

**SURFACE TRANSPORTATION BOARD
OFFICE OF ENVIRONMENTAL ANALYSIS**

STB Finance Docket No. 35544

**DesertXpress Enterprises, LLC and DesertXpress HSR Corporation—
Construction and Operation Exemption—Dedicated High-Speed Passenger Line
from Victorville, Cal. to Las Vegas, Nev.**

Review of Environmental Matters and Final Environmental Recommendations

OVERVIEW

This document summarizes the environmental review process and key environmental issues associated with DesertXpress Enterprises, LLC's proposal to construct and operate an approximately 190-mile high-speed passenger rail line between Victorville, California and Las Vegas, Nevada (map attached). The purpose of the proposed project, known as "DesertXpress," is to provide reliable and safe passenger rail transportation using proven high-speed rail technology between southern California and Las Vegas; provide a convenient alternative to automobile travel on Interstate 15 (I-15) and air travel to and from Las Vegas; and add transportation capacity to the I-15 corridor.

In compliance with the requirements of the National Environmental Policy Act (NEPA),¹ the Federal Railroad Administration (FRA) conducted a comprehensive environmental review of the proposed DesertXpress project, and the Board participated in the environmental review as a cooperating agency.² This review included the preparation of a Draft Environmental Impact Statement (Draft EIS) in March 2009, Supplemental Draft Environmental Impact Statement (Supplemental Draft EIS) in August 2010, and Final Environmental Impact Statement (Final EIS) in March 2011 (collectively, EIS or EIS documents). In a July 8, 2011 Record of Decision (ROD), FRA selected an alternative (Selected Alternative) and approved the proposed project subject to mitigation measures developed during the environmental review process.³

As explained in more detail below, the Board's Office of Environmental Analysis (OEA) concludes that FRA's EIS documents adequately assess the environmental impacts of the proposed action and meet the Board's responsibilities under NEPA. Accordingly, in any decision granting DesertXpress Enterprises, LLC and its wholly-owned subsidiary DesertXpress HSR Corporation (collectively, DXE or Applicant) the authority to construct and operate the proposed DesertXpress rail line, OEA recommends that the Board: (1) adopt FRA's NEPA

¹ 42 U.S.C. § 4321 *et. seq.*

² *See* 40 C.F.R. § 1501.6.

³ Steps to minimize the adverse environmental effects of the proposed project are described in Chapter 3 of the Final EIS, and the environmental mitigation measures are listed in Appendix A of the ROD. A copy of the ROD is attached to the petition for exemption.

analysis for purposes of complying with NEPA and the Board's environmental rules, and (2) approve construction and operation of the Selected Alternative, subject to the environmental mitigation measures set forth in the ROD.

DESCRIPTION OF THE PROPOSED PROJECT

On July 29, 2011, DXE filed a petition with the Board seeking an exemption under 49 U.S.C. § 10502 from the prior approval requirements of 49 U.S.C. § 10901 to construct and operate an approximately 190-mile high-speed passenger rail line (the Line) between Victorville, California and Las Vegas, Nevada.

The Line would be constructed as dedicated double track (1 northbound track and 1 southbound track) that would run primarily within the median of or immediately adjacent to the I-15 freeway corridor,⁴ adding transportation capacity to the corridor. In addition, the Line would require the construction of passenger stations in Victorville and Las Vegas; maintenance facilities at each end of the alignment; ancillary facilities; utility corridors; 3 electrical substations; and 17 autotransformers.⁵

The purpose of DXE's proposed project is to provide an alternative to automobile or air travel between Southern California and Las Vegas. Initially, 10-car trains would provide non-stop passenger service on a fully grade-separated line, and there would be no at-grade vehicle or pedestrian crossings. The Line would use standard gauge fully electric high-speed trains (high-speed steel wheel on steel rail electric multiple unit or "EMU" trains), which would have a maximum speed of 150 miles per hour.

THE BOARD'S ROLE UNDER NEPA

Under NEPA, the Board must consider the potential environmental impacts of its actions before deciding whether to authorize the construction and operation of a new rail line. The Board's regulations for implementing NEPA at 49 C.F.R. § 1105 are consistent with the President's Council on Environmental Quality (CEQ) regulations at 40 C.F.R. §§ 1500 – 1508. CEQ strongly encourages agencies to reduce delay, paperwork, and duplication of efforts. One of the methods identified by CEQ to accomplish these goals is to encourage interagency cooperation early in the environmental review process—before an EIS is prepared. In such instances, agencies with special expertise or licensing authority work together under the lead of one federal agency, and the EIS that results gives all agencies with licensing responsibilities over a project the environmental information they need to perform their regulatory responsibilities.

For the proposed DesertXpress project, FRA served as the lead federal agency⁶ responsible for NEPA compliance and the Board, through OEA, actively participated in the environmental

⁴ I-15 is the only freeway between Las Vegas, Nev. and Los Angeles, Cal.

⁵ A series of autotransformers (electrical transformers) and electrical substations would be needed to ensure consistent propulsive power along the rail route.

⁶ FRA was the lead agency in the environmental review of the proposed project because it has jurisdiction and expertise related to high-speed train operation and safety and because

review process as a cooperating agency.⁷ In its role as a cooperating agency, the Board provided its expertise in rail transportation and independently assessed the environmental impacts of the proposed DesertXpress project. The other cooperating agencies were the Federal Highway Administration (FHWA), Bureau of Land Management (BLM), and National Park Service (NPS).⁸ FRA also consulted with the Fish and Wildlife Service, the Army Corps of Engineers, the Federal Aviation Administration, the California and Nevada Departments of Transportation, and interested tribes. Table 1 of FRA's ROD summarizes the specific roles of the above agencies, including their required federal permits and/or approvals.⁹

Throughout the environmental review process, OEA reviewed and provided feedback on the data and environmental analyses in the drafts of the EIS documents and considered public and agency comments responding to issuance of the Draft EIS and Supplemental Draft EIS. In addition, OEA participated in public scoping meetings held in Las Vegas, Barstow, and Victorville in July 2006; public hearings held in April 2009, following publication of the Draft EIS; and meetings with interested tribes and staff from BLM's California field office.

ENVIRONMENTAL REVIEW PROCESS FOR THE PROPOSED RAIL LINE

FRA and the cooperating agencies prepared a Draft EIS, Supplemental Draft EIS, and Final EIS to identify and evaluate any potential environmental impacts that the Line could have in the following areas: land use and community impacts, including impacts to property owners and environmental justice communities; growth, including impacts to area jobs and economic development; farmlands and grazing lands; utilities and emergency services; traffic and transportation; visual resources; cultural, archaeological and paleontological resources; hydrology and water quality; geology and soils; safety issues, such as hazardous materials; air quality and global climate change; noise and vibration; energy; biological resources; and cumulative impacts. A brief overview of the EIS documents is included below.

The March 2009 Draft EIS presented the project purpose and need, the reasonable range of alternatives (for rail alignments, station sites, maintenance facilities, and train technology options), existing environmental setting, potential environmental effects, and possible mitigation measures to reduce adverse effects. The August 2010 SDEIS was prepared to assess several modifications to the project, including an additional station site option in Victorville, 2 new rail alignment options, modifications to the Victorville and Las Vegas maintenance facilities, and rail

Applicant planned to apply for a federal loan through FRA's Railroad Rehabilitation and Improvement Financing Program.

⁷ OEA became involved in the environmental review for the Project in July 2006, when FRA published its Notice of Intent to prepare the EIS. OEA participated pursuant to a Memorandum of Understanding between FRA, the Board, DXE and Circlepoint, Inc., FRA's independent third-party contractor. See 2011 Petition, Exhibit A, Page 14.

⁸ The Board has jurisdiction over the construction and operation of new rail lines; FHWA has authority over the use of and any modification of Interstate highway rights-of-way; BLM has approval authority over the use of public lands under their management; and NPS has authority of the management and use of the Mojave National Preserve.

⁹ See also 2011 Petition, Appendix C, Page 4.

alignment adjustments.¹⁰ The Supplemental Draft EIS also addressed public comments received following publication of the Draft EIS.¹¹

The Final EIS evaluated Preferred Alternative(s) identified by FRA and the cooperating agencies, after a thorough consideration of numerous alternatives for multiple aspects of the project, including different rail alignments, station site options, maintenance facility site options, and train technology options.¹²

ALTERNATIVES ANALYSIS

The EIS considered a reasonable range of alternatives (both within and outside of the I-15 corridor) for the proposed DesertXpress project, including a No Action Alternative.¹³ Under the No Action Alternative, the proposed rail line would not be constructed and individuals traveling between southern California and Las Vegas would continue to use the existing forms of transportation. While the No Action Alternative would have fewer initial environmental impacts, it would eventually result in more air pollution and overall fuel consumption because it would not provide an alternative to automobile travel on Interstate 15 (I-15) or air travel to and from Las Vegas. In addition, it would not meet the purpose and need of the proposed project.

Prior to the Draft EIS, several preliminary alternatives were considered but dismissed from further consideration following further evaluation based on environmental, technical, and financial criteria. These alternatives included rail alignments between Victorville and Barstow (dismissed because of potential impacts to environmental justice communities, sensitive biological resources, and historic architectural resources along Historic Route 66); Barstow to Primm (dismissed because of the longer length of this route and potential impacts to species in the Mojave National Preserve); between Mountain Pass and Primm (dismissed because of the existing steep grade of the area); and within urbanized Las Vegas (dismissed because of substantial displacements of residences).¹⁴ The Final EIS identified a Preferred Alternative, which is described in detail in Section 4.3 of the Final EIS. FRA then adopted that alternative as the “Selected Alternative” in its ROD.

As part of the alternatives analysis, two different train operating technologies were considered for the proposed DesertXpress project: diesel-electric multiple unit train (DEMU train technology) and electrical multiple unit train (EMU train technology). The Selected Alternative would utilize EMU locomotive technology, which would provide faster top and average train

¹⁰ A summary of these modifications is available at page ES-3 of the Supplemental Draft EIS.

¹¹ Copies of the Draft EIS, Supplemental Draft EIS, and Final EIS are available in the OEA library, and the EIS documents are available on FRA’s website at: <http://www.fra.dot.gov/rpd/freight/1703.shtml>.

¹² The extensive alternatives analyses may be found in Chapter 2 of the Draft EIS, Chapter 2 of the Supplemental Draft EIS, and Chapter 2 of the Final EIS.

¹³ See 40 C.F.R. § 1502.14(d).

¹⁴ Alternatives examined in the Draft EIS and Supplemental Draft EIS but not carried forward are summarized in Section 4.1 of the ROD.

speeds (reducing overall travel time) and would have the capacity to carry more passengers than the DEMU trains. EMU locomotive technology for the DesertXpress project would require several supporting features: overhead catenary wires and supports located along the length of the rail alignment; 3 electrical substations; 3 electrical utility connection corridors between existing power sources and the electrical substations; and 17 autotransformers spaced approximately every 10 miles along the rail alignment.

The Selected Alternative would run primarily within the median of the I-15 freeway corridor, with the exception of certain areas where there may be future plans to expand or improve the I-15 freeway. The Line would begin at a passenger station in Victorville¹⁵ and terminate at a passenger station in Las Vegas. Both passenger stations would provide parking and passenger drop off facilities, ticketing facilities, train boarding platforms, and waiting areas for train passengers. Maintenance facilities would be located at each end of the alignment, and three electrical substations (1 at each end of the rail alignment and 1 near the midpoint in Baker, California.) would connect to existing electricity systems and would transmit and distribute power to the rail alignment. A map of the Line is attached to this document for reference purposes.

OEA supports the alternatives analysis conducted by FRA and the Selected Alternative in the ROD.¹⁶ As FRA explained in the ROD, the Selected Alternative is the alternative that best satisfies the purpose and need for the proposed action and minimizes impacts to the natural and human environment by utilizing an existing transportation corridor where practicable.

ENVIRONMENTAL IMPACTS

During the environmental review process, commenters raised concerns primarily about the following issues: impacts to species, such as the desert tortoise; noise impacts on sensitive receptors in the Barstow, Yermo, and Las Vegas metropolitan areas; impacts to cultural, archaeological, and paleontological resources; visual impacts; and potential impacts related to

¹⁵ Victorville was chosen as the logical terminus for the rail alignment due to the collector effect of the major highway systems for southern California, which converge in Victorville.

¹⁶ A detailed description of the Selected Alternative is provided in Section 4.3 of the ROD.

hazardous materials.¹⁷ FRA and the cooperating agencies considered all comments and addressed concerns in the Draft EIS, Supplemental Draft EIS, and/or Final EIS.¹⁸

Overall, FRA determined that the project would result in adverse impacts to sensitive biological resources; cultural and paleontological resources; hydrological resources; visual resources; localized traffic near the proposed passenger stations in Victorville and Las Vegas; land use, including business displacement; communities located in the project area; noise levels; utility infrastructure and emergency services; air quality (as a result of pollutant emissions during construction); and existing grazing land allotments. Several of these impacts would affect communities in the project area. As a result, FRA has imposed 146 mitigation measures in its ROD designed to minimize these potential adverse effects.

The Selected Alternative also demonstrates several beneficial effects to the environment, including diverting automobile traffic from the I-15 freeway, which would improve safety and traffic conditions on I-15; providing economic growth during project construction; and reducing automobile-related air emissions and fuel consumption during operation.

Mitigation

As noted above, FRA in its ROD imposed 146 measures intended to eliminate, minimize, or mitigated adverse potential environmental impacts.¹⁹ Mitigation included extensive measures to protect the threatened desert tortoise, such as the installation of fencing to keep tortoises out of active construction areas and the installation of culverts to allow tortoises to pass through areas once construction is completed. Mitigation was also included to avoid or minimize impacts to sensitive species such as banded gila monsters, Mojave fringe-toed lizards, big horned sheep, American badgers, and several protected bat and bird species. These mitigation measures included a mandatory training program for all construction workers, appropriate pre-construction surveys particular to certain species and habitat areas, the use of appropriate construction fencing around sensitive resources to avoid damage, and confining construction equipment to designated work zones.

FRA's ROD also contained substantial noise mitigation. To mitigate adverse noise impacts to sensitive receptors such as residences, hotels, and motels located along the proposed rail alignment, DXE would be required to install 4-foot high noise barriers along the Line. Other

¹⁷ Construction activities associated with the proposed Line may require the demolition of structures that could potentially contain hazardous materials, such as lead paint or asbestos. Adverse impacts could also occur if construction activities encounter contaminated soils and/or groundwater or other hazardous materials that must be removed, disposed of, and/or remediated. In addition, materials such as solvents, paints, compressed gases, and waste products would be needed for project operations, but FRA states in the ROD that all potential effects related to hazardous materials can be controlled successfully through the application of standard safety planning methods and practices identified in the mitigation measures. See Section 5.10 of the ROD.

¹⁸ A summary of comments and responses may be found in Chapter 4 of the Final EIS.

¹⁹ These environmental mitigation measures are listed in Appendix A of the ROD.

measures require DXE to locate special track work (known as “crossovers”) that are major sources of noise and vibration away from residential areas and to install building insulation where noise barriers are infeasible.

Because construction and operation of the Line would affect more than 200 cultural and paleontological resources, a Programmatic Agreement (PA) was signed by FRA, the cooperating agencies, the California and Nevada State Historic Preservation Officers, and DXE²⁰ pursuant to Section 106 of the National Historic Preservation Act.²¹ The PA sets out steps to avoid or minimize adverse effects to cultural and paleontological resources, as well as requirements for Tribal monitoring of construction activities to ensure protection of resources important to Native American Tribes.

Visual impacts would result from the construction and operation of the proposed DesertXpress Line. These impacts would reduce the existing visual quality outside some urban areas and would be inconsistent with some of FHWA’s visual quality/sensitivity guidelines. To address the project’s visual impacts, FRA imposed mitigation designed to minimize adverse visual impacts. This mitigation would require that design-build plans include treatments to ensure that rail, station, and maintenance facility features would be minimally disruptive to the surrounding environment. Contour grading would also be required to reduce the visual appearance of cut and fill slopes associated with the Line, and light/glare reduction strategies would be required to reduce adverse impacts to visual resources.

Should DXE’s petition be authorized by the Board, OEA recommends that the Board approve construction and operation of the Selected Alternative, subject to the environmental mitigation measures in FRA’s ROD.

RECOMMENDATIONS AND CONCLUSION

NEPA requires federal agencies to examine the potential environmental effects of their proposed actions and to provide the public with the opportunity to participate in the environmental review process. While NEPA requires the agency decision makers to consider the environmental effects of their decisions, it does not mandate a particular result. Once the agency has taken the requisite “hard look” at the environmental effects of a proposed action, it may conclude that other benefits outweigh the environmental cost.

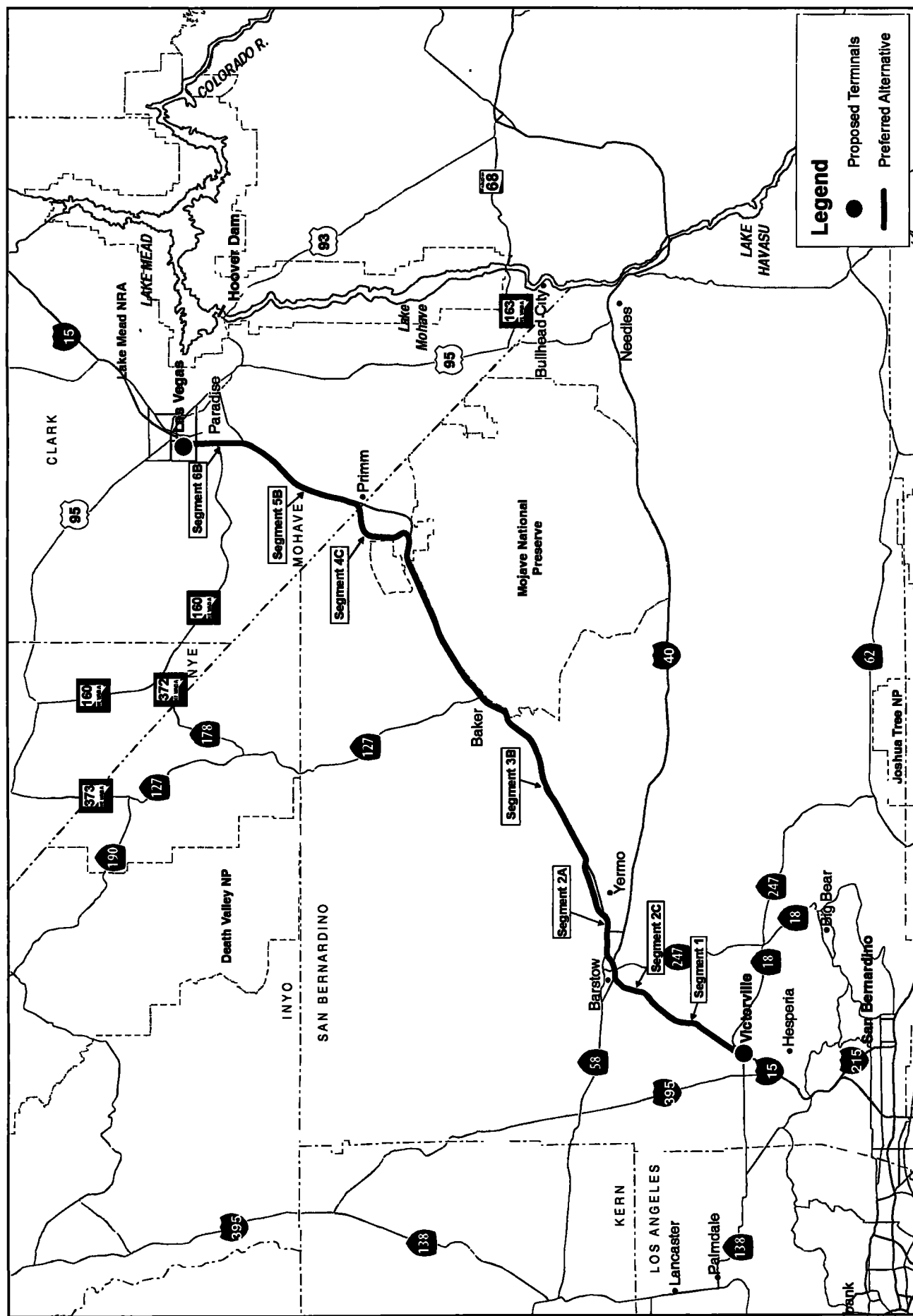
OEA is satisfied that the FRA and the cooperating agencies took the requisite “hard look” at the potential environmental impacts of the proposed action, and based on all available information, OEA concludes that the EIS documents adequately assess the environmental impacts of the proposed DesertXpress rail project. OEA has worked closely with FRA to assess the environmental impacts of the Line and recommends that the Board adopt the findings in FRA’s environmental documents, which would satisfy the Board’s responsibilities under NEPA. OEA also concurs with the mitigation imposed in FRA’s ROD and has determined that no further mitigation is necessary. Accordingly, in any decision granting DXE the authority to construct

²⁰ The Las Vegas Paiute Tribe signed the PA as a concurring party.

²¹ 16 U.S.C. § 470f.

and operate the proposed DesertXpress rail line, OEA recommends that the Board: (1) adopt FRA's NEPA analysis for purposes of complying with NEPA and the Board's environmental rules and (2) approve construction and operation of the Selected Alternative, subject to the environmental mitigation measures set forth in the ROD.

Attachment (Project Map)



Legend

Proposed Terminals

Preferred Alternative