

BEFORE THE
SURFACE TRANSPORTATION BOARD

FINANCE DOCKET NO. 33407

DAKOTA, MINNESOTA & EASTERN RAILROAD CORPORATION
CONSTRUCTION INTO THE POWDER RIVER BASIN



COMMENTS OF
OLMSTED COUNTY, MINNESOTA
ON THE
DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

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Pursuant to the schedule adopted by the Surface Transportation Board ("STB") or ("Board"), Olmsted County, Minnesota ("Olmsted County") submits its comments on the April 15, 2005 Draft Supplemental Environmental Impact Statement ("DSEIS"). Olmsted County's comments address the remanded horn noise issue.

PRELIMINARY COMMENTS

The Section of Environmental Analysis (SEA) of the Surface Transportation Board (STB) has released its Draft Supplemental Environmental Impact Statement (DSEIS) addressing four issues for which the 8th Circuit Court of Appeals required further review. Olmsted County finds shortcomings with regard to the arguments that the DSEIS presents against mitigation or prevention of horn noise and errors of omission with regard to significantly changed circumstances that should affect its analysis, but which do not. These changed circumstances include the issuance of final rules for quiet zones by the Federal Railroad Administration (FRA); the acquisition by the DME of an alternative route for hauling coal; and the release of all of the 2000 Census data. Finally, because the SEA's analysis fails to recognize that unmitigated horn noise will have a disproportionate impact on sensitive populations and on populations who (because of attributes associated with being of low income) are economically vulnerable to damages related to horn noise, the memo also re-examines environmental justice issues. The provisions of Federal Statutes on Environmental Impact Statements clearly require that

changes in circumstances be addressed in supplements to either draft or final environmental impact statements in circumstances where "...there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts." 40 CFR 1502.9(c) (1) (ii)

Background:

The 8th Circuit Court of Appeals ruled that the SEA should further explain its course of inquiry, analysis, and reasoning with regard to mitigation of the impacts of horn noise. In response, the SEA in the DSEIS reviews the Final Environmental Impact Statement (FEIS) conclusions with regard to horn noise, briefly reviews the court's directives, presents arguments why three potential types of horn noise mitigation either will not work or are inappropriate to order, and presents the unsubstantiated conclusion, based on two factors, that horn noise impacts will not be as severe as anticipated.

The FEIS acknowledges that sensitive receptors (including residences) within 2,230 feet of the railroad will be adversely affected by horn noise (at 65 dBA Ldn) and that sensitive receptors within 1,110 feet will be severely adversely impacted (at 70 dBA Ldn or more). The STB (condition 90) ordered the DME to "consult with interested communities ... to identify measures, consistent with FRA standards, to eliminate the need to sound train horns." (According to the SEA, the STB's 89th condition also requires the DME to comply with FRA limits on horn noise. Presumably, this means that the DME cannot install horns that emit sounds louder than 110 dBA measured at a point 100 feet in front of the locomotive.)

The only mention of mitigating, as opposed to preventing, horn noise in the FEIS occurs in a footnote explaining that "SEA is not recommending mitigation for horn noise because of potential safety concerns in the absence of ...FRA standards addressing this issue." The Court found this analysis "relatively perfunctory," adding (in a passage not quoted in the DSEIS) that "... it is hard to imagine how insulating a building might pose a safety threat ..."

DSEIS GENERAL ARGUMENTS:

The DSEIS discusses mitigation of horn noise by insulating buildings housing sensitive receptors and by constructing sound walls, and again discusses quiet zones. The DSEIS presents several arguments that apply to any type of mitigation or prevention of horn noise, including

1. the STB has never ordered the type of mitigation being considered for horn noise before¹;
2. providing a better mitigation package to non-agreement communities than received by those who entered into agreements undermines the negotiation process on which the STB relies;
3. many receptors will already receive mitigation for wayside noise;
4. other interchange options would direct traffic elsewhere, so that anticipated noise levels would not be reached²; and
5. the two grade separations ordered in Rochester will reduce horn noise impacts anyway.

All of these arguments are generally applicable to all types of noise mitigation. Olmsted County's responses are listed below:

1. The first argument is responded to by an analysis presented for each of the mitigation strategies demonstrating that the detriment avoided by mitigation significantly exceeds the cost of mitigation. The STB may never have ordered such mitigation before, but the facts of this case indicate that here, such mitigation is warranted. In addition, an examination of STB actions suggests that the majority of matters before it have involved abandonments or mergers. In the former cases there certainly are no noise issues and in the case of mergers, where there may be increased traffic and noise, they have involved major rail corridors where the impact of noise has long ago been evident. Here the change in both usage and traffic introduces entirely new issues. The STB has a duty

¹ DSEIS page 2-10; this is also the source for arguments 2, 3, and 5.

to consider the specific facts at hand and order appropriate mitigation responding to those facts.

2. The second argument presumes that the agreements reached with other communities sets an upper bound on mitigation. This is not the case. The agreements set a lower bound on mitigation for those communities. Nothing in the agreements can be considered to have negotiated away the STB's responsibility to set appropriate mitigation requirements. A review of the "Community Partnership Agreements" available to Olmsted County indicates that they never were intended to limit the options of the communities involved. They specifically allow withdrawal if regulatory conditions more advantageous than provided in the agreement are available. In reality this suggests that the STB has been derelict in not evaluating the agreements and assuring that they in fact provide protection to the communities consistent with their needs. Certainly limiting mitigation in this DSEIS based on those agreements may be setting an artificially low standard since there is no discussion of their contents in the EIS or in this draft.
3. The third argument is not germane to the 1,122 Rochester and Chester structures that are within 1,110 feet but beyond 210 feet of the railroad. Because they are outside the area of impact at the 70 dBA Ldn level of wayside noise³, they will not receive mitigation unless mitigation is ordered for horn noise. However, addressing noise mitigation for structures within 210 feet should reduce the extra cost of mitigating horn noise. If mitigation of both wayside noise and horn noise is carried out for the 90 residential

² DSEIS page 2-11.

³ Table F-6, in the DEIS at page F-16 of Appendix F, Volume VII-A, identifies the noise contour for wayside noise as 210 feet. According to Table 3.3-14, page 3.3-66 of the DEIS, the 88 structures in Rochester and 2 in Chester with sensitive receptors who are affected by wayside noise are also affected by horn noise. It appears from applying the methodology explained in the DEIS (pages F-1 through F-14 of Appendix F, Volume VII-A) that all of these 90 structures are above 70 dBA Ldn as the result of wayside noise alone. Tables FA-6 and FA-7, on unnumbered pages following DEIS Volume VII-A page F-21, are consistent with this conclusion. As was noted in comments on

structures within 210 feet of the tracks (based on SEA's count; local parcel data indicates that there are 98 residential structures with 121 dwelling units within 210 feet of the tracks), this should reduce the DSEIS estimates of the cost of horn noise mitigation slightly.

4. The fourth argument amounts to a statement that mitigation, if ordered, might not ever be triggered, since if a requirement is tied to a specific level of train traffic, and that level is never reached, the mitigation will never need to occur. Ordering mitigation is always conditional. If the train traffic level is reached, mitigation should be imposed. The question is, what level of train traffic demands mitigation, and what types of mitigation should be ordered at that level? The DSEIS does not ask or answer this question.
5. The fifth argument is false. Because of the close spacing of crossings in Rochester, there are only three crossings for which a grade separation would result in a decline in the number of residences affected by horn noise. If East Circle Drive is provided with a grade separation, two residential structures (with three dwellings) will no longer be affected by horn noise exceeding 70 dBA Ldn. If 15th Avenue NE is provided with a grade separation, 245 structures would no longer experience 70 dBA Ldn from horn noise. And if 11th Avenue NW were replaced with a grade separation, 103 residential structures would no longer experience 70 dBA Ldn from horn noise. For all other crossings, elimination of one of the crossings would not reduce the number of affected residences because all affected residences are in close proximity to more than one crossing, so that introducing a grade separation would not reduce the period of time during which the horn is sounding. Because the SEA rejected the argument that multiple crossings in close proximity increase the impact of horn noise (insisting on applying the "single-pole" model of horn noise), reducing individual crossings in a close group of

the DEIS, because these 90 structures are also exposed to horn noise, this means that they actually will be subjected

crossings logically cannot reduce the noise level. The single pole model assumes that a continuous horn sounding over several minutes has the same impact to the affected residence as a single horn burst. If this were not the case, noise impacts of continuous or consecutive horn bursts would be additive, decibel levels would be higher, and closely spaced crossings would have a longer impact distance than more widely spaced crossings. According to the SEA, they do not. All crossings, whether closely or widely spaced, have a 1,110 foot impact distance for 70 dBA Ldn⁴.

Of the three crossings for which the spacing of crossings is such that grade separation would reduce impacts on sensitive receptors, only two are potential candidates for grade separation. East Circle Drive is a high speed facility with relatively high traffic volumes for which grade separation would have significant safety advantages. Introducing a grade separation at East Circle Drive would have a minor impact on the number of sensitive receptors. Since East Circle Drive is not one of the facilities for which emergency access concerns were raised, it is unlikely that East Circle Drive will be grade-separated as a STB ordered mitigation measure. However, a grade separation at 11th Avenue NW would directly benefit emergency vehicle access to medical facilities, which is the basis for the STB's decision to order grade separations. The number of sensitive receptors would thereby be reduced by under 10%.

Broadway is the most likely grade separation location, due both to its emergency vehicle access role and to its high hazard ranking among railroad crossings in the state if DME rail traffic increases. Unfortunately in terms of horn noise, Broadway is in the middle of a dense cluster of crossings. Constructing a grade separated crossing at Broadway will

to noise levels in the 80 to 85 dBA Ldn range.

not reduce horn noise or the number of sensitive receptors because westbound trains will sound horns for 1st or 4th Avenues NW immediately upon clearing West Silver Lake Drive NE and eastbound trains will sound horns for West Silver Lake Drive NE immediately upon clearing 4th or 1st Avenues NW.

CONCERNS SPECIFIC TO MITIGATION STRATEGIES:

The DSEIS presents less general arguments related to sound insulation, sound walls, and whistle-free crossings.

Sound Insulation:

The DSEIS acknowledges that sound insulation for affected structures (including replacing windows, adding insulation, and providing air conditioning) would be effective in mitigating horn noise. (It would be difficult for the SEA to argue otherwise, since the STB has ordered sound insulation to mitigate noise for structures affected by wayside noise.) The arguments against ordering the DME to provide for sound insulation at the site of the receptors impacted by horn noise alone are

1. it would cost from \$1,000 to \$4,000 per structure (as estimated for wayside noise mitigation in the FEIS), yielding a total cost of from \$4.3 million to \$17.4 million for the communities that did not enter into agreements with the DME⁵;
2. if the same mitigation were provided to communities that have entered into agreements, the additional cost would be another \$8.5 million to \$34.1 million⁶;

The second argument is beyond the scope of this analysis, since it extends beyond Olmsted County. Two communities within Olmsted County, Chester and Rochester, are considered not to have agreements. The remainder of the unincorporated area outside the Chester area should also be included.

⁴ See DEIS Volume VII-A page F-16, Table F-6, where at 37 trains per day the contour with horn noise is reported to be 1,120 feet, and Tables FA-6 and FA-7, where at 37 trains the contour with horn noise is reported to be 1,112 feet. There is no adjustment for spacing of crossings in either set of tables..

⁵ DSEIS page 2-11.

⁶ DSEIS page 2-12.

The first argument involves both economic and environmental justice considerations. As was pointed out in comments on the DEIS, the FEIS, and in court documents, studies of the impact of noise on property value show a decrease in value of 0.4% for each decibel of increased noise. Ambient noise levels for Rochester based on measurements near the Charlton Building (during construction of a nearby parking ramp and work on adjacent roads) were reported⁷ at an L50 level of 57 dBA during the day and 52 dBA in the evening. Noise levels in residential areas would likely be lower than these downtown levels. For all areas within the 70 dBA contour level, in the area between 210 feet and 1,110 feet from the railroad noise will increase by a minimum of 18 dBA Ldn at 37 trains per day. This will result in a minimum 7.2% decrease in property values for residential structures, with a potential loss up to 10% or more. At 7.2% lost value, for any parcel including a sensitive receptor structure with a property value (including lot value) of \$55,556, an investment of \$4,000 per structure would break even. At 10%, the equivalent value would be \$40,000. That is, at those levels, the investment in mitigation would cover, but not exceed, the prevented loss of value. Assessor's records indicate that, using 2000 building and land values, 84% of residential structures in Rochester affected by horn noise were on parcels whose values exceed \$55,556. This means that for those structures, the cost of mitigation would be well under the loss of value that would occur were mitigation not required. The corresponding figure for mitigation costing \$1,000 per structure is \$13,889. All of the residential structures in Olmsted County potentially affected by horn noise are on parcels for which the sum of building and land value exceeds \$13,889 in value.

The DEIS estimated the number of sensitive receptors within 1,110 feet of the line in Rochester and Chester at 1,212 (48 in Chester and 1,164 in Rochester; these must be structures, rather than dwellings). According to the FEIS, 90 of these will already receive noise insulation at 37 trains per day. At \$4,000 per structure, the total cost of mitigating horn noise for

⁷ FEIS Volume IV-D, Appendix M, page M-56.

the remaining 1,122 residential structures in Rochester and Chester would be \$4.5 million. That investment would save a conservatively estimated \$8.2 million to \$11.4 million (estimated from average values for residential buildings and land in Rochester alone) in avoidance of lost property value based on impacts of noise (and not counting impacts on property value arising from ineligibility for HUD mortgage assistance and loans).

Our count of structures and dwellings does not match the figures provided in the DEIS or any of its subsequent editions. Within Rochester alone, we count 98 residential structures within 210 feet of the line (exposed to 70 dBA Ldn or more of wayside noise) and 1,131 additional residential structures, with 2,570 dwellings, between 210 feet and 1,110 feet of the line. The table below summarizes the attributes of those structures; values for Chester should be added to these figures.

<u>Structures and Attributes Between 210 and 1,110 Feet</u>	
residential structures	1,131
commercial structures	204
other structures	34
all structures	1,374
dwelling units	2,580
value of residential land	\$20,363,300
value of residential buildings	\$85,750,600
total residential value	\$106,113,900
maximum cost to insulate	\$4,544,000
loss of value from no mitigation	\$7,640,200

The SEA disputes our concerns about the impact of noise on property values. In response to our comments about these concerns, the SEA asserts that

Since residential property values are based on a number of determinants, it is difficult to pinpoint a specific attribute as the greatest influence. Important considerations may include

the season of the year, economic trends in the area, how closely supply and demand for residences are matched, a property's proximity to amenities and favorable and unfavorable features, including rail lines, and the social desirability of a location. As discussed in detail in Chapter 3 of the Final EIS, all of these factors combine to determine the desirability of a particular piece of real estate. SEA's additional investigation did not change the conclusions presented in the Draft EIS. While some decline in residential property values may occur as the result of increased train traffic, SEA does not anticipate the decline would be significant.⁸

SEA's response indicates that the issue is sufficiently complex to warrant more analysis than that provided in the DEIS, which was based on the sale of seven houses in Brookings, South Dakota. Yet, without explanation, SEA concludes in the FEIS both that influences on property are too complex for useful analysis, and that its original conclusion (based on its sample of seven) is still sound. An extensive body of research on noise and property values, using statistical models to separate out the impacts of seasonality, local economic factors, and so on, shows a significant relationship between noise and property values. This body of research is in fact relied on by other agencies within the United States Department of Transportation (USDOT, SEA's parent organization) in their environmental justice analyses. Our comments on the DEIS cited this research in asserting that property value impacts would be severe.

By its conclusion that \$4,000 per structure in mitigation costs is too expensive for the value it preserves, the SEA raises this issue again. In the FEIS⁹, the SEA asserts that mitigation costs in the range of 10% to 20% are "not unusual" for large capital projects. The costs of mitigation for horn noise leave total mitigation costs well within this range.

The issue is discussed further in the section below on environmental justice.

Sound Walls:

Since the locomotive horn is 15 feet above the rails, which are normally elevated from the adjacent ground level, sound walls would need to be twenty feet tall (including berms) to

⁸ FEIS Volume II Chapter 9 page 9-19.

block horn noise¹⁰. The DSEIS presents eight arguments against sound walls, which are paraphrased below with our responses:

1. *They would be too expensive in Rochester and the other “no-agreement” communities, with a total cost of over \$10.6 million*¹¹. This is a purely economic argument. Estimating from the share that Rochester makes up of the insulation costs (at \$4,000 per household, it appears to be 39% using SEA figures), the Rochester sound wall cost is slightly over \$4 million. As with sound insulation, the savings in lost property value alone justify the expense.
2. *The effectiveness of sound walls in communities like Rochester is uncertain due to numerous road crossings that would create openings which would allow sound to escape*¹². The SEA presents insufficient evidence to evaluate its conclusion that crossings will make sound walls ineffective. With one exception (the spacing between 1st Avenue NW and Broadway, which will no longer apply once the Broadway grade separation is constructed), the closest spacing of at-grade crossings is two blocks, while Charter House is less than a block long. Yet the SEA asserts that Charter House will effectively shield adjacent structures such as Methodist Hospital from noise impacts¹³. The contradiction is difficult to resolve. The SEA wishes to acknowledge the effectiveness of structures like Barlow Plaza, Charter House, and others as noise barriers, despite their limited length and despite the fact that none of them extends across roads with at-grade crossings. It would therefore seem logical that sound walls, the shortest of which would be twice as long as Charter House, would be even more effective because (with continuous horn sounding through most of Rochester) longer

⁹ FEIS page 12-24.

¹⁰ DSEIS page 2-12, footnote 21.

¹¹ DSEIS page 2-12.

¹² DSEIS page 2-13; also applies to arguments 3, 4, 5, 6, and 8.

sound walls would obstruct sound at more points at which horns would be sounded.

Sound walls along the line between 11th Avenue NE and 15th Avenue NE, for example, would be more than four times as long as the footprint of Charter House, with no at-grade crossings.

Even if frequent crossings render sound walls ineffective, this concern does not apply to Chester, where only one crossing generates horn noise impacts affecting a residential neighborhood.

3. *Backyard sound walls “would create a significant, permanent visual component in these areas.”* This assertion is indisputable. However, the “permanent visual component” would not create a permanent impediment to HUD financing programs, which is not the case with noise impacts exceeding 65 dBA Ldn. The economic impact of noise on property values and livability, which results in exclusion from HUD eligibility, is concrete and significant, while the “permanent visual component” is a nebulous concern, to say the least. It is perhaps due to this sort of reasoning that the STB’s parent organization, the USDOT, requires sound walls when highway construction results in highway noise exceeding 65 dBA Ldn. There appears to be a consensus among most federal agencies that noise above 65 dBA Ldn is more detrimental to those affected by it than a “permanent visual component.” SEA’s analysis should reflect that consensus.

Even if the “visual component” concern were valid, it would not apply to Chester, where sound walls would not be in the backyard of residences and where they would help to visually screen the residential neighborhood from industrial and commercial development along the railroad line.

¹³ FEIS Volume II Chapter 9, page 9-46.

4. *"Maintenance and potential vandalism (particularly graffiti) would create ongoing concerns and cost issues for DM&E, the community, and adjacent residents."* The "maintenance and potential vandalism" that SEA is concerned about are concerns that USDOT should be thoroughly familiar with, considering that sound walls have been built along major highways throughout the US, including along US 52 in Rochester. At most, they are factors related to an ongoing cost that should be reflected in an economic analysis comparing the full cost of mitigation with the full cost of failing to mitigate. Given the success of graffiti-proof materials in reducing maintenance costs of sound walls, SEA's concern appears to be unjustified. The decision by USDOT to require sound walls is an indication that for highway projects, the full costs of failing to mitigate exceed the full costs of mitigation.
5. *Sound walls could create safety hazards, especially where they are constructed on both sides of the rail line. "Pedestrians or pets caught between openings for road crossings would have no means to escape from the right of way during train passings."* SEA's concern about safety hazards is difficult to evaluate in the absence of any proposed design information. In the absence of that information, it amounts to an assertion that no conceivable design of sound walls could safely accommodate trespassing pedestrians and pets during train passings. The DME right of way clearly is wide enough to accommodate sound walls, the tracks, and a safe space in between. SEA's conclusion is evidence that their analysis of sound walls did not extend to a review of safe design alternatives. That is an unacceptable shortcoming in their analysis.

In addition, since the SEA's safety concern apparently applies only to situations with sound walls adjacent to both sides of the track, it should not apply to locations along Oakwood Cemetery, the Eastside Park area, or Chester, all of which appear to need sound walls only along one side of the track.

6. *Portions of the bike path would have to be relocated.* The concern that sound walls would potentially result in the need to relocate portions of the bike path is probably justified, but certainly inconsequential. Alternative routes for the bike path would be found.
7. *Sound walls do not warrant consideration in Chester due to “the minimal length of residential development along the existing line through the community.”¹⁴* The SEA’s dismissal of the suitability of sound walls for Chester occurs in a two-line footnote. Chester’s minimal length of residential development should indicate that only a short, inexpensive sound wall would be needed. If SEA means to state that, due to the small number of residences in Chester, the cost of a sound wall would be too high per receptor, then there must be some threshold of cost that SEA is applying. It would be helpful to know what that threshold is and how SEA has determined it.
8. *Sound walls would create visual barriers obstructing drivers’ views of trains and engineers’ views of traffic, leaving insufficient time for vehicles or trains to slow or stop to avoid collisions.* According to the FRA, freight trains traveling 45 to 49 miles per hour require between 1 and 1.5 miles to stop. Stopping distances increase with speed and the weight of trains, so hundred-car trains of coal cars might take even longer distances to stop. There are areas along the line through Olmsted County in which sight distance is less than a mile, even without sound walls.

As with SEA’s concern about pedestrian safety hazards, SEA’s concern about sight distance at crossings amounts to an assertion that no conceivable sound wall design could provide reasonable noise protection and adequate driver sight distance.

¹⁴ DSEIS page 2-12, footnote 22.

SEA's conclusion is evidence that their analysis of sound walls did not extend to a review of design alternatives with regard to sight distance. That is another unacceptable shortcoming in their analysis.

CHANGES IN CIRCUMSTANCE OMITTED IN THE DSEIS

Three significant changes have occurred since completion of the DEIS that should be reflected in the DSEIS. They include the issuance of the FRA's final rule on quiet zones, the acquisition by the DM&E of the IC&E route through Iowa, and the complete release of 2000 Census data. These changes in circumstance are addressed below.

Quiet Zones:

The DSEIS reasserts SEA's contention in the FEIS with regard to quiet zones, stating:

Because FRA approval is required for any elimination of locomotive horn noise soundings under the Interim Rule, SEA continues to believe that any attempt by the Board to ... establish quiet zones would be inappropriate. ...It would not be appropriate for the Board to impose any measures adopting its own standards for when locomotive horn soundings should take place.¹⁵

On April 25, 2005, the Federal Railroad Administration published its Final Rule on the use of locomotive horns at public highway-rail grade crossings. Thus any argument that the SDEIS does not have to consider quiet zones because there are no standards is eliminated. 40 CFR 1502 clearly requires that the agency consider alternatives that are not within its jurisdiction. Nor does the argument that the STB has never imposed this type mitigation have merit, since this would be the first opportunity the STB has to act within the parameters of the FRA regulations concerning quiet zones. Certainly the STB must at least evaluate the alternative of quiet zones in this DSEIS. The STB also needs to consider the "Community Partnership Agreements" in looking at "Quiet Zones." While not all of them were reviewed, the standard agreement appears to include the provisions of the FRA interim rules with

¹⁵ DSEIS page 2-9.

implementation dependent on traffic. This clearly supports the position that this alternative should be considered in this DSEIS. If the STB does otherwise it creates a situation where a governmental body is deprived of a remedy for not being willing to sign an agreement that it does not find to be in its best interest. While the STB makes a point to encourage such agreements, it cannot assume that the railroad will negotiate equally with all entities in a project as complex and involving as many locations as this one does. Again we note that there is no evidence in the EIS that the STB has evaluated the agreements to assure that they meet the needs of the various communities. The fact that they appear to use a form provided by the railroad and contain many of the same provisions suggests that they may not have been negotiated between parties with equal bargaining power.

The alternative of mitigation through quiet zones is clearly "reasonable and feasible." The Rule sets forth design parameters sufficient to identify costs associated with development of quiet zones. The at-grade crossings in Rochester and the unincorporated areas of Olmsted County would meet these parameters were they to be equipped with the proper gates, warning devices, and signs. The cost of these can be readily estimated. The STB could establish quiet zones as a potential mitigation measure without specifying their design, simply by requiring that once any sensitive receptor is exposed to a noise level exceeding what the STB determines is acceptable, the DME must pay for quiet zone expenses. The requirement would take effect if the City of Rochester (in the case of City streets), the Minnesota Department of Transportation (in the case of Broadway) or Olmsted County (in the case of East Circle Drive or other County roads within cities and in the case of unincorporated areas) determine that establishing a quiet zone would be preferable to other mitigation alternatives. Establishing quiet zones may be less expensive than insulation of sensitive receptors or construction of sound walls, so much so in fact that it may fit within the 20% cap on mitigation costs set by SEA (referred to above) to

provide quiet zones and to extend sound insulation mitigation for receptors those within the 65 dBA Ldn contour for wayside noise, in addition to those within the 70 dBA Ldn contour.

Considering that all of the 90 structures in Chester and Rochester who are subject to wayside noise at a level of 70 dBA Ldn are also subject to horn noise, establishing quiet zones appears to be an essential measure to provide meaningful mitigation. Horn noise at 100 feet from the tracks is reported as 85.2 dBA Ldn.¹⁶ At 210 feet, horn noise levels would be close to 80 dBA Ldn. The mitigation ordered by the STB for wayside noise establishes a design goal of 10 dBA noise reduction, which will be considered met if a minimum noise reduction of 5 dBA is achieved.¹⁷ Unless quiet zones or some other approaches are also required, this would leave the 90 structures in Olmsted County with noise levels in the 70 to 80 dBA range.¹⁸

Alternative Route:

Missing from the SEA's discussion of potential mitigation strategies is use of the southern IC&E route through Iowa to haul coal. That route is now available to the DME and may have advantages in terms of environmental impact and accessibility to eastern markets. The largest city along the IC&E line that is not already a significant center for rail traffic is Mason City, which at a 2000 population of 29,172 is about one third the size of Rochester in 2000. The IC&E route appears to incorporate a bypass around Mason City. This clearly is a substantial change in circumstances that requires a supplemental DEIS.

While the "rule of reason" limits the alternatives that the agency must consider, the availability of this trackage within the corporate family of the DM&E provides a viable alternative to other mitigation strategies that have been discussed. Certainly the choice of route by the DM&E is not part of the mandate of the STB. However, where (as here) the alternatives are

¹⁶ DEIS Volume VII-A Appendix F, Tables FA-6 and FA-7, unnumbered pages following page F-21.

¹⁷ FEIS page 12-42.

¹⁸ Some of the receptors receiving insulation for wayside noise are not subject to horn noise. In Byron, there are nine such receptors. They will receive mitigation reducing their noise levels to 60 to 65 dBA Ldn, while some of their

equal, the impact on the communities of the portion of the route beyond Owatonna is significant, the alternative route is readily available and appears to have no significant detrimental impact on the railroad, and the environmental impacts along the alternative may be substantially less, the Board must consider the alternative.

The SEA should not ignore such a significant change in the basic facts pertaining to the DM&E's circumstances. The only mention that is made of the southern route is its possible inclusion among the "... several interchange locations along DM&E's existing system [that] would allow interchange with other carriers¹⁹..." If the IC&E route is environmentally less detrimental, the STB should consider requiring its use for hauling coal. Given the large number of patient visitors in close proximity to the railroad line in Rochester, and the significant number of sensitive receptors and sensitive equipment close to the line, we consider this to be likely. The SEA should provide the necessary information for the STB to evaluate that option.

2000 Census Data:

The 1990 Census data on which the environmental justice analysis is based is now 15 years out of date (it is even more out of date for income data, which is based on 1989 income). During the intervening 15 years, Rochester grew from a population of 70,745 in 1990 to 85,806 by the time of the 2000 Census and nearly 95,000 according to the most recent estimates. Olmsted County grew from 106,470 to 124,277 in 2000 and nearly 134,000 by the most recent estimates. Accompanying this rapid growth has been a dramatic growth in minority and refugee population and in the population of students eligible for free and reduced price lunch. The proportion of students eligible for free or reduced price lunch in Olmsted County schools

neighbors within horn noise impact areas, but outside the wayside noise impact contour, will have noise levels in the 75 to 80 dBA Ldn range and will receive no mitigation under the SEA's approach. This is clearly an absurd result.

¹⁹ DSEIS page 2-11.

increased from 15% to 22% between 1990 and 2000. The minority population in 2000, in both Rochester and Olmsted County, was 2.6 times the 1990 minority population.

These are dramatically changed circumstances which should be reflected in the Environmental Justice analysis and which would affect comparisons of the area of impact along the railroad tracks to the balance of the population of Olmsted County.

ENVIRONMENTAL JUSTICE:

The SEA modified its environmental justice methodology between the DEIS and the FEIS. Because the SEA's modification of its environmental justice analysis methodology continued to rely on 1990 Census data aggregated at the block group level, because SEA improperly dismissed Olmsted County's concerns about noise impacts on property values, and because SEA's interpretation of the guidance it received from the USEPA results in ignoring low income populations located in relatively affluent counties, the STB did not and still does not have an adequate basis for drawing conclusions about the presence or absence of environmental justice concerns. The SEA's economic arguments against mitigation of affected properties revive the issue of the disproportionate impact that unmitigated horn noise would have on the most vulnerable populations in Olmsted County. Research²⁰ conducted by Dr. Catherine Montalto of Ohio State University, based on the Federal Reserve's Board's 2001 Survey of Consumer Finance, found that while for all homeowners, the primary residence represents 42% of net wealth, for lower income homeowners, the primary residence represents 80% of net wealth. Failure to mitigate the impacts of increased noise on property value would therefore result in a reduction of assets nearly twice as severe for low income homeowners as

²⁰ Citation not yet available. Quoted in <http://www.consumerfed.org/americasaveshomeownership121603.pdf>, last accessed May 23, 2005.

for the average homeowner. Since their assets are lower to begin with²¹, depletion of those assets has an even more severe impact.

The SEA has insisted on, and the STB and the Court have so far acquiesced to, the adequacy of several major shortcomings in their environmental justice analysis. These include

1. reliance on block group data for identifying minority populations
2. reliance on block group data for identifying low income populations
3. reliance on 1990 Census data
4. comparisons of the population of block groups along the line to statewide averages as a means of identifying a disparity in impact.

These shortcomings are discussed below.

1. Because the SEA uses block group data to analyze the prevalence of low income populations, it insists that it must also use block group data to analyze the prevalence of minority populations²². This would be valid if and only if inclusion in an environmental justice population required both minority status and low income status. This is clearly not the case, as the long history of discrimination against middle income minority neighborhoods in such government decisions as siting of hazardous waste facilities indicates. Since identification of an environmental justice population requires only identification as a minority neighborhood, there is no justification for using a geographic area so much larger than the conventional concept of neighborhood, and so much larger than the dimensions of impact resulting from the increased traffic on the railroad.

According to 2000 Census data, there are 78 blocks part or all of which are within 1,110 feet of the railroad between US 52 and the Federal Medical Center that have a 2000 population of at least 10 persons. While the average minority population

²¹ According to Monsalto based on the Federal Reserve Board Survey of Consumer Finances, median net wealth for the lowest quintile in 2001 was \$6,720, while the median for all households (including the lowest quintile) was \$86,100. Monsalto, Catherine P., "Households with Low Income: Wealth and Financial Behaviors," February 10, 2004.

(other than non-Hispanic-Latino White) for the County is 11%, the minority proportion in these 78 blocks is 21%. For 20 blocks with minority proportions over 22% (twice the community average), the average minority proportion is 45%, over four times the community average.

SEA has used an approach relying on local comparisons of minority concentration in many other environmental impact studies. They have conducted these analyses using block level data. Perhaps the most recent of these is the FEIS for the Bayport Loop, in Houston, Texas, which was released on May 2, 2003. In the environmental justice analysis of that proposal, the SEA relies on Census block level data to identify minority neighborhoods; they identified minority neighborhoods with reference to local, and not statewide data; and they included as environmental justice neighborhoods blocks that had a minority proportion 10% higher than the community average, rather than 50% higher than the average for the state of Texas.²³ The burden of proof should be on SEA to justify a less precise approach for their analysis of the environmental justice implications of the DM&E proposal.

2. Environmental justice analyses are supposed to identify disproportionate impacts on neighborhoods. The geographic size of block groups, which in Olmsted County in 2000 are as large as 84.9 miles, bears no relationship either to neighborhoods or to the areas of impact of railroads or most other transportation facilities. If the relevant area of noise impact is 1,110 feet from the railroad, then the geographic unit of analysis should be as close to 1,110 as feasible. Blocks provide this level of precision; block groups do not.

Because the Census does not provide income data for units smaller than block groups, reliance on blocks would require using a reasonable surrogate for income data.

²² See, for example, DEIS Volume VII-A, Appendix D, page D-5.

²³ Bayport Loop DEIS, Appendix M.

Our previous comments have suggested several: tenure (blocks with higher proportions of renters tend to have higher proportions of low income persons); average rents (blocks with average rents of \$50 tend to have higher proportions of low income persons than blocks with average rents of \$800); average housing prices (the same logic applies); type of dwelling (apartments and manufactured homes have a higher proportion of lower income persons); and proportions of students eligible for free and reduced price lunch. In response to these suggestions, SEA has responded that applying these types of measures in Olmsted County would introduce an arbitrary element in their analysis, because the analysis would require comparing one type of data at one geographic level in Olmsted County with other data at other levels in other communities. We agree that the same sort of errors probably occurred throughout the study and that block level data should be used throughout the corridor. The alternative is to dilute the real impact of the railroad on low income populations by disguising them among larger aggregates of population incorporating a wider range of income and other attributes.

3. Continued reliance on 1990 Census data, for the reasons cited above, renders the environmental justice analysis in the DEIS and FEIS useless. Given the dramatic changes in the ethnic makeup of Olmsted County and Rochester in the years between 1990 and the present, reliance on 1990 Census data can only be intended to obscure rather than to illuminate any valid environmental justice concerns.
4. SEA modified its Environmental Justice analysis used in the DEIS to arrive at a more restrictive conclusion. Although its DEIS showed that ten block groups in Olmsted County had sufficiently concentrated minority or low income populations in 1990 to qualify as environmental justice neighborhoods, its revised analysis shows only nine block groups in Olmsted County, all in the City of Rochester, that qualify as environmental justice communities on the basis of income and/or on minority status.

None of the low income neighborhoods in Olmsted County's smaller cities and rural areas are considered to be environmental justice communities. This remarkable conclusion is the result of SEA's interpretation of EPA's advice on identifying environmental justice neighborhoods and its continued reliance on block group data as the only basis for identifying environmental justice concerns.

SEA's interpretation of EPA's advice is in fact at odds with the guidance given by SEA's parent agency, the USDOT. Were the SEA approach to be used consistently across USDOT, affluent communities with pockets of low income population, or white majority communities with small areas of minority population, could locate undesirable facilities in those areas with impunity, provided that the pockets of population were small enough that they did not make the block group they were located in exceed 50% more than the state average of low income or minority population. This is clearly at odds with the USDOT order on environmental justice (US Department of Transportation Order on Environmental Justice, February 3, 1997), which (for example) defines a low income population as "any readily identifiable group of low income persons who live in geographic proximity ..." and a minority population as "any readily identifiable group of minority persons who live in geographic proximity...".

The USDOT Order indicates that

Statutes governing DOT operations will be administered so as to identify and avoid discrimination and avoid disproportionately high and adverse effects on minority populations and low-income populations by:

- (1) identifying and evaluating environmental, public health, and interrelated social and economic effects of DOT programs, policies and activities,
- (2) proposing measures to avoid, minimize and/or mitigate disproportionately high and adverse environmental and public health effects and interrelated social and economic effects, and providing offsetting benefits and opportunities to enhance communities, neighborhoods, and individuals affected by DOT programs, policies and

activities, where permitted by law and consistent with the Executive Order,

(3) considering alternatives to proposed programs, policies, and activities, where such alternatives would result in avoiding and/or minimizing disproportionately high and adverse human health or environmental impacts, consistent with the Executive Order, and

(4) eliciting public involvement opportunities and considering the results thereof, including soliciting input from affected minority and low-income populations in considering alternatives.

SEA's approach in the FEIS fails to identify minority and low income populations affected by the DM&E proposal, and because it fails even to acknowledge their presence, fails to address the other elements in the USDOT Order. In addition, it is inconsistent with the approach used in other recently released environmental impact statements (notably the Bayport Loop analysis, referred to above), in which the SEA compared minority populations at the block level with the community average, rather than with a statewide average²⁴. At a minimum, the analysis should compare neighborhoods to the average of the corridor, rather than the whole state. In addition, the level of divergence from that average used to identify environmental justice neighborhoods should be 10%, as in the Bayport Loop analysis, rather than 50% as in the FEIS.

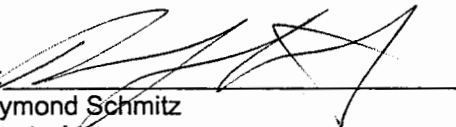
²⁴ See footnotes 9 and 10 on page 4-91 of the DEIS for the Bayport Loop.

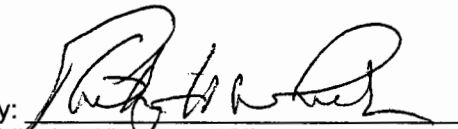
CONCLUSION:

For all of the reasons elaborated above, the SEA should substantially revise and augment its Draft Supplemental Environmental Impact Statement, providing for an additional adequate comment period, before proceeding to a Final Supplemental Environmental Impact Statement.

Respectfully submitted,

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