schedule and Participants		
Date	**Stakeholder Group Focus Area**	**Agency in Attendance**
	Water Resources Agencies	Forest Preserve District of Cook County Forest Preserve District of DuPage County Forest Preserve District of Will County Illinois Department of Natural Resources, Region 2 Lake County Forest Preserve District U.S. Environmental Protection Agency, Region 5 U.S. Fish and Wildlife Service, Illinois
April 29, 2008	Illinois Transportation/ Safety Agencies	Amtrak Chicago Metropolitan Agency for Planning DuPage County, Division of Transportation Environmental Law & Policy Center Illinois Department of Transportation, District 1 Lake County, Illinois, Division of Transportation Metra Pace Regional Transportation Authority U.S. Environmental Protection Agency, Region 5 Will County, Department of Highways
April 30, 2008	Illinois Local Governments	Barrington Area Council of Governments Chicago Metropolitan Agency for Planning DuPage Mayors and Managers Conference Northwest Municipal Conference South Suburban Mayors and Managers Association Village of Barrington Village of Barrington Hills West Central Municipal Conference
April 30, 2008	Northern Indiana Agencies/Governments	City of Gary, City Engineer City of Gary, Deputy Mayor City of Gary, Law Department Gary/Chicago International Airport Izaak Walton League Lake County (Indiana) Commissioners Lake County Manager Northern Indiana Commuter Transportation District Northwestern Indiana Regional Planning Commission Town of Dyer Town of Griffith Town of Highland Town of Merrillville Town of Munster Town of Schererville United Transportation Union #740 U.S. Fish and Wildlife Service, Indiana U.S. Representative Visclosky's Office
May 1, 2008	Indiana State Agencies	Indiana Department of Natural Resources Indiana Department of Transportation, Chief Legal Counsel Indiana Department of Transportation, Chief of Staff Indiana Department of Transportation, Office of Rail State of Indiana, Office of the Governor

Table 5.6-1 Stakeholder Meetings: Schedule and Participants		
Date	**Stakeholder Group Focus Area**	**Agency in Attendance**
September 2, 2008	Illinois Natural Resources/ Water Resources Agencies	Norm West (EPA) John Oldenburg (Forest Preserve District of DuPage County) Maggie Zoellner (Lake County Forest Preserve District) Wayne Vanderploeg (Forest Preserve District of Cook County) Maggie Cole (Illinois DNR, Region 2) Sally Arnold (Dept of Energy – Fermi Site Office) Ron Abrant (US Corps of Engineers)
September 2, 2008	Illinois Transportation/ Safety Agencies	Sid Weseman (RTA) Stan Milewski (ICC) Brian Vercruysse (ICC) Jack Bauer (Metra) Bruce Christensen (Lake County Division of Transportation) Paula Trigg (Lake County Division of Transportation) Don Kopec (CMAP) Patti Killinger (Will County Department of Highway) Kevin Brubaker (Environmental Law and Policy Center)
September 3, 2008	IL Local Governments	Janet Agnoletti (Barrington Area COG) Len Cannata (West Central Municipal Conference) Neil James (West Central Municipal Conference) Tammy Wierciak (West Central Municipal Conference) Kama Dobbs (DMMC) Andrew Hawkins (Forest Preserve District of Will County) Chris Staron (Northwest Municipal Conference) Reggie Greenwood (South Suburban Mayors and Managers Association) Mike Walczak (Northwest Municipal Conference)
September 3, 2008	Northern Indiana Agencies/Governments	Robert Rybicki (Town of Dyer) Elizabeth Johnson (Congressman Visclosky Representative) George Jerome (Town of Griffith) Elizabeth McCloskey (USFWS) Tom Post (INDNR) John Paxsons (NICTD) Jackie Anders (NIRPC) Christopher Meyers (City of Gary) Leibil (RDA) Bob Volkman (City of Schererville) Susan Severtson (City of Gary) Gerri Tousant (City of Gary) Erik Potter (Post-Tribune)
September 4, 2008	Indiana State Agencies	Indiana Department of Natural Resources

SEA used stakeholder comments to identify issues needing further environmental review. Issues discussed included CN's voluntary mitigation measures and SEA's recommended mitigation measures. During these meetings, SEA provided stakeholders with the *Public Meeting Guide* and an electronic copy of the Draft EIS upon request. Printed copies of the Draft EIS were available for review. On October 8, 2008, SEA conducted a follow-up meeting with the Illinois Commerce

Commission to review Industry tracks and Signalized Intersections. These issues are discussed in Sections 2.5.10 and 4.2.2.3 of this Final EIS.

5.6.3 Coordination on Species of Concern

SEA met with the U.S. Fish and Wildlife Service (USFWS) Chicago, Illinois, Field Office (CIFO) and USFWS Northern Indiana Ecological Services Sub-Office (NIESS) on October 23, 2008, to discuss concerns raised in the Department of Interior comment letter dated September 29, 2008. Specifically, the discussion focused on the Hine's emerald dragonfly, Karner blue butterfly, Indiana bat, Eastern prairie fringed orchid, turtle crossings, and noise effects on migratory birds. SEA met with USFWS, The Nature Conservancy (TNC), and INDNR in October and November 2008, to resolve concerns regarding the Eastern prairie fringed orchid, Hine's emerald dragonfly, Karner blue butterfly, and the dune and swale prairie remnant in Kirk Yard in Gary, Indiana. Section 2.12 of this Final EIS discusses the status of the informal consultation with the USFWS.

5.7 Distribution of the Final EIS

More than 30,000 individuals are on the Environmental Distribution List. SEA will distribute the Final EIS, either in hard copy or CD-ROM format, to individuals who provided mailing addresses in four different distribution categories. The public can review printed copies of this Final EIS at the libraries and village hall indicated in Table 5.7-1 below:

Table 5.7-1 Locations to Review the Final EIS

Community	Public Library or Village Hall	Address
Illinois (alphabetical listing)		
Aurora, Illinois	Aurora Public Library	233 S. Constitution Dr., Aurora, IL 60506
Barrington, Barrington Hills, and South Barrington, Illinois	Barrington Area Library	505 N. Northwest Hwy., Barrington, IL 60010
Bartlett, Illinois	Bartlett Public Library	800 S. Bartlett Rd., Bartlett, IL 60103
Blue Island, Illinois	Blue Island Public Library	2300 York St., Blue Island, IL 60406
Bolingbrook, Illinois	Fountaindale Public Library in Bolingbrook	300 W. Briarcliff Rd., Bolingbrook, IL 60440
Buffalo Grove, Illinois	Indian Trails Public Library	355 Schoenbeck Rd., Wheeling, IL 60090
Carbondale, Illinois	Carbondale Public Library	405 W. Main St., Carbondale, IL 62901
Centralia, Illinois	Centralia Public Library	515 E. Broadway, Centralia, IL 62801
Champaign, Illinois	Champaign Public Library	200 W. Green St., Champaign, IL 61820
Chicago, Illinois	Harold Washington Library Center	400 S. State St., Chicago, IL 60605
Chicago Heights, Illinois	Chicago Heights Public Library	25 W. 15th St., Chicago Heights, IL 60411
Crest Hill, Illinois	Crest Hill Public Library	1298 Theodore St., Crest Hill, IL 60403
Crystal Lawns, Fairmont, and Joliet, Illinois	Joliet Public Library	150 N. Ottawa St., Joliet, IL 60432
Deer Park, Hawthorn Woods, Lake Zurich, Long Grove, and Mettawa, Illinois	Ela Area Public Library	275 Mohawk Trail, Lake Zurich, IL 60047
Elgin, Illinois	Gail Borden Public Library	270 N. Grove Ave., Elgin, IL 60120
Frankfort, Illinois	Frankfort Public Library	Pfeiffer Rd. at Rt. 30, Frankfort, IL 60423
Glen Ellyn, Illinois	Glen Ellyn Public Library	400 Duane St., Glen Ellyn, IL 60137
Green Oaks and Libertyville,	Cook Park Public Library	413 N. Milwaukee Ave., Libertyville,

Table 5.7-1 Locations to Review the Final EIS		
Community	**Public Library or Village Hall**	**Address**
Illinois		IL 60048
Hoffman Estates, Illinois	Hoffman Estates Branch Library	1550 Hassell Rd., Hoffman Estates, IL 60169
Indian Creek and Vernon Hills, Illinois	Vernon Hills Village Hall	290 Evergreen Dr., Vernon Hills, IL 60061
Lake Bluff, Illinois	Lake Bluff Public Library	123 E. Scranton Ave., Lake Bluff, IL 60044
Lockport, Illinois	Lockport Public Library	121 E. 8th St., Lockport, IL 60441
Lynwood, Illinois	South Cook ISC 4 Library	253 W. Joe Orr Rd., Chicago Heights, IL 60411
Matteson, Illinois	Matteson Public Library	801 S. School Ave., Matteson, IL 60443
Minooka, Illinois	Three Rivers Public Library- Minooka Branch	109 N. Wabena Ave., Minooka, IL 60447
Mokena, Illinois	Mokena Public Library	11327 W. 195th St., Mokena, IL 60448
Mundelein, Illinois	Fremont Public Library	1170 N. Midlothian Rd., Mundelein, IL 60060
Naperville, Illinois	95th Street Library	3015 Cedar Glade Dr., Naperville, IL 60564
Naperville, Illinois	Naper Boulevard Library	2035 S. Naper Blvd., Naperville, IL 60565
Naperville, Illinois	Nichols Library	200 W. Jefferson Ave., Naperville, IL 60540
New Lenox, Illinois	New Lenox Public Library	120 Veterans Pkwy., New Lenox, IL 60451
North Chicago, Illinois	North Chicago Public Library	2100 Argonne Dr., North Chicago, IL 60064
Park Forest, Illinois	Park Forest Public Library	400 Lakewood Blvd., Park Forest, IL 60466
Plainfield, Illinois	Plainfield Public Library	15025 S. Illinois St., Plainfield, IL 60544
Richton Park, Illinois	Richton Park Public Library	4045 Sauk Trail, Richton Park, IL 60471
Rockdale, Illinois	Will County Law Library	14 W. Jefferson St., Joliet, IL 60432
Romeoville, Illinois	Fountaindale Public Library in Romeoville	201 Normantown Rd., Romeoville, IL 60446
Sauk Village, Illinois	McConathy Public Library	21737 Jeffrey Ave., Sauk Village, IL 60411
Warrenville, Illinois	Warrenville Public Library	28W751 Stafford Pl., Warrenville, IL 60555
Waukegan, Illinois	Waukegan Public Library	128 N. County St., Waukegan, IL 60085
Wayne, Illinois	St. Charles Public Library	1 S. 6th Ave., St. Charles, IL 60174
West Chicago, Illinois	West Chicago Public Library	118 W. Washington St., West Chicago, IL 60185
Wheaton, Illinois	Wheaton Public Library	225 N. Cross St., Wheaton, IL 60187
Indiana (alphabetical listing)		
East Chicago, Indiana	Robert A. Pastrick Branch Library	1008 W. Chicago Ave., East Chicago, IN 46312
Gary, Indiana	Gary Public Library	220 W. 5th Ave., Gary, IN 46402
Griffith, Indiana	Lake County Public Library-Griffith	940 N. Broad St., Griffith, IN 46319

Table 5.7-1 Locations to Review the Final EIS		
Community	**Public Library or Village Hall**	**Address**
	Branch	
Hammond, Indiana	Hammond Public Library	564 State St., Hammond, IN 46320
Hammond, Indiana	E.B. Hayward Branch Hammond Public Library	1212 172nd St., Hammond, IN 46320
Hammond, Indiana	Howard Branch Hammond Public Library	7047 Grand Ave., Hammond, IN 46320
Munster, Indiana	Munster Branch Lake County Public Library	8701 Calumet Ave., Munster, IN 46321
Schererville, Indiana	Dyer-Schererville Branch, Lake County Public Library	1001 W. Lincoln Hwy., Schererville, IN 46375
Whiting, Indiana	Whiting Public Library	1735 Oliver St., Whiting, IN 46394

5.8 Next Steps

SEA anticipates that the U.S. Environmental Protection Agency (EPA) will publish the Notice of Availability of the Final EIS in the Federal Register on December 12, 2008. Under the CEQ regulations (40 CFR 1506.10(b)), agencies must wait 30 days from EPA's Federal Register notice before issuing a final decision unless they have an internal appeal process. The Board has such a process, which means that the Board could issue a final decision in less than 30 days from December 12, 2008. If the Board were to do so, SEA recommends that the Board's administrative review period be extended to permit parties to seek agency reconsideration of the final decision within 30 days after it is served, rather than the typical 20 days. The Board would consider any administrative appeals in a subsequent decision.

5.9 Public Notification Activities

Table 5.9-1 below provides a chronological listing of notification activities for this environmental review.

Table 5.9-1. Public Notification Activities	
Date	**Activity**
November 26, 2007	SEA served Decision No. 2 accepting for consideration the Application filed by Canadian National Railway Company and Grand Trunk Corporation on October 30, 2007
November 29, 2007	SEA published the Notice of Acceptance of Primary Application in the Federal Register
December 12, 2007	SEA published a press release issuing guidance on project participation (Reissued January 7, 2008)
December 21, 2007	SEA published a Notice of Intent and the Draft Scope of Study in the Federal Register
December 23, 2007	SEA activated a toll-free 800 hotline with project information including an option to record comments and update mailing information
December 27, 2007	SEA announced the scoping comment period and open house public meetings in 27 Chicago-area newspapers (Republished January 7, 2008), 350 letters to stakeholders, and 41 letter to federal, state, and local agencies
January 2008	SEA held seven public open house meetings in the Chicago metropolitan area with project materials in both English and Spanish available
January 8, 2008	SEA established a project website with project information
January 25, 2008	SEA served Decision No. 4 denying requests to reclassify the transaction as "significant" and to alter the procedural schedule issued in Decision No. 2
January 30 - February 2, 2008	SEA served Decision No. 6 announcing the extension of the scoping period from February 1st to February 15, 2008 in the Federal Register. SEA publicized the extension of the scoping comment period through postcards to 3,038 persons, published notices in

Table 5.9-1. Public Notification Activities	
Date	**Activity**
	27 Chicago-area newspapers, e-mails, and faxes to 302 elected officials, and updates to the website and project hotline
February 25 – March 10, 2008	SEA mailed postcards to 4,907 persons, 24 agencies, and 20 elected officials acknowledging the receipt of comments and participation in the scoping process
April 10, 2008	SEA invited 38 agencies to participate in agency stakeholder meetings
April 18, 2008	SEA began outreach to low-income and minority communities including telephone calls, emails, letters, and meetings
April 25, 2008	SEA served a decision announcing the Notice of Availability of the Final Scope of Study for the Environmental Impact Statement
April 28, 2008	SEA published an addendum to the Final Scope of Study in the Federal Register and mailed the Final Scope of Study, the Addendum to the Final Scope of Study, and a return postcard requesting review preferences for the Draft EIS to individuals on the environmental distribution list. Additionally, SEA updated the website and hotline with information about the Final Scope of Study
May 5, 2008	SEA updated the project website to include all correspondence to and from the Applicants
June 25, 2008	SEA attended a Metropolitan Mayors Conference meeting attended by 27 leaders from the Chicago metropolitan area
July 24, 2008	SEA served Decision No. 13 granting the Applicants' request for the establishment of time limits for the remaining NEPA review and issuance of the final decision and adopted a schedule as set forth in the decision
July 25, 2008	SEA issued a press release announcing the availability of the Draft EIS to Chicago-area publications and updated the website and hotline accordingly
July 30, 2008	SEA mailed 5,440 postcards correcting information regarding misprinted meeting date information included in the Draft EIS
August 1, 2008	EPA published the Notice of Availability of the Draft EIS in the Federal Register
August 2008	SEA distributed the Draft EIS to 5,692 persons in the environmental distribution list, placed English and Spanish language announcement posters in 52 public libraries and one village hall, published a public notice of the upcoming meetings in the *Chicago Sun Times* and *Chicago Tribune* newspapers, notified 20 Congressional members, 31 State of Illinois elected officials, and 10 State of Indiana elected officials of the upcoming public meetings and published public invitation to Draft EIS public meetings in 19 Chicago-area newspapers
August 2008 – September 2008	SEA hosted eight public meetings in the Chicago metropolitan area with project materials in both English and Spanish available
September 2008	SEA invited 74 stakeholders to participate in agency stakeholder meetings
September 8, 2008	SEA served Decision No. 14 denying the Applicants' petition to modify the procedural schedule to allow CN to take control of EJ&E before issuance of the Final EIS and subsequent Board consideration of the potential environmental impacts
November 18, 2008	SEA briefed the Board at a public meeting at its Washington, D.C. headquarters, to discuss the analysis, preliminary conclusions, and recommendations in the Final EIS.
December 5, 2008	SEA issued a press release announcing the availability of the Final EIS to Chicago-area publications, posted the Final EIS on the website as well as distributed it to persons on the final Environmental Distribution List. SEA also updated the hotline accordingly.
December 12, 2008	EPA published the Notice of Availability of the Final EIS in the Federal Register.

List of Preparers

Surface Transportation Board

The following members of Board staff were responsible for overall project management, technical direction, and writing, reviewing, and editing the draft document.

Name	Background	Title/Role
Victoria J. Rutson	• J.D. • B.A., English Language and Literature	Chief, SEA
Phillis Johnson-Ball	• M.U.R.P.,(Urban Regional Planning) • B.A., Political Science	Project Manager and Deputy Chief, SEA
Evelyn G. Kitay	• J.D. • M.A., French • B.A., History and French	Associate General Counsel
Virginia Strasser	• J.D. • B.A., Political Science	Attorney, the Board's Office of the General Counsel

Contractors

HDR Engineering, Inc. (HDR) and its subcontractors were responsible for supporting SEA in preparing the Final EIS for the environmental review of the Proposed Action. The following individuals were key members of the project team.

Name and Firm	Background	Project Role
Project Management		
John H. Morton, P.E. HDR	• M.S., Engineering Management • B.S., Civil/Environmental Engineering • Thirty-three years in the design, permitting and approval of civil engineering structures; NEPA and other environmental compliance; mitigation design; public involvement, agency coordination	Project Manager
Ronald W. Deverman HDR	• M.A., English Language and Literature • B.S., Civil Engineering • Twenty-six years in the industry managing NEPA studies and large transportation infrastructure projects, for rapid transit, highways, interstates, and bridges	Deputy Project Manager Technical Lead – Land Use and Socioeconomics
Mark L. Wollschlager, J.D. HDR	• B.S., Biological/Life Sciences • Twenty-eight years in environmental law, impact analysis, permitting, and quality control • Responsible for strategy, coordination, guidance, review, analysis, and interpretation of Federal and state environmental and energy laws and regulations for various projects	Technical and Quality Control Manager
Martin J. Joyce, P.E. HDR	• B.S., Civil Engineering • Twenty-nine years in the industry with twenty-five years in planning, management, design, construction, and operations of major transportation projects and preparation of complex NEPA documents	Executive Support Program for Quality

Name and Firm	Background	Project Role
Technical Analysis		
William D. Burgel, RPG HDR	• M.S., Geology • B.S., Engineering • Thirty-six years in railroad engineering and operations with expertise in light rail, commuter rail, and freight rail interface and capacity issues, and NEPA studies •	Technical Lead – Rail Operations
Timothy G. Casey, QEP HDR	• B.S., Biological/Life Sciences • Twenty years performing and managing noise and vibration analyses for projects involving stationary and mobile sources, including combustion turbines, wind farms, and other noise sources associated with the power and energy industries	Technical Lead – Noise and Vibration
Richard A. Christopher, J.D. HDR	• B.A., English Language and Literature • Thirty-three years practicing environmental law with twenty-five years at the Illinois Department of Transportation as Deputy Chief Counsel specializing in project development	Technical Lead – Environmental Justice and Indirect Impacts and Cumulative Effects
Chad A. Crager, P.E. HDR	• B.S., Civil Engineering • Ten years in transportation engineering including preliminary engineering evaluations, preliminary schematics, final roadway design, planning, and traffic analysis	Resource Specialist – Transportation
Ed Cropp	• Thirty years experience in land acquisition and property analysis	Resource Specialist – Right-of-Way
Christopher J. Everhart HDR	• B.S., Emergency/Disaster Management • Four years of experience as an Emergency Response Planner; written documents relating to Emergency Preparedness, Response, Mitigation and Recovery Plans, as well as conducting municipal Disaster Exercises	Resource Specialist – Traffic Delay
Fiona L. Goodson HDR	• B.S., Ecology • Twelve years in the industry with thirteen years in the environmental field, including species-specific surveys; project management; and environmental regulatory compliance with NEPA, Sections 404 and 401 of the Clean Water Act, and the Endangered Species Act	Technical Lead – Natural Resources
Richard D. Gorton, Emeritus P.E. HDR	• B.S., and M.S., Civil Engineering • Forty-two years as an environmental scientist and project manager for NEPA studies, mitigation design, Clean Water Act permitting, public involvement, and interagency coordination • Thirty-four years in planning and environmental studies for water resources projects	Technical and Quality Control Manager
Mark W. Hemphill HDR	• M.A., History • B.A., History • Nineteen years in railroad operations, program management, strategic planning, government affairs, and train-control and signaling engineering and design • Expertise in freight rail costing, pricing, marketing, service design and network planning	Resource Specialist – Rail Operations

Name and Firm	Background	Project Role
Kevin K. Keller, P.G., CGWP HDR	• M.S., Hydrogeology • B.S., Geology • Twenty years in management and supervision of large, interdisciplinary environmental and engineering projects, including NEPA studies, remediation and closure of regulated sites, and diverse services for the rail industry	Technical Lead – Hazardous Material Transportation and Contaminated Sites
John C. Lazzara, P.E. HDR	• B.S., Civil Engineering • Nineteen years in project management and highway planning, design, and construction inspection, including traffic and pavement analyses, corridor studies, NEPA studies, bridge inspection, and public involvement programs	Technical Lead – Transportation Systems
Edward J. Liebsch HDR	• M.S., Meteorology • B.S., Earth Science • Twenty-nine years as an air quality specialist, project manager, and group leader for air quality impact analysis and permitting, including dispersion modeling of air pollution, regulatory evaluations, and air quality analyses under NEPA and state environmental review programs	Technical Lead – Energy and Air Quality
Anthony J. Luft, PE HDR	• B.S., Civil Engineering • Fourteen years in project management of water resources involving water quality, bridge and culvert hydraulics, stormwater management, flood control, environmental permitting, civil site planning, industrial water usage, wetland protection, and mitigation	Technical Lead – Water Resources
Michael W.J. Marchyshyn HDR	• M.S., Urban & Regional Planning - Transportation Planning • B.S., Geography • Two years in transportation planning, impact analysis, traffic studies, geometric highway design, railroad engineering, logistics management, land use and zoning, environmental assessment, and GIS	Resource Specialist - GIS
Kirsten Mawhinney, E.I.T. HDR	• B.S., Civil Engineering • Two years as a transportation planning engineer in safety research, intersection improvement projects, corridor studies, environmental impact evaluation; water quality data collection, and interchange design studies	Resource Specialist – Environmental Justice
Randall G. McCart HDR	• M.A. and B.S., Geography • B.S., Education • Twenty-six years in NEPA studies evaluating various proposed actions including rail projects, radioactive waste and Department of Defense facilities, and projects for natural resource management	Technical Lead – Purpose of and Need for Action, Short-Term Use Versus Long-Term Productivity, and Irreversible and Irretrievable Commitments of Resources
John L. Meerscheidt HDR	• M.P.A., Natural Resources Management and Environmental Policy • B.A., Economics/Finance • Twenty-seven years in environmental permitting and regulatory compliance, including economic impact analyses for highway, commuter, and light rail projects; environmental justice analyses	Resource Specialist – Socioeconomics

Name and Firm	Background	Project Role
	for transportation projects; and other impact assessments under NEPA	
Mukul Pal, E.I.T. HDR	• M.S., Transportation Engineering • B.S., Civil Engineering • Four years of experience in transportation engineering and planning, and traffic noise modeling	Resource Specialist – GIS
Nancy A. Roberts, J.D. McGill, Gotsdiner, Workman & Lepp (MGWL)	• J.D. • B.S., Education • Twenty-four years in environmental law, including assessment of risks and responsibilities associated with facility operations, development of real estate and other assets; Federal and state permitting and compliance issues, and railroad environmental and property matters	Technical Resource – Rail Operations and Indirect Impacts and Cumulative Effects
Hugh Sauremen, Ph.D, P.E. ATS Consulting	• Ph.D and M.S., Mechanical Engineering • B.S., Engineering • Thirty-five years experience in environmental noise and vibration control, using complex measurement techniques and mathematical and empirical models; expertise in acoustical principals and surface transportation systems in estimating noise and vibration impacts; development of cost-effective mitigation approaches for rail projects	Resource Specialist – Noise and Vibration
Robert E. Sutton, P.E. HDR	• B.S., Civil Engineering • Thirty-two years in planning, analysis, and preliminary through final design of traffic and transportation engineering projects; NEPA studies; and public involvement programs	Resource Specialist – Transportation
Lucinda Low Swartz, Esq.	• J.D. • B.A., Political Science / Administrative Studies • Thirty years in environmental law and regulation, NEPA compliance and documentation	Resource Specialist – Executive Summary
Tewodros A. Tegene, P.E. HDR	• B.S., Civil Engineering • Nine years in transportation engineering including feasibility studies, preliminary engineering evaluations and schematics, final roadway design, and transportation alternatives	Resource Specialist – Traffic Delay
Leif J. Thorson, P.E. HDR	• B.S., Civil Engineering • Twenty-nine years as a project engineer and senior project manager in the railroad and consulting industries • Eighteen years with Class I and regional railroads, expertise in railroad operations, inspection, maintenance, design and construction of track, bridges, grade crossings	Technical Lead – Rail Safety and Engineering
Andrew D. Walton, E.I.T. HDR	• B.S., Civil & Environmental Engineering • Two years in roadway planning and design, skilled in roadway design software including GEOPAK Road and MicroStation J & V8	Technical Writer - Emergency Services
Barry R. Wharton HDR	• M.A., Anthropology/Archaeology • B.A., Anthropology • Thirty-one years in NEPA studies, National	Lead – Cultural Resources

Name and Firm	Background	Project Role
	Historic Preservation Act Section 106 review, cultural resource assessment surveys and historical environmental analysis, GIS modeling and analysis, and aerial photo interpretation	
Scott Zilka HDR	• B.S. Meteorology • Fifteen years in air quality analysis and eight in energy analysis	Technical Writer – Air Quality, Climate Change, and Energy
Outreach and Coordination		
Stephanie L. White HDR	• M.B.A. • B.A., Sociology • Eleven years in facilitation and consensus building, experienced in leading local, regional, and statewide communications and outreach activities, and in training, strategic planning, economic analysis, and public relations	Lead – Outreach and Coordination
Gregory A. McKnight HDR	• B.S and M.S., Civil Engineering • Three years in traffic design, operations, planning, and impact studies as well as transportation planning and public involvement	Outreach Coordinator
Heather Tarczan MWW Group	• B.A., Psychology and pre-law • Twelve years in government and community relations, event management and media outreach	Outreach Coordinator
John Chartier MWW Group	• M.S. Elementary Education: Queens College – City University of New York • B.A. English: University at Albany – State University of New York • Nearly twenty years in journalism, government, public affairs/media relations; he specializes in marketing communications, targeted media for constituent outreach, and issue-oriented campaigns	Outreach Coordinator
Document Production		
Barry L. Butterfield HDRv	• M.S., Water Resources/Civil Engineering • B.S., Civil Engineering • Thirty-three years as project engineer and project manager for water resources, transportation, energy, and waste management projects, NEPA studies, contract negotiations, client liaison, technical production, and supervision of subconsultants	Document Production Manager
Amzi S. Crenshaw HDR	• M.S., Geography • B.S., Environmental Design • Twenty years in sustainability planning, risk analysis, impact assessment, management of the environmental effects, NEPA compliance, mitigation design	Lead – Revised Information
Aliyah Daigneaux HDR	• B.F.A., Visual Communication • Fifteen years of production coordination and technical editing for transportation planning and infrastructure improvement projects, and NEPA documentation	Technical Editor – Revised Information
Margaret G. Desmond HDR	• B.A., English • Thirty years in journalism, in-house communications, and business development	Technical Editor – Comment Responses

Name and Firm	Background	Project Role
	• Fourteen years in editing technical documents and preparing marketing proposals for engineering firms	
Kimberly A. Gust HDR	• B.S. and M.A., English Language and Literature • Ten years developing templates and style guidelines, copy editing, compiling references, formatting, and preparing NEPA studies and other technical documents for publication	Technical Editor – Final Recommended Conditions
Meagan A. Hall HDR	• B.S., Biology • Five years providing technical services to government and private clients • Specialization in biological sciences, threatened and endangered species, wetland delineations, and NEPA studies	Technical Writer – Final Recommended Conditions
James T. Jordan, AICP HDR	• B.A. and M.A., Geography • Forty-one years in the management of NEPA documents, facility siting studies, land use analyses, economic development plans, and project permitting	Graphics Coordination
John Keene HDR	• B.S., Physics • Twenty-eight years managing Federal and state environmental compliance requirements • NEPA expertise in development of permitting strategies, preparation and processing of permit applications, and implementation of environmental compliance monitoring programs	Technical Writer – Introduction and Background
Craig S. McColloch, P.E. HDR	• B.S., Civil Engineering • Twenty-nine years in environmental and civil engineering, including program management; NEPA studies; air and water quality modeling; archaeological and historical resources surveys; pollution prevention, waste management, and other plans; environmental remediation; and site closure	Quality Control
Kristen K. Steckman HDR	• B.E.S., Mass Communications • Eleven years in coordination for NEPA and other projects	Printing Coordination
Sean Touhey HDR	• B.S., Geography • Five years in GIS, working primarily with Enhanced 911 (e911), electrical utility, and gas utility data on various aspects of GIS projects, including field data collection; creation, maintenance, and quality control of public utility and e911 GIS data; and database design	GIS/Graphics
Comment Response		
Alivia Body HDR	• B.A., Economics Seven years in research, data collection, analysis, technical writing, indirect and cumulative impact analysis, NEPA documentation, and local planning for land use and transportation	Comment Response
Jessica Cheng HDR	• B.A., Political Science • M.A., Environmental Planning • Eight years in NEPA CEQA, noise monitoring and public participation, and documentation	Comment Response
Deborah Daigle	• B.A. and M.S. and, Geology	Comment Response

Name and Firm	Background	Project Role
HDR	• Twenty-two years in water resource development and environmental studies, including hazardous materials site assessments, NEPA studies, and environmental resource and water use permitting	
Denis Gilbert, P.E. HDR	• B.S. and M.S. Civil Engineering • Thirty-two years in watershed hydrology including extensive computer programming for engineering design and documentation	Data Coordination
Allan R. Holmes HDR	• M.B.A. • M.S., Chemical Engineering • B.S., Chemistry and Mathematics • Fourteen years in air permitting including New Source Review Prevention of Significant Deterioration construction permit applications, Title V operating permit applications, and permitting assessments	Comment Response
Barry Lentz HDR	• B.S., Biology • Twenty-eight years in management and performance of NEPA studies	Comment Response
Peter Masson HDR	• B.A., Biology, NEPA Certificate • Twenty years in project management and coordination for environmental documentation, developing NEPA strategy, alternatives, and analysis, permitting, Section 4(f), and cultural resources	Lead – Data Coordinator
Britton Marchese HDR	• M.S., Environmental Studies • Ten years in NEPA documentation, impact analysis, and socioeconomic, cultural, visual and hazardous waste analyses	Comment Response
Craig S. McColloch, P.E. HDR	• B.S., Civil Engineering • Twenty-nine years in program management, NEPA studies, air and water quality modeling, archaeological and historical resources surveys, pollution prevention, waste management, environmental remediation, and site closure	Comment Response
Kristine MacKinnon, P.E. HDR	• B.E., Biological Systems Engineering • M.S., Urban Planning (candidate) • Thirteen years in planning environmental and water quality assessments, wetlands delineation and permitting, stormwater pollution prevention planning and permitting, rural water supply engineering, and site remediation	Comment Response
Daniel C. Miller HDR	• M.S., Soil Geomorphology & Quaternary Geology • B.A., Environmental Biology/Ecology • Twenty-four years in NEPA documentation, environmental/construction permitting, impact analysis, reclamation planning, post-construction monitoring, and compliance	Comment Response

Name and Firm	Background	Project Role
Craig G. Osborn, P.E. HDR	• B.S., Civil Engineering • B.S., Conservation/Renewable Natural Resources • Thirty-two years as an environmental specialist, for environmental assessments, permit applications, compliance inspection, site restoration, and design for industrial, hazardous, and radioactive waste facilities	Comment Response
Elizabeth L. Phoebus HDR	• Master of Environmental Planning • B.A., History with a Foreign Affairs minor • Eight years of experience as an environmental planner preparing categorical exclusions and environmental assessments and contributing to environmental impact statements. She has prepared land use, socioeconomic, and Section 4(f) evaluations and also performs Clean Water Act Section 401/404 evaluations and permitting. In addition, Ms. Phoebus has managed the preparation of biological, water resource, cultural resource, noise impact, air quality, and hazardous materials analyses to provide environmental clearance for projects. Ms. Phoebus has significant experience coordinating with local, state, and federal agencies, as well as experience with land use and community planning, public involvement, zoning, aerial photography interpretation, and GIS.	Lead – Comment Responses
Deborah H. Redman HDR	• M.A., Urban and Regional Planning • Thirty-one years in public and private planning for transportation-related projects	Comment Response
Shannon Snow HDR	• M.A., Community and Regional Planning • Five years in public involvement, planning analysis and data management	Comment Response
Robert E. Sutton, P.E. HDR	• B.S., Civil Engineering • Thirty-two years in planning, analysis, and preliminary through final design of traffic and transportation engineering projects; NEPA studies; and public involvement programs	Comment Response
Barry R. Wharton HDR	• M.A., Anthropology/Archaeology • B.A., Anthropology • 31 years in NEPA studies, National Historic Preservation Act Section 106 review, cultural resource assessment surveys and historical environmental analysis, GIS modeling and analysis, and aerial photo interpretation	Comment Response

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