



SURFACE TRANSPORTATION BOARD
Washington, DC 20423

Office of Economics, Environmental Analysis and Administration

January 10, 2006

Re: STB Finance Docket No. 33407-- Dakota, Minnesota & Eastern Railroad Corporation
Construction into the Powder River Basin: **Final Supplemental Environmental Impact
Statement, Appendix A Replacement Pages**

Dear Reader:

On December 30, 2005, the Surface Transportation Board's Section of Environmental Analysis (SEA) issued the Final Supplemental Environmental Impact Statement (Final SEIS) for the Dakota, Minnesota & Eastern Railroad Corporation's (DM&E) Powder River Basin Expansion Project. The following Friday, January 6, 2006, the U.S. Environmental Protection Agency published a Notice of Availability of the Final SEIS in the Federal Register.

Shortly after issuing the Final SEIS, SEA discovered that brackets, which it had added to comments received on the Draft SEIS to assist readers in reviewing comment responses, were not visible on some of the copies of Appendix A: Comments on the Draft SEIS and SEA's Responses. In addition, the first page of SEA's response to one of the comments was inadvertently omitted when Appendix A was printed. In these circumstances, SEA has decided to issue as replacement pages the attached Appendix A.

If you have any questions, please feel free to call me at (202) 565-1545 or Steve Thornhill at (816) 822-3851. Again, thank you for your participation in the environmental review process.

Sincerely,

Victoria Rutson, Chief
Section of Environmental Analysis

Attachment

REPLACEMENT PAGES

APPENDIX A COMMENTS ON THE DRAFT SEIS AND SEA'S RESPONSES

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*Denotes first page of the comments submitted. SEA’s individual responses to each comment are included immediately following each individual comment.



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EI-991
WV

August 27, 2004

Victoria Rutson
Section of Environmental Analysis
Surface Transportation Board
1925 K St., N.W., Suite 500
Washington, DC 20423

RE: *Mid States Coalition for Progress et al. v. Surface Transportation Bd. et al.*
Supplemental EIS for DM&E Expansion Proposal

Dear Ms. Rutson:

Minnesotans for an Energy-Efficient Economy (ME3), an appellant in the above-referenced matter, has learned that the staff of the Surface Transportation Board's Section of Environmental Analysis (SEA) is prepared to begin the court-ordered Supplemental Environmental Impact Statement (SEIS) for the Dakota, Minnesota & Eastern Corporation (DM&E) Powder River Basin expansion proposal. ME3 respectfully requests the SEA to initiate a scoping process for the SEIS to identify the scope of issues that will be analyzed, as well as the methodologies and assumptions that the SEA plans to use in its analysis.

The Eighth Circuit Court of Appeals ordered SEA to examine the "effects that may occur as a result of the reasonably foreseeable increase in coal consumption" due to the DM&E project, a stated goal of which is to increase the availability and decrease the price of Powder River Basin coal. The environmental and human health impacts of increased coal consumption are many, ranging from greater emissions of carbon dioxide, mercury and particulate matter to power plant water use and hazardous waste disposal.

Though the impacts of increasing the nation's long-term demand for coal are numerous, the tools exist to analyze these impacts under multiple market scenarios. Through a scoping process, the SEA can work with interested parties to define the impacts that will be studied, the models that will be used, and the regulatory and market assumptions that will frame the analysis. An early and open scoping process should ultimately make preparation of the draft and final SEIS more efficient and thorough.

Your response to this request for a scoping process is appreciated.

Sincerely,

Elizabeth Goodpaster
Attorney for Minnesotans for an Energy-Efficient Economy

SEA's Response to Comment Letter From: Elizabeth Goodpaster

Representing: Minnesotans for an Energy-Efficient Economy

Dated: August 27, 2004

SEA Environmental Correspondence Tracking Number: EI-991

1. This comment was received prior to the release of the Draft SEIS. As discussed in more detail in the Draft SEIS, pages 1-10 to 1-11, scoping is not required for a supplemental EIS. Because the court's remand in this case was narrow, SEA determined that no scoping was necessary. SEA received no comments after the Draft SEIS was issued regarding its conclusion not to undertake scoping as part of the SEIS process and continues to believe that no scoping was required for this SEIS.
2. SEA has conducted an extensive analysis of the potential impacts to air emissions that could occur as a result of increased PRB coal usage that could result from the proposed project. SEA's analysis is discussed in detail in Chapter 4 of the Draft SEIS, with additional discussion in response to the comments SEA included in Chapter 4 of this Final SEIS.
3. Chapter 4 of both the Draft and Final SEIS discuss SEA's evaluation of the models available to evaluate the potential project-related impacts to air emissions and fully explain SEA's choice of model.





NATURAL RESOURCES DEFENSE COUNCIL

EI-992
✓

September 2, 2004

Victoria Rutson
Section of Environmental Analysis
Surface Transportation Board
1925 K St., N.W., Suite 500
Washington, DC 20423

RE: *Mid States Coalition for Progress et al. v. Surface Transportation Bd. et al. Supplemental EIS for DM&E Expansion Proposal*

Dear Ms. Rutson:

NRDC understands that the Surface Transportation Board's Section of Environmental Analysis (SEA) is about to begin the court-ordered Supplemental Environmental Impact Statement (SEIS) for the Dakota, Minnesota & Eastern Corporation (DM&E) Powder River Basin expansion proposal. NRDC requests the SEA first conduct a scoping process for the SEIS to identify the scope of issues that will be analyzed, as well as the methodologies and assumptions that the SEA plans to use in its analysis. | 1

As you may be aware, the Eighth Circuit Court of Appeals ordered SEA to examine the "effects that may occur as a result of the reasonably foreseeable increase in coal consumption" due to the DM&E project. In this SEIS process it is important to insure that the full range of such effects be addressed, including but not limited to the global warming impacts associated with the carbon dioxide. | 2

A scoping process will allow interested persons including NRDC to review the SEA's plans for the SEIS and present the SEA with its suggestions on the proper scope for the EIS. This approach will increase the likelihood that an adequate SEIS will be prepared. | 3

We look forward to hearing from you regarding this request.

Sincerely,


David G. Hawkins
Director,
NRDC Climate Center

SEA's Response to Comment Letter From: David G. Hawkins

Representing: Natural Resources Defense Council – Climate Center

Dated: September 2, 2004

SEA Environmental Correspondence Tracking Number: EI-992

1. This comment was received prior to the release of the Draft SEIS. As discussed in more detail in the Draft SEIS, pages 1-10 to 1-11, scoping is not required for a supplemental EIS. Because the court's remand in this case was narrow, SEA determined that no scoping was necessary. SEA received no comments after the Draft SEIS was issued regarding its conclusion not to undertake scoping as part of the SEIS process and continues to believe that no scoping was required for this SEIS.
2. SEA has conducted an extensive analysis of the potential impacts to air emissions that could occur as a result of increased PRB coal consumption and production that could result from the proposed project. SEA's analysis is discussed in detail in Chapter 4 of the Draft SEIS, with additional discussion in response to the comments SEA received included in Chapter 4 of this Final SEIS. Chapter 4 of both the Draft and Final SEIS presents SEA's evaluation of the models available to potentially evaluate the project-related impacts to air emissions and discusses comments related to carbon dioxide and global warming.
3. See response to comment Number 1 above.

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May 27, 2005

FR 05/348

Victoria Rutson, Chief
Section of Environmental Analysis
Case Control Unit
Finance Docket No. 33407
Surface Transportation Board
1925 K Street, NW
Washington, D.C. 20423-0001

Dear Ms. Rutson:

The Department of the Interior (Department) has reviewed the Draft Supplemental Environmental Impact Statement (DSEIS) for the Dakota, Minnesota, and Eastern Railroad (DM&E) Powder River Basin Expansion Project (STB Finance Docket No. 33407), and provides the following comments.

Threatened and Endangered Species

The U.S. Fish and Wildlife Service (USFWS) began coordination with the Surface Transportation Board (Board) regarding the Powder River Basin Expansion Project in 1998. Since then, the USFWS has provided comments dated March 6, 2001, regarding the Draft EIS for the project. Additionally, the USFWS provided a biological opinion dated October 26, 2001, to the Board in compliance with the Endangered Species Act of 1973 (Act), as amended, 50 CFR §402.13. Consultation addressed effects associated with (1) new rail construction including approximately 280 miles of rail line extending from DM&E's existing system near Wall, South Dakota, southwesterly to Edgemont, South Dakota, and then westerly into Wyoming to connect with existing coal mines located in Converse and Campbell counties, Wyoming; (2) additional new rail construction of approximately 14 - 17 miles connecting two DM&E lines at Mankato, Minnesota; (3) approximately 1 - 3 miles of new rail line construction near Owatonna, Minnesota, to connect the DM&E lines with the I&M Rail Link; (4) rebuilding of DM&E's mainline between Wall, South Dakota, and Winona, Minnesota; and (5) rebuilding of approximately 5 miles of existing rail line near Smithwick, South Dakota.

In reviewing the DSEIS, USFWS has considered the new information presented regarding the anticipated increase in production of coal in the Powder River Basin and whether this projected

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Victoria Rutson, Chief

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increase in coal production is likely to result in effects that may affect listed or proposed species or designated or proposed critical habitat in a manner or to an extent not considered in our 2001 consultation. The results of the coal transportation rate sensitivity analysis provided by the Energy Information Administration as Appendix G of the DSEIS indicate coal production in the Powder River Basin is likely to increase on average between 1 and 3 percent, depending upon transportation rates. The USFWS believes that an increase of this magnitude (3 percent or less) in coal production in the Powder River Basin is not likely to result in effects to listed species that differ significantly from those effects analyzed during their 2001 consultation. However, if coal production increases at a rate greater than anticipated in the DSEIS, the Board should contact the USFWS and the project should be reanalyzed to determine whether listed or proposed species or designated or proposed critical habitat may be affected in a manner or to an extent not considered in the 2001 consultation, in which case reinitiation of consultation may be appropriate.

1 (cont.)

Badlands National Park

We continue to be concerned with the impacts of the project on Badlands National Park wilderness resources.

2

The EIS specifically addresses noise reduction in communities that were subject of the remand (Mid States Coalition for Progress v. STB, 345 F.3d 520). In the original decision, the Board imposed a mitigation measure regarding horn noise, requiring DM&E to consult with communities to address the "quiet zone" designations being created for communities who wish to mitigate noise by the Federal Railroad Administration (FRA). At the time of the final EIS, the FRA had not finalized its standards for horn noise, but we note the DSEIS acknowledges the interim rules have now been released. We can assume the park, with designated wilderness, could approach the FRA with a request of "quiet zone" designation, but this is not discussed in any detail in either EIS. It would also have been very helpful if either the original or DSEIS had identified the crossings where horns are likely to be sounded and "quiet zones" may be appropriate. We are concerned that the project can be permitted, acknowledging there may be impacts from horn noise, but without constraints on DM&E other than to consult with another Federal Agency to mitigate the impacts.

3

The Department appreciates the opportunity to comment on the DSEIS. If you have any questions or comments regarding threatened and endangered species, please contact Mary Jennings in the USFWS Wyoming Field office at (307) 772-2374, extension 32. For matters related to concerns of Badlands National Park, please contact Regional Environmental Coordinator Nick Chevance, National Park Service, Midwest Regional Office, 601 Riverfront Drive, Omaha, Nebraska 68102, telephone 402-661-1844.

Sincerely,

Robert F. Stewart

Robert F. Stewart
Regional Environmental Officer

SEA's Response to Comment Letter From: Robert F. Stewart

Representing: U.S. Dept. of Interior – Office of Env. Policy and Compliance

Dated: May 27, 2005

SEA Environmental Correspondence Tracking Number: EI-1478

1. SEA appreciates the U.S. Fish and Wildlife Service's (USFWS) additional review of the potential project-related impacts to threatened and endangered species. SEA acknowledges that USFWS does not anticipate any additional adverse impacts to threatened or endangered species based on the new information in the Draft SEIS. As requested by USFWS, should it be determined that PRB coal production and consumption increases at a rate greater than anticipated in the Draft SEIS, SEA will notify USFWS for additional consultation on the potential impacts to threatened and endangered species.
2. SEA notes that the Department of the Interior continues to be concerned about the potential impacts of this project on Badlands National Park, although that is not one of the issues before the Board on remand.
3. SEA has presented extensive information on quiet zones in Chapter 2 of the Final SEIS, and sees no reason why a quiet zone could not be pursued for Badlands National Park under FRA's established process.

BEFORE THE
SURFACE TRANSPORTATION BOARD

FINANCE DOCKET NO. 33407

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

COMMENTS OF
MINNESOTANS FOR AN ENERGY EFFICIENT ECONOMY and
MINNESOTA CENTER FOR ENVIRONMENTAL ADVOCACY

ON THE
DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

Beth Goodpaster
Attorney and Energy Program Director
Minnesota Center for Environmental Advocacy
26 East Exchange Street
St. Paul, Minnesota 55101

BEFORE THE
SURFACE TRANSPORTATION BOARD

FINANCE DOCKET NO. 33407

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

COMMENTS OF
MINNESOTANS FOR AN ENERGY EFFICIENT ECONOMY, AND
MINNESOTA CENTER FOR ENVIRONMENTAL ADVOCACY
ON THE
DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

Pursuant to the schedule adopted by the Surface Transportation Board ("STB") or ("Board"), Minnesotans for an Energy Efficient Economy (hereinafter "ME3") and Minnesota Center for Environmental Advocacy (hereinafter "MCEA") submit their joint comments on the April 15, 2005 Draft Supplemental Environmental Impact Statement ("DSEIS").

I. **The time frame of 20 years, utilized in the DSEIS for the analysis of the impacts of the project, is too short, in view of the Court's requirement of a study of the effects of the project on the long term demand for coal.**

The Eighth Circuit Court of Appeals opinion, which required the DM&E EIS to be redone because of its failure to analyze the impacts of the project on the long-term demand for coal and long-term air quality, realized that the short-term effects of the project may be slight, but the long term effects will certainly be more pronounced. The Court stated:

The increased availability of inexpensive coal will at the very least make coal a more attractive option to future entrants into the utilities market when compared with other potential fuel sources, such as nuclear power, solar power, or natural gas. Even if this project will not affect the short-term demand for coal, which is possible since most existing utilities are single-source dependent, it will most assuredly affect the nation's long-

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term demand for coal as the comments to the DEIS explained.¹
(Emphasis added)

The air quality impact of the long-term demand for coal are principally related to carbon dioxide emissions and the predicted impact those emissions will have on global average temperatures. Future concerns of the Federal Government,² and state and local governments, will be focused on emissions of carbon dioxide and the contributions that gas is making and will continue to make to the problem of global warming.³ The long-term phenomenon of climate alteration due to human activities is not typically analyzed in time frames of 20 years. The effects of human-caused global warming are usually analyzed in a time frame which stretches to the end of the century.⁴ Carbon introduced into the atmosphere now will

1 (cont.)

¹ Mid-States Coalition for Progress v. STB, 345 F. 3d 520, 549 (Eighth Circuit, 2003).

² While the U.S. has not ratified the Kyoto treaty, a major federal report on climate, issued in August of 2004, acknowledges that the recent increases in global temperatures cannot be explained by natural forces alone, and must be in part attributed to "anthropogenic forcings," or human caused emissions. See "Our Changing Planet, A Report by the Climate Change Science Program and the subcommittee on Global Change Research (A supplement to the President's Budget for 2004 and 2005) at p. 74.

³ See Attachment 1, Synapse Energy Economics, Inc, "Taking Carbon into account in Utility Planning: Zero is the Wrong Carbon Value." at pp. 9-15, The report discusses at length efforts that are being undertaken by governments at all levels, and globally, to reduce carbon emissions.

⁴ IPCC, 2001: Climate Change 2001: Synthesis Report. A Contribution of Working Groups I, II, and III to the Third Assessment Report of the Intergovernmental Panel on Climate Change [Watson, R.T. and the Core Writing Team (eds.)], Cambridge University Press, Cambridge, United Kingdom, and New York, NY, USA, 398 pp. (hereinafter "IPCC 2001"). See also, Intergovernmental

remain for a hundred years or more.⁵ In light of the Court's admonition, quoted above, that the long term impacts of the project should be modeled, and in light of the growing concern at all levels of government about carbon dioxide levels and global warming, the time frame of the analysis of increased coal usage and resulting effects on air quality should be examined over a much longer period, preferably to the year 2100. At a minimum, the time period should include the operating life of a coal plant, which comes on line in 2020, and operates for at least 50 years, to 2070.⁶

Panel on Climate Change, "Introduction to the Intergovernmental Panel on Climate Change." 2003 edition. Available at www.ipcc.ch/about/beng.pdf and "16 Years of Scientific Assessment in Support of the Climate Convention." IPCC. December 2004. Available at <http://www.ipcc.ch/about/anniversarybrochure.pdf>

IPCC 2001, supra, note 4, at p. 21: "Global average surface temperature is estimated to increase 1.2 to 3.5°C by the year 2100 for profiles that eventually stabilize the concentration of CO₂ at levels from 450 to 1,000 ppm. Thus, although all of the CO₂ concentration stabilization profiles analyzed would prevent, during the 21st century, much of the upper end of the SRES projections of warming (1.4 to 5.8°C by the year 2100), it should be noted that for most of the profiles the concentration of CO₂ would continue to rise beyond the year 2100. The equilibrium temperature rise would take many centuries to reach, and ranges from 1.5 to 3.9°C above the year 1990 levels for stabilization at 450 ppm, and 3.5 to 8.7°C above the year 1990 levels for stabilization at 1,000 ppm."

⁶ Id. at p. 19, "Reductions in greenhouse gas emissions and the gases that control their concentration would be necessary to stabilize radiative forcing. For example, for the most important anthropogenic greenhouse gas, carbon cycle models indicate that stabilization of atmospheric CO₂ concentrations at 450, 650, or 1,000 ppm would require global anthropogenic CO₂ emissions to drop below the year 1990 levels, within a few decades, about a century, or about 2 centuries, respectively, and continue to decrease steadily thereafter (see Figure SPM-6). These models illustrate that emissions would peak in about 1 to 2 decades (450 ppm) and roughly a century (1,000 ppm) from the present. Eventually CO₂ emissions would need to decline to a very small fraction of current emissions. The benefits of different stabilization levels are discussed later in Question 6 and the costs of these stabilization levels are discussed in Question 7. " Graphs extended

1 (cont.)

II. The analysis of the price impact of the project should be remodeled to reflect a scenario wherein current prices are artificially high due to the market power of the competitors, so that the reduction in price due to the competition from D,M & E would be greater.

There are currently two railroads carrying coal from Powder River Basin (PRB) to Eastern markets. Those existing carriers (BNSF Railway and Union Pacific) currently haul more than 400 million tons of PRB coal, much of this over a triple-track main line. The DM&E proposal would introduce a third carrier into this market with a potential capacity of 100 million tons per year. This new connection will reduce the rail haulage distance to some markets by 5.8%. Based on estimated market shares, SEA has calculated that this distance savings will have a proportional impact on transportation costs in various coal markets ranging from 1.9% to 3.6%. It is also possible that competitive pressures could produce a greater level of cost savings up to a full 5.8% based on haulage distance, or even greater if current transport prices reflect some exercise of market power. As reported in the May 22 EIA Coal News and Markets Report, the Western Coal Traffic League filed suit in the U.S. District Court in Dallas, asking that the current tariff rates published by BNSF and UP be abolished and that any overcharges be refunded. Thus there are reasons to believe that the proposed DM&E rail line extension could reasonably have greater impacts than those modeled in the "Low4pct" case.⁷

to the year 2300 showing various scenarios of CO₂ emissions and the results for global temperatures are set forth at p.20 of the same document.

⁷ Bruce Biewald and David White, of Syapse Energy Economics, Cambridge MA, assisted in the analysis of the DSEIS and in the preparation of these comments.

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III. The results of the modeling have produced unreasonable and counterintuitive results, suggesting that the model used is not sufficiently detailed and accurate for this task.

Another concern is whether a national all-purpose energy model like NEMS can fully capture the impacts of a new rail line for the transportation of Western coal. The approach used, reducing the overall transportation costs to certain regions, is admittedly an approximation. A more detailed and accurate modeling of the transportation network should result in different transportation cost savings and thus different changes in coal usage.

The results show the model to be lumpy and sometimes counter intuitive. Table 4-8 on page 4-25 of the DSEIS, for example, shows no change in the reference case national total generation from coal across four scenarios: the Low4pct, AEO2005, High4pct, and High7pct cases all have exactly 2,285 billion kilowatt-hours generated from coal in the year 2015. The results in that same table for the last year modeled, 2025, show a result that appears to be incorrect, or least counterintuitive and perplexing: that lowering the price of coal causes the amount of generation from coal to decrease. Specifically, the Low7pct case, surprisingly, shows coal generation to be 5 billion kilowatt-hours *lower than* the Low4pct case. This sort of result raises questions about the ability of the model to reasonably represent the effect of the DM&E coal train project upon US electric system.

The correspondence between STB and EIA (see Appendix F) also suggests that NEMS may not be an appropriate model to analyze the effect of the DM&E project. For example, the June 4 letter from Guy Caruso to Roger Nober, which

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states “Rail capacity is modeled generically, so the impacts of a particular rail line on coal transportation costs cannot be directly represented.”

IV. Aggressive Government Policies to limit carbon emissions are likely to be imposed relatively early in the life of the project, and should be taken into account in alternative projections of coal demand.

Government policies to limit the amount of carbon that may be emitted to the atmosphere are already being imposed by governments at state and local levels as well as globally.⁸ It is possible to predict, within a reasonable range, the costs that are likely to occur in the future in order to meet carbons constraints such as carbon caps or carbon taxes.⁹ In this context, it is imprudent for decision makers to ignore the cost of future carbon reductions.¹⁰

Future carbon policies will affect coal usage. That is, in part, their intent. Carbon policies to address climate change can be expected to affect the projections of coal usage and coal prices in the context of this DSEIS. To the extent that the EIA's NEMS reference case does not include a carbon policy and its effect on the development of energy resources in the US, that reference case is unrealistic. In a corrected, more reasonable, reference case, the carbon policy would influence the type, timing, and location of new generating capacity as well as the amount of energy efficiency and clean resources that will be built and operated. These will obviously influence the amount of coal that this line can be expected to carry over

⁸ See Attachment 1, Synapse Energy Economics, Inc, “Taking Carbon into account in Utility Planning: Zero is the Wrong Carbon Value.” at pp. 7-16.

⁹ Id. at pp. 16-33.

¹⁰ Id. at p. i.

4 (cont.)

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its lifetime, the incremental amount of coal coming from PRB, and the development of renewable energy (and other sources) that would ace the electricity that would otherwise be generated by that coal. Because such a scenario can be predicted within a reasonable range, it should be analyzed in the DSEIS.

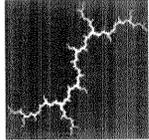
5 (cont.)

Respectfully submitted,

Beth Goodpaster
Minnesota Center for Environmental
Advocacy
26 East Exchange Street
St. Paul, Minnesota 55101

ATTORNEY FOR MIINNESOTANS FOR
AN ENERGY-EFFICIENT ECONOMY A
AND MINNESOTA CENTER FOR
ENVIRONMENTAL ADVOCACY

ATTACHMENT 1



Synapse
Energy Economics, Inc.

Taking Climate Change in Electric Resource Planning: Zero is the Wrong Carbon

Value

Prepared by:
**Lucy Johnston, Amy Roschelle,
and Bruce Biewald**
Synapse Energy Economics
22 Pearl Street, Cambridge, MA 02139
www.synapse-energy.com
617-661-3248

Revision 1
June 4, 2005

Executive Summary

The earth's climate is determined by concentrations of greenhouse gases in the atmosphere. International scientific consensus, expressed in the Third Assessment Report of the Intergovernmental Panel on Climate Change, is that climate will change due to anthropogenic emissions of greenhouse gases. Projected changes include temperature increases, changes in precipitation patterns, increased climate variability, melting of glaciers, ice shelves and permafrost, and rising sea levels. These changes have already been observed and documented in a growing body of scientific evidence. All countries will experience social and economic consequences, with disproportionate negative impacts on countries least able to adapt.

The prospect of Global Warming and changing climate has spurred international efforts to work towards a sustainable level of greenhouse gas emissions. These international efforts are embodied in the United Nations Framework Convention on Climate Change. The Kyoto Protocol, a supplement to the UNFCCC, establishes legally binding limits on the greenhouse gas emissions of industrialized nations and economies in transition. Despite being the single largest contributor to global emissions of greenhouse gases, the United States remains one of a very few industrialized nations that have not signed the Kyoto Protocol. Nevertheless, individual states, regional groups of states, shareholders and corporations are making serious efforts and taking significant steps towards reducing greenhouse gas emissions in the United States. Efforts to pass federal legislation addressing carbon, though not yet successful, have gained ground in recent years. These developments, combined with the growing scientific understanding of, and evidence of, climate change, mean that establishing federal policy requiring greenhouse gas emission reductions is just a matter of time.

In this scientific and policy context, it is imprudent for decision-makers in the electric sector to ignore the cost of future carbon reductions or to treat future carbon reduction merely as a sensitivity case. Treating carbon emissions as zero cost emissions could result in investments that prove quite costly in the future.

Regulatory uncertainty associated with climate change clearly presents a planning conundrum; however, it is not a reason for proceeding as if no costs will be associated with carbon emissions in the future. The challenge is to forecast a reasonable range of expected costs based on analysis of the information available. This report identifies many sources of information that can form the basis of reasonable assumptions about the likely costs of meeting future carbon reduction requirements. Available sources include market transactions, values used in utility planning, and modeling analyses.

Carbon markets associated with implementation of the Kyoto Protocol as well as voluntary emissions reductions have emerged. In the carbon markets, carbon traded in January 2005 at a range of \$30-63/metric ton carbon (\$8-17 per ton CO₂). Some electric utilities in the United States are already incorporating carbon values into their resource planning. The values range from \$4-44/metric ton carbon (\$1-12 per ton CO₂). In December 2004, the California Public Utilities Commission directed utilities to include carbon at a value between \$30-93/metric ton carbon (\$8-25 per ton CO₂) in their long term resource planning.

There are numerous studies that estimate the possible costs of carbon allowances under various policy scenarios, many of which are identified in this report. Projections of carbon costs for the year 2010 range from \$4/metric ton carbon to \$401/metric ton carbon

(\$1 and \$99/ton CO₂) under different policy scenarios. Projections for carbon costs between 2020-2025 range from \$27/metric ton carbon to \$486/metric ton carbon (\$7 and \$120/ ton CO₂). Modeling results are sensitive to several factors including (1) the emissions reduction target; (2) projections of future emissions in the absence of a greenhouse gas reduction target; (3) geographic scope of trading; and (4) flexibility mechanisms such as offsets and allowance banking.

The sensitivity of the carbon price levels to the emissions reduction target can be seen by grouping the results for 2010 into two groups based upon the level of the target. For studies that analyze the costs associated with returning to the emissions levels of the year 2000 by the year 2010 or thereabouts, costs in 2010 are projected to be between \$4/metric ton carbon and \$179/metric ton carbon (\$1/ton CO₂ and \$44/ton CO₂). Studies that analyze the costs associated with a somewhat more aggressive goal of reducing emissions to near 1990 levels reveal costs in 2010 between \$4/metric ton carbon and \$401/metric ton carbon (\$1/ton CO₂ and \$99/ton CO₂).

These sources of information permit a broad assessment of potential carbon allowance prices. Indeed, incorporating reasoned assessment of future costs associated with greenhouse gas emissions is likely to be an increasingly important component of corporate success.

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1. Introduction

A 2002 report from the investment community identifies climate change as representing a potential multi-billion dollar risk to a variety of U.S. businesses and industries.¹¹ Addressing climate change presents particular risk and opportunity to the electric sector. Because the electric sector (and associated emissions) continue to grow, and because controlling emission from large point sources (such as power plants) is easier than small disparate sources (like automobiles), the electric sector is likely to be a prime component of future greenhouse gas regulatory scenarios. The report states that "climate change clearly represents a major strategic issue for the electric utilities industry and is of relevance to the long-term evolution of the industry and possibly the survival of individual companies." Risks to electric companies include the following:

- Cost of reducing greenhouse gas emissions and substantial investment in new, cleaner power production technologies and methods;
- Higher maintenance and repair costs and reliability concerns due to more frequent weather extremes and climatic disturbance; and
- Growing pressure from customers and shareholders to address emissions contributing to climate change.¹²

A subsequent report, "Electric Power, Investors, and Climate Change: A Call to Action," presents the findings of a diverse group of experts from the power sector, environmental and consumer groups, and the investment community.¹³ Participants in this dialogue found that greenhouse gas emissions, including carbon dioxide emissions, will be regulated in the U.S.; the only remaining issue is when and how. Participants also agreed that regulation of greenhouse gases poses financial risks and opportunities for the electric sector. Managing the uncertain policy environment on climate change is identified as "one of a number of significant environmental challenges facing electric company executives and investors in the next few years as well as the decades to come."¹⁴ One of the report's four recommendations is that investors and electric companies come together to quantify and assess the financial risks and opportunities of climate change.

Climate policy is likely to have important consequences for power generation costs, fuel choices, wholesale power prices and the profitability of utilities and other power plant owners. Even under conservative scenarios, additional costs

¹¹ Innovest Strategic Value Advisors; "Value at Risk: Climate Change and the Future of Governance;" The Coalition for Environmentally Responsible Economies; April 2002.

¹² Ibid., pages 45-48.

¹³ CERES; "Electric Power, Investors, and Climate Change: A Call to Action," September 2003.

¹⁴ Ibid., p. 6

could exceed 10 percent of 2002 earnings, though there are also significant opportunities. While utilities and non-utility generation owners have many options to deal with the impact of increasing prices on CO₂ emissions, doing nothing is the worst option. By making astute changes to the fuel mix and investments to refurbish existing assets, profits may also increase.¹⁵ Increased air emissions from fossil-fired power plants will not only increase environmental damages, they will also increase the costs of complying with future environmental regulations, costs that are likely to be passed on to all customers. Power plants built today can generate electricity for as long as 60 years or more into the future.¹⁶

Many trends in this country show increasing pressure for a federal policy requiring greenhouse gas emissions reductions. Given the strong likelihood of future carbon regulation in the United States, the contributions of the power sector to our nation's greenhouse gas emissions, and the long lives of power plants, utilities and non-utility generation owners should be including carbon cost in all resource planning.

The purpose of this report is to identify a reasonable basis for evaluating the likely cost of future mandated carbon reductions for use in long-term resource planning decisions. Section 2 and 3 discuss the role of greenhouse gases in climate. Section 4 presents information on U.S. carbon emissions. Section 5 describes international efforts to address the threat of climate change. Section 6 summarizes various initiatives at the state, regional, and corporate level to address climate change. Finally, section 7 presents information that can form the basis for forecasts of carbon allowance prices for use in utility planning.

2. The earth's climate is determined by concentrations of greenhouse gases in the atmosphere.

The earth's atmosphere serves as a kind of greenhouse. Radiation from the sun passes through the atmosphere, is absorbed by the earth, and is converted to heat. The heat causes the emission of long wave radiation back to the atmosphere. Concentrations of certain gases in the atmosphere determine how much of the long wave radiation escapes through the atmosphere. These gases are known as "greenhouse gases"; they include carbon dioxide, methane, nitrous oxide and others. Such gases have always been part of the atmosphere; however, since the industrial revolution in the 1700's concentrations of

¹⁵ Innovest Strategic Value Advisors; "Power Switch: Impacts of Climate Change on the Global Power Sector;" WWF International; November 2003

¹⁶ Biewald et. al.; "A Responsible Electricity Future: An Efficient, Cleaner and Balanced Scenario for the U.S. Electricity System;" prepared for the National Association of State PIRGs; June 11, 2004.

greenhouse gases in the atmosphere have risen, gradually at first and steeply since about 1850. These rising levels are due to human activities such as burning fossil fuels, deforestation, and others. Greater concentrations of greenhouse gases reduce the amount of heat that passes through the atmosphere, leading to warming of the earth (Global Warming). This warming can also cause associated changes in the earth's climate (Climate Change).

3. The earth's climate is changing due to human activities

International scientific consensus is that the world is warming, the climate system is changing in other ways, and that most of the warming observed over the past 50 years is due to human activities (primarily fossil fuel combustion).¹⁷ For more than twenty years scientists from around the world have studied the potential effects on climate of the change in atmospheric greenhouse gas concentrations. These efforts are described in the next section of this report. In the past 15 years scientific consensus has emerged that increasing concentrations of greenhouse gases in the atmosphere will lead to a general warming of the earth's climate, that this general warming pattern can distort natural patterns of climate, and – most recently – that there is ample evidence that global warming is occurring.

While there are sporadic reports and articles disputing climate change, denying human contributions to climate change, or stating that global warming and climate will bring benefits, these viewpoints are outside the scientific mainstream. "Among those with the training and knowledge to penetrate the relevant scientific literatures, the debate about whether global climate is now being changed by human-produced greenhouse-gases is essentially over. Few of the climate-change "skeptics" who appear in the op-ed pages of *The Washington Times* and *The Wall Street Journal* have any scientific credibility at all."¹⁸

The scientific consensus is expressed in a report issued in 2001 by the Intergovernmental Panel on Climate Change (IPCC). The World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP) established the IPCC in 1988. The purpose of the IPCC is to serve as an objective source of the most widely accepted scientific, technical and socio-economic information available about climate change, its environmental and socio-economic impacts including costs and benefits of

¹⁷Y. Ding, J.T. Houghton, et al. editors, *Climate Change 2001: The Scientific Basis* (Contribution of Working Group I to the Third Assessment Report of the IPCC). Intergovernmental Panel on Climate Change. 2001. Available at: http://www.grida.no/climate/ipcc_tar/wg1/index.htm

¹⁸ Professor John P. Holdren, "Risks from Global Climate Change. What do we know? What should we do?" Presentation to the Institutional Investors Conference on Climate Risk, November 21, 2003.

action versus inaction, and possible response options. These international organizations determined that, because the stakes are so high and the system complex, policymakers cannot rely on popular interpretations of the evidence or on the views of an individual expert. The Panel does not conduct new research or monitor climate-related data. Its mandate is to assess, on a comprehensive, objective, open and transparent basis, the scientific, technical and socio-economic information on climate change that is available around the world in peer-reviewed literature, journals, books and, where appropriately documented, in industry literature and traditional practices. Hundreds of scientists from around the world participate in preparing the IPCC's periodic reports.¹⁹ The first IPCC report, issued in 1990, confirmed that climate change is a threat and served as the basis for negotiating the overall framework for intergovernmental efforts to address climate change—the United Nations Framework Convention on Climate Change (UNFCCC).²⁰ The Second Assessment Report, *Climate Change 1995*, provided key input to the negotiations that led to the adoption of the Kyoto Protocol to the UNFCCC in 1997. The Third Assessment Report, described below, was issued in 2001. The Fourth Assessment Report is anticipated in 2007. In 2001 the IPCC issued its Third Assessment Report (TAR). The Report reaches a number of important conclusions regarding forecasted and observed climate change. The TAR states that:

The earth's climate will change:

- Climate will change more rapidly than previously expected.
- Global mean surface temperatures are projected to increase by 1.4–5.8 degrees C by 2100 (the fastest rate of change since end of the last ice age).
- Global mean sea levels are expected to rise by 9–88 cm by 2100.
- Rainfall patterns will change.
- Variability of the climate will increase—resulting in greater threat of extreme weather events.
- Extreme events that are likely to increase include maximum temperatures, precipitation events, drying and drought, cyclone intensity, and precipitation intensities.
- There is a possibility of threshold events and irreversible events (changing Gulf Stream, collapse of large ice sheets, and others) exists
- Stopping growth in greenhouse gas emission concentrations is expected to lead to different equilibrium temperatures, depending on the stabilization level. For example, stabilization of atmospheric greenhouse gas concentrations at 450ppm is likely to lead to equilibrium

¹⁹ Intergovernmental Panel on Climate Change, "Introduction to the Intergovernmental Panel on Climate Change." 2003 edition. Available at www.ipcc.ch/about/beng.pdf. See also, "16 Years of Scientific Assessment in Support of the Climate Convention." IPCC. December 2004. Available at <http://www.ipcc.ch/about/anniversarybrochure.pdf>

²⁰ The United States ratified the UNFCCC in 1992.

temperature increases from 1990 levels of between 1.5 °C and 3.9 °C. Stabilization at 1000ppm is would lead to equilibrium temperature increases from 1990 levels of 3.5 °C and 8.7 °C. Stabilization at these levels requires a reduction from 1990 emission levels within a few decades or two centuries, respectively. The greater the global temperature rise, the greater will be the impacts on climate as a whole, not just temperatures.

Climate change is already evident

- Global average surface temperature has increased 0.6°C (±0.2°C) in the last century.
- The 1990s was the warmest decade and 1998 the warmest year in the instrumental record, which began in 1861.
- Snow cover and ice extent, both polar and in glaciers, have decreased.
- Global average sea level has risen.
- Most of the warming observed over the last 50 years is attributable to human activities.
- Other aspects of climate that have changed in certain areas of the globe include increased precipitation, increased frequency of heavy precipitation events, increase in cloud cover, and increases in the frequency and intensity of droughts in parts of Asia and Africa.
- Observed changes in regional climate have affected many physical and biological systems, and there are preliminary indications that social and economic systems have been affected.

Climate change will lead to greater cost and suffering than benefits. Poorer people and countries are the most vulnerable.

- Humans will be directly affected by climate. Increasing rain, temperature, storms, and climate variability will all affect individual lives as well as socio-economic systems.
- Humans will be indirectly affected by climate change through changes in ranges of disease, water-borne pathogens, water quality, and air quality.
- Humans will be affected by changes in food availability and quality, crop yields, water shortages and disruption of ecosystems.

Since the release of the IPCC's Third Assessment Report in 2001, additional scientific evidence has provided further evidence of global warming. Last year, 2004, was the fourth warmest year in the temperature record since 1861 just behind 2003. 1998 is the warmest year. With the exception of 1996, the years from 1995-2004 were among the warmest 10 years on record.²¹ NASA has determined that 2004 was the fourth-warmest year since temperature

²¹ World Meteorological Organization, "Global Temperature in 2004 Fourth Warmest," December 15, 2004. Press release on occasion of WMO annual Statement on the Status of the Global Climate in 2004.

measurement began in the 19th century, marked by particularly warm weather in Alaska, the Caspian Sea region and the Antarctic Peninsula. According to NASA, last year's temperatures continued a 30-year rise that is caused primarily by increasing greenhouse gases in the atmosphere.²² Other reports indicate that:

- The percentage of Earth's land area stricken by serious drought more than doubled from the 1970s to the early 2000s.²³
- The arctic is warming almost twice as fast as the rest of the world.²⁴
- Storm & flood damages are soaring.²⁵ While some of this is known to be due to increasing construction in flood plains and beach fronts, insurers more and more frequently identify climate change as a major risk factor in property damage.

Other observed changes include: evaporation and rainfall are increasing; more of the rainfall is occurring in downpours; permafrost is melting; corals are bleaching; glaciers are retreating; sea ice is shrinking; sea level is rising; and wildfires are increasing.²⁶

Taken together, the TAR, and subsequent scientific analyses indicate a clear pattern of global warming and on-going climate change. According to results of climate modeling, these changes are only the beginning of things to come. The TAR emphasizes that decision making "has to deal with uncertainties including the risk of non-linear and/or irreversible changes, entails balancing the risks of either insufficient or excessive action, and involves careful consideration of the consequences (both environmental and economic), their likelihood, and society's attitude towards risk."²⁷

4. U.S. carbon emissions.

The United States contributes more, by far, to global greenhouse gas emissions than any other nation on both a total and a per capita basis. The United States

²² NASA Global Temperature Trends: 2004 Summation. Released February 8, 2005. Available at:

http://www.nasa.gov/vision/earth/lookingatearth/earth_warm.html

²³ National Center for Atmospheric Research – National Science Foundation, "Climate change major factor in drought's growing reach" January 10, 2005 press release.

²⁴ Arctic Council – "Impacts of a Warming Arctic – Arctic Climate Impact Assessment" November 2004.

²⁵ See, e.g. Munich Re, *Topics Geo*, "Annual Review of Natural Catastrophes 2003," stated that economic losses due to natural hazards in 2003 rose to over \$65 billion (up from \$55 billion in 2002).

²⁶ The Natural Resources Defense Council has a useful compilation of scientific studies organized by date at www.nrdc.org/globalWarming/

²⁷ IPCC; "Climate Change 2001: Synthesis Report – Summary for Policy Makers;" 2001. Page 3.

contributes 23 percent of the world CO₂ emissions from fossil fuel consumption, but has only 4.6 percent of the population.

Table 2: U.S. Population and CO₂ emissions for 2002

	World	United States
CO ₂ Emissions (million metric tons)	24,533	5,749
U.S. percentage of world emissions		23.4%
Population	6,417,784,929	287,941,220
U.S. percentage of world population		4.5%
Per capita CO ₂ emissions	3.93	19.97

Sources: EIA International Carbon Dioxide Emissions from the Consumption and Flaring of Fossil Fuels 1980-2002, 2004;²⁸ US Census Bureau population estimate for 2002.

In 2002 the U.S. electric sector emitted 2,256.4 million metric tons CO₂.²⁹ These emissions represent 39 percent of U.S. total CO₂ emissions. Coal-fired power plants were responsible for 83 percent of US electric sector emissions.

Recent analysis has shown that in 2002, power plant CO₂ emissions were 25 percent higher than they were in 1990.³⁰ Furthermore, while the carbon intensity of the U.S. economy fell by 12 percent between 1991 and 2002, the carbon intensity of the electric power sector held steady. Carbon efficiency gains from the construction of efficient and relatively clean new natural gas plants have been offset by increasing reliance on existing coal plants. Since federal acid rain legislation was enacted in 1990, the average rate at which existing coal plants are operated increased from 61 percent to 72 percent. Power plant air emissions are concentrated in states along the Ohio River Valley and in the South. Five states -- Indiana, Ohio, Pennsylvania, Texas, and West Virginia -- are the source of 30 percent of the electric power industry's NO_x and CO₂ emissions, and nearly 40 percent of its SO₂ and mercury emissions.

²⁸ EIA Table H.1co2 World Carbon Dioxide Emissions from the Consumption and Flaring of Fossil Fuels, 1980-2002 (posted June 9, 2004).

²⁹ EIA; "Emissions of Greenhouse Gases in the United States 2003;" Energy Information Administration; December 2004. Table 11.

³⁰ Goodman, Sandra; "Benchmarking Air Emissions of the 100 Largest Electric Generation Owners in the U.S. - 2002;" CERES, Natural Resources Defense Council (NRDC), and Public Service Enterprise Group Incorporated (PSEG); April 2004.

5. Governments worldwide have agreed to respond to climate change by reducing greenhouse gas emissions

The prospect of global warming and associated climate change has triggered one of the most comprehensive international treaties on environmental issues.³¹ The First World Climate Conference was held in 1979. In 1988, the World Meteorological Society and the United Nations Environment Programme created the Intergovernmental Panel on Climate Change to evaluate scientific information on climate change. Subsequently, in 1992 countries around the world, including the United States, adopted the United Nations Framework Convention on Climate Change.

The United Nations Framework Convention on Climate Change has almost worldwide membership (including the U.S.); and, as such, is one of the most widely supported of all international environmental agreements. Parties to this Convention agree that "The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities."³² The Convention establishes an objective and principles, and includes commitments for different groups of countries according to their circumstances and needs.³³ Industrialized nations and Economies in Transition, known as Annex I countries in the UNFCCC, agree to adopt climate change policies to reduce their greenhouse gas emissions. Industrialized countries that were members of the Organization for Economic Cooperation and Development (OECD) in 1992, called Annex II countries, have the further obligation to assist developing countries with emissions mitigation and climate change adaptation.

After over two years of negotiations through the Conference of Parties (COP), Parties to the UNFCCC adopted the Kyoto Protocol on December 11, 1997. The Kyoto Protocol supplements and strengthens the Convention; the Convention continues as the main focus for intergovernmental action to combat climate change. The Protocol establishes legally-binding targets to limit or reduce greenhouse gas emissions.³⁴ The Protocol also includes various

³¹ For comprehensive information on the UNFCCC and the Kyoto Protocol, see UNFCCC, "Caring for Climate: a guide to the climate change convention and the Kyoto Protocol," issued by the Climate Change Secretariat (UNFCCC) Bonn, Germany, 2003. This and other publications are available at the UNFCCC's website: <http://unfccc.int/>.

³² From Article 3 of the United Nations Framework Convention on Climate Change.

³³ For example, one of obligations of the U.S. and other industrialized nations is to submit National Report describing actions it is taking to implement the Convention

³⁴ Greenhouse gases covered by the Protocol are CO₂, CH₄, N₂O, HFCs, PFCs and SF₆.

mechanisms to cut emissions reduction costs. Specific rules have been developed on emissions sinks, joint implementation projects, and clean development mechanisms. The Protocol envisions a long-term process of five-year commitment periods. Negotiations on targets for the second commitment period (2013-2017) are beginning.

The Kyoto targets are shown below, in Table 1. Only Parties to the Convention that have also become Parties to the Protocol (i.e. by ratifying, accepting, approving, or acceding to it), are bound by the Protocol's commitments, following its entry into force in February 2005.³⁵ The individual targets for Annex I Parties add up to a total cut in greenhouse-gas emissions of at least 5 percent from 1990 levels in the commitment period 2008-2012.

Only a few industrialized countries have not signed the Kyoto Protocol; these countries include the United States, Australia, and Monaco. Of these, the United States is by far the largest emitter with 36.1 percent of Annex I emissions in 1990; Australia and Monaco were responsible for 2.1 percent and less than 0.1 percent of Annex I emissions, respectively. The United States did not sign the Kyoto protocol, stating concerns over impacts on the U.S. economy and absence of binding emissions targets for countries such as India and China. Many developing countries, including India, China and Brazil have signed the Protocol, but do not yet have emission reduction targets. Still others have already demonstrated success in addressing climate change.

Table 1: Emission reduction targets under the Kyoto Protocol³⁶

Country	Target: reductions from 1990** levels by 2008/2012
EU-15*, Bulgaria, Czech Republic, Estonia, Latvia, Liechtenstein, Lithuania, Monaco, Romania, Slovakia, Slovenia, Switzerland	-8%
US***	-7%
Canada, Hungary, Japan, Poland	-6%
Croatia	-5%
New Zealand, Russian Federation, Ukraine	0
Norway	+1%
Australia***	+8%
Iceland	+10%

* The EU's 15 member States will redistribute their targets among themselves, as allowed under the Protocol. The EU has already reached agreement on how its targets will be redistributed.

** Some EITs have a baseline other than 1990.

*** The US and Australia have indicated their intention not to ratify the Kyoto Protocol.

³⁵ Entry into force required 55 Parties to the Convention to ratify the Protocol, including Annex I Parties accounting for 55 percent of that group's carbon dioxide emissions in 1990. This threshold was reached when Russia ratified the Protocol in November 2004. The Protocol entered into force February 16, 2005.

³⁶ Background information at: http://unfccc.int/essential_background/kyoto_protocol/items/3145.php

6. State governmental agencies, shareholders, and corporations are working to reduce greenhouse gas emissions from the U.S.

The Federal Government in the United States has failed to act with regard to climate change, despite compelling scientific consensus and this country's disproportionate contribution to greenhouse gas emissions. There have been some initiatives at the federal level to adopt carbon reduction goals; however they have not yet had sufficient support within the Administration and Congress. Landmark legislation that would regulate carbon was introduced by Senators McCain and Lieberman in 2003 -- the Climate Stewardship Act (S.139). This legislation received 43 votes in the Senate in 2003. A companion bill was introduced in the House by Congressmen Olver and Gilchrest. The bill was reintroduced in the 109th Congress on February 10, 2005, and other legislative initiatives on climate change are also under debate in the Spring of 2005. As currently proposed, the Act would create a national cap and trade program to reduce CO₂ to year 2000 emission levels over the period 2010 to 2015. Legislation proposed by the Bush Administration, that would set a national cap on emissions of sulfur dioxide, nitrogen oxides, and mercury (titled "Clear Skies"), has met with stiff resistance due to its failure to address carbon dioxide.

As of February 16, 2005, when the Kyoto Protocol went into effect, U.S.-based companies that have subsidiaries in the EU are "subject to CO₂ emissions caps, but cannot take advantage of low-cost emission reductions at their facilities in the United States or elsewhere."³⁷ American companies that are consequently disadvantaged in the EU may start to put pressure on the Administration for a national greenhouse gas policy.

Some individual states and regions, however, are leaders on this policy issue and are adopting greenhouse gas mitigation policies. Many corporations are also taking initiative in the form of shareholder resolutions and corporate policies, in anticipation of mandates to reduce emissions of greenhouse gases. These efforts are described below.

6.1 State and regional policies

In the absence of Federal initiative on climate change, individual states in this country have been the leaders on climate change policies:

- In 1997 **Oregon** established the first formal standard for CO₂ emissions from new electricity generating facilities in North America.³⁸ The standard holds any proposed new or expanded

³⁷ Fontaine, Peter, "Greenhouse -- Gas Emissions: A New World Order," *Public Utilities Fortnightly*, February 2005.

³⁸ Anne Egelston, "Oregon, Massachusetts Lead the Way in GHG Reductions," *Environmental Finance*, July-August 2001.

power plant to a CO₂ emissions rate of 0.675 pounds per kWh, which is 17 percent less than the most efficient natural gas-fired plant currently operating in the U.S. At the same time, the state also created a non-profit corporation known as the Climate Trust to implement CO₂ offset projects with funds provided by the electric generating industry. A generator can choose to either meet the emissions standard or donate funds to the Climate Trust. The donation level was originally set at \$0.57 per ton of CO₂, but is subject to change based on the actual cost of CO₂ offsets.

- In 2001 **Massachusetts** was the first state to establish a cap on CO₂ emissions from fossil fueled power plants. The Massachusetts Department of Environmental Protection issued "Emissions Standards for Power Plants" (310 CMR 7.29) in April 2001. This multi-pollutant legislation requires emission reductions including CO₂ reductions from the six highest emitting power plants in the state. The CO₂ standard of 1,800 lbs/MWh by 2006 represents a 10 percent reduction from the historic baseline (1997-1999). Facilities are allowed to meet their reduction requirements through offsite CO₂ reductions, subject to DEP approval. The compliance deadline is extended to October 2008 for any facility that undergoes repowering. In addition to this legislation, the state's Energy Facilities Siting Board requires *new* power plants with a capacity greater than 100 MW to offset 1 percent of the facility's CO₂ emissions for the next 20 years, as long as the cost of offsets does not exceed \$1.50 per ton.
- In July 2002, **California** adopted a first-of-a-kind law (AB 1493) to limit the emissions of CO₂ from new cars and trucks sold in the state. The law requires the California Air Resources Board to write regulations to achieve the maximum feasible reduction in CO₂ emissions from cars and trucks, beginning with the 2009 model year. Since that time, New York, New Jersey, Rhode Island, Connecticut, Massachusetts, Maine, and Vermont have each agreed to adopt this standard. An Executive Order in June 2005 calls for reducing the state's emissions of greenhouse gases to 2000 levels by 2010, 1990 levels by 2020, and 80 percent below 1990 levels by 2050.
- The **New Hampshire** "Clean Power Act" (HB 284), approved in May 2002, requires CO₂ reductions from the three existing fossil-fuel power plants in the state. The law requires the plants to stabilize their CO₂ emissions at 1990 levels (approximately three percent below their 1999 levels) by the end of 2006. This CO₂ emission reduction is consistent with the Climate Change Action Plan adopted by the New England Governors and Eastern Canadian Premiers (see below). Plants have the option to reduce their emissions on site or to purchase emissions credits from outside of the state.
- In **New Jersey**, the Department of Environmental Protection released the New Jersey Sustainability Greenhouse Gas Action Plan in April 2000. The Plan provides a framework for reducing

greenhouse gas emissions to 3.5 percent below their 1990 levels by 2005. Under the Plan, Public Service Enterprise Group, the state's largest utility, pledged to reduce total emissions from all of its fossil fuel-based plants by 15 percent below 1990 levels by 2005. This would require its fossil fuel-fired units to limit their CO₂ emissions to 1450 lbs/MWh in 2005, compared to 1706 lb/MWh in 1990. If PSEG fails to achieve the goal, it must pay the DEP \$1 per pound/MWh it falls short of its goal, up to \$1.5 million. The fund will be used to support CO₂ reduction projects within New Jersey.

- The state of **Washington** recently passed a law requiring that new power plants either mitigate or pay for a portion of their carbon emissions. Representative Jeff Morris, the bill's primary sponsor, said "Washington State is not going to solve global warming, but we are doing our part."³⁹
- The **New York** Greenhouse Gas Task Force was created by Governor Pataki in June 2001. The purpose of the Task Force is to develop recommendations for ways to significantly reduce the state's emissions of greenhouse gases, and New York is currently considering whether to adopt the recommendations of the Greenhouse Gas Task Force. The 2002 State Energy Plan also recommends that the state commit to a goal of reducing greenhouse gas emissions by five percent below 1990 levels by 2010, and 10 percent below 1990 levels by 2020.⁴⁰
- In addition to the regulations and programs described above, 25 states are working with the U.S. Environmental Protection Agency ("EPA") to develop **climate action plans** that identify cost-effective options for reducing greenhouse gas emissions at the state level. At least 19 states have completed an action plan to date.
- Many states have other policies such as renewable portfolio standards and energy efficiency programs that serve to reduce CO₂ emissions from the electricity sector; and many state energy plans and initiatives cite greenhouse gas mitigation as a policy rationale or specific objective.

Action by individual states has been enhanced by several regional initiatives to reduce greenhouse gas emissions:

- **Nine Northeast and Mid-Atlantic states** (DE, ME, MA, NH, NJ, NY, RI, VT) have formed "The Regional Greenhouse Gas Initiative" (RGGI) in a cooperative effort to discuss the design of a regional cap-and-trade program initially covering CO₂ emissions from power plants in the region. Collectively, these states contribute to 9.3

³⁹ Washington House of Representatives Press Release, *Governor Signs Morris Bill to Clean Up Air Pollution*, March 31, 2004.

⁴⁰ New York State Energy Research and Development Authority, *2002 State Energy Plan and Final Environmental Impact Statement*, June 2002.

percent of total US CO₂ emissions and together rank as the fifth highest CO₂ emitter in the world. Pennsylvania, Maryland, the District of Columbia, the Eastern Canadian Provinces, and New Brunswick are official "observers" in the RGGI process. The states are discussing adoption of a Memorandum of Understanding and a Model Rule in 2005. In this process, CO₂ emissions from fossil fuel fired electricity generating units will be capped at specific levels.⁴¹

- In September 2003, the Governors of **California, Washington, and Oregon** established the West Coast Governor's Climate Change Initiative, stating that "global warming will have serious adverse consequences on the economy, health, and environment of the west coast states, and that the states must act individually and regionally to reduce greenhouse gas emissions and to achieve a variety of economic benefits from lower dependence on fossil fuels."⁴² Emissions in these three states are comparable to those of the RGGI states. RGGI and the West Coast Governors' Initiative have been communicating with regard to potentially linking their cap and trade programs.⁴³
- The Governors of **California and New Mexico** proposed that 18 western states generate 30,000 MW of electricity from renewable source by 2015. This proposal was unanimously adopted in June 2004.⁴⁴
- In July 2004, **California, Connecticut, Iowa, New Jersey, New York, Rhode Island, Vermont, and Wisconsin** filed a suit against five power plant owners, which together, emit 10 percent of the nation's annual CO₂. This suit seeks CO₂ emissions reductions of three percent per year for the next ten years rather than financial penalties.⁴⁵
- In August 2001, in the first action of its kind in North America, the **New England Governors and Eastern Canadian Premiers** signed an agreement for a comprehensive regional Climate Change Action Plan.⁴⁶ The plan centers on three main goals. The short-term goal of the Plan is to reduce regional greenhouse gas emissions to 1990

⁴¹ Information on this effort is available at www.rggi.org

⁴² See letter from the California Energy Commission and the California Environmental Protection Agency to interested parties, April 16, 2004, at http://www.energy.ca.gov/global_climate_change/westcoastgov/.

⁴³ Fontaine, Peter, "Greenhouse – Gas Emissions: A New World Order," *Public Utilities Fortnightly*, February 2005.

⁴⁴ Jacobson, Sanne, Neil Numark and Paloma Sarria, "Greenhouse – Gas Emissions: A Changing US Climate," *Public Utilities Fortnightly*, February 2005.

⁴⁵ Id.

⁴⁶ New England Governors and Eastern Canadian Premiers, *Climate Change Action Plan: 2001*, August 2001.

levels by 2010. The mid-term goal is to reduce regional GHG emissions by at least 10 percent below 1990 levels by 2020, and establish an interactive, five-year process, starting in 2005, to adjust the goals if necessary and set future emission reduction goals. The long-term goal of the Plan is to reduce regional greenhouse gas emissions in proportions consistent with reductions necessary worldwide to eliminate any dangerous threat to the climate, which recent science suggests will require reductions of 75-85 percent below current levels. The Plan also provides for the establishment of a regional standardized inventory and registry of greenhouse gas emissions.

Actions by cities: Many cities are also adopting climate change policies. The Cities for Climate Protection Campaign (CCP), begun in 1993, is a global campaign to reduce the emissions that cause global warming and air pollution. By 1999, the campaign had engaged more than 350 local governments in this effort, who jointly accounted for approximately seven percent of global greenhouse gas emissions.⁴⁷ Over 150 cities in the U.S. have adopted plans and initiatives to reduce emissions of greenhouse gases, setting emissions reduction targets and taking measures within municipal government operations. Climate change is expected to be a major issue at the annual U.S. Conference of Mayors convention in June.⁴⁸

All of these recent activities demonstrate that there has been growing pressure within the U.S., to adopt regulations to reduce the emissions of greenhouse gases, particularly CO₂. This pressure is likely to increase further over time, as climate change issues and measures for addressing them become better understood by the scientific community, by the public, and particularly by elected officials.

6.2 Investor and corporate action

Investors and corporate leaders have taken steps to manage risk associated with climate change and carbon policy. Many investors are demanding that companies take seriously the risks associated with carbon emissions. Shareholders have filed a record number of global warming resolutions for 2005 for oil and gas companies, electric power production, real estate firms, manufacturers, financial institutions and auto makers.⁴⁹ The resolutions request financial risk disclosure and plans to reduce greenhouse gas emissions. Four electric utilities-AEP, Cinergy, TXU and Southern-all agreed to shareholder

⁴⁷ Information on the Cities for Climate Protection Campaign, including links to over 150 cities that have adopted greenhouse gas reduction measures, is available at <http://www.iclei.org/projserv.htm#ccp>

⁴⁸ Kathy Mulady, *Seattle Post-Intelligencer*, Feb. 17, 2005.

⁴⁹ "US Companies Face Record Number of Global Warming Shareholder Resolutions on Wider Range of Business Sectors," CERES press release, February 17, 2005.

requests in 2004 by promising climate risk reports. Only Southern's report has yet to be completed.

Investors are gradually becoming aware of the financial risks associated with climate change, and there is a growing body of literature regarding the financial risks to electric companies and others associated with climate change. State and city treasurers, labor pension fund officials, and foundation leaders have formed the Investor Network on Climate Risk (INCR). The INCR issued a 10-point "Call for Action" at the Institutional Investor Summit on Climate Risk at the United Nations Headquarters on Nov. 21, 2003. It urges pension and endowment trustees, fund managers, securities analysts, corporate directors and government policymakers to increase their oversight and scrutiny of the investment implications of climate change.⁵⁰ This report cites analysis indicating that carbon constraints affect market value - with modest greenhouse gas controls reducing the market capitalization of many coal-dependent U.S. electric utilities by 5 to 10 percent, while a more stringent reduction target could reduce their market value 10 to 35 percent.⁵¹ The report recommends, as one of the steps that company CEOs should pursue, integrating climate policy in strategic business planning to maximize opportunities and minimize risks. Institutional investors have formed The Carbon Disclosure Project (CDP), which is a coordinating secretariat for collaboration regarding climate change. Its mission is to inform investors regarding the significant risks and opportunities presented by climate change; and to inform company management regarding the serious concerns of shareholders regarding the impact of these issues on company value. In 2003, the first Carbon Disclosure Project report (CDP1) gathered the support of 35 institutional investors representing some \$4.5 trillion in managed assets.

The release of the second report (CDP2), in 2004, reflected even greater participation with signatories from Africa, Asia, Europe and North America. Signatories now represent over \$10 trillion in assets, and total emissions from operations reported to CDP across all sectors were roughly 13 percent of all emissions from fossil fuel combustion worldwide. The CDP2 report indicated the escalation in scope and awareness on behalf of both signatories and respondents can be traced to an increased sense of urgency with respect to climate risk and carbon finance in the global business and investment community. The report attributes this to developments over the past 18 months that have highlighted the social and economic costs of climate change and the

⁵⁰ Cogan, Douglas G.; "Investor Guide to Climate Risk: Action Plan and Resource for Plan Sponsors, Fund Managers, and Corporations;" Investor Responsibility Research Center; July 2004.

⁵¹ Cogan 2004, citing Frank Dixon and Martin Whittaker, "Valuing Corporate Environmental Performance: Innovest's Evaluation of the Electric Utilities Industry," New York, 1999.

risks and opportunities being created worldwide by emissions reduction policies.⁵²

The California Public Employees' Retirement System (CalPERS) announced that it will use the influence made possible by its \$183 billion portfolio to try to convince companies it invests in to release information on how they address climate change. The CalPERS board of trustees voted unanimously for the environmental initiative, which focuses on the auto and utility sectors in addition to promoting investment in firms with good environmental practices.⁵³ Some electric company CEO have determined that inaction on climate change issues is not good corporate strategy, and individual electric companies have also taken steps to reduce greenhouse gas emissions. Their actions reveal increasing initiative in the electric industry for addressing the threat of climate change and managing risk associated with future carbon constraints. Recently, eight US-based utility companies have joined forces to create the "Clean Energy Group." This group's mission is to seek "national four-pollutant legislation that would among other things... stabilize carbon emissions at 2001 levels by 2013."

⁵⁴ In addition, Cinergy has been quite vocal on its support of mandatory national carbon regulation. Cinergy's current target is to produce 5 percent below 2000 levels by 2010 - 2012. AEP has a similar target. FPL Group and PSEG are both aiming to reduce total emissions by 18 percent between 2000 and 2008.⁵⁵ The President of Duke Energy President urges a federal carbon tax, and states that Duke should be a leader on climate change policy.⁵⁶

6.3 Carbon inventories

With increased attention to climate change issues comes an increasing desire and need to quantify and track greenhouse gas emissions. The California Climate Action Registry (the Registry) was established by the California Legislature as a non-profit voluntary registry for greenhouse gas (GHG) emissions.⁵⁷ The purpose of the Registry is to help companies and organizations with operations in the state to establish GHG emissions baselines against which any future GHG emission reduction requirements may be applied.

⁵² Innovest Strategic Value Advisors; "Climate Change and Shareholder Value In 2004," second report of the Carbon Disclosure Project; Innovest Strategic Value Advisors and the Carbon Disclosure Project; May 2004.

⁵³ *Greenwire*, February 16, 2005

⁵⁴ Jacobson, Sanne, Neil Numark and Paloma Sarria, "Greenhouse Gas Emissions: A Changing US Climate," *Public Utilities Fortnightly*, February 2005.

⁵⁵ *Ibid.*

⁵⁶ Paul M. Anderson Letter to Shareholders, March 15, 2005.

⁵⁷ The California Climate Action Registry (the Registry) was established by SB1771, with technical changes to the statute in SB527. SB 527 was signed by Governor Gray Davis on October 13, 2001, finalizing the structure for the Registry.

The Registry encourages voluntary actions to increase energy efficiency and decrease GHG emissions. Participants can record their GHG emissions inventory using any year from 1990 forward as a base year. The State of California promises its best efforts to ensure that participants receive appropriate consideration for early actions in the event of any future state, federal or international GHG regulatory scheme.

The Global GHG Register, launched in January 2004, is a web-based platform that allows companies to disclose their worldwide GHG emission inventories and reduction targets. It gives multinational companies the opportunity to show how much greenhouse gases their operations produce, and what they are doing about it.⁵⁸ Its structure is based on the California Climate Action Registry.⁵⁹ Other states in the U.S. have GHG registries including New Hampshire, Wisconsin, and New Jersey, and many states have registries under development.⁶⁰

7. Many sources are available to inform a reasonable estimate of carbon emission reduction costs.

Uncertainty about the form of future greenhouse gas reduction policies poses a planning challenge for generation owning entities in the electric sector including utilities and non-utility generators. Nevertheless, it is not reasonable or prudent to assume a carbon cost of \$0 in planning decisions. There is clear evidence of climate change, federal legislation has been under discussion for the past few years, state and regional regulatory efforts are currently underway, investors are increasingly pushing for companies to address climate change, and the electric sector is likely to constitute one of the primary elements of any regulatory plan. In this context and policy climate, utilities and non-utility generators must develop a reasoned assessment of the costs associated with potential required emissions reductions.

This is particularly important in an industry where capital stock has a lifetime of 30 or more years. An analysis of capital cycles in the electric sector finds that "external market conditions are the most significant influence on a firm's

⁵⁸ For more information see:

<http://www.weforum.org/site/homepublic.nsf/Content/Global+Greenhouse+Gas+Register>

⁵⁹ California Climate Action Registry, "California Registry's Online Tool To Serve As Foundation for Global Greenhouse Gas Register," December 9, 2003 press release.

⁶⁰ More information on state GHG registries is available at the Greenhouse Gas State Registry Collaborative (Northeast States for Coordinated Air Use Management). <http://www.nescaum.org/Greenhouse/Registry/>

decision to invest in or decommission large pieces of physical capital stock.⁶¹ Failure to adequately assess market conditions, including the potential cost increases associated with likely regulation, poses a significant investment risk for utilities. It simply doesn't make sense for a company investing in plants in the electric sector, where capital costs are high and assets are long-lived, to ignore policies that are likely in the next twenty years.

Evidence suggests that a utility's overall compliance decisions will be more efficient if its strategy considers several pollutants at once rather than addressing pollutants separately. For example, in a 1999 study EPA found that pollution control strategies to reduce emissions of nitrogen oxides, sulfur dioxide, carbon dioxide, and mercury are highly inter-related, and that the costs of control strategies are highly interdependent.⁶² The study found that the total costs of a set of actions is less than a piecemeal approach, that plant owners will adopt different control strategies if they are aware of multiple pollutant requirements, and that combined SO₂ and carbon reduction options lead to further air emission reductions.⁶³ Similarly, in one of several studies on multi-pollutant strategies, the Energy Information Administration (EIA) found that using an integrated approach to NO_x, SO₂, and CO₂ is likely to lead to lower total costs than addressing pollutants one at a time.⁶⁴ While these studies clearly indicate that federal emissions policies should be comprehensive and address multiple pollutants, they also demonstrate the value of including future carbon costs in current resource planning activities.

There are a variety of sources of information that form a basis for developing a reasonable estimate of the cost of carbon emissions for utility planning purposes. Useful sources include recent market transactions in carbon markets, values that are currently being used in utility planning, and costs estimates developed through scenario modeling.

7.1 Market transactions

Implementation of the Kyoto Protocol has moved forward with great progress in recent years. Countries in the European Union (EU) are now trading carbon in the first international emissions market, the EU Emissions Trading Scheme (ETS), which officially launched on January 1, 2005. This market, however, was operating before that time – Shell and Nuon entered the first trade on the ETS in February 2003. Traded volumes in the EU ETS totaled approximately 600,000 tons of CO₂ in 2003, with prices ranging from about 5-13 euros per ton CO₂. Most of these trades were on a forward basis with payment on delivery.

⁶¹ Lempert, Popper, Resitar and Hart, "Capital Cycles and the Timing of Climate Change Policy." Pew Center on Global Climate Change, October 2002. page

⁶² US EPA, *Analysis of Emissions Reduction Options for the Electric Power Industry*, March 1999.

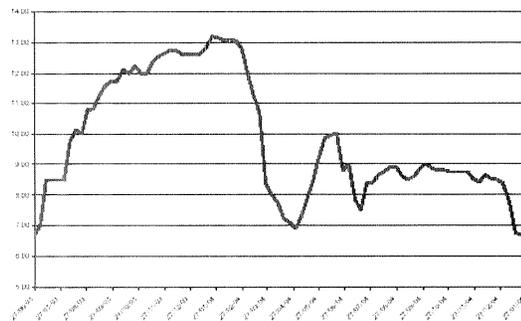
⁶³ US EPA, *Briefing Report*, March 1999.

⁶⁴ EIA, *Analysis of Strategies for Reducing Multiple Emissions from Power Plants: Sulfur Dioxide, Nitrogen Oxides, and Carbon Dioxide*. December 2000.

Trading volumes have increased steadily throughout 2004 and totaled approximately 8 million tons CO₂ in that year.⁶⁵ Eight exchanges and 11 brokerages are planning to take active roles in the acceleration of the carbon market. One financial index for EU allowances (EUA) is called the Carbon Market Index. Figure 1 shows Carbon Market Index data as of January 27, 2005.

Figure 1. The Carbon Market Index for EU Allowances as of January 27, 2005 – Euros per ton CO₂.⁶⁶

EUA 2005 prices. The graph below shows EUA 2005 prices from June 2003. The data was updated 27 January 2005.



During the second half of 2004, carbon trades ranged between 6.75 to just over 13 euros per ton CO₂. This is equivalent to approximately \$8–17 US. Volume in the carbon market is high—more than 5 million tons were traded in the month of January 2005 alone. Trading volume is most liquid in the near term (2005–2007), yet trades do exist out to the year 2008, priced at approximately 9 euros/ton CO₂ (\$11.50 US).^{67, 68}

⁶⁵ “What determines the Price of Carbon,” Carbon Market Analyst, *Point Carbon*, October 14, 2004.

⁶⁶ Allan, Andrew, op. cit.

⁶⁷ Andrew, “Point Carbon to launch volume-weighted EU ETS index,” Carbon Market Europe, *Point Carbon*, January 28, 2005.

⁶⁸ Conversion as of February 9, 2005, wherein 1 Euro = 1.27 US dollars..

Table 3: Closing prices of CO₂ allowances as of January 27, 2005.⁶⁹

Delivery Date	Last Price
EU 2005	€6.95
EU 2006	€6.98
EU 2007	€7.05

7.2 Values in utility planning

The concept of considering the possible costs of complying with greenhouse gas emission reduction targets is receiving renewed attention in electric company planning. Most recently, the California Public Utility Commission has directed utilities to determine an appropriate value, within an identified range, for purposes of long term planning. Several utilities have already included a value to reflect the financial risk of future carbon reduction requirements. The California PUC has developed an imputed cost for GHG emissions, for use in long term utility planning.⁷⁰ The Commission’s decision requires the state’s largest electric utilities (PG&E, SCE, and SDG&E) to factor the financial risk associated with greenhouse gas emissions into new long-term power plant investments, and long-term resource plans. The Commission has told utilities to include a value between \$8–25/ton CO₂ in their submissions, and to justify their selection of a number. In its decision, the Commission cites various estimates of carbon compliance costs submitted in the proceeding. The various estimates, ranging from \$8/ton CO₂ in 2004 to a high of \$36/ton CO₂ in 2020, are presented in Table 4, below.

Table 4: Values submitted to CPUC for CO₂ in long term planning

Name of source of	Value
Final E3 Avoided Cost Report	\$8/ton CO ₂ 2004 \$12.50 by 2008 \$17.50 by 2013
PG&E internal RFO review	\$8
PacificCorp 2003 IRP -	\$8
NRDC opening brief -	\$12 beginning 2008
Idaho Power Co IRP -	\$12.30 beginning 2008
EIA analysis of proposed legislation ¹⁴³	\$15-\$25 in 2010 \$14-\$36 in 2020

Several electric utilities and electric generation companies have incorporated assumptions about carbon regulation and costs in their long term planning, and have set specific agendas to mitigate shareholder risks associated with future U.S. carbon regulation policy. Table 5 illustrates the range of carbon cost values, both in \$/metric ton C and \$/ton CO₂, that are currently being used in

⁶⁹ Allan, Andrew, op. cit..

⁷⁰ California Public Utilities Commission, Decision 04-12-048, December 16, 2004

the industry for both resource planning and modeling of carbon regulation policies.

Table 5: CO₂ costs in long term resource plans⁷¹

Company	CO ₂ emissions trading assumptions for various years	\$/metric ton carbon
PG&E	\$8/ton (2008)	\$29
Avista	\$1-11/ton (2004-2023)	\$5-40
Portland's General Electric	\$10/ton (2010)	\$37
Xcel	\$6-12/ton (2009)	\$22-44
Idaho Power	\$12.30/ton (2008). Also evaluated scenarios with carbon dioxide at \$12.30 per ton and \$49.21 per ton.	\$45. Highest scenario is \$180
Pacificorp – subsidiary of Scottish Power	\$8/ton in 2003 IRP, also evaluated scenarios with carbon dioxide at \$2, \$25, and \$40/ton.	\$29 up to a high of \$147

These early efforts by utilities lay the groundwork for the increased use of carbon value estimates in utility planning and in other elements of corporate strategy in the electric sector.

7.3 Analyses of carbon reduction costs

There have been several studies and analyses that project the cost of reducing carbon emissions to meet various emissions targets. Some of these analyses focus on the Kyoto Protocol, reviewing a 7 percent reduction from 1990 level emissions in the U.S. Other studies focus on the McCain Lieberman Bill as proposed in 2003, which would require that emissions levels in 2010 be the same as emissions levels in 2000 in the U.S. Another study is designed to analyze the impacts of allowance allocation methods, rather than to project carbon costs of a particular emissions reduction goal. These studies reveal a wide range of estimates. While it is not possible, given current uncertainties about the goal and design of carbon regulation, to pinpoint carbon reduction costs, the studies provide a useful source of information. In addition to establishing ranges of reduction cost, the studies give a sense of which factors affect future costs of reducing carbon emissions.

Table 6 presents results for several of these studies in \$2004/metric ton Carbon. A similar table in \$2004/ton CO₂ is contained in the Appendix to this report.

⁷¹ Wisser, Ryan and Mark Bolinger, *An Overview of Alternative Fossil Fuel Price and Carbon Regulation Scenarios*, Lawrence Berkeley National Laboratory, October 2004. See, also, PacificCorp, *Integrated Resource Plan 2003*, pages 45-46, and Idaho Power Company, *2004 Integrated Resource Plan Draft*, July 2004, page 59.

Table 6: Estimates of U.S. Allowance Costs (\$US2004/metric ton Carbon)

Study	2010 Emissions Goal	2010 Allowance Price Range	2020-2025 Allowance Price Range**
		\$2004/metricC	\$2004/metricC
SEMF -Rice 98	7% below 1990 levels 2008-2012	4-191	-
SEMF -Asia Pacific	7% below 1990 levels 2008-2012	48-85	-
SEMF -MS MRT	7% below 1990 levels 2008-2012	36-323	42-369
SEMF - Pacific Northwest	7% below 1990 levels 2008-2012	33-313	-
SEMF -MIT Emissions	7% below 1990 levels 2008-2012	137-325	-
EIA '98	24% above 1990 levels to 7% below 1990 levels 2008-2012	77-401	-
EIA '99	24% above 1990 levels to 7% below 1990 levels 2008-2012	71-364	-
ICF '04	1990 levels in 2010	47-50	79-84
Springer summary of 25 models*	Kyoto targets in 2010	4-324	-
EIA '03	2000 levels 2010, 1990 levels in 2016	43-93	167-314
EIA '04	2000 levels 2010 and beyond	58	113
MIT '03	2000 levels 2010 and beyond	19-184	61-500
Tellus '03	2000 levels 2010, 1990 levels 2016	27-31	58-85
Tellus '04	2000 levels 2010 and beyond	35	81
CRA	2000 levels starting 2010, with safety valve	17	17-28
EIA '03b	2001 emissions in 2013	4-70	27-143
ICF '04b	2000 levels in 2010	13	21
RFF***	6% reduction from BAU scenario, starting 2008	26-41	-

* Springer summary allowance prices are global rather than U.S.

** MIT '03, MS MRT, CRA, Tellus, results for 2020; EIA '03, EIA '03b, and '04 results for 2025.

*** RFF results for 2012. Study focuses relative costs of allocation methods.

The Stanford Energy Modeling Forum organized a comparative set of analyses, published in 1999, of the economics and energy sector impacts of the Kyoto Protocol on Climate Change.⁷² The objectives of this study, were to (1) identify policy-relevant insights and analyses that are robust across a wide range of models, (2) provide explanations for differences in results from different models, and (3) identify priorities for future research. Nine teams of modelers participated in this effort. Each team ran the same four “core” scenarios, and also ran other scenarios that their models were well suited to explore. The four “core” scenarios were (1) a modeler’s reference case (assumptions determined by each team), (2) no emissions trading, (3) full Annex I trading, and (4) full

⁷² International Association for Energy Economics, “The Costs of the Kyoto Protocol: A Multi-Model Evaluation,” *The Energy Journal*, 1999.

global trading. All of the “core” scenarios assumed that the Kyoto targets would be in place for 2010 and beyond.

The studies produced a wide range of estimates for the cost of meeting the Kyoto Protocol emissions reductions targets. This range is due to differing assumptions about the geographical scope of emissions trading as well as other elements of program implementation. The range of estimates is also due to features of the models. One of the major determinants of the cost of achieving reductions in each region in the reference case is the level of emissions projected in the reference case for each region. The variation in projected emissions stems from different assumptions about economic growth, fuel costs, capital stock turnover and other factors.

Most of the reference case runs project a 30 percent increase in U.S. carbon emissions from 1990 to 2010 (range is 21 percent-36 percent). The price projections range from \$36-\$180/metric ton carbon for scenarios with full global trading (\$25/metric ton carbon to \$125/metric ton carbon in 1990 dollars). Projections for “no trading” scenarios range from \$108 to \$585/metric ton carbon (\$75-\$405/metric ton carbon in 1990 dollars). Virtually all the teams were uncomfortable with the “full global trading” scenario since they considered it an unrealistic outcome of the negotiation process.

In 2003, Urs Springer of the University of St. Gallen in Switzerland compiled a summary of results from 25 models of the market for tradable greenhouse gas emission permits under the Kyoto Protocol.⁷³ Springer provides an overview of the results and methods used in the studies. Results (in USD2000) range from \$1 to 22 per ton CO₂ under global trading scenarios where all countries have to meet Kyoto targets in 2010 (rather than on average between 2008 and 2012 – as in the Protocol). Results (in USD2000) range from \$3 to \$74 per ton CO₂ in scenarios with Annex B CO₂ trading only. (See, e.g. Tables 1 and 2.)

The United States Energy Information Administration (EIA) has performed several studies projecting costs associated with compliance with the Kyoto Protocol. In 1998, EIA performed a study analyzing allowance costs associated with six scenarios ranging from emissions in 2010 at 24 percent above 1990 emissions levels, to emissions in 2010 at 7 percent below 1990 emissions levels.⁷⁴ In 1999 EIA performed a very similar study, but looked at phasing in carbon prices beginning in 2000 instead of 2005 as in the original study.⁷⁵ There have also been several studies in the U.S. of the costs to comply with legislation proposed by Senators McCain and Lieberman. As originally proposed, the McCain Lieberman legislation would cap 2010 emissions at 2000 levels, and would reduce allowed emissions in 2016 to 1990 levels. In 2003, the Energy Information Administration conducted a study of the McCain

⁷³ Springer, Urs; “The Market for Tradable GHG Permits Under the Kyoto Protocol: a Survey of Model Studies,” *Energy Economics* 25 (2003) 527-551.

⁷⁴ EIA, “Impacts of the Kyoto Protocol on U.S. Energy Markets and Economic Activity,” October 1998. SR/OIAD/98-03

⁷⁵ EIA, “Analysis of the Impacts of an Early Start for Compliance with the Kyoto Protocol,” July 1999. SR/OIAF/99-02.

Lieberman legislation. EIA ran several sensitivity cases exploring the impact of technological innovation, gas prices, allowance auction, and flexibility mechanisms (banking and international offsets). The current version of the legislation would cap emissions in 2010 at 2000 levels, with no further ratchet. EIA conducted a further analysis of the McCain Lieberman legislation in comparison with the Administration’s Clear Skies Act and the Clean Air Planning Act of 2003.⁷⁶ The Clean Air Planning Act would cap 2013 emissions at 2001 levels.

The Massachusetts Institute of Technology also analyzed potential costs of the McCain Lieberman legislation in 2003. MIT held emissions for 2010 and beyond at 2000 levels (not modeling the second step of the proposed legislation). Due to constraints of the model, MIT studied an economy-wide emissions limit rather than a limit on the energy sector. A first set of scenarios considers the cap tightening in Phase II and banking. A second set of scenarios examines the possible effects of outside credits. And a final set examines the effects of different assumptions about baseline gross domestic product (GDP) and emissions growth.

The Tellus Institute conducted two studies for the Natural Resources Defense Council of the Climate Stewardship Act and the Climate Stewardship Act Amendment (July 2003 and June 2004).⁷⁷ In its analysis of the Climate Stewardship Act, Tellus relied on a modified version of NEMS to model all sectors with Base Case using data from 2003. Tellus then modeled two policy cases. The “Policy Case” scenario included the provisions of the Climate Stewardship Act (S.139) as well as oil savings measures, a national renewable transportation fuel standard, a national RPS, and emissions standards contained in the Clean Air Planning Act. The “Advanced Policy Case” includes a more aggressive oil savings policy that would start at 25 mpg in 2005, increasing to 45 mpg in 2025.

In 2003 ICF was retained by the state of Connecticut to model a carbon cap across the 10 northeastern states. This analysis modeled a carbon cap on electrical generation in a ten-state region in the Northeastern U.S. The cap is set at 1990 levels in 2010, 5 percent below 1990 levels in 2015, and 10 percent below 1990 levels in 2020. The use of offsets is phased in with entities able to offset 5 percent or their emissions in 2015 and 10 percent in 2020. The CO₂ allowance price, in \$US2003, for the 10-state region increases over the forecast period in the policy case, rising from \$7.38/metric ton in 2010 to \$9.59/metric ton in 2015 to \$12.11/metric ton in 2020 (page 3.3-27). This equates to \$28/metric ton carbon in 2010 (\$US2004) and \$48/metric ton carbon

⁷⁶ EIA, *Analysis of S. 485, the Clear Skies Act of 2003, and S. 843, the Clean Air Planning Act of 2003*, EIA Office of Integrated Analysis and Forecasting, SR/OIAF/2003-03, September 2003.

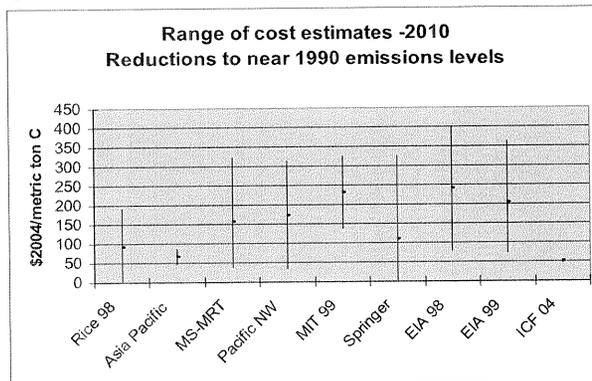
⁷⁷ Bailie et al., *Analysis of the Climate Stewardship Act*, July 2003; Bailie and Dougherty, *Analysis of the Climate Stewardship Act Amendment*, Tellus Institute, June, 2004. Available at <http://www.tellus.org/energy/publications/McCainLieberman2004.pdf>

(\$US2004) (Short ton values: projected carbon allowance costs at: \$6.70/ton in 2010, \$8.70 in 2015 and \$11.00 in 2020.)⁷⁸

Other studies have focused on specific issues associated with implementing a carbon cap. Resources for the Future (RFF) analyzed the effect of various allowance allocation methods on the cost of carbon emission trading.⁷⁹ Charles River Associates analyzed the McCain Lieberman legislation with a safety valve of \$15/metric ton carbon.⁸⁰ The Federal Laboratories conducted a study of emissions reductions associated with carbon permit costs of \$25 and \$50 per metric ton of carbon.

The results of these analyses are presented in graphic form below. The charts below show values in \$2004/metric ton carbon. Charts showing the values in \$2004/ton CO₂ are included in the Appendix. The first chart presents the estimates for the year 2010 for analyses that examine reductions to near 1990 levels.

Figure 1: Cost estimates for 2010 – reductions to near 1990 levels



The next chart presents the estimates for the year 2010 for analyses that examine reductions to near 2000 levels.

⁷⁸ Center for Clean Air Policy, *Connecticut Climate Change Stakeholder Dialogue: Recommendations to the Governors' Steering Committee*, January 2004, p. 3.3-27.

⁷⁹ Burtraw et. al., *The Effect of Allowance Allocation on the Cost of Carbon Emission Trading*, Resources for the Future, August, 2001. Available at <http://www.rff.org/rff/Documents/RFF-DP-01-30.pdf>

⁸⁰ Smith and Bernstein, *Impacts of Implementing a Carbon Cap with a Safety Valve on Allowance Prices*, Charles River Associates, January, 2004. Available at http://www.cpc-inc.org/library/files/20_smithjan04.pdf

Figure 2: Cost estimates for 2010 – reductions to 2000 levels

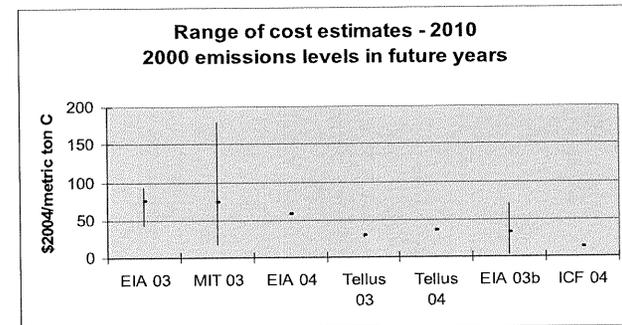
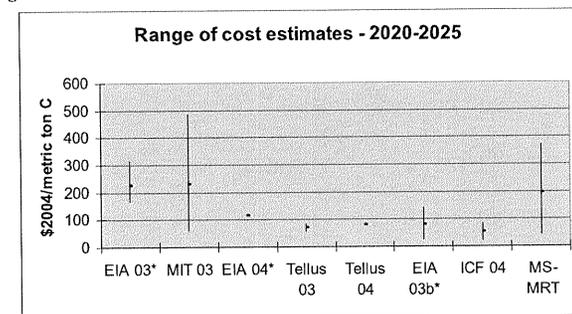


Figure 3 presents estimates for the years 2020-2025 for all emission reduction targets.

Figure 3: Cost estimates for 2020-2025 – all reduction targets



7.4 Other sources of information

Other sources of information can be useful in assessing the potential costs of carbon policies and determining how to evaluate risk associated with possible regulatory scenarios.

National Commission on Energy Policy: A bipartisan group of energy experts from industry, government, labor, academia, and environmental and consumer groups released a consensus strategy, more than two years in the making, to address major long-term U.S. energy challenges. Their report recommends mandatory economy-wide tradeable permits program to limit GHG. Costs would be capped at \$7/metric ton of CO₂ equivalent reduction in 2010 with the

cap rising 5 percent annually.⁸¹ The National Commission recommendations are the basis of a legislative proposal under consideration in Spring 2005.

Innovest Strategic Value Advisors study for WWF: This study looks at relative costs of different strategies to reduce carbon emission from a portfolio, including: fuel switching, refiring, refurbishment, retiring coal and replacing it with gas combined cycle generation. The study assesses different carbon “price points” from 4 Euros to 30 Euros, based on several studies. Based on a review of carbon scenarios in different regions, the report identifies three common carbon price scenarios: \$4-5 per ton carbon, \$10-15 per ton carbon (for the period 2007/8 and corresponding roughly to an 8 percent reduction from 2002 emissions levels for specific utilities), and \$20-25 per ton carbon (corresponding to a scenario for U.S. utilities where cumulative abatement in 2012 is 23 percent below 2002 emissions levels).⁸²

Researchers at the Lawrence Berkeley National Laboratories: LBL researchers provided an overview of various carbon regulation scenarios for DOE.⁸³ The purpose of the analysis was to provide input to the Office of Energy Efficiency and Renewable Energy (EERE) and the Office of Fossil Energy (FE) in their exploration of options for evaluating the benefits of their R&D programs under an array of alternative futures. This analysis compares two alternative scenarios being considered by EERE and FE staff—carbon cap-and-trade and high fuel prices—to other scenarios used by energy analysts and utility planners. A Scenarios Working Group has proposed to EERE and FE staff the application of an initial set of three scenarios for use in the Working Group’s upcoming analyses: (1) a *Reference Case Scenario*, (2) a *High Fuel Price Scenario*, which includes heightened natural gas and oil prices, and (3) a *Carbon Cap-and-Trade Scenario*. The immediate goal is to use these scenarios to conduct a pilot analysis of the benefits of EERE and FE R&D efforts. The researchers reviewed several recent studies of carbon policy scenarios. The Working Group’s *Carbon Cap-&Trade Scenario* is found to be less aggressive than many Kyoto-style targets that have been analyzed, and similar in magnitude to the proposed Climate Stewardship Act. The proposed scenario is more aggressive than some other scenarios found in the literature, however, and ignores carbon banking and offsets and does not allow nuclear power to expand. The researchers were “somewhat concerned that the stringency of the proposed

⁸¹ National Commission on Energy Policy, *Ending the Energy Stalemate*, December 2004, pages 19-29.

⁸² Innovest Strategic Value Advisors; “Power Switch: Impacts of Climate Change on the Global Power Sector;” WWF International; November 2003

⁸³ Wiser and Bolinger; *An Overview of Alternative Fossil Fuel Price and Carbon Regulation Scenarios* Prepared for the Office of Planning, Budget, and Analysis; Assistant Secretary for Energy Efficiency and Renewable Energy; U.S. Department of Energy; Ernest Orlando Lawrence Berkeley National Laboratory; 1 Cyclotron Road, MS 90R4000, Berkeley CA 94720-8136; October 2004. Available at <http://eetd.lbl.gov/ea/ems/reports/56403.pdf>

carbon regulation scenario in the 2010 to 2025 period will lead to a particularly high estimated cost of carbon reduction.

Canada: Canada has taken action on climate change. The Canadian government recently developed a plan for the country to reach its target under the Kyoto Protocol.^{84, 85} The government has established a “safety valve” at \$12/metric ton of CO₂.⁸⁶ Carbon emission trades in Canada, though light, have taken place. For example, Suncor agreed to buy 100,000 tonnes of CO₂ reductions from Niagara Mohawk with an option to buy an additional 10 million tonnes of emission reductions over 10 years. The purchase was valued at \$6 million U.S.

New Brunswick Power is currently assuming that the Canadian Government’s Kyoto policy will result in a cap and trade system, and that the costs of allowances will be \$10/metric ton for the first compliance period of 2008-2012, and \$15/metric ton for the second compliance period of 2013 and beyond. Both of these are assumed to escalate at 2 percent per year. Environment Canada indicates that \$10/metric ton is a reasonable assumption based on international studies, price expectations from international companies, and current international permit trades.⁸⁷

7.5 Factors that affect projections of carbon cost

Results from these studies highlight certain factors that affect projections of carbon reduction costs. While the studies cannot predict exactly what carbon reduction costs will be, they provide insight into whether the factors increase or decrease expected costs, and to the relationships among different factors. The discussion in this report is qualitative, and not intended as a detailed examination of modeling results and capabilities.⁸⁸

Not surprisingly, two of the most important factors affecting estimates of carbon cost are projected emissions levels in the absence of a policy, and emission reduction targets. In general, higher emissions growth in the base case

⁸⁴ According to *Point Carbon*, “the core of the newly designed plan is a \$1 billion (€630 million) fund through which the Canadian Government will purchase emissions reductions. This will primarily be through sponsoring domestic emissions reduction projects, but could also be used to purchase emissions reductions from international projects using Canadian technology. This fund is estimated to reduce emissions by a total of 100 Mt CO₂e.”

⁸⁵ <http://www.pointcarbon.com/article.php?articleID=6195&categoryID=147>

⁸⁶ National Commission on Energy Policy, *Ending the Energy Stalemate*, December 2004, page 27.

⁸⁷

<http://www.climatechange.gc.ca/english/publications/canadascontribution/concluded.html>.

⁸⁸ Meta-analyses do exist. See, e.g., Carolyn Fischer and Richard D. Morgenstern, *Carbon Abatement Costs: Why the Wide Range of Estimates?* Resources for the Future, September, 2003. Available at <http://www.rff.org/Documents/RFF-DP-03-42.pdf>

examined in a study will result in higher estimates of the costs to achieve emissions reductions from that base case relative to a historic year. Thus future scenarios that reflect aggressive energy efficiency investment, higher penetration of renewables, and technology innovation produce lower estimates of carbon reduction costs than those that examine high growth scenarios with little technological innovation.⁸⁹ Similarly, aggressive emissions reductions scenarios result in higher cost estimates than scenarios with more lenient reduction requirements.

Other factors that affect carbon costs include geographic scope of trading and flexibility mechanisms (including banking and offsets). Various studies have looked at scenarios that involve global trading of allowances or permits, trading only among Annex B parties, trading only among OECD members, or no trading at all. As we see in Table 7, which shows results from one study, carbon regulation costs decrease with increased global participation. When global competition is not allowed, different regions see different carbon trading prices. Annex 1 trading lowers permit prices for most all Annex 1 regions. The inclusion of non-annex 1 countries, or global trading, further lowers prices for Annex 1 regions, but raises permit and energy prices for non-annex 1 regions. Increased trade generally helps industrial countries, but can have a negative impact on developing countries as terms of trade worsen due to higher energy costs in industrialized nations.⁹⁰

Table 7: Carbon policy has a large impact on carbon regulation costs.

Policy Assumption	\$/Metric ton Carbon (1990\$)
Global Trading Allowed	17
Annex 1 Trading allowed	57
No trading between countries	127

Assumptions here are from the Rice 98 Model.⁹¹

8. Conclusion

The earth's climate is determined by concentrations of greenhouse gases in the atmosphere. International scientific consensus, expressed in the Third Assessment Report of the Intergovernmental Panel on Climate Change, is that climate will change and be disrupted due to anthropogenic emissions of

⁸⁹ While these strategies are not the focus of this paper, the effect of these strategies in reducing costs associated with a carbon constraint clearly have implications for corporate and government strategies on carbon emission reduction.

⁹⁰ Wiser, Ryan and Mark Bolinger, *An Overview of Alternative Fossil Fuel Price and Carbon Regulation Scenarios*, Lawrence Berkeley National Laboratory, October 2004.

⁹¹ William Nordhaus and Joseph Boyer, "Requiem for Kyoto: An Economic Analysis," *The Energy Journal*, 1999.

greenhouse gases. Scientists expect increasing atmospheric concentrations of greenhouse gases to cause temperature increases of 1.4 – 5.8 degrees C by 2100 (the fastest rate of change since end of the last ice age). Such global warming is also expected to cause a wide range of climate impacts including changes in precipitation patterns, increased climate variability, melting of glaciers, ice shelves and permafrost, and rising sea levels. These changes have already been observed and documented in a growing body of scientific evidence. All countries will experience social and economic consequences, with disproportionate negative impacts on countries least able to adapt. The prospect of Global Warming and changing climate has spurred international efforts to work towards a sustainable level of greenhouse gas emissions. These international efforts are embodied in the United Nations Framework Convention on Climate Change. The Kyoto Protocol, a supplement to the UNFCCC, establishes legally binding limits on the greenhouse gas emissions of industrialized nations and economies in transition.

Despite being the single largest contributor to global emissions of greenhouse gases, the United States remains one of a very few industrialized nations that have not signed the Kyoto Protocol. Nevertheless, individual states, regional groups of states, shareholders and corporations are making serious efforts and taking significant steps towards reducing greenhouse gas emissions in the United States. Efforts to pass federal legislation addressing carbon, though not yet successful, have gained ground in recent years. These developments, combined with the growing scientific understanding of, and evidence of, climate change, mean that establishing federal policy requiring greenhouse gas emission reductions is just a matter of time. The question is not whether the United States will develop a national policy addressing climate change, but when and how. The electric sector will be a key component of any regulatory or legislative approach to reducing greenhouse gas emissions both because of this sector's contribution to national emissions and the comparative ease of controlling emissions from large point sources.

In this scientific and policy context, it is imprudent for decision-makers in the electric sector to ignore the cost of future carbon reductions or to treat future carbon reduction merely as a sensitivity case. Treating carbon emissions as zero cost emissions could result in investments that prove quite costly in the future. Long term resource planning utility and non-utility owners of electric generation must account for the cost of mitigating greenhouse gas emissions, particularly carbon dioxide. For example, decisions about a company's resource portfolio, including building new power plants, reducing other pollutants or installing pollution controls, portfolio management, avoided costs for efficiency or renewables, and retirement of existing power plants all can be more sophisticated and more efficient with appropriate consideration of potential future costs of carbon emissions mitigation. These concerns are important for all states, although the challenge may be different and more complicated in those states that have restructured and no longer have utility-owned power plants.

Regulatory uncertainty associated with climate change clearly presents a planning conundrum; however, it is not a reason for proceeding as if no costs will be associated with carbon emissions in the future. The challenge is to forecast a reasonable range of expected costs based on analysis of the information available. This report identifies many sources of information that can form the basis of reasonable assumptions about the likely costs of meeting future carbon reduction requirements. Available sources include market transactions, values used in utility planning, and modeling analyses. Carbon markets associated with implementation of the Kyoto Protocol as well as voluntary emissions reductions have emerged. In the carbon markets, carbon traded in January 2005 at a range of \$30-63/metric ton carbon (\$8-17 per ton CO₂).

Some utilities in the United States are already incorporating carbon values into their resource planning. The values range from \$4-44/metric ton carbon (\$1-12 per ton CO₂). In December 2004, the California Public Utilities Commission directed utilities to include carbon at a value between \$30-93/metric ton carbon (\$8-25 per ton CO₂) in their long term resource planning.

There are numerous studies that estimate the possible costs of carbon allowances under various policy scenarios, many of which are identified in this report. Projections of carbon costs for the year 2010 range from \$4/metric ton carbon to \$401/metric ton carbon (\$1 and \$99/ton CO₂) under different policy scenarios. Projections for carbon costs for the period 2020-2025 range from \$27/metric ton carbon to \$486/metric ton carbon (\$7 and \$120/ ton CO₂). Modeling results are sensitive to several factors including (1) the emissions reduction target; (2) projections of future electrical load and emissions in the absence of a greenhouse gas reduction target; (3) geographic scope of trading; and (4) flexibility mechanisms such as offsets and allowance banking.

The sensitivity of the carbon price levels to the emissions reduction target can be seen by grouping the results for 2010 into two groups based upon the level of the target. For studies that analyze the costs associated with returning to the emissions levels of the year 2000 by the year 2010 or thereabouts, costs in 2010 are projected to be between \$4/metric ton carbon and \$179/metric ton carbon (\$1/ton CO₂ and \$44/ton CO₂). Studies that analyze the costs associated with a somewhat more aggressive goal of reducing emissions to near 1990 levels reveal costs in 2010 between \$4/metric ton carbon and \$401/metric ton carbon (\$1/ton CO₂ and \$99/ton CO₂).

These sources of information permit a broad assessment of potential carbon allowance prices. Indeed, incorporating reasoned assessment of future costs associated with greenhouse gas emissions is likely to be an increasingly important component of corporate success.

Appendix: Conversion and Values in \$2004/ton CO₂

A-1: Conversions

Original dollars were converted using Gross Domestic Product Implicit Price Deflator.

1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
0.754	0.780	0.798	0.817	0.834	0.851	0.867	0.882	0.891	0.904	0.924	0.946	0.962	0.979	1.000

The following conversions were also used:

1 metric ton = 1.102 short tons

1 short ton = 0.907 metric tons

There are 12 g of carbon in 44 g of carbon dioxide

A-2: Allowance cost estimates in \$2004/ton CO₂

Table A-1: Estimates of U.S. Allowance Costs (\$US2004/ton CO₂)

Study	2010 Emissions Goal	2010 Allowance Price Range		2020-2025 Allowance Price Range**	
		\$2004/ton CO ₂	\$2004/ton CO ₂	\$2004/ton CO ₂	\$2004/ton CO ₂
SEMF -Rice 98	7% below 1990 levels 2008-2012	1-47	-	-	-
SEMF -Asia Pacific	7% below 1990 levels 2008-2012	12-21	-	-	-
SEMF -MS MRT	7% below 1990 levels 2008-2012	9-80	10-91	-	-
SEMF - Pacific Northwest	7% below 1990 levels 2008-2012	8-77	-	-	-
SEMF -MIT Emissions	7% below 1990 levels 2008-2012	34-80	-	-	-
EIA '98	24% above 1990 levels to 7% below 1990 levels 2008-2012	19-99	-	-	-
EIA '99	24% above 1990 levels to 7% below 1990 levels 2008-2012	18-90	-	-	-
ICF '04	1990 levels in 2010	12	19-21	-	-
Springer summary of 25 models*	Kyoto targets in 2010	1-80	-	-	-
EIA '03	2000 levels 2010, 1990 levels in 2016	11-23	167-314	-	-
EIA '04	2000 levels 2010 and beyond	14	28	-	-
MIT '03	2000 levels 2010 and beyond	4-44	15-120	-	-
Tellus '03	2000 levels 2010, 1990 levels 2016	7-8	14-21	-	-
Tellus '04	2000 levels 2010 and beyond	9	20	-	-
CRA	2000 levels starting 2010, with safety valve	4	4-7	-	-
EIA '03b	2001 emissions in 2013	1-8	7-35	-	-
ICF '04b	2000 levels in 2010	3	5	-	-
RFF***	6% reduction from BAU scenario, starting 2008	6-10	-	-	-

* Springer summary allowance prices are global rather than U.S.

** MIT '03, MS MRT, CRA, Tellus, results for 2020; EIA '03, EIA '03b, and '04 results for 2025.

*** RFF results for 2012. Study focuses relative costs of allocation methods.

Figure A-1: Cost estimates for 2010 – reductions to near 1990 levels

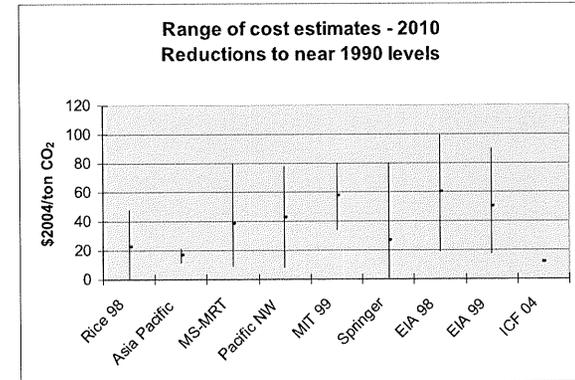


Figure A-2: Cost estimates for 2010 – reductions to 2000 levels

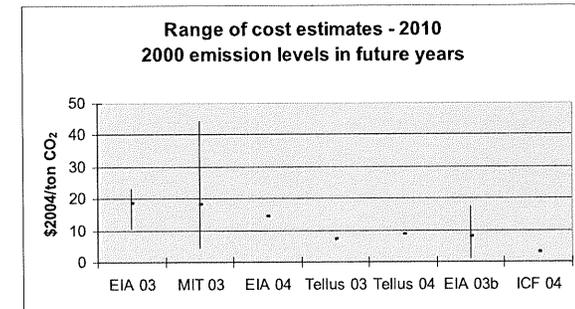
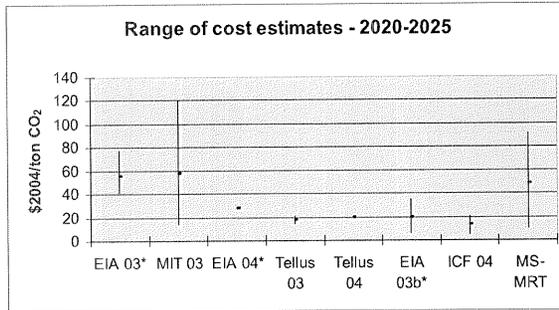


Figure A-3: Cost estimates for 2020-2025 – all emission reduction targets



SEA's Response to Comment Letter From: Beth Goodpaster

Representing: Minnesotans for and Energy Efficient Economy and Minnesota Center for Environmental Advocacy

Dated: Undated

SEA Environmental Correspondence Tracking Number: EI-1485

1. SEA explains in detail in Chapter 4, of the Final SEIS that the 20-year modeling period for the NEMS sensitivity analysis was reasonable and appropriate.
2. SEA, working with EIA, conducted an extensive rate sensitivity analysis using NEMS. As part of the rate sensitivity analysis, a variety of cost reduction scenarios were modeled, as explained in detail in the Draft SEIS, Chapter 4 and in Chapter 4 of this Final SEIS. SEA discusses in detail in the Final SEIS that transportation cost reductions of over 7 percent (which is even greater than the 5.8 percent cost savings this commenter believes is likely based on haulage distance) were modeled as part of SEA's NEMS analysis. Thus, the scenarios used by SEA in its rate sensitivity analysis were reasonable and appropriate.
3. Chapter 4 of the Final SEIS explains in detail why the modeling results are not unreasonable or counterintuitive.
4. SEA reasonably determined, in consultation with EIA, that a rate sensitivity analysis using NEMS was the most appropriate approach to assess the potential impacts of the reduced transportation rates that could occur as a result of the proposed project. This is discussed in greater detail in the Draft SEIS, Chapter 4 and again in the Final SEIS, Chapter 4.
5. SEA notes that although commenter suggested that NEMS might not be the appropriate model to use in this case, in another pending coal construction case—the Tongue River case (Docket No. FD 30186 Sub. No. 3, Tongue River Railroad Company, Inc. – Construction and Operation – Western Alignment—the same commenter suggested that the Board use NEMS, without explaining how the cases differ. With respect to the commenter's concern about carbon emissions, the Final SEIS, Chapter 4, SEA discusses how future regulatory changes in air emissions could affect the modeling results.

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

Raymond Schmitz, County Attorney
Philip H. Wheeler, AICP, Planning Director
Olmsted County Government Center
151 4th Street SE
Rochester, MN 55904

Dated: June 6, 2005

Olmsted County Comments on the DSEIS
Finance Docket No. 33407
Page 2 of 26

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**

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

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(cont.)

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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

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(cont.)

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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.

5
(cont.)

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.

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(cont.)

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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.

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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.

Structures and Attributes Between 210 and 1,110 Feet	
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

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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.

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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.

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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.

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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.

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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

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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

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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.

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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 Montaito 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.

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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.

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(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.

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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.

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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

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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.

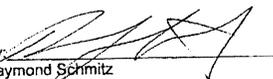
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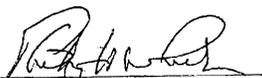
CONCLUSION:

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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June 6, 2005

SEA's Response to Comment Letter From: Raymond Schmitz and Philip H. Wheeler

Representing: Olmsted County

Dated: June 6, 2005

SEA Environmental Correspondence Tracking Number: EI-1499

1. In Mid States, the court indicated that SEA did not have to mitigate for horn noise impacts, only better explain its rationale. SEA has conducted extensive review of mitigation available to potentially address the increased horn noise that may occur as a result of the proposed project. SEA additional analysis, including its final rationale for not recommending mitigation for horn noise—which is essentially that quiet zones and/or negotiated agreements are available to address horn noise, and that sound walls would not be particularly effective—are discussed in detail in the Final SEIS, Chapter 2.
2. SEA's discussion of Olmsted County's position on negotiated agreements is included in the Final SEIS, Chapter 2.
3. In developing its cost estimates for mitigation of horn noise at specific noise sensitive receptors, SEA did not include mitigation costs for those noise sensitive receptors that would be receiving mitigation as a result of project-related wayside noise. SEA only considered noise sensitive receptors affected by horn noise levels at or above 70 dBA L_{dn} that were not already receiving mitigation for wayside noise levels at or above 70 dBA L_{dn}. Thus, Olmsted County's contention that horn noise mitigation costs would be lowered slightly due to these noise sensitive receptors already receiving noise mitigation is false.
4. Comment noted.
5. As discussed in the Final SEIS, Chapter 2, construction of grade separations would eliminate the need for trains to sound their horns at those crossings, and this reduction in noise was one of the reasons why SEA indicated in the Draft SEIS that horn noise mitigation would not be recommended. SEA at no time indicated that the reduction in horn noise that would result solely from the required grade separations would be significant.
6. *Neither* property values *nor* environmental justice are part of the four issues remanded by the court, and thus they are no longer at issue in this case. However, additional discussion of the issue of property values is included in Chapter 2, and additional discussion on environmental justice is included in Chapter 6 of the Final SEIS.

SEA's Response to Comment Letter From: Raymond Schmitz and Philip H. Wheeler

Representing: Olmsted County

Dated: June 6, 2005

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7. SEA's additional investigation and analysis of sound walls is discussed in detail in Chapter 2 of the Final SEIS.
8. SEA conducted extensive evaluation of FRA's Final Rule on horn soundings and the establishment of quiet zones. SEA's discussion of the Final Rule and quiet zones is included in Chapter 2 of the Final SEIS.
9. SEA's review and evaluation of DM&E's potential routing of coal trains over the former IMRL rail lines is discussed in detail in Chapter 6 of the Final SEIS.
10. SEA's additional discussion of its environmental justice methodology (including the use of 1990 rather than 2000 census data) and the potential project-related environmental justice impacts is included in Chapter 6 of the Final SEIS.

DAVE FREUDENTHAL
GOVERNOR



Office of the Governor

June 6, 2005

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Surface Transportation Board (STB)
1925 K Street, NW
Washington, D.C. 20423-0001

Subject: Dakota, Minnesota & Eastern (DM&E) Railroad Draft Supplemental EIS --
Powder River Basin Expansion Project.

Dear Ms. Rutson:

Thank you for giving us the opportunity to comment on the DM&E Railroad's Powder River Basin Expansion Project Draft Supplemental EIS. The state of Wyoming is very interested in this project, as it can potentially make a third rail carrier available to transport low-sulfur Wyoming coal.

The lack of rail competition can be very expensive for electricity consumers. Wyoming's most efficient, cleanest and most economical power plant is located only 175 miles from the PRB mine. This plant has seen its coal freight rate almost double last year and, as it is served by only one railroad, it could not do much about it and could only appeal to the Surface Transportation Board for a ruling. Increased rail competition could reduce transportation costs thereby lowering electricity costs.

Wyoming's coal production has increased rapidly over the last 20 years, with 2004 production totaling 400 million tons -- 40% of total US production. About 93% of the total is shipped out of state via railroad. Occasional railroad bottlenecks and congestions in recent years have resulted in significant lost production in Wyoming. The top 10 largest coal mines in the country are all located in Wyoming's Powder River Basin (PRB), and two railroads access all these mines from the west.

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EI-1500
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DM&E is proposing to access these mines from the east via a new 280-mile rail, line extension and upgrading its existing 598-mile rail system. This proposed third rail carrier will not only offer additional healthy competition, but will also add a much needed geographical diversity. No longer would the transport of 40% of national coal depend on a single corridor on the western edge of the Powder River Basin, thereby improve this nation's energy security.

We are pleased to see that, unlike the Surface Transportation Board's January 2002 decision approving DM&E's proposal, this time the Board has already included in the Programmatic Agreement the signature of the Wyoming State Historic Preservation Officer. This will help ensure the assessment and mitigation of Wyoming's affected cultural resources in accordance with the National Historic Preservation Act.

As mentioned in this Draft Supplemental EIS, the court-ordered train horn noise mitigation issues are important for neighbors living close to any railroad. But the train horn soundings are also a safety issue regulated by the Federal Railroad Administration (FRA). The opportunity to eliminate or reduce train horn soundings without compromising safety can only be fully utilized through community and railroad cooperation within the FRA guidelines. We urge DM&E to pay special attention to the noise and vibration issues to be faced by the communities of northeast Wyoming.

Frequent freight trains through small Wyoming communities can, in effect, divide the community into two sections. DM&E should keep this issue in mind while designing grade crossings through these communities.

Wyoming coal produces about 50% of nation's electricity, and its share has remained steady over the last 30 years. During the 1960s and 1970s, it appeared that nuclear power would be the main energy source for electricity, but concern about safety killed this option. During the 1990s, natural gas looked like the fuel of choice for electricity generation, but the steep rise in gas prices has stifled that option for now.

For the foreseeable future, coal will continue to be the fuel of choice for electricity generation in the US; both traditional technologies and clean coal technologies are expected to play their respective roles. This scenario is likely to play out irrespective of the proposed DM&E line. As this proposed line would be as much as 390 miles shorter than the existing carriers' routes to the areas served by DM&E, the diesel fuel saved by the locomotives and the reduction of coal dust distribution will contribute to overall improvement of air quality. In addition, PRB coal may become more competitive compared to the dirtier Midwestern coal for some power plants, thereby reducing sulfur-dioxide production.

Finally, in page 4-12 of this Supplemental EIS, there are two references to the rail rate of \$7.10 per ton-mile. Is this unit correct, or is it \$7.10 per ton for the whole length of haul? Otherwise, for DM&E's average mileage figure of 810, it will cost \$5,751.00 per ton to deliver.

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In conclusion, we support the proposed railroad access to PRB coal from east of the basin as long as suitable environmental and community safeguards are an essential part of the project.

Best regards,



Mary Flanderka
State Planning Coordinator

MF:su

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SEA's Response to Comment Letter From: Mary Flanderka

Representing: State of WY – Office of the Governor

Dated: June 6, 2005

SEA Environmental Correspondence Tracking Number: EI-1500

1. Comment generally supporting DM&E's proposal noted.
2. Comment noted.
3. Comment noted.
4. While other alternatives SEA evaluated as part of the EIS process would pass through small communities in Wyoming, Route C, the alignment selected by the Board as the preferred alternative would avoid such communities. DM&E will be required to comply with its grade crossing protection plan to ensure highway-rail crossings are appropriately protected if this line is approved and built.
5. As discussed in greater detail in Chapter 4 of the Final SEIS, SEA agrees with the commenter that the demand for coal will increase, whether or not the proposed project is constructed and operated.
6. Commenter is correct in questioning the reference in the Draft SEIS to the rail rate on page 4-12. The statement should have read ".....produces an average rail rate of \$7.10 per ton."

El 1501
VJR

Case Control Unit
Finance Docket No 33407
Surface Transportation Board
1225 K Street NW
Washington, DC 20423-001

Attention Victoria Rutsen
Section of Environmental Analysis

Dear Victoria: (DM&E)

Environmentally, the allowance of letting
the DM&E run through Pierre SD does
not make sense.

The track runs through our community which
would mean -

1. ① noise pollution next to our State Capital
Middle School and newly built hospital
2. ② Coal dust pollution on our
school, State Capitol Buildings
and businesses and homes
3. ③ Increased stress levels for all
our citizens

As you know, the tracks are a few feet from these
buildings. Our community is very discouraged
that our environmental concerns were not
given any consideration.

We hope and pray that the Surface
Transportation Board will revisit the
noise, dust and stress pollution that
allowing the DM&E to use the existing
tracks to haul high speed coal trains
right through the heart of the State
Capitol City of South Dakota would
cause

Thank you for your consideration

Allen J Wagner
118 W Broadway
Pierre, SD 57501

II.
COMMENTS

A. Introduction

It has been seven years since the DM&E filed its Application for Construction and Operation Authority for its PRB project. WCTL is pleased that, despite the associated delays with the approval process that have confronted it, DM&E continues to persevere and advance this rail project which is of national importance.

WCTL supports the DM&E project today for the same reasons it has previously conveyed in the earlier stages of this proceeding. The DM&E project continues to offer the possibility of: (1) providing for new, competitive, and efficient rail service for PRB shippers; (2) addressing residual western rail service problems and recurring service lapses; and (3) helping to combat capacity constraints continuing to face UP and BNSF on their routes out of the PRB.¹

This project has been one of the most thoroughly reviewed and analyzed projects of its kind. In the Phase Two environmental review portion of the case alone, the

¹ There is no doubt that the incumbent PRB rail carriers (UP and BNSF) continue to experience difficulties in moving their trains through their PRB coal corridors. See, e.g., Coal Movers had Bumpy Road in '04, Coal Transportation, Jan. 6, 2005 at 2. These problems, unfortunately, do not appear to be isolated incidents. See e.g., STB Finance Docket No. 33726, Western Coal Traffic League v. Union Pacific Railroad Company, Decision served Nov. 27, 2000, at 7 ("periods of congestion and service disruptions of varying and often significant degrees, often stemming from multiple and unavoidable causes, are simply not uncommon in railroading").

record contained approximately 7,500 pages of SEA analyses in response to roughly 8,600 written comments. In addition, SEA received numerous oral communications pertaining to the project at the dozen public meetings it hosted that were attended by more than 1,700 people. In its January 30, 2002 decision approving the DM&E's project, the Board imposed a substantial number of environmental conditions (147 in total) to its approval of the project. Additionally, the DM&E has separately entered into dozens of negotiated agreements with communities along its lines to mitigate the project's environmental impacts. See Draft Supplemental EIS at ES-2 to ES-3.

The statutory framework governing the EIS review process includes the National Environmental Policy Act ("NEPA"), 42 U.S.C. §§ 4321 et seq.; the regulations issued by the Council on Environmental Quality ("CEQ"), 40 C.F.R. Pts. 1500-1508; and the Board's own environmental rules, 49 C.F.R. Pts. 1105 et seq., and other applicable environmental statutes, orders, and guidelines. The EIS process is devised to ensure that major federal actions with the potential for significant environmental impacts are evaluated.² In evaluating the imposition of environmental mitigation, SEA and the Board are required to consider mitigation in the context of furthering the overall goals of the DM&E project, which "is intended to facilitate the delivery of coal from the Powder River Basin of Wyoming eastward by DM&E." Draft Notice of Final Scope, (Decision

² The EIS is a device that is designed to identify impacts, analyze impacts, and consider alternatives to proposed actions that might have significant environmental impacts. See 40 C.F.R. § 1502.1.

served March 10, 1999) at 5 n.3.

B. Scope of the Supplemental Draft EIS

On appeal, the 8th Circuit concluded:

[a]lthough we find it necessary to vacate the Board's final decision so that it may correct certain deficiencies, we think that on the whole the Board did a highly commendable and professional job in evaluating an enormously complex proposal. We are confident that on remand the Board will quickly address those few matters that we have identified as requiring a second look, and will come to a well informed and reasonable conclusion.

Mid States, 345 F.3d at 556. The Board's (SEA's) April 11, 2005 Draft Supplemental EIS sets forth the scope of SEA's additional analyses of the four issues remanded by the court in Mid States. SEA conducted additional analyses on three environmental issues, including the impacts of increased horn noise, the relationship between vibration and horn noise, and the potential increased coal consumption in the region to be served by DM&E. The Board (SEA) also explained the Board's execution of the Programmatic Agreement setting forth its approach to the historic review required under the National Historic Preservation Act. The Board (SEA) has encouraged persons to comment on these limited issues remanded by the court.³

³ As explained by SEA, the Draft Supplemental EIS properly addresses only the four issues remanded to the Board. The Board's decisions on all of the numerous other transportation and environmental issues were upheld by the court, and the record is now closed as to other issues.

C. The Draft Supplemental EIS Issues

WCTL addresses each of the Supplemental Draft EIS environmental issues below.⁴

1. Horn Noise/Noise and Vibration Synergies

In Mid States, the court determined that "the SEA's discussion of the effects and mitigation possibilities for horn noise was relatively perfunctory" and on remand the Board "must at least explain why mitigation is unwarranted." Mid States at 536. The court continued, "[t]his is not to say that the Board must ultimately mitigate for horn noise, but it must at least explain why mitigation is unwarranted." Id. Also, the court determined that SEA had failed to adequately respond to comments concerning the possible combined impact of (or "synergies" between) train noise and vibration on households (which impacts it found the Board had properly considered as separate items, but had failed to fully consider together) and directed the Board to address these issues. Id. at 537.

Train horn noise/vibration issues are considered in Chapters 2 and 3 of the Draft Supplemental EIS. In these chapters, SEA summarizes its previous analysis of these issues and explains and discusses the additional analyses undertaken to comply with

⁴ Since the Board previously complied (and notified the court of its compliance) with the court's instructions that the Board finalize a Programmatic Agreement to enable it to comply with applicable National Historic Preservation Act provisions, this issue on remand has already been fully satisfied. See Draft Supplemental EIS at 5-1 to 5-4.

the Mid States decision on remand. As to horn noise, the SEA considered whether additional mitigation at the noise sensitive “receptor” locations in communities along the right-of-way, beyond the 11 environmental conditions the Board previously imposed, was warranted (e.g., improving sound-proofing). SEA determined that it was neither reasonable nor warranted to impose additional mitigation for horn noise at thousands of noise sensitive receptors along the 900-mile project potentially affected -- primarily because of cost, potential safety hazards, and lack of effectiveness of potential mitigation -- as well as the fact that another federal governmental agency, the Federal Railroad Administration, is regulating railroad train horn soundings, and numerous agreements have already been negotiated between DM&E and communities along DM&E’s existing rail line to address train impacts (including train noise).

As for combined noise and vibration impacts, based on its additional analysis of the pertinent scientific literature on the subject, SEA concluded that “there may be a synergistic relationship between noise and vibration where rail-generated vibration would exceed 2 [millimeters per second] mm/s.” Draft Supplemental EIS at 3-7. SEA then examined measurements of train-generated vibration for the DM&E project. Its additional analysis showed that the “maximum vibration levels due to the proposed project would be approximately 1.02 mm/s (0.04 in/s) or less” -- which SEA found “would be imperceptible to humans.” Id. at 3-9. SEA concluded that there was “no evidence to conclude that, at the levels of vibration anticipated from the proposed project,

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any increase in the annoyance from or perception of noise would occur.” Id. at 3-10.

Based on its additional study, SEA did not recommend that the Board adopt any additional mitigation to address the potential impacts of the issues of horn noise or combined horn noise and vibration. SEA’s additional analysis of these issues is thorough, objective, and represents a reasonable review of the issues on remand. Accordingly, WCTL submits that SEA should include the Draft Supplemental EIS recommendations as to these issues in its Final EIS, and recommend to the Board that it adopt these recommendations.

2. Air Quality

In Mid States, the court determined that the Board had not sufficiently examined the indirect effects of the “potential air quality impacts associated with the increased availability and utilization of PRB coal” resulting from the DM&E project. Mid States at 550. The court concluded: “[f]or the most part, SEA has completely ignored the effects of increased coal consumption, and it has made no attempt to fulfill the requirements laid out in the CEQ regulations.” Id. While acknowledging that the “extent” of the project’s air quality impacts may be speculative, the court stressed that the “nature of the effect . . . is far from speculative” and that “it is reasonably foreseeable -- indeed, it is almost certainly true -- that the proposed project will increase the long-term demand for coal and any adverse effects that result from burning coal.” Id. at 549. The court concluded: “[w]e believe that it would be irresponsible for the Board to

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approve a project of this scope without first examining the effects that may occur as a result of the reasonably foreseeable increase in coal consumption.” Id. at 550.

Air quality impact issues are addressed in Chapter 4 of the Draft Supplemental EIS. SEA explains that its additional analysis focused on two issues: (1) how the transportation rates for PRB coal would change with DM&E in place as a competitor and (2) given the change in transportation rates, what, if any, would be the potential air quality impacts. Supplemental Draft EIS at 4-2. SEA’s additional study of these issues is extensive and well-reasoned.

SEA first thoroughly investigated and assessed the available commercial and governmental computer simulation models potentially available to perform the required analysis, and it explained the reasons for electing to use the National Energy Modeling System (“NEMS”), an established forecasting model of the Energy Information Administration (“EIA”). Id. at 4-2 to 4-9. Next, SEA discussed how it developed, with the expert assistance of EIA, its transportation rate sensitivity analysis. That analysis used NEMS to project how the forecasted demand for PRB coal might be affected by changes in rail transportation rates (and in particular, possible transportation rate savings brought about by the entrance of the DM&E), and assessed the likely impact, if any, on air emissions from any projected increase in consumption of PRB coal. Id. at 4-9 to 4-19.

SEA next thoroughly discussed the results of its sensitivity model runs on regional and national changes in coal production, consumption, coal-fired electricity

generation, and emissions over a multi-year forecast period (through the year 2025). Id. at 4-19 to 4-38. The results of SEA’s additional analysis, as set forth in the Draft Supplemental EIS, showed that projected changes in coal production, consumption, and coal-fired energy generation on a national and regional basis would be “de minimis” to “small” (generally below 1 percent) and that these changes would translate to “minimal changes in emissions from the electric power sector.” Id. at 4-27 to 4-28.⁵ SEA concluded that the project “would likely produce little change in total coal production, coal consumption, coal-fired electricity generation and electrical power sector emissions” on a national and regional basis, with the aggregate amount of coal used and associated emissions “nearly unchanged from the base-line . . . forecast.” Id. at 4-42.

Next, SEA analyzed the increased coal consumption impacts on a local basis. SEA discussed the various reasons why it was not possible to reasonably foresee the likely impacts of the project on a local level, and namely, the inability to predict what specific existing or new power plants would actually use DM&E’s service. Id. at 4-42 to 4-52. SEA then followed and satisfied the specific CEQ requirements, at 40 C.F.R. § 1502.22, concerning the evaluation of environmental impacts where there is incomplete or unavailable information. Id. Finally, SEA summarized its conclusions and

⁵ SEA also analyzed the potential impact of the project on air emissions not included in the NEMS study (i.e., carbon monoxide and particulates). SEA’s additional analysis on these emissions showed only a small (less than 1 percent) change in emissions for these air emissions. Id. at 4-38 to 4-41.

recommendations explaining why, based on its additional analyses, no additional air quality mitigation is warranted in this case on a local, regional, or national basis. Id. at 4-52 to 4-53.

The Draft Supplemental EIS fully complies with the court's directives on remand as to the required study of air quality impacts. The study properly targets the specific air emissions issues identified by the court. SEA's selection of the NEMS model as the most well-suited model available to help fulfill the court's remand for additional analysis of emissions issues was appropriate.⁶ SEA's additional analysis of the air emissions impacts reflects a reasonable, good faith, and objective presentation of the involved issues using the most accurate forecasting information available, and it fully complies with NEPA.. See Colorado Envtl. Coalition v. Dombeck, 185 F.3d 1162, 1172 (10th Cir. 1999); 40 C.F.R. § 1500.1(b) and 1502.24.

Also, SEA fully explained why additional mitigation beyond that already recommended and imposed by the Board is neither reasonable or warranted in this case. The fact that the Board's recommendations for air quality impact mitigation (as well as for train noise and combined noise and vibration impacts) did not change based on SEA reasoned analysis is fully consistent with NEPA:

⁶ WCTL members, in the ordinary course of business, use some of the plant-specific "operations models" (i.e., PROSYM, PROMOD) considered by SEA, but which SEA determined were not appropriate for purposes of modeling the issues on remand. WCTL agrees that these models are not designed for or used to evaluate the types of coal consumption/emission issues that the SEA was directed to assess on remand.

[I]t is now well settled that NEPA itself does not mandate particular results, but simply prescribes the necessary process. See Strycker's Bay Neighborhood Council, Inc. v. Karlen, 444 U.S. 223, 227-228, 100 S.Ct. 497, 499-500, 62 L.Ed.2d 433 (1980)(per curiam); Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc., 435 U.S. 519, 558, 98 S.Ct. 1197, 1219, 55 L.Ed.2d 460 (1978). If adverse environmental effects of the proposed action are adequately identified and evaluated, the agency is not constrained by NEPA from deciding that other values out-weigh the environmental costs.

Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 350 (1989); accord STB Finance Docket No. 33388, CSX Corporation and CSX Transportation, Inc., Norfolk Southern Corporation and Norfolk Southern Railway Company -- Control and Operating Leases/Agreements -- Conrail Inc. and Consolidated Rail Corporation, (Decision No. 89 served July 23, 1998) at 149-50 n. 227.

Accordingly, WCTL submits that SEA should include the Draft Supplemental EIS recommendations as to air quality issues in its Final EIS, and recommend to the Board that it adopt these recommendations.

III. CONCLUSION

SEA has thoroughly and competently addressed, analyzed, and resolved the outstanding issues identified by the court in Mid States. WCTL urges SEA and the Board to adopt all the recommendations of the Draft Supplemental EIS as soon as possible to enable this important nationwide project to finally move to fruition.

Respectfully submitted,

WESTERN COAL TRAFFIC LEAGUE

By: William L. Slover
Christopher A. Mills
Frank J. Pergolizzi
Peter A. Pfohl *Peter A. Pfohl*
Slover & Loftus
1224 Seventeenth Street, N.W.
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Attorneys and Practitioners

OF COUNSEL:

Slover & Loftus
1224 Seventeenth Street, N.W.
Washington, D.C. 20036

Dated: June 6, 2005

SEA's Response to Comment Letter From: William L. Slover

Representing: Western Coal Traffic League

Dated: June 6, 2005

SEA Environmental Correspondence Tracking Number: EI-1504

SEA acknowledges the commenter's support of the proposed project and the analysis and conclusions in the Draft SEIS.

SOUTH DAKOTA CHAPTER *EI-1505*

Sierra Club

TEL: (605-348-1345) FAX: (605-348-1344)
PO BOX 1624, RAPID CITY, SD 57709

Fax

To: *Victoria Rutson* From: *Sam N Clauson*

Attention: *SEA* Office Location: *Rapid City*

Office Location: *DC* Date: *6/6/05*

Fax Number: *202-565-9000* Phone Number: *605* Fax: *348-1344*

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• Comments: RE: *STB Finance Docket 33407-
Dakota Minnesota & Eastern
Construction into Powder
River Basin -
Draft Supplemental EIS
Comments*

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CASE CONTROL UNIT
FINANCE DOCKET NO 33407
SURFACE TRANSPORTATION BOARD
1925 K STREET NW
WASHINGTON, DC 20423

ATTN: Victoria Rutson
Section of Environmental Analysis

VIA E-Mail: <http://www.stb.dotgov/stb/efilings.nsf>

FAX: 202-565-9000

Re: Dakota, Minnesota and Eastern Railroad Corp Construction into the Powder River Basin- Draft Supplemental Environmental Impact Statement Comments

These comments filed at 11PM MDT via fax and e-mail this 6th day of June, 2005 are being filed on behalf of the members of the South Dakota Chapter Sierra Club (SDC) who live in South Dakota and behalf of the West River South Dakota resident members of the Prairie Hills Audubon Chapter (PHAS). These comments will be in addition to individual comments submitted by individual members of PHAS earlier this evening, and will be directed only towards the Air Quality portion and the Programmatic Agreement Governing Historic Review of the remand.

AIR QUALITY EFFECTS

Members of the SDC and the PHAS find it incredible that even after more than two years after the Court ordered a study of the affects of burning the additional coal projected to be hauled by this new rail line, that SEA has concluded that since "little additional coal would be produced nationally and regionally..... therefore "air emissions for sulphur dioxide, nitrogen oxides, carbon dioxide and mercury associated with the small increase of additional coal..... the increases would be less than 1 percent. However, on page ES-7, "STB concludes there MIGHT be more coal consumed and then therefore increased air emissions, but..... Because SEA couldn't measure this and couldn't predict and evaluate increased air emissions such a measure would be little more than speculation.

We believe this the kind of speculation cited over and over by the Applicant over the years in most aspects of this project, and if STB cannot figure this out, how are citizens supposed to feel comfortable leaving this decision basically in the hands of the Applicant.

STB's conclusions all arrive at the fact that there would ONLY be small increases in coal production, coal consumption, and on air emissions on a national and regional basis, and the lack of information needed to quantify impacts on a local basis. In spite of this, you still maintain the tired old argument there is really a "national purpose and need" for this project (even though the affects monetarily and environmentally would presumedly be small). We believe you cannot have it both ways; the project is immaterial and small & therefore its affects are immaterial and small.

Recent national news stories indicate there is now even less demand for the low sulphur coal (yet less BTU producing) by the end users, (which are central US power plants and factories), due to various upgrades in equipment bringing them into compliance with stronger air emission standards already in place. There could be more demand for the higher output "eastern" coal thus further lessening a need for this upgrade. That "state of the art" aspect of power plant operations should also have been studied.

Furthermore, we find it unbelievable that it appears that SEA's selection of the NEMS Modeling System was based almost solely on the fact that EIA agreed to run the model for the Board at no cost. Since the possible short and long term affects of problems associated with diseases caused by toxic air emissions costs the taxpayers of the US billions of dollars each year, and contribute to thousands of illnesses and deaths, we believe the Court's remand demanded a much more thorough study, and the Applicant should have borne the cost.

Members of SDC and PHAC believe that the intent of the Court in remanding the Air Quality section of the Plan was that the entire process of what would happen to air quality nationally, if, as the Applicant contended from the beginning, their cheaper haul rates would generate a large increase in the amounts of Powder River Basin Coal burned by their customers. We believe this study was required and not completed.

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PROGRAMMATIC AGREEMENT GOVERNING HISTORIC REVIEW

SDC and PHAC believe the entire process of obtaining signatories from the various tribes is totally unacceptable since none of the "invited" signatories of Tribal Representatives from South Dakota, Wyoming or Minnesota have signed the document. We believe no consultation with such Tribes were involved in the preparation of the SEIS.

Furthermore, we believe that the STB has still not complied with the terms of the 1851 and 1868 Fort Laramie Treaties, and that this new rail extension is a direct violation of these treaties.

Since the Remand by the Court in 2002, little action has been taken by the applicant to even try to iron out some of the differences amongst the major objectors, even though a substantial amount of federal funds have gone into upgrading of the existing rail line.

As we have maintained since the beginning of this project, and that is still the major emphasis of most of the arguments against building the line; there has never truly been a purpose and need shown for a project of this magnitude and one that affects many rural families who will be forced off their land or be forced to give up some or all of their way of life.

We conclude that the DSEIS fails to comply with the intent of the Court in the Air Quality and Programmatic Agreement Portions of the Plan, and while we believe such compliance could become a part of the Final Decision, we have little hope that any of these objections will be solved in the FSEIS.

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Sam N Clauson, Conservation Chair
South Dakota Chapter, Sierra Club

Wendy Roth, Board Member
Prairie Hills Audubon Chapter

Nancy Hilding, Chair
Prairie Hills Audubon Chapter

SEA's Response to Comment Letter From: Sam N. Clauson

Representing: South Dakota Chapter of Sierra Club and Prairie Hills
Audubon Chapter

Dated: June 6, 2005

SEA Environmental Correspondence Tracking Number: EI-1505

1. Commenter's concerns about SEA's conclusion in the Draft SEIS that nationally and regionally projected increases in air emissions as a result of this project would be small are addressed thoroughly in the Final SEIS, Chapter 4.
2. As discussed in detail in Chapter 4 of the Draft and Final SEIS, SEA's analysis of potential local air emissions impacts, in accordance with 40 CFR 1502.22(b), was fully adequate.
3. As discussed in the Final SEIS, Chapter 4, the need for this project is not at issue in the environmental review process and is not an issue remanded by the court.
4. As discussed in the Final SEIS, Chapter 4, demand for PRB coal is projected to increase significantly regardless of whether the proposed project is built. SEA has seen no evidence, and commenters have not provided any evidence which shows that, contrary to the projections of EIA's Annual Energy Outlook 2005 report, the overall trend in demand for PRB coal is going to decrease.
5. Selection of the NEMS model for the Draft SEIS analysis was based on several factors, of which cost was only one, as explained in the Final SEIS, Chapter 4.
6. SEA conducted a detailed analysis, as discussed in the Draft SEIS, of the potential impacts on air emissions of reduced transportation rates that might result from DM&E's entry into the PRB market place. SEA reasonably concluded that while the proposed project would result in some increased consumption of PRB coal and associated emissions on a national and regional basis, the increase would not be significant, and the potential local impacts could not be meaningfully addressed, as discussed in the Final SEIS, Chapter 4.
7. SEA consulted with numerous Tribes with an interest in this area throughout the environmental review process and as part of the development of the Programmatic Agreement, as discussed in the Draft EIS, the Final EIS, and the Final SEIS, Chapter 5. The only cultural resource issue remanded by the court was whether the Programmatic Agreement had been executed.
8. In Mid States, the court specifically rejected the arguments suggesting that the Board is subject to the conditions of the 1851 and 1868 Treaties when authorizing proposed rail construction projects. Therefore, as discussed in the Final SEIS,

SEA's Response to Comment Letter From: Sam N. Clauson
Representing: South Dakota Chapter of Sierra Club and Prairie Hills
Audubon Chapter

Dated: June 6, 2005
SEA Environmental Correspondence Tracking Number: EI-1505

Chapter 6, this issue is not part of the court's remand and does not require additional analysis or investigation.

9. As the Final SEIS makes clear, SEA encourages the Applicant to seek mutually acceptable negotiated agreements with any and all interested parties to this proceeding.
10. The Board fully evaluated the transportation merits of the project as part of its decisions in 1998 and 2002, finding that there is a need for the proposed project. The purpose and need for the project is not one of the four issues remanded by the court and is not at issue in this SEIS. Therefore, no additional analysis or investigation is required during the environmental review process.
11. SEA believes it has fully and faithfully complied with the intent of the court in conducting the additional air emissions analysis and executing a detailed Programmatic Agreement for the project.

EI-1509
JR

Defenders of the Black Hills
P.O. Box 2003
Rapid City, SD 57709
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F.Y.I. Please Reply Confidential
Urgent

Date: 6/6/05

To: Victoria Rutson

Fax: 202-565-9000

Location: _____

From: Charmaine White Face

No. of pages including cover: 2
(Please call if you did not receive all pages listed above)

Subj:
SEIS Comments

Defenders of the Black Hills
PO Box 2003
Rapid City, SD 57709
June 6, 2005

Victoria Rutson
Section of Environmental Analysis
Surface Transportation Board
1925 K Street
Washington, D.C. 20413-001

Re: STB Finance Docket No. 33407
Dakota, Minnesota and Eastern Railroad
Corporation Construction into the Powder River Basin
Draft Supplemental Environmental Impact Statement Comments

Dear Ms. Rutson,

The requirements of completing the Programmatic Agreements to meet the qualifications of NEPA is totally inadequate. Saying that the National Historic Policy Act's provisions were met by having two tribes sign, tribes who live no where near the area and do not know our history or cultural connection to the area involved is injustice, a divide and conquer tactic, totally unethical, and probably grounds for a lawsuit. It is an insult and slap in the face to all the Tribes of this area.

1

Secondly, in many of the comments that were originally sent on the DEIs, it was brought to your attention that many of the Tribes consider the DM&E Railroad to be trespassing into Treaty Territory, and that the Surface Transportation Board did not have any authority to make any decisions on this geographical territory as to do so would be a Constitutional violation of Article VI which states that "...treaties are the supreme law of the land."

2

To state that the historical, cultural concerns would be addressed by having the tribes sign ANOTHER AGREEMENT when we already have an agreement, a Treaty Agreement, with the United States that is not upheld, is adding insult to injury, and is another gross example of injustice and a violation of human rights, not to mention civil rights.

3

We do not consider the signing of Programmatic Agreements to help in any way to protect or preserve the hundreds, of cultural and historic places that will be destroyed by the building of the railroad line for the DM&E Railroad. We consider this provision to be totally inadequate, and can easily prove historic destruction by the DM&E of other prehistoric sites when those sites were clearly marked.

4

We recommend that the STB again meet with all of the Tribes of the region and discuss this aspect of the SEIS.

5

Sincerely,
Charmaine White Face
Charmaine White Face, Coordinator

SEA's Response to Comment Letter From: Charmaine White Face

Representing: Defenders of the Black Hills

Dated: June 6, 2005

SEA Environmental Correspondence Tracking Number: EI-1507

1. This comment is addressed in Chapter 5 of the Final SEIS.
2. SEA appreciates the commenter's concerns about Treaty issues, but notes that the court in Mid States specifically rejected the Treaty issues that were raised. See 345 F. 3d at 555 to 556. While Treaty issues are not among the issues that are before the Board on remand, Treaty issues, as they relate to the proposed project, are addressed in the Final SEIS, Chapter 5.
3. While not one of the issues before the Board on remand, required signatories for the Programmatic Agreement and Treaty issues are discussed in the Final SEIS, Chapter 5.
4. SEA discusses the adequacy of the Programmatic Agreement in Chapter 5 of the Final SEIS. SEA believes the Programmatic Agreement adequately addresses cultural resource and Tribal issues. SEA notes that in Mid States, the court's only concern about the Board's consideration of cultural resource issues was that the Programmatic Agreement had not been executed. Accordingly, SEA respectfully disagrees with the commenter's objections to the Programmatic Agreement.
5. As discussed in Chapter 5 of the Final SEIS, SEA made every effort to consult with and work closely with Native American Tribes throughout this project. The Programmatic Agreement provides for continued coordination with the Tribes if this line is constructed.

Nancy Minding
6300 West Elm
Black Hawk, SD 57718
June 6, 2005

Case Control Unit
Finance Docket No. 33407
Surface Transportation Board
1925 K Street, N.W.
Washington, DC 20423-0001

Attention: Victoria Robson - Section of Environmental Analysis

Below find my first comment letter. I will send several letters in, in sequence. -- Dakota, Minnesota & Eastern Railroad Corporation Construction into the Powder River Basin, STB -- Finance Docket No. 33407.

STB RULING ON "TRANSPORTATION MERITS" BEFORE RAILROAD CONSTRUCTION VIOLATES NEPA.

The policy of the STB to decide on "the transportation merits" before the NEPA process is complete is a violation of NEPA. This SEIS is erroneously tied to the "1998 Decision", which decision in my opinion is the result of a process which violates NEPA, as I will explain below.

Further more the SEIS keeps on saying that the "1998 Decision" is about the "transportation merits", however 49 USC 10501 requires the STB to find that the rail project is not inconsistent with the public convenience and necessity, the public convenience and necessity, is more than "transportation merits" to me.

The CRO regulations at 40 CFR Ch. I, 1508.14 define the human environment as follows:

"Human environment" shall be interpreted comprehensively to include the natural and physical environment and the relationship of people with that environment (See the definition of "effects" (1508.8)) This means that economic or social effects are not intended by themselves to require preparation of an environmental impact statement. When an environmental impact statement is prepared and economic or social and natural or physical environmental effects are interrelated, then the environmental impact statement will discuss all of these effects on the human environment. (40 CFR Ch. I, 1508.14).

Accordingly the STB believes it can separate out "transportation issues" from "environmental issues".

This statute provides for issuance of a decision within 180 days of the effective date of this decision that will address the transportation issues relating to this construction application and whether the proposal satisfies the criteria of 49 U.S.C. 10501. Any approval would be conditioned upon completion of the environmental review process and consideration of environmental issues, which would be considered in a final decision on whether to authorize the construction." (page 1, Surface Transportation Board Decision on STB Finance Docket No. 33407, May 7, 1998).

The factors the STB is supposed to use to decide on whether a rail project is not inconsistent with the public convenience and necessity are economic and social effects and belong within the EIS process. How can you know what mitigation will be required until you do the EIS? If you don't know what mitigation is required, you don't know how much the project will cost? If you don't know how much the project will cost, how can you determine that the railroad can afford it or what rates the railroad must charge per mile traveled or how much cheaper its transportation rates will be? If you haven't examined all the negative impacts, as well as positive benefits, with full public input and review, how can you decide that it is not inconsistent with the public convenience and necessity?

The STB with their "cart before the horse" legal proceedings, force a decision without the information on the project and its impacts disclosed that were disclosed in the EIS and SEIS. In a proper NEPA process, you must review all impacts including socio-economic (transportation) impacts before you can conclude that DM&B project will not inconvenience the public and will satisfy the criteria of 49 U.S.C. 10501.

If there is a conflict between your regulations and NEPA (in the Council on Environmental Quality regulations (CEQ)), NEPA and the CRO regulations take precedence. By making a conditional decision on these issues prior to completing NEPA you violate the following provisions of the Council on Environmental Quality regulations:

Down 1 of 2

(1) Analysis must be performed before the decisions are made and actions taken and public comment must be an essential part of NEPA.

"NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken." (40 CFR 1500.1(b))

(2) The NEPA regulations say a major federal action can't be taken that will prejudice the ultimate decision.

"(f) Agencies shall not commit resources prejudicing selection of alternatives before making a final decision (1506.1)" (40 CFR Ch. V 1502.2 (f))
(g) Environmental impact statements shall serve as the means of assessing the environmental impact of the proposed agency actions, rather than justifying decisions already made." (40 CFR Ch. V 1502.2 (f) & (g))

40 CFR Ch. V 1506.1 (c) says

"While work on a required program environmental impact statement is in progress and the action is not covered by an existing program statement, agencies shall not undertake to the interim any major Federal action covered by the program which may significantly affect the quality of the human environment unless such action...

(3) Will not prejudice the ultimate decision on the program. Interim action prejudices the ultimate decision on the program when it tends to determine subsequent development or limit alternatives."

When the STB decided that the DM&E's application was "not inconsistent with the public necessity and convenience" you made a decision about some relative benefits/harms of impacts of the project and about limiting the range of mitigation costs (i.e. you have decided what DM&E is comfortable to spend) before the DEIS is made.

The STB is required to develop the EIS and other planning documents simultaneously. 40 CFR Ch. V. 1501.2 says:

"Agencies shall integrate the NEPA process with other planning at the earliest possible time to insure that planning and decisions reflect environmental values, to avoid delays later in the process, and to head off potential conflicts. Each agency shall:

(b) Identify environmental effects and values in adequate detail so they can be compared to economic and technical analysis. Environmental documents and appropriate analysis shall be circulated and reviewed at the same time as other planning documents.

1508.23 Proposed

"Proposal exists at that stage in the development of an action when an agency, subject to the Act has a goal and is actively preparing to make a decision on one or more alternative means of accomplishing that goal and the effects can be meaningfully evaluated. Preparation of an environmental impact statement on a proposal should be timed (1502.5) so that the final statement may be completed in time for the statement to be included in any recommendation or report on the proposal. A proposal may exist in fact as well as by agency declaration that one exists. (40 CFR Chapt V. 1508.23)

It is clear that the STB decision that the DM&E proposal is "not inconsistent with the public necessity and convenience" is a recommendation or report on the proposal that was made before the EIS was completed. According to CEQ regulations, adjudication, such as the SIH proceedings in 1998, can't happen until after the EIS. Preliminary hearings are just supposed to cover what should be in the EIS. 40 CFR Ch. V 1502.5 says:

"An agency shall commence preparation of an environmental impact statement as close as possible to the time the agency is developing or is presented with a proposal (1502.23) so that preparation can be completed in time for the final statement to be included in any recommendation or report on the proposal. The statement shall be prepared early enough so that it can serve practically as an important contribution to the decision making process and will not be used to rationalize or justify decisions already made (1502.2(c), 1501.2 and 1502.2)....

(c) For adjudication, the final environmental impact statement shall normally precede the final staff recommendation and that portion of the public hearing related to the impact study. In appropriate circumstances the statement may follow preliminary hearing designed to gather information for use in the statements." (40 CFR Ch. V 1502.5)

Sincerely, Nancy Hilling

Page 2 of 2

1 (cont.)

Nancy Hilling
6900 West 1st
Black Hawk, SD 57718
June 6, 2005

Case Control Unit
Finance Docket No. 33407
Surface Transportation Board
1925 K Street, N.W.
Washington, DC 20423-0001

Attention: Victoria Rubin - Section of Environmental Analysis

How, find my second comment letter, I am writing two letters in, in sequence. This is the second letter and a continuation of my first letter on this DEIS and it is related to the first letter -- Dakota, Minnesota & Eastern Railroad Corporation Construction into the Powder River Basin, STB -- Finance Docket No. 33407.

SPECIFICS - MORE COMMENTS ON THE DEIS

Range of Alternatives:

The DEIS discusses 4 issues (horn noise, noise and vibration synergism, air quality and "Programmatic Agreement"). It does not analyze mitigation effects for these 4 issues for each of the alternatives. Why is that?

Options 4-17 it discusses 4 scenarios that were studied. How do these scenarios relate to the various alternatives discussed in the DEIS? Are any of the scenarios the equivalent of the "No Action" Alternative? If not, why have they created an analysis and scenario not related to the alternatives in the DEIS?

Economics:

The "1998 Decision" is based on assumptions that rail rates were going to increase. The April 2005 DEIS states "The NEMS model assumes a continuation of the historical downward trend of coal transportation rates over the NEMS forecast period." "Therefore, the addition of the DM&E routes may be implicitly included in the downward transportation rate trend" In the DEIS you have declining rates which is contrary to the 1998 Decision and changes the economics. Plug this scenario into table III of the 1998 Decision and run it out to 2025 and maybe you may discover this project could be a financial disaster.

For various projections the rate of return goes up. For the Air Quality projections the model presupposes that the rate projections goes down. The STB cannot have it both ways. Which projections reflects reality? If the analysis and data change depending on what point you are arguing, is this IS/NEPA process merely justification of a decision already made and thus a violation of the CEQ regulations?

Although it is now 2005, some of the economic data used is 7 years old; the study to determine average mileage savings to plants in DM & E's core markets are predicated on the 1998 decision and on the 2002 projected rates for UP and BNSF (and is derived from the 1998 Decision). There are many NEPA requirements about high quality scientific review. And this DEIS, whenever it fails to update its economic data, violates the following:

- Failure to obtain the information necessary to assess impacts to the human environment (40 CFR 1500.1 (b), 1502.1, 1502.15, 1502.22)
- Failure to analyze and disclose direct, indirect, and cumulative impacts with scientific and professional integrity (40 CFR 1502.16, 1502.24)

Air Quality and Economics

We question again the relevance of the DM&E project to the public necessity or convenience. Why would the public want a new rail line except that it brings new products/service to new areas, improves frequency of resupply/supply of products/service or reduces the price the public pays for old products/service it always get.

The DEIS conclusion in the air quality section is that the DM&E railroad won't have much effect on air quality because the railroad expansion won't change the amount of coal burned significantly. The DM&E is being sold as a coal railroad to deliver coal, if it doesn't effect the amount of coal burned, then we question if the rail line will bring new products (coal) to new areas? If we, the public, pay less for electricity, won't we waste it more or buy more electricity because it is cheaper and conveniently if the price is higher won't we conserve electricity more and pay less?

5 (cont.)
If coal consumption is affected then how does the public profit from this railroad?
When looking at various air quality models, the DSEIS writers appear to have chosen the air quality model because they could get it for free, not necessarily because it was the best model. I join with Powder River Basin Resource Council in questioning the choice of air quality models. "After carefully assessing existing computer models" BIA selected the National Energy Modeling System "since BIA agreed to run the model for the Board at no cost in this case."

6
I think there should be more data about possible local effects on air quality. The writers of the DSEIS dilute the effects of the project by viewing all air quality impacts on a national or regional scale. How many projects undertaken by the government and studied under NEPA would appear significant if looked at under a national perspective, instead of locally? People do not breathe "national" air, they don't get sick from "national" air, their health and quality of life are derived primarily from the air quality in the location that they live and work in. Regional air quality may have some effect on local air quality, but local sources are most important.

7
Shouldn't one of the indirect air quality effects, be the mining of coal in the Powder River Basin on regional/local air quality. I see no discussion of that in the DSEIS, just coal burning effects. But coal mining must create at least particulate matter from mining activities, which dusty air must exist in synergism/cumulative effects with all the air quality impacts derived coal bed methane development.

8
Noise
What are "noise sensitive receptors", are these just people, or people and animals, or people/animals/machines/scientific equipment etc?
The SEIS points out that thousands of people (8,943 noise sensitive receptors in Minnesota and 3,945 noise sensitive receptors in SD) will experience noise levels of 70 dBA L(d) due to horn soundings, but most of the mitigation mentioned (re horn noise in chapter 2 are seen by writers of DSEIS as too expensive for the railroad to afford. If the necessary noise and vibration mitigation can't be afforded, and about 12,000 "noise receptors" will be negatively affected without mitigation or without meaningful mitigation, maybe the DM&E was premature in deciding that the project is "not inconsistent with the public convenience and necessity". There is also the public inconvenience of waiting at railroad crossings for trains to pass or communities having to fund bridges to restore traffic flow.

9
If the local community or homeowner has to pay to build the mitigation for sound and also for traffic congestion then isn't the DM&E and the SEIS hiding the true cost of the railroad in new financial burdens or loss of property value of innocent people and communities along the way. This is asking other private or public entities to pay the true costs of a private project; it's a manipulative way for private corporations to make profit off the backs of other.

10
The DSEIS stresses negotiated settlements between railroad and communities as a solution, however as the alternative to negotiation is the mitigation provided by the FEIS, and the DSEIS doesn't provide for sound mitigation, what negotiating power/leverage do communities have on this issue?

11
Noise and Vibration Mitigation
The DSEIS does not provide a very compelling discussion on this point, it sounds like they don't understand this issue.

Thanks,

Nancy Hilding

SEA's Response to Comment Letter From: Nancy Hilding

Representing: Citizen

Dated: June 6, 2005

SEA Environmental Correspondence Tracking Number: EI-1509

1. In deciding whether to approve a rail construction project, the Board weighs the transportation merits and the environmental impacts of the proposed project, which the Board did in the 2002 Decision. The commenter is concerned that the Board had made a preliminary finding of the transportation related aspects of this case in the 1998 Decision, before revisiting its preliminary finding and determining in the 2002 Decision that the environmental effects that could not be fully mitigated were not so great as to outweigh the public benefits of the new line. But the court, in Mid States, specifically affirmed the Board's bifurcated process (see 345 F. 3d. at 551, copy attached in the Draft SEIS, Appendix A). The Board will now consider the effects of the additional environmental analysis SEA has conducted on remand in making a final determination in this case.
2. The SEIS responds to the court's remand of four issues: horn noise mitigation, noise and vibration synergies, air emissions resulting from potential increases in coal usage as a result of this project, and the Programmatic Agreement. None of these issues encompass alternatives. Moreover, the Board's alternatives analysis was affirmed in Mid States. Therefore, it is not necessary for SEA to readdress specific project alternatives as part of the analysis for the SEIS.
3. As discussed in greater detail in the Draft SEIS, Chapter 4, and the Final SEIS, Chapter 4, SEA provided EIA four transportation rate scenarios for use in the rate sensitivity analysis. These scenarios represent potential changes in rail transportation rates as a result of this project, regardless of which alternative route would be constructed and operated. Alternatives for the routing of the proposed rail line are not part of the SEIS because the court in Mid States affirmed the Board's discussion of alternatives and that issue is no longer before the Board in this case.
4. This comment is addressed in detail in the Final SEIS, Chapter 4.
5. This comment is addressed in detail in the Final SEIS, Chapter 4.
6. Selection of the NEMS model for the Draft SEIS analysis was based on multiple factors, of which cost was only one, as explained in the Final SEIS, Chapter 4.
7. As discussed in detail in Chapter 4 of both the Draft and Final SEIS, SEA's analysis of potential local air emissions impacts, in accordance with 40 CFR 1502.22(b), was fully appropriate and adequate.

61-1510
vj

SEA's Response to Comment Letter From: Nancy Hilding
Representing: Citizen
Dated: June 6, 2005
SEA Environmental Correspondence Tracking Number: EI-1509

- 8. Noise sensitive receptors are defined in the Board's environmental rules at 49 CFR Part 1105.7(e)(6)(ii) as schools, libraries, hospitals, residences, retirement communities, and nursing homes.
- 9. The issues of funding for horn noise mitigation and property values are discussed in detail in the Final SEIS, Chapter 2.
- 10. SEA's further discussion of negotiated agreements is included in the Final SEIS, Chapter 2. Negotiated agreements are voluntary; communities and other entities are not forced to seek help from DM&E for horn noise mitigation, or any other local concerns.
- 11. The Final SEIS, in Chapter 3, presents SEA's response to comments concerning noise and vibration synergies. That discussion, as well as the discussion in Chapter 3 of the Draft SEIS, thoroughly addresses this issue.

Case Control Unit
Finance Docket No. 33407
Surface Transportation Board
1925 K St. N.W.
Washington D.C. 20423-0001
ATTN: Victoria Rutson
Section of Environmental Analysis

I have lived in my present home for 27 years. I purchased this home with the hope of never having to move again. I would like to tell you my feelings on the DME expansion, not that it will do any good, but it will make me feel better.

I grew up with railroads so 3 or 4 trains daily does not disturb me. The increase in train traffic that DME is talking about does disturb me for more than one reason.

Pollution: We (the people) are slowly killing ourselves and our world with air, noise and chemical pollution. Increasing train traffic (with added air and noise pollution) through the heart of a medical city makes no sense at all, common sense seems to be lacking in this situation.

1

The noise and vibration of a train every 1/2 hour would be unbearable , to say nothing of air pollution. I have had lung surgery and with the additional air pollution I would need central air conditioning which I do not have and cannot afford.

2

The thought of running that many trains daily through the heart of the medical district, let alone the city is not right, it scares me, it is dangerous. Someone is not using good judgment to put it mildly.

3

It seems to boil down to the almighty BUCK, the dollar versus health and environmental issues, to my way of thinking people and city welfare should be a priority. DME SHOULD NOT BE ALLOWED TO EXPAND THROUGH THE CITY OF ROCHESTER. I am sure there must be a way to build a bypass. The almighty BUCK should be DME's problem, not ours.

4

As for the value of homes and doing additional insulation for noise. I live on a limited income, what with increased taxes, utilities, the decreased value

5

of my home and all the other miscellaneous increases every year, I for one, and I'm sure there are many others, cannot afford for DME to expand through the heart of Rochester.

5 (cont.)

The train tracks run next to a heavily used bike path, the thought of more and faster trains is definitely an accident waiting to happen.

6

Enclosed please find a news article from 1998 – 7 years ago.

It is time to make the right decision and tell the railroad to build a bypass.



Jan Jacobson
1206 First St. N.E.
Rochester, MN 55906
(507) 289-1715
janjac@rconnect.com

SEA's Response to Comment Letter From: Jan Jacobson

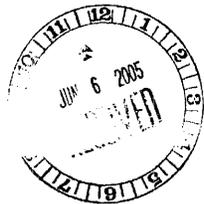
Representing: Citizen

Dated: undated

SEA Environmental Correspondence Tracking Number: EI-1510

1. SEA conducted an extensive evaluation in the EIS of the potential impacts of the increased operation of unit coal trains that would result from construction and operation of the proposed project. In the EIS, SEA determined the project would have significant impacts as a result of increased noise; however, no significant impacts to air quality as a result of additional train operations were identified. SEA's additional analysis of the potential air emissions resulting from any increased coal consumption due to the proposed project is discussed in detail in the Draft SEIS, Chapter 4, as well as Chapter 4 of the Final SEIS.
2. In the EIS, SEA conducted an extensive evaluation of the potential project-related impacts from vibration resulting from operation of unit coal trains. SEA determined project-related vibration would not cause significant impacts. The EIS also contained a thorough study of noise. SEA's additional evaluation of the potential noise and vibration synergies of this project is discussed in Chapter 3 of both the Draft and Final SEIS. SEA believes its discussion is responsive to the concerns raised by the court in Mid States.
3. Safety is not one of the remanded issues. SEA's extensive safety evaluation (which reflects the fact that Rochester is a medical center) is included in the EIS, and the Board has imposed numerous mitigation measures to address safety concerns with the proposed project. SEA has reviewed the comment and appreciates the commenter's concern for safety. However, the Board's assessment of safety in the EIS was fully adequate, and safety is not one of the issues remanded by the court in Mid States.
4. SEA has reviewed and considered the comment opposing the proposed increase of rail traffic through Rochester and appreciates the commenter's participation in the environmental process. No additional analysis is required in this Final SEIS.
5. SEA has reviewed and considered the comment and appreciates the commenter's participation in the environmental process. SEA discusses potential property value issues in the EIS and Chapter 2 of the Final SEIS.
6. The Board has imposed condition Number 31, requiring fencing along the rail line right-of-way in incorporated areas, such as Rochester, to help protect the safety of bikers using the adjacent bike trail if this project is approved and implemented.

EL-1511
or



To: Case Control Unit
Finance Docket No. 33407
Surface Transportation Board
1925 K Street NW
Washington, D.C. 20423

From: Peter Hartman
1121 E. Center St.
Rochester, MN 55904

A Coal Train running through the heart of Rochester, MN will damage the community economically in several ways. Just a few blocks from the proposed DM&E coal line is the Mayo Clinic -- a major economic engine of southeastern Minnesota. Mayo's jobs and health related services are what have earned Rochester its distinction of one of the best cities in the U.S. to live. A coal train would change that. Do you think that Rochester will be one of the best cities to live in when there are 37 coal trains a day blasting through the heart of town? The noise, the traffic delays, the vibration, and dust from the coal trains would effect the image of Rochester as a healthy place to be. Anything that has the potential to hurt the Mayo clinic would be bad for Rochester, and bad for the economy of southeastern Minnesota.

1

And then there are the many hundreds of homes, thousands of people who would be subject to intolerable noise from the coal train. The Surface Transportation Board (STB) would allow noise levels many times higher than would be tolerated by any other use, including airports. In these noisy zones homes could be expected to loose at least 10% of their value. Right now there are wonderful neighborhoods along Center Street and Civic Center Drive. People take pride in their nice homes making them good places to live and raise a family. If a coal train goes through the intolerably high levels of noise would drive many homeowners out. Many of these homes could become rentals and the make up of the neighborhood would change from family homeowners involved in their neighborhood to people moving in and then moving out as soon as they could. Rochester is the third biggest city in Minnesota and the biggest city along the proposed coal train route, certainly this should be considered when planning a coal train route.

2

Vibration generated by the coal train is also a concern to a local manufacture of precision equipment, users of sensitive medical equipment at the Mayo Clinic and the Federal Prison, which uses vibration detection equipment as part of their security system. Vibration concerns were inadequately addressed by the STB.

3

Because the STB cannot recognize that a coal train running through the heart of Rochester is economically a bad idea I will petition my elected officials in a hope that they can help the STB find alternatives to running a coal train through Rochester. To my County Commissioners, the Rochester City Council and Mayor Brede, please continue your well spent efforts to reach a solution that is good for us in Rochester. To Governor Pawlenty, please get involved to work out some solution that would be not jeopardize the economic viability of Rochester. To Congressman Gutknecht, Senator Coleman and Senator Dayton, isn't there some influence you can have on the STB in the cause of keeping Rochester one of the best cities to live?

There are alternatives to running the coal train through Rochester. There are alternate routes that the coal train could take. DM&E now owns a line south from Owatonna that connects to another line they own in Iowa which runs east over the Mississippi River. There are alternate ways of transporting energy. A electric transmission line will run from the coal fields in Wyoming to California -- why couldn't a transmission line be built from Wyoming to points east. If the coal train had to run through Rochester there are other ways the line could be engineered, for example the line could be run through a tunnel.

4

It would be short sited to look only at the immediate costs of any of these alternatives, because in the long term any diminishment in the economic viability of Rochester would hurt Minnesota.

Peter Hartman

Peter Hartman 5-30-05

SEA's Response to Comment Letter From: Peter Hartman

Representing: Citizen

Dated: May 30, 2005

SEA Environmental Correspondence Tracking Number: EL-1511

1. SEA conducted an appropriate evaluation of the effects of the project on the economy and life style in Rochester as part of the EIS. SEA has reviewed and considered the comment and appreciates the commenter's participation in the environmental process. No further analysis of the issues raised in the comment is necessary in the SEIS.
2. SEA evaluated the potential noise impacts of the proposed project on property values and life style as part of the EIS. Although not one of the remanded issues, the Final SEIS, Chapter 2, contains additional discussion of the issue of property values.
3. SEA conducted an extensive evaluation of the potential project-related impacts from vibration as part of the EIS. SEA's additional evaluation of noise and vibration synergies is discussed in the Draft SEIS, Chapter 3 and the Final SEIS, Chapter 3.
4. SEA's discussion of alternative routings of unit coal trains over the former IMRL rail lines is discussed in the Final SEIS, Chapter 6. A thorough discussion of alternatives for this project was included in the EIS. The court in Mid States affirmed the Board's rejection of the bypass for Rochester that had been proposed for the movement of PRB coal, and alternative routes or alternative ways to transport energy is not one of the issues before the Board in this proceeding on remand.

ROCHESTER AREA
CHAMBER OF COMMERCE

BEFORE THE SURFACE TRANSPORTATION BOARD
FINANCE DOCKET NO. 33407

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



**COMMENTS OF ROCHESTER AREA CHAMBER OF COMMERCE ON THE
DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT**

Pursuant to the schedule adopted by the Surface Transportation Board ("STB") or "Board"), the Rochester Area Chamber of Commerce ("RACC") submits its comments on the April 15, 2005 Draft Supplemental Environmental Impact Statement ("DSEIS").

COMMENTS

RACC has reviewed the comments filed on the DSEIS by the City of Rochester ("Rochester") and Mayo Foundation ("Mayo"). RACC supports the following points made by Rochester and Mayo in their comments:

- 1. The Section of Environmental Analysis ("SEA") should consider, in an amended DSEIS, whether ordering DM & E to route all or some of its PRB related coal traffic on its new IMRL lines is a viable alternative to routing the PRB related traffic from Owatonna on the existing route through Rochester and Winona. The IMRL alternative route appears to address not only the substantial adverse impact the proposed project would have on Rochester and Mayo but also appears to provide a more effective and efficient route to DM&E's primary markets. As required by the National Environmental Protection Act and consistent with the 8th Circuit Court of Appeals decision, SEA should prepare an analysis comparing the environmental impacts of using this new alternative route compared to the proposed route through Rochester. | 1
- 2. The FSEIS should clarify SEA's intent that the minimal relief previously provided for noise should be determined based on the total number of trains (coal and other) DM & E operates, not solely on the number of tons of coal transported. | 2
- 3. The FSEIS should clarify that previously ordered grade separations are unlikely to have a significant impact on horn noise in Rochester. | 3
- 4. The FSEIS should recommend mitigation for sensitive receptors experiencing noise of at least 70 DBA Ldn (e. g. wayside noise or wayside/horn noise) or should explain why receptors experiencing some types of noise, but not horn noise alone, should receive mitigation. | 4

CONCLUSIONS

The DSEIS analysis and conclusions should be revised to reflect the substantive revisions recommended above.

Respectfully submitted,

Rochester Area Chamber of Commerce

By: John Wade, PRESIDENT

June 2, 2005

220 South Broadway Suite 100 Rochester, MN 55904 507-288-1122 Fax 507-282-8960
Website: www.rochestermnchamber.com email: chamber@rochestermnchamber.com
Accredited Chamber of Commerce since 1965

SEA's Response to Comment Letter From: John Wade

Representing: Rochester Area Chamber of Commerce

Dated: June 2, 2005

SEA Environmental Correspondence Tracking Number: EI-1512

- 1. This comment, related to the IMRL lines, is fully addressed in the Final SEIS, Chapter 6.
- 2. This comment, related to the Board's noise mitigation, is addressed in the Final SEIS, Chapter 6.
- 3. This comment, about the effects of the grade separations required by the Board's existing mitigation, is addressed in the Final SEIS, Chapter 2.
- 4. The Board has already imposed mitigation (condition Number 95) requiring DM&E to provide mitigation for noise sensitive receptors located within the 70 dBA Ldn noise contour for wayside noise. The Board's mitigation applies to noise sensitive receptors that, in addition to being exposed to wayside noise levels of 70 dBA Ldn or greater, would also be exposed to horn noise. Chapter 2 of the Draft and Final SEIS discuss SEA's additional evaluation of potential horn noise mitigation.



Minnesota Department of Transportation

Office of Freight and Commercial Vehicle Operations

Mail Stop 420
1110 Centre Pointe Curve
Mendota Heights, MN 55120-4152

Tel: 651/405-6060
Fax: 651/405-6082

E1-1513 vj

June 3, 2005

Case Control Unit
STB Finance Docket No. 33407
Surface Transportation Board
1925 K Street, NW
Washington, DC 20423-0001

Attn: Ms. Victoria Rutson
Section of Environmental Analysis

Dear Ms. Rutson:

Enclosed for filing are the original and ten copies of comments by the Minnesota Department of Transportation as announced by the Surface Transportation Board for Finance Docket No. 33407.

Sincerely,

Allan J. Vogel
Allan J. Vogel, Director
Freight, Railroads & Waterways



An equal opportunity employer

BEFORE THE
SURFACE TRANSPORTATION BOARD

STB FINANCE DOCKET NO. 33407



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

MINNESOTA DEPARTMENT OF TRANSPORTATION COMMENTS
ON THE DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT (DSEIS)
CONCERNING THE DAKOTA MINNESOTA & EASTERN RAILROAD'S PROPOSED
POWDER RIVER BASIN EXPANSION PROJECT

Allan J. Vogel, Director
Freight, Railroads & Waterways
Minnesota Department of Transportation
1110 Centre Pointe Curve
Mendota Heights, Minnesota 55120

June 3, 2005

My name is Allan J. Vogel, Director of Freight, Railroads and Waterways for the Minnesota Department of Transportation (Mn/DOT). Mn/DOT is the state agency responsible for rail planning and programs in Minnesota. Part of Mn/DOT's responsibility is to comment on mergers, consolidations, acquisitions or other significant transactions involving railroads that affect or may affect Minnesota. The proposal by the Dakota, Minnesota and Eastern Railroad (DM&E) for construction into the Powder River Basin, herein referenced as "PRB project," is a matter falling within the jurisdiction of Mn/DOT.

I. Introduction

In February 1998 the DM&E sought authority from the Surface Transportation Board (STB) to construct and operate a 280 mile rail line extension into the Powder River Basin (PRB). In December 1998 the STB issued a decision approving the transportation related aspects of the proposal. The Board found that the line, if built, would provide transportation benefits by enabling the DM&E to compete with the UP and the BNSF in the PRB.

To comply with the National Environmental Policy Act and other relevant environmental laws and regulations, STB's Section of Environmental Analysis (SEA) prepared an Environmental Statement (EIS) for the project. In September 2000, a Draft EIS was issued for public review and comment. SEA undertook extensive public outreach activities. In November 2001, the Final EIS was issued.

In January 2002, the STB issued a decision approving the proposed project. The Board concluded that DM&E's proposal would result in potentially significant adverse environmental impacts, but that the impacts would not be severe enough to warrant disapproving the proposed new line in view of the line's significant transportation and public benefits: (1) the introduction of a competitive route from the PRB that would be as much as 390 miles shorter than the other carriers' routes to the areas served by DM&E and (2) the attendant upgrade of DM&E's existing system, enabling improved service to DM&E's existing customers. Accordingly, the Board granted its approval for the line, subject to extensive environmental conditions (147 conditions in all) addressing both short-term (construction-related) impacts, and impacts related to longterm operation of unit coal trains.

After the Surface Transportation Board gave final approval to the Powder River Basin Expansion Project in 2002, various parties sought judicial review. In *Mid States Coalition for Progress v. STB*, 345 F.3d 520 (8th Cir. 2003), the 8th Circuit Court of Appeal upheld the Board with respect to all of the transportation issues and most of the environmental issues that were raised. But it directed the Board to give further consideration to (1) the environmental impacts of increased horn noise, (2) the relationship between vibration and horn noise, (3) potential increased coal consumption in the region to be served by the DM&E. The court also found that the Programmatic Agreement setting forth the Board's approach to the historic review required by the National Historic Preservation Act should have been executed prior to the time the Board granted a license to DM&E in this case.

II. Comments

Mn/DOT offers the following comments with respect to the environmental impacts of increased horn noise.

Mn/DOT supports the issues raised by the City of Rochester concerning horn noise issues.

1. We agree with the City of Rochester's assertion that train noise relief should be based on the total number of trains rather than on the number of tons of coal transported. | 1
2. We also agree with the City of Rochester's contention that the construction of one or two grade separations within the city is unlikely to significantly impact horn noise in Rochester. Given the number of crossings in Rochester, and their relative proximity to each other, horn noise will not be significantly reduced by the construction of one or two grade separations. | 2
3. Mn/DOT strongly encourages SEA to carefully review the City of Rochester's comments and concerns with respect to sensitive noise receptors and to consider incorporating the City's suggestions into the Final Supplemental Environmental Impact Statement. | 3

Respectfully Submitted,



Allan J. Vogel, Director
Freight, Railroads & Waterways

EI-1514
vjv

802 Sierra Lane NE
Rochester, MN 55906

May 28, 2005

Case Control Unit
Finance Docket No. 33407
Surface Transportation Board
1925 K Street, N.W.
Washington, D.C. 20423-0001

Please seriously consider my comments on STB's decisions relating to the 4 remanded issues concerning the DM&E coal train expansion:

1. **Horn noise**- Maximum horn noise is reported to be 110 db, more than high enough to damage hearing, and certainly high enough to cause daily irritation to thousands of people. Average noise per 24 hours of 70 db is a completely nonsensical method to estimate environmental impact. Furthermore, it has been estimated to cost \$4.5m to insulate the 1,100 homes and 200 businesses in Rochester that would be affected, and the drop in value of these properties without insulation is estimated to be \$7.6m. This is unacceptable. STB impact study was based on the 1990 census and should have been based on the 2000 census!

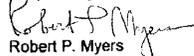
2. **Noise and Vibration Synergies**- The Mayo Clinic believes vibration will detrimentally affect their MRI machines. The Clinic Staff are the most informed people on this issue. Plus, there is a new, huge Clinic Gonda building, another synergy target, which is four blocks from the tracks.

3. **Air quality**- It's nice that *national* air quality will not be significantly diminished by the additional coal burned due to the DM&E expansion, but irrelevant to people living downwind of the coal-burning energy plants. If STB doesn't have specific information on where the additional coal would be burned, then STB doesn't have enough information to talk about *regional* air quality. The air quality in Rochester will certainly be diminished, due to coal dust blowing off the train cars, and fumes from train engines.

4. **Programmatic Agreement Governing Historic Review**- If this includes environmental justice, then please reconsider STB's decisions regarding the discriminatory effect of the train affecting the abundant number of lower income people living nearer the train tracks, an important issue that STB invoked for the Houston case in 2003, but failed in a consistent manner to apply to Rochester's plight. If STB applied the same reasoning as in the Houston case, STB would have helped the poor people of Rochester, many of whom will be affected including 4 high rises of elderly retirees that are in close proximity to the tracks. Where is STB compassion?

I trust that others will make other arguments that I have missed, and I sincerely hope that STB will look at the whole picture instead of just the remanded issues. There is no constructive gain for Rochester, a city of 89,000, in having up to a projected 40 coal trains speeding through the city center on a daily basis. The DM&E has purchased, to Rochester's west, an alternative track route south into Iowa from Owatonna, which could be used to bypass Rochester completely. If the STB has not made a site visit to Rochester, it is remiss in not doing so. The STB just might conclude how unnecessary and destructive the DM&E project really will be to the people of Rochester.

Respectfully,


Robert P. Myers

SEA's Response to Comment Letter From: Robert P. Myers

Representing: Citizen

Dated: May 28, 2005

SEA Environmental Correspondence Tracking Number: EI-1514

1. SEA has reviewed the comment and points out that the court in Mid States, as discussed in the Draft SEIS, Chapter 2, upheld SEA's noise methodology, which therefore, is no longer at issue in this proceeding. Additionally, the court upheld SEA's use of 1990 census data, as is discussed in the Final SEIS, Chapter 6. The commenter's concern about the drop in property values that would potentially result from this project is addressed in the EIS and this Final SEIS, and the cost of insulation for homes and businesses in Rochester, were it to be required, is appropriately addressed in the Final SEIS, Chapter 2.
2. SEA conducted an extensive evaluation of the potential impact of project-related vibration on sensitive medical equipment at the Mayo Clinic, as discussed in the Final EIS, Chapter 9, including conducting vibration testing in the Charlton North Building. As explained in the Final EIS, SEA determined that the proposed project would not affect sensitive medical equipment and has received no data to contradict this determination.
3. As discussed in the EIS, SEA determined that coal dust blowing from rail cars would not have potentially significant impacts. Nor would air emissions from diesel locomotives. SEA's evaluation of potential impacts to local and regional air emissions as a result of increased consumption of PRB coal from this project are thoroughly discussed in the Draft and Final SEIS, Chapter 4.
4. The Programmatic Agreement addresses the potential project-related impacts to cultural resources, including archaeological and historic resources but does not address environmental justice. SEA's evaluation of environmental justice issues, concerns, and comments is included in the EIS and Final SEIS, Chapter 6.
5. There is no basis for the commenter's suggestion that revisiting the entire project (not just the remanded issues) is warranted in this case. The comment asking SEA to consider the IMRL routing is fully addressed in the Final SEIS, Chapter 6. Finally, SEA believes that it has fully considered the local interests of Rochester in the EIS and SEIS. Need for the project is not an issue before SEA in this SEIS and was not one of the issues remanded by the court.

SEA's Response to Comment Letter From: John E. Binder

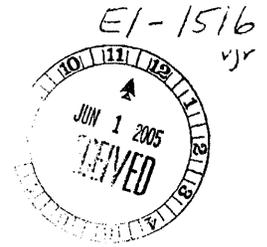
Representing: WY State Geological Survey

Dated: May 26, 2005

SEA Environmental Correspondence Tracking Number: EI-1515

1. SEA acknowledges commenter's comments supporting the need for the proposed project. The purpose and need for the proposed project is discussed in the EIS and the Board's 1998 Decision and 2002 Decision. SEA has provided additional information on the projected demand for PRB coal in Chapter 4 of the Final SEIS.

802 Sierra Lane NE
Rochester, MN 55906



May 27, 2005

Case Control Unit
Finance Docket No. 33407
Surface Transportation Board
1925 K Street, N.W.
Washington, D.C. 20423-0001

Dear Sirs:

Here are my comments on your decisions relating to the four remanded issues concerning the DM&E coal train expansion:

Horn noise- Yes, it would be very costly to mitigate the horn noise. In fact, it would cost \$4.5m to insulate the 1,100 homes and 200 businesses in Rochester that would be affected, but the drop in value of these properties without insulation will be \$7.6m. This is unacceptable. By the way, your study is based on the 1990 census and out-of-date. | 1

Noise and Vibration Synergies- I leave it to the Mayo Clinic to predict the effect of the coal trains on the MRI machines. The Clinic staff are the most informed people on this issue. Plus, there is a new Clinic building, four blocks from the tracks, another synergy target. | 2

Air quality- It's nice that national air quality will not be significantly diminished by the additional coal burned due to the DM&E expansion, but irrelevant to the people living downwind of the coal-burning energy plants. If you don't have specific information on where the additional coal would be burned, then you don't have enough information to talk about regional air quality. The air quality in Rochester will certainly be diminished, due to coal particulate matter blowing off the train cars, and fumes from the train engines. | 3

Programmatic Agreement Governing Historic Review- If this includes environmental justice, then please reconsider your decisions regarding the discriminatory effect of the train affecting the lower income people living nearer the tracks. Your analysis failed to use the methods that you invoked for the Houston case in 2003, which would have helped the City of Rochester in its case. | 4

I trust that others will make the arguments I have missed, and that you will look at the whole picture instead of just the remanded issues.

Sincerely,
Emily Myers
Emily Myers

EI-1517
vj

Roger and Irene Scabright
320 17th Ave. N.E.
Rochester, MN 55906

SEA's Response to Comment Letter From: Emily Myers

Representing: Citizen

Dated: May 27, 2005

SEA Environmental Correspondence Tracking Number: EI-1516

May 18, 2005

Case Control Unit
Finance Docket No. 33407
Surface Transportation Board
1925 K Street N.W.
Washington DC 20423-0001

Attn: Victoria Rutson, Section of Environmental Analysis

Dear Ms. Rutson:

1. SEA has reviewed the comment and points out that the court in Mid States, as discussed in the Draft SEIS, Chapter 2, upheld SEA's noise methodology, which therefore, is no longer at issue in this proceeding. Additionally, the court upheld SEA's use of 1990 census data, as is discussed in the Final SEIS, Chapter 6. Arguments related to the drop in property values from this project are discussed in the EIS and the Final SEIS, Chapter 2.
2. SEA conducted an extensive evaluation of the potential impact of project-related vibration on sensitive medical equipment at the Mayo Clinic, as discussed in the Final EIS, Chapter 9, including conducting vibration testing in the Charlton North Building. SEA determined that the proposed project would not affect sensitive medical equipment and has received no data to contradict this conclusion.
3. As discussed in the EIS, SEA determined that coal dust blowing from rail cars would not have potential significant impacts, nor would air emissions from diesel locomotives. SEA's evaluation of potential impacts to local and regional air emissions as a result of increased consumption of PRB coal from this project are discussed in the Draft and Final SEIS, Chapter 4.
4. The Programmatic Agreement addresses the potential project-related impacts to cultural resources, including archaeological and historic resources, but does not address environmental justice. SEA's evaluation of environmental justice issues, concerns, and comments is included in the EIS and Final SEIS, Chapter 6.

We live approximately 200 yards from the railroad tracks, on 17th Ave N.E. When the trains come through there is quite a bit of noise, and not only from the horns blowing. If the windows are open, it is impossible to carry on a conversation, watch TV, or read a book. If the windows are closed, the noise is still quite loud. There is also quite a bit of vibration. We have had glassware and pictures move. Because this happens so seldom, it has not been a problem. If, and when, the trains start coming through several times a day, it will become a problem. We will most likely move, and pass this problem on to someone else who thinks they are willing to put up with the noise and vibration. If we wait too long, we will probably take quite a loss on our property. We do not want to move; we know most of the people on our block, and it is convenient for walking downtown to work, etc. However, we are on the "wrong side of the tracks" as far as work and medical facilities are concerned. This could probably cause a good deal of inconvenience, if not worse, if we needed medical help. We were both raised in this neighborhood, and feel it would be a shame if we were forced out before we are ready to move.

1
2
3
4

We hope you will take a serious look at the consequences of the DME railroad's plans for the City of Rochester, and how it will affect our neighborhood.

Sincerely,
Roger Scabright *Irene Scabright*

Roger and Irene Scabright

cc: Governor Pawlenty, Congressman Gutnecht, Mayor Brede, Rochester City Council, Olmsted County Commissioners

SEA's Response to Comment Letter From: Roger and Irene Seabright

Representing: Citizens

Dated: May 18, 2005

SEA Environmental Correspondence Tracking Number: EI-1517

1. This comment raises concerns about the potential impacts from train noise and vibration, both of which SEA identified and discussed in the EIS. The synergies of noise and vibration are evaluated in Chapter 3 of both the Draft and Final SEIS.
2. See response number 1.
3. SEA evaluated project related impacts to property values in the EIS and the Final SEIS, Chapter 2.
4. SEA conducted an extensive evaluation of the potential project-related impacts to movement of emergency vehicles for the EIS. Moreover, the Board imposed mitigation condition Numbers 3, 4, 18 and 121 specifically to address movement of emergency vehicles across the rail line through Rochester. SEA acknowledges the concerns of the commenter about the potential effects of DM&E coal trains on the City of Rochester and its residents but believes that these potential impacts have been appropriately analyzed and considered in both the EIS and the SEIS.



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
WYOMING REGULATORY OFFICE
2232 DELL RANGE BOULEVARD, SUITE 210
CHEYENNE WY 82009-4942

May 25, 2005

Ms. Victoria Rutson
Surface Transportation Board
1925 K Street NW, Room 506
Washington, DC 20423

Dear Ms. Rutson:

This is in reference to April 8, 2005 correspondence from Burns & McDonnell forwarding a copy of the Draft Supplemental Environmental Impact Statement (DSEIS) for the Powder River Basin Expansion Project proposed by the Dakota, Minnesota & Eastern Railroad Corporation (DM&E). The project proposes to access coal mines in the Powder River Basin in Wyoming. Thank you for the opportunity to review the document and provide comments.

The additional information in the DSEIS pertaining to the 4 specific factors that were remanded by the 8th Circuit Court of Appeals has been reviewed in light our regulatory requirements under Section 404 of the Clean Water Act. These 4 factors are generally pertinent to our public interest review as outlined at 33 CFR Part 320.4 as well as other applicable statutes. Based on the information contained in chapters 1 thru 5, no comments are provided because the Omaha District has no concerns with the data, analysis and conclusions contained in these chapters. However, to ensure that our administrative record is complete, a copy of the fully executed Programmatic Agreement associated with the Section 106 process of the National Historic Preservation Act is requested.

As you are aware, the Omaha District has not issued any Section 404 permits for the proposed action in South Dakota and Wyoming. DM&E needs to provide some additional information for complete evaluation of their proposal.

If you have any questions regarding this correspondence, please contact me at (307) 772-2300.

Sincerely,


Chandler J. Peter
Project Manager
Wyoming Regulatory Office

Copies furnished:

Printed on  Recycled Paper

CENWO-OD-RSD (Naylor)
CENWO-OD-RF (Schwartz)

Steve Thornhill
Burns & McDonnell
P.O. Box 419173
Kansas City, MO 64141

SEA's Response to Comment Letter From: Chandler J. Peter

Representing: Department of the Army, Corps of Engineers, Omaha District

Dated: May 25, 2005

SEA Environmental Correspondence Tracking Number: EI-1518

1. As requested by the commenter, SEA will provide the U.S. Army, Corps of Engineers, Omaha and St. Paul Districts, as well as the other cooperating agencies, a fully executed copy of the Programmatic Agreement.
2. SEA is aware that no Section 404 permit has been issued by the Corps of Engineers for the proposed project. The Board has imposed mitigation condition Number 59 requiring DM&E obtain such permits. As discussed in the Final SEIS, Chapter 6, SEA understands that additional information is still needed before the Corps of Engineers can complete its evaluation of the proposed project.



Shakopee Mdewakanton Sioux Community

2330 SIOUX TRAIL NW • PRIOR LAKE, MINNESOTA 55372
TRIBAL OFFICE: 952•445-8900 • FAX: 952•445-8906

May 1, 2005

Victoria Rutson, Chief, SEA
Case Control Unit
Finance Docket No. 33407
Surface Transportation Board
1925 K Street, NW
Washington D.C. 20423-0001

**Re: STB Finance Docket 33407-Dakota, Minnesota & Eastern Railroad
Corporation Construction into the Powder River Basin: Release of
Draft Supplemental Environmental Impact Statement**

Dear Victoria Rutson:

Thank you, for your letter dated April 15, 2005 concerning the D M & E Railroads' Powder River Basin Expansion Project. I would like a copy of the proposed route if such information is available.

As always, The Shakopee Mdewakanton Sioux Community is concerned with any disturbances of areas of potential historical significance, especially those areas that may contain objects of Dakota Culture, History, or Religion. Please keep us informed of the progress of this project.

Sincerely,

Leonard E. Wabasha
Cultural Resource Specialist-Interim Director
Shakopee Mdewakanton Sioux (Dakota) Community
2230 Sioux Trail N.W.
Prior Lake, Minnesota 55372
Ph: 952-496-6120
Fax: 952-496-6185
crs@shakoopedakota.org

EI-1519

OFFICERS
Stanley R. Crooks
Chairman
Glynn A. Crooks
Vice Chairman
Keith B. Anderson
Secretary/Treasurer

SEA's Response to Comment Letter From: Leonard E. Wabasha

Representing: Shakopee Mdewakanton Sioux Community

Dated: May 1, 2005

SEA Environmental Correspondence Tracking Number: EI-1519

1. As noted in the Final SEIS, Chapter 5, as part of the Programmatic Agreement, SEA will continue to consult and coordinate with the Shakopee Mdewakanton Sioux Community, as well as the other interested Tribes, on the identification and treatment of cultural resources, if this project is approved and implemented.

1

Dear Sirs/Madame

 Larry R. Brown M.D.
5813 NE Sumac Lane
Rochester, MN 55908-8554

I continue to be very concerned about the danger and potential disruption that will be caused by routing a large number of trains travelling at excessive speeds across multiple road crossings through the center of a busy metropolitan area such as Rochester, Minnesota. Even if there is no derailment within the city, please be aware that there will be a number of accidents involving trains and automobiles at the multiple crossings. This will include many youth I'm sure. If there is a derailment and/or chemical spill, the proximity to Methodist Hospital/Mayo Clinic will require wholesale evacuation of patients from the hospital and clinic perhaps resulting in additional mortality and certainly morbidity.

I appeal to your good judgement and common sense and request as a concerned physician and resident of the community to please vote against allowing DM&E to route their trains through our community. Sincerely,
Larry R. Brown M.D.
5/3/05

SEA's Response to Comment Letter From: Larry R. Brown

Representing: Citizen

Dated: May 3, 2005 (received)

SEA Environmental Correspondence Tracking Number: EI-1520

1. SEA conducted an extensive safety evaluation of the proposed project and the Board imposed mitigation condition Numbers 1, 2, 3, 4, 5, 6, 8, 9, 11, 14, 18, 121, and 123 to address potential safety issues, such as those raised in this comment. SEA appreciates the commenter's participation in the environmental process and his concern for safety.

E/-1521
Jr

MOULTON LAW OFFICE

Daniel J. Moulton-Attorney*
976 14th Ave SW
Rochester, MN 55902

Phone No: 507.288.6334

moultonlawoffice@qwest.net

Fax No: 507.288.2048

April 20, 2005

CASE CONTROL UNIT
FINANCE DOCKET NO. 33407
SURFACE TRANSPORTATION BOARD
1927 KAY STREET NW
WASHINGTON, DC 20423-001



Dear Ms. Rutson:

I am writing this letter as a written comment regarding the release of the draft supplemental environmental impact statement and other documents that I received in my office.

It appears to me that two issues need to be addressed. Those issues are what are the needs that the Service Transportation Board to impose upon the DM&E Railroad when dealing with the Rochester, MN. area. The second issue is what are the benefits of it.

NEEDS

The DM&E needs to construct at least two overpasses in the city of Rochester, MN. These would have to be constructed in areas where it would create little to no hardship to the surrounding areas. One location would be at the railroad crossing near the Rochester Community and Technical College. It is a wide open space with enough room to develop a gradual grade to cross over the railroad. The second location could be adjacent to the power plant on third avenue near Silver Lake.

These two overpasses could be used in conjunction with the highway 52 overpass and county road 22 overpass, with all four overpasses used to accommodate ambulance traffic and emergency services.

One other alternative, would be to have some form of monitoring of the railroad crossings so as to allow law enforcement, the fire department, and the ambulance service to be alerted to the location of trains, in order to plan the most adventitious route.

The Surface Transportation Board needs to be aware of the fact that the City of Rochester, has fire halls located both north and south of the railroad. Police are also

**Licensed to Practice in Minnesota

positioned by car on both the north and south side. As to the ambulance, Mayo Clinic, who owns the ambulance service, could position part of its ambulance staff in one of its several buildings located north or the railroad. Presently, I believe that the ambulance service is located in part near the sixth avenue, NW, railroad crossing on the South side of the rail. This would allow them to either cross at sixth avenue NW or 11th avenue NW, depending on the location of the train, if any.

2 (cont.)

Another need to be addressed would be to continue speed limits on the present rail line in order to reduce vibration.

3

BENEFITS

I see the following benefits to the proposed plan by the DM&E. They are as follows:

- A) With an updated system, one would expect less wreckage on the rail lines.
- B) With an upgrade, that provides for a more efficient transportation system to take coal, grain, iron products, lumber, and other items to markets.
- C) It benefits the local economy, especially with regard to farm products that leave our area heading east.
- D) It reduces the cost of energy due to the introduction of a third carrier. Historical examples in the past showed the reduced cost to transport from the Powder Horn river Basin occurred when Burlington Northern competed with the Milwaukee Railroad. Once the Milwaukee Railroad went bankrupt and out of business, the rates were increased dramatically.
- E) It supports a local carrier and allows the DM&E to financially grow strong.
- F) It creates no additional adverse effects on our environment due to the fact that there are no new alternative routes created.
- G) That with a shorter distance between the Powder Horn River Basin and the markets, less fuel is burned by the railroads and less pollution is being discharged from railroad equipment.

4

CONCLUSION

It is important for the growth of this region to have a project like this. Upgrades of railroad systems will eventually eliminate delays caused by train wrecks due to faulty rail. It will create a speedier system to get products to and from market places. The safety factors would also be enhanced.

Thank You for your time and consideration.

Sincerely,

Daniel J. Moulton

SEA's Response to Comment Letter From: Daniel J. Moulton

Representing: Moulton Law Office

Dated: April 20, 2005

SEA Environmental Correspondence Tracking Number: EI-1521

1. The location for construction of grade separated crossings was left to the discretion of the City of Rochester by the Board in the 2002 Decision. SEA encourages commenter to coordinate with Rochester at such time as the conditions requiring construction of grade separated crossings in Rochester are implemented.
2. The Board imposed condition Number 4 in the 2002 Decision to address the issue of coordination between train operations and emergency response vehicles, including possible installation of an electronic display board to show the location of trains in relation to grade crossings.
3. SEA found as part of its analysis for the EIS that, at the speeds projected for train operations along the existing line (45 miles per hour for loaded coal trains, 49 miles per hour for empty coal trains), no significant adverse effects would result from vibration. SEA additional discussion of the synergies between noise and vibration is included in the Draft and Final SEIS, Chapter 3.
4. SEA notes commenter's view that the project would have public benefits.

2 May '05
To - Victoria Rudson, Chief
Section of Environmental Analysis EI-
1522
Re - Comments on Draft SEIS of
STB Finance Pocket No. 33407 NY

EXECUTIVE SUMMARY

Preliminary conclusions in the Draft SEIS

• Horn Noise

Has the physiological and psychological effects of frequent and loud noise on humans been adequately studied and considered? 1

Remember this is how the military drove Castro from his church sanctuary!

• Noise and Vibration Synergies

Adding vibration to horn noise (see above) can only compound the adverse effects. Again, has this been adequately studied and considered? 2

• Air Quality

- Rail transportation rates (economics) vs air emissions (environment) - why is the environment subsumed to economics? 3

A healthy economy can not exist when the environment is sick.

- Save our trees, over please -

-2-
- Mercury, a 0.9% increase is minor? | 4

- Carbon monoxide, a 0.9% increase may be small, but it adds to that existing, thus worsening global warming! | 5

Given the perils of our plundered planet, we should give greater attention to our environment than to that given our economy. | 6

wendell funk
From - Wendell Funk
1707 N 12th
Quincy IL 62301

SEA's Response to Comment Letter From: Wendell Funk

Representing: Citizen

Dated: May 2, 2005

SEA Environmental Correspondence Tracking Number: EI-1522

1. As discussed in detail in the EIS, SEA determined, following a thorough noise analysis, that the proposed project would have significant adverse effects as a result of increased train noise and recommended appropriate noise mitigation, which the Board imposed in the 2002 Decision. SEA's additional discussion of mitigation for horn noise is included in Chapter 2 of both the Draft and Final SEIS.
2. SEA's evaluation of the synergies between noise and vibration is presented in Chapter 3 of both the Draft and Final SEIS. SEA believes that this issue has been fully studied and considered.
3. The environmental issues relevant to this case were not subsumed to the economic issues, as the commenter suggests. As discussed in detail in the Board's 1998 Decision and 2002 Decision, the court's decision in Mid States, and the Draft and Final SEIS, the Board addressed the transportation-related aspects of this case in the 1998 Decision. In the 2002 Decision, the Board weighed and considered the potential environmental impacts discovered during the EIS process in determining whether to give final approval to this line. The Board's decision that this project would have public benefits and that the DM&E line would be financially viable was affirmed by the court in Mid States and the issue is not before the Board on remand. SEA did use information on rail transportation rates from the 1998 Decision to devise inputs for the NEMS sensitivity analysis on the remanded coal consumption issue, as discussed in the Draft SEIS and the Final SEIS, Chapter 4.
4. SEA's discussion of mercury emissions potentially resulting from the increased production and consumption of PRB coal due to the proposed project is included in Chapter 4 of both the Draft and Final SEIS.
5. SEA's discussion of carbon monoxide emissions potentially resulting from the increased production and consumption of PRB coal due to the proposed project and global warming is included in Chapter 4 of both the Draft and Final SEIS.
6. The Board considers both the transportation merits and potential environmental effects when making its decision on whether to approve a rail construction project and what environmental conditions it would be appropriate to impose.

EI-1523
vj

April 21, 2005

Mrs. Victoria Rutson
Surface Trans. Board
1925 K Street, N.W.
Washington, D.C. 20423-0001



Re: Finance Doc. # 33407

Dear Mrs. Rutson,

Thanks for your report and all the work you have done regarding the D,M&E rail up grade and expansion project.

I am a southern Minnesota farmer, and I just want your office to know how much we depend on the D,M&E rail system. The rail system supplies us inputs, and then delivers our products to market. Please include farmers in your equation, we need the support of a reliable rail system.

1

I feel the East-West rail corridor is a national security project. We can not and should not just depend on the freeway system and other roads. Many of these roads are over used, and going into disrepair, because of the heavy truck traffic. We need another option, and upgrading our rail system is one. Please support D,M&E rail upgrade.

2

Sincerely,

Ron Johannsen-1612 Glendale Hills Dr. N.E., Roch. Mn. 55906

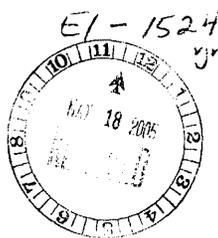
SEA's Response to Comment Letter From: Ron Johannsen

Representing: Citizen

Dated: April 21, 2005

SEA Environmental Correspondence Tracking Number: EI-1523

1. Comment supporting the need for and importance of the DM&E project is noted.
2. Comment supports upgrading the DM&E system and notes that many roads are overused and falling into disrepair because of heavy truck traffic.



May 13, 2005

Case Control Unit
Finance Docket No. 33407
Surface Transportation Board
1925 K Street, NW
Washington, D. C. 20423-001

Attn: Victoria Rutson
Section of Environmental Analysis

Dear Sirs:

Thank you for the recent Draft Supplemental Environmental Impact Statement, on the Powder River Basin Expansion Project for the DM&E Railroad.

I am pleased that your office found no significant adverse environmental impacts severe enough to warrant disapproving the proposed new railroad project. I sincerely hope that this ends the delaying problems, and that the DN&E railroad can continue with the planning, financing and construction of their railroad.

A growing industry in our section of the country is ethanol production. There are presently 15 producing plants, with 3 more under construction, with a capacity of 550 million gallons. Four of these plants are in Minnesota and are serviced by the DM&E railroad, and three are in South Dakot, also serviced by the same railroad. Most of this product is shipped by rail, necessitating a good maintained, heavy hauler, railroad. Please note the attached newspaper article.

Ten years ago I questioned whether this railroad would survive, but they have struggled, and rebuilt the terrible deteriorated rail bed. Thru much effort they are moving forward, and need the opportunity to compete as a viable business.

Again, I heartly approve of the DM&E construction, and thank you for your environmental concerns.

Sincerely,

Ivan W. Roettger
22008 516th St
Elysian, Minnesota 56028

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Fresh ethanol push in works

Bill calls for 5 billion gallons; 8 billion proposed

The Associated Press

WASHINGTON — Corn-based ethanol is being pumped into more gas tanks every year, and farm-state senators and a majority of governors want an even greater flow. They say an energy bill Republicans are pushing through the House this week does not go far enough to replace foreign oil with home-grown ethanol.

The legislation would require refiners to use 5 billion gallons of corn-based ethanol a year by 2012, about 20 percent more than the industry expects to produce this year.

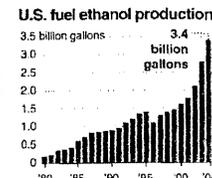
But governors from 30 states, in a recent letter to President Bush and members of Congress, urged lawmakers to boost the requirement to 8 billion gallons a year and provide tax breaks and other federal help to spur production from non-corn sources including grasses, wood chips and even garbage.

Rising oil imports are a major risk to the energy, economic and environmental security, the governors wrote, adding that expansion of ethanol would be "the safest and cheapest way to mitigate these risks."

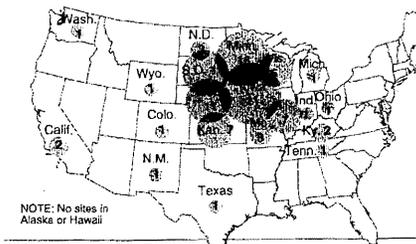
Transportation accounts for

Alternative energy grown by the cob

Ethanol, a corn-based gasoline additive that helps vehicles run cleaner and more efficiently has seen rapid growth as another additive, MTBE, is being phased out because it contaminates drinking water.



Number of ethanol production sites, by state



NOTE: No sites in Alaska or Hawaii

SOURCE: Renewable Fuels Association

more than half of the U.S. thirst for oil, about 56 percent of which comes from imports; that portion is expected to be well over 60 percent by 2012.

Bills were introduced in the Senate and House last week calling for the requirement of 8 billion gallons. An attempt is expected to be made to change the energy bill to reflect the higher number when it comes up for House debate on Wednesday, although prospects of doing so are uncertain.

Almost all ethanol now pro-

duced comes from corn. A federal mandate for refiners to more than double its use over the next seven years would be a major boon to farmers. While non-corn ethanol from various biomass sources is widely talked about, a practical and cost-effective process for doing so is still years away.

Ethanol prices have declined sharply in recent months, largely because of the rapid growth in supply and few new markets. The wholesale price of a gallon of ethanol is now about \$1.20.

SEA's Response to Comment Letter From: Ivan W. Roettger

Representing: Citizen

Dated: May 13, 2005

SEA Environmental Correspondence Tracking Number: EI-1524

1. SEA thanks the commenter for participating in the SEIS process.
2. Comment supports the project.
3. Comment noted.



EI-1525
May 11-05

1
Thank you for sending me the Draft Docket No 33407.
That Railroad has been operating here since 1865 and we
desperately need it to continue. all through the 40's + 50's
the trains came through Rosson + Rochester at 40 to 50
miles + hour. The Minn 400 come even faster. Everybody
knew about the trains. Nobody rejected them. Every body watched
out for them. We were taught to stop, look + listen. We
were responsible for ourselves. why should it be any different
now? I don't need Big Brother Government to look after me.
that is why we need the trains blowing the whistle. I
would be very uncomfortable driving around town not knowing
if there was a train coming if I couldn't hear a whistle. It
may be unnecessary to blow the whistle continuously through
tunnel and maybe after midnight concern should be taken not
to blow as much as in the day time so as to protect people
sleeping. But I would say we need to know by the Horn that
the train is here.

2
as for as the vibration is concerned I have no comment
except to say that it is insignificant. The Mayo Clinic runs all kinds
of construction machinery, jackhammers right outside there door in the
streets if they need to and never complain about that. they are just
trying to trump up a excuse for you to consider. I would say ignore it.

3
I have lived coming to Rochester all my life since the 1930's. I
was born there + have been treated there together with my family all
over life. the Clinic never complained about all the expanded construction
noise they have created in all that 70 years.

Do they have nothing to complain about now. The train brought most of these customers during all those years till the middle 60's.

As for the Coal, my comment would be that I would think it would be a improvement for Rochester to be burning low sulfur coal in the future. Is that not supposed to be cleaner burning coal? Rochester needs coal for its municipal power plant. If they can't get it by rail then we will have more semi trailer trucks on highway 14 if we don't need that.

Before as a farmer we had retired from active farming & renting my farm out to younger people who needs the rail to ship their corn & soybeans to the river and as a concerned citizen who has lived for 75 years around this rail road I feel we need it & want to see it continue.
Thank you.

Sincerely
Robert Beaver



Robert Beaver
1003 2nd Pl NW
Kasson, MN 55944-1497

SEA's Response to Comment Letter From: Robert Beaver

Representing: Citizen

Dated: May 11, 2005

SEA Environmental Correspondence Tracking Number: EI-1525

1. SEA appreciates commenter's concern for safety and acknowledges the function of train horn soundings as a warning to motorists and pedestrians. SEA's additional discussion of quiet zones as a potential means to reduce train horn soundings without compromising safety is included in the Final SEIS, Chapter 2.
2. Comment supports SEA's conclusions in the EIS regarding the potential impacts of project-related vibration.
3. Comment noted.
4. Comment noted.
5. Comment expressing support for the proposed project noted.

BEFORE THE
SURFACE TRANSPORTATION BOARD

FINANCE DOCKET NO. 33407

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

COMMENTS OF
ROCHESTER, MINNESOTA
ON THE
DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT



ENTERED
Office of Proceedings

JUN 06 2005

Part of
Public Record

Steven J. Kalish
McCarthy, Sweeney & Harkaway, P.C.
Suite 600
2175 K Street, N.W.
Washington, D.C. 20037
(202) 775-5560

Dated: June 6, 2005

BEFORE THE
SURFACE TRANSPORTATION BOARD

FINANCE DOCKET NO. 33407

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

COMMENTS OF
ROCHESTER, MINNESOTA
ON THE
DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

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

PRELIMINARY COMMENTS

Mid States Coalition for Progress v. Surface Transportation Board, 345 F.3d 520 (8th Cir. 2003) vacated the Board's January 30, 2002 order giving final approval to the Dakota, Minnesota & Eastern Railroad Corporation's ("DM&E") proposal in part because of the inadequacies of SEA's treatment of the horn noise issue. After describing SEA's discussion of the effects and mitigation possibilities for horn noise as "relatively perfunctory,"¹ the Court explained that the Board's refusal to limit the use of train horns does not relieve "SEA of the obligation to consider mitigation not involving limitations on the use of horns." The court concluded that SEA had not explained "fully its course of inquiry, analysis and reasoning" and remanded this issue to give SEA another opportunity to provide "a reasoned discussion of its rationale."²

¹ 345 F.3d at 536.

² *Id.*

The DSEIS discussion of horn noise is no more reasoned than SEA's prior analyses. Accordingly, Rochester requests that SEA revisit this issue. For SEA's convenience, Rochester will address the horn noise issues in the same order in which they are addressed in Chapter 2 of the DSEIS.

OVERVIEW

A. Only Horn Noise

Notwithstanding the DSEIS's assertion that "SEA is addressing only those issues remanded by the court" (ES-8), the DSEIS overview of the horn noise issue addresses not only horn noise, but wayside noise and vibration as well. "The Final EIS contained 11 separate conditions addressing the impacts of increased noise and vibration during rail construction, operation, and maintenance of the line." (2-2).

This approach is misleading. Of the 11 conditions cited by the DSEIS (numbers 86-96), only one, number 90, specifically addresses horn noise. "Applicant shall consult with interested communities along its new and existing rail line to identify measures to eliminate the need to sound train horns consistent with FRA standards." Even this "condition" is, as a practical matter, meaningless. As will be discussed *infra*, DM&E consultation is not required for Rochester, Olmsted County or the Minnesota Department of Transportation to comply with the FRA's Final Rule on the Use of Locomotive Horns at Highway-Rail Grade Crossings, Federal Register, Vol. 70, No. 80, at 21844-21920 (April 27, 2005) ("FRA Final Rule"). In any event, "consultation" should not be confused with "mitigation."

FEIS mitigation measure Number 95 will have some mitigation value with regard to horn noise. Number 95 requires a "design goal" of a 10 dBA noise reduction and a

minimum noise reduction of 5 dBA for 15, an additional 29,³ and an additional 44 noise sensitive receptors in Rochester within two years of DM&E transporting 20, 50, or 100 million tons of coal annually.

B. Grade Separations

In contrast to mitigation measure Number 95, mitigation measure Number 121, which requires DM&E to install one grade separated crossing in Rochester "prior to transporting more than 20 million tons of coal annually through Rochester for more than one year" and to install a second grade separated crossing in Rochester "prior to transporting more than 50 million tons of coal annually through Rochester for more than one year," is not likely to have any dramatic impact on horn noise in Rochester.

By way of background, Section 222.21 of FRA's Final Rule requires trains moving up to 45 mph to sound their horns between 15 and 20 seconds before the locomotive enters the crossing. Trains moving at greater than 45 mph may not begin to sound their horns more than one-quarter mile before the crossing. These requirements effectively mean that, even if DM&E constructs grade separations in Rochester, it still would be required to sound its horn when passing over those grade separations if the grade separations are less than one-quarter mile before the next at-grade crossing.

FEIS mitigation measure Number 121 lists four likely locations for the two grade separations DM&E must construct if its traffic through Rochester reaches certain levels. This condition also permits DM&E and Rochester to agree to "another mutually acceptable location." While no final decision has been made by Rochester, it is likely

³ It is Rochester's understanding that Table 12-1 at page 12-43 is meant to be read as providing supplemental relief at 50 and 100 million tons. See that table's footnote c. Thus, at 100 million tons, DM&E would be required to provide noise mitigation for a total of 88 sensitive receptors in Rochester.

that Rochester would choose to have grade separations installed by DM&E at 11th Avenue NW, and Broadway.⁴

A grade separation at Broadway would not reduce horn noise. Westbound trains will sound horns for 1st or 4th Avenues NW immediately upon clearing 2nd Avenue NE and Eastbound trains will sound horns for 2nd Avenue NE immediately upon clearing 4th or 1st Avenues NW. Using a similar analysis, a grade separation at East Circle Drive would protect only two residential structures (with three dwellings) from horn noise exceeding 70 dBA Ldn. In fact, no other feasible grade separation in Rochester, other than one at 11th Avenue NW, would cause any reduction in horn noise because of the close spacing of crossings in Rochester⁵ and the fact that the sensitive receptors are in close proximity to more than one at-grade crossing. Accordingly, the FSEIS should advise the Board candidly of the fact that the proposed grade separations, even if constructed, will have little impact on the horn noise problem.

C. Tons of Coal Annually

Prior to the issuance of the DSEIS, Rochester advised SEA of the need for clarification of the mitigation measures dependent on coal tonnage. As the Commission well knows (see Finance Docket No. 34177), the DM&E⁶ has acquired I&M Rail Link, LLC (“IMRL”). This acquisition gives DM&E a route from the Powder River Basin to the east (Chicago) and to the south (Kansas City)⁷ that permits it either to avoid using its route through Rochester completely or to minimize its use of the Rochester routing. By

⁴ Rochester also is likely to consider installing grade separations other than those paid for by DM&E in order to mitigate harms not mitigated by Board-imposed conditions.

⁵ See, e.g., DSEIS at 2-13.

⁶ The purchasing entity in Finance Docket No. 34177 was the Iowa, Chicago & Eastern Railroad, a subsidiary of DM&E.

⁷ See the attached map.

way of example, DM&E could institute “directional” operations by which it would transport loaded trains from west to east or south via the IMRL line and empty trains from east or south to west via the Rochester route.

Rochester advised SEA that DM&E may interpret the “wayside noise” conditions in a manner that effectively would eliminate them under the directional operations scenario. Because SEA has referred to the transportation of “tons of coal annually through Rochester,” DM&E may assert that its operation of an empty train destined to the Powder River Basin through Rochester does not count against the tonnage figures set forth in the mitigation condition.⁸ While Rochester has been advised informally that this interpretation is not consistent with SEA’s intent (horn and wayside noise would not be less for empty than loaded trains),⁹ the DSEIS provides no clarification of this issue.

D. Requests

In light of the foregoing discussion, Rochester requests the following in the Final Supplemental Environmental Impact Statement’s “Overview.”

1. The FSEIS should correct the DSEIS by referring only to mitigation measures addressing horn noise.
2. The FSEIS should clarify SEA’s intent that the minimal relief previously provided for noise should be determined based on the total number of trains (coal and other) DM&E operates, not on the number of tons of coal transported through Rochester.
3. The FSEIS should clarify that the numbers of noise sensitive receptors to receive noise mitigation are “additive” as described in footnote 3 herein.

⁸ On information and belief, empty trains actually create more wayside noise than loaded trains.

⁹ See DEIS, Appendix F, at F-16.

4. The FSEIS should clarify that, because noise sensitive receptors were determined based on an aerial count, multi-unit dwellings should be counted as a single noise sensitive receptor. In other words, the mitigation of noise for all apartments in a single building will count as the mitigation of a single noise sensitive receptor.

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5. The FSEIS should clarify that grade separations are unlikely to have a significant impact on horn noise in Rochester.

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(cont.)

6. The FSEIS should clarify whether DM&E is required to provide noise relief for all sensitive receptors within the contour line for 70 dBA Ldn or just the number of receptors listed in EIS Table 12-1.¹⁰

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SUMMARY OF PREVIOUS ANALYSIS

Like the Overview section, the DSEIS's summary of SEA's previous analysis of horn noise errs both in referencing the SEA's prior analysis of wayside noise, and in failing to emphasize DEIS findings of particular importance to the horn noise issue. By way of example, at page 3.2-61, the DEIS stated: "SEA recognizes that the majority of noise generated by trains during operation results from horn sounding." The Board, in dealing with the remanded horn noise issue, should be reminded of that fact.

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Moreover, the Board should be advised that the DSEIS is proposing mitigation for a small minority of DM&E noise. By Rochester's count, there are 102 residential structures within 210 feet of DM&E's tracks and 1,131 additional residential structures between 210 feet and 1,110 feet of DM&E's tracks. Thus, SEA is recommending

¹⁰ As noted in prior Rochester comments, SEA has undercounted the number of sensitive receptors within the 70 dBA Ldn contour line as a result of its reliance on aerial photography. There are 102 residential structures with 122 dwelling units within 210 feet of DM&E's tracks in Rochester.

mitigation for less than 10% of the Rochester sensitive receptors that would experience 70 dBA Ldn as a result of DM&E's project.

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(cont.)

The DEIS conclusion as to the significance of horn noise is quantified in Table 3.3-14, at page 3.3-66. That table purports to provide the following information for Rochester:

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1. At 11 trains per day, 0 Rochester receptors will experience 70 dBA Ldn solely as a result of wayside noise.
2. At 11 trains per day, 375 Rochester receptors will experience 70 dBA Ldn solely as a result of horn noise.
3. At 11 trains per day, an additional 15 Rochester receptors will experience 70 dBA Ldn as a result of the combined effects of horn and wayside noise.
4. At 21 trains per day, 0 Rochester receptors will experience 70 dBA Ldn solely as a result of wayside noise.
5. At 21 trains per day, 703 Rochester receptors will experience 70 dBA Ldn solely as a result of horn noise.
6. At 21 trains per day, an additional 44 Rochester receptors will experience 70 dBA Ldn as a result of the combined effects of horn and wayside noise.
7. At 37 trains per day, 0 Rochester receptors will experience 70 dBA Ldn solely as a result of wayside noise.
8. At 37 trains per day, 1,076 Rochester receptors will experience 70 dBA Ldn solely as a result of horn noise.

9. At 37 trains per day, an additional 88 Rochester receptors will experience 70 dBA Ldn as a result of the combined effects of horn and wayside noise.

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(cont.)

Assuming the accuracy of Table 3.3-14,¹¹ each of these figures should be presented in the SFEIS for two reasons. First, this data is necessary for the Board to understand the scope of the horn noise problem. Second, this data, if accurate, establishes an arbitrary and capricious analysis by SEA. This is confirmed by comparing the mitigation proposed in Table 12-1 of the DEIS with the facts presented in Table 3.3-14. If Table 3.3-14 is accurate, then, contrary to its representations, SEA is not recommending mitigation solely for wayside noise. As noted above, Table 3.3-14 asserts that 0 Rochester receptors would qualify for mitigation under the 70 dBA Ldn standard if only wayside noise is considered. Thus, the DEIS's Table 12-1 mitigation appears to be premised on the number of Rochester's receptors that will experience 70 dBA Ldn as a result of the combination of wayside and horn noise. See Table 3.3-14. Stated another way, the ultimate result of SEA's analysis appears to be that if a receptor would experience 70 dBA Ldn solely as a result of horn noise, it is entitled to no mitigation. However, if a receptor would experience 70 dBA Ldn as a result of the combination of horn and wayside noise, it is entitled to mitigation. This result is irrational at best. Noise is noise.

In light of the foregoing, Rochester requests the following changes to the Summary of Previous Analysis in the FSEIS:

¹¹ Table 3.3-14's assertion that there are 0 sensitive receptors in Rochester that would experience 70 dBA Ldn at 37 trains per day as a result of wayside noise is inconsistent with DEIS Table F-6 (page F-16) which asserts a wayside noise 70 dBA Ldn contour line of 210 feet at 37 trains per day. Surely, SEA is not asserting that there are no Rochester sensitive receptors within 210 feet of DM&E's tracks.

1. The FSEIS should reflect the scope of the horn noise problem in Rochester clearly by presenting the data found in DEIS Table 3.3-14. 11
2. The FSEIS should recommend mitigation for all sensitive receptors experiencing noise of at least 70 dBA Ldn or should explain why receptors experiencing some types of noise, e.g. wayside noise or wayside/horn noise, but not horn noise alone, should receive mitigation. 12
3. The FSEIS should resolve the above-discussed confusion resulting from DEIS Table 3.3-14 and should clarify the locations of the Rochester receptors that would receive relief under the DEIS approach,¹² e.g., those within the Table F-6 contour lines for wayside noise or other contour lines for the wayside/horn noise reflected in Table 3.3-14. 10 (cont.)

SUMMARY OF PREVIOUS NOISE MITIGATION

For the reasons set forth above, the first paragraph of DSEIS Section 2.3 should be limited to a discussion of horn noise. It is misleading to reference the 11 noise/vibration mitigation measures as if they were germane to the issue remanded by the court. For the same reason, the third paragraph of Section 2.3 should be eliminated as irrelevant. 4 (cont.)

For the reasons set forth above, the second paragraph of DSEIS Section 2.3 may, if DEIS Table 3.3-14 is accurate, require revision to reflect the fact that the noise mitigation previously ordered by the Board is not premised on wayside noise alone, but on the combination of wayside and horn noise. 10 (cont.)

¹² As explained in Rochester's comments on the DEIS, SEA's reliance on aerial photographs understates the number of sensitive receptors within various contour lines.

The second paragraph of DSEIS Section 2.3 also should be amended to give the Board a fair picture of the manner in which SEA is proposing to misuse the agreements negotiated by DM&E with various communities. DM&E's agreements contain, in Section 3, an "Option for Regulatory Conditions." The first sentence of that section reads "The City shall have the option to substitute regulatory conditions in lieu of this Agreement in the event that City subsequently determines for any reason that such regulatory conditions are more advantageous than the whole of this Agreement." This language fully supports the conclusion that DM&E and the communities that executed these agreements expected the Board to fulfill its statutory duty under NEPA to evaluate environmental concerns and determine the need for environmental mitigation. This language also fully supports the conclusion that these agreements were not intended to place a cap on mitigation. Thus, SEA's conclusion that "SEA therefore determined that additional noise or other site-specific mitigation was unnecessary for these communities" not only is an unlawful abdication of the Board's responsibilities under NEPA, it also is (1) contrary to the expectations of the parties to the agreements, and (2) a method of ensuring that every railroad proposing such an agreement in the future will be able to say "the STB will in no case mandate relief greater than what we are offering you." This is a grotesque result.

The fourth paragraph of Section 2.3 should be amended to delete the reference to mitigation condition 89, which requires DM&E to comply with 49 CFR Part 210. This deletion is required because (1) it is unreasonable for the Board to claim that it is ordering "mitigation" when all it is doing is referencing otherwise applicable FRA regulations, and

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(2) contrary to SEA's assertion, 49 CFR Part 210 does not address horn noise. See 49 CFR Section 210.3(b)(3).

The fourth paragraph of Section 2.3 also should be revised to reflect the fact that FRA has issued its Final Rule.

The fifth paragraph of Section 2.3 should be revised to include an analysis of whether any of the mitigation referenced therein actually would "assist communities in establishing quiet zones" under FRA's Final Rule. Vague references to "indirect" assistance cannot be helpful to the Board and are likely to be misleading.

SEA's Additional Review

IMRL Matters

Given the importance of considering alternatives in NEPA analyses, SEA must consider, in an amended SDEIS, whether ordering DM&E to route all or some of its PRB coal traffic on its new IMRL lines is a viable alternative to routing that traffic through Rochester. Given the requirements of 40 CFR § 1502.9(c)(1), and the significant new circumstances created by DM&E's purchase of the IMRL, the SDEIS's failure even to mention this new alternative is inexplicable. Among other matters, the amended SDEIS should advise the Board that (1) no city on the IMRL routing has remotely the same number of potentially affected sensitive receptors as Rochester, (2) no city on the IMRL routing has a medical center remotely as significant as the Mayo Clinic, and (3) routing coal traffic on the IMRL actually could give rise to higher divisions for DM&E than the route through Rochester. The amended SDEIS also should contain a comparison of the capital and operating costs to DM&E of construction and operation of the Rochester and

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(cont.)

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IMRL routings for coal traffic. This comparison should include the cost of environmental mitigation for the two routes.

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(cont.)

Other Matters

The first paragraph of Section 2.4 should be deleted. Rochester has never proposed that the Board order DM&E not to sound its horns. The FSEIS should not reiterate this red herring.

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The second through sixth paragraphs of Section 2.4 should be revised to reflect FRA's Final Rule, cited above. The new discussion should recognize that the Final Rule permits communities to order horn noise bans without the concurrence of railroads as long as Appendix A SSMs are installed. *See* Sections 222.37 and 222.39. The new discussion also should: (1) provide an estimate of the costs of such SSMs for Rochester, (2) provide a comparison of the cost of those SSMs with the cost of soundproofing mitigation for sensitive receptors that otherwise would experience 70 dBA Ldn as a result of horn noise, and (3) determine whether, if a total rerouting of the coal traffic on the IMRL lines is not ordered, DM&E should be required to bear the costs of those SSMs.

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The eighth paragraph of Section 2.4 may require revision if SEA's recommendation is that DM&E be required to mitigate the combination of wayside and horn noise, but not horn noise alone. *See supra*.

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(cont.)

The ninth paragraph of Section 2.4 is not the product of sound reasoning and should be revised entirely for the following reasons:

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1. Denying mitigation for horn noise because it would "depart from the Board's prior approach ... of only imposing mitigation for wayside noise" may not be correct. As explained above, the "wayside noise" mitigation condition

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previously ordered by the Board in this case actually may be for receptors experiencing a combination of wayside and horn noise.

2. Denying mitigation for horn noise solely because it would depart from Board precedent is a gross violation of the Board's responsibility under the court's remand order. The Board's refusal to order mitigation for horn noise in prior cases was based on the same analysis the 8th Circuit found to be insufficient under NEPA. That court-rejected precedent cannot be used to bootstrap the result proposed by the SDEIS.

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(cont.)

3. The assertion that "the EIS indicated that many of the noise sensitive receptor locations with substantial horn noise also would experience wayside noise levels of Ldn 70 dBA or higher" is inconsistent with DEIS Table 3.3-14, at page 3.3-66.

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(cont.)

4. The discussion of the number of years it may take for DM&E to "reach its full operational level" is irrelevant and should be deleted. Current mitigation measure Number 95 sensibly orders increased noise mitigation when DM&E reaches defined levels of operations. There is no reason why a similar approach could not be taken for horn noise.

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5. For the reasons discussed above, the vague discussion of the potential impact of "grade crossing improvements" must be replaced with a specific discussion addressing whether any of these improvements has any relevance under FRA's Final Rule.

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6. The discussion of cost issues, SDEIS at 2-11, also must be revised. As discussed above, SEA must consider both (1) the cost, if any, of using the

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IMRL lines for the coal traffic and (2) the cost of installation of SSMS to comply with FRA's Final Rule as realistic alternatives to retrofitting sensitive receptors in the manner previously proposed. Moreover, SEA's about-face with regard to the total cost of environmental mitigation is entirely unsupported. In the November 19, 2001 EIS, SEA stated "The likely expenditure of approximately 10 percent of the construction cost for mitigation that could be imposed by the Board and five cooperating agencies is not unreasonable, given the magnitude of the project and the nature of the environmental issues. For large capital projects such as power generation facilities and water supply reservoirs, it is not unusual for mitigation to total 10 to 20 percent of construction costs, and here the anticipated mitigation cost is well within this range." EIS at 12-24. Now, SEA asserts, "In SEA's view, a strong argument can be made that imposing this additional cost would unreasonably burden the project, given the already high cost of the existing environmental mitigation (estimated to be between \$103 and \$140 million dollars or about 10 percent of this \$1.4 billion project). SDEIS at 2-11. Given SEA's 2001 analysis, SEA's unsupported SDEIS conclusion that requiring additional mitigation would create an unreasonable burden on DM&E is obviously arbitrary and capricious.

7. The discussion of DM&E's current agreements with communities also must be revised to reflect the fundamental premise of those agreements, *i.e.* that the Board would be conducting an independent environmental review under NEPA. *See supra.* The SDEIS in no way justifies turning agreements meant

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(cont.)

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to provide a mitigation floor into a rationale for establishing a mitigation ceiling.

CONCLUSIONS

The SDEIS analysis and conclusions should be revised to reflect the clarifications and substantive revisions recommended above.

Respectfully submitted,

Rochester, Minnesota

By: 

Steven J. Kalish
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Washington, D.C. 20037
202-775-2510
skalish@mshpc.com

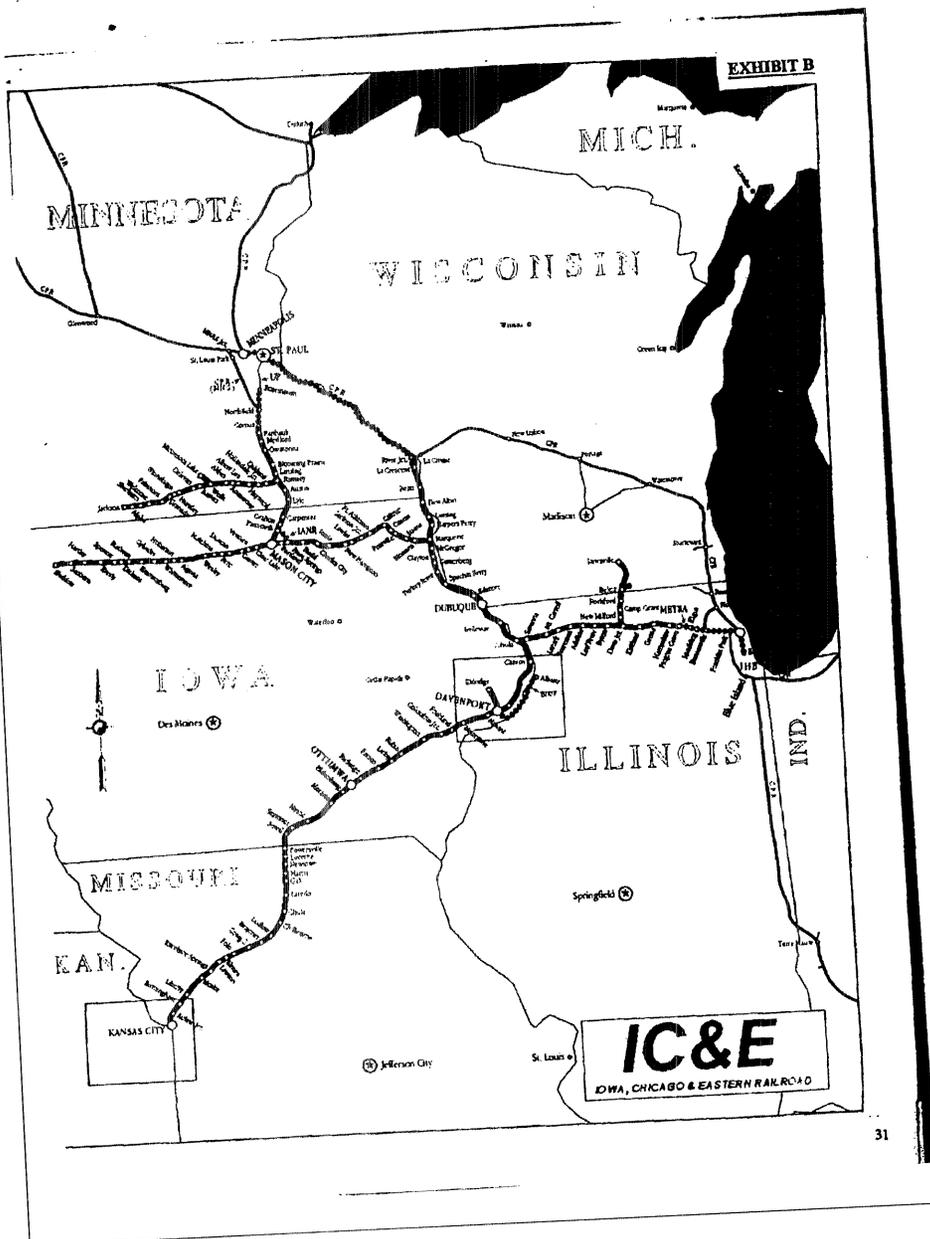
Its Attorney

June 6, 2005

S:\roch\comments.doc

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(cont.)



SEA's Response to Comment Letter From: Steven J. Kalish

Representing: Rochester, Minnesota

Dated: June 6, 2005

SEA Environmental Correspondence Tracking Number: EI-1526

1. SEA disagrees with commenter's suggestion that the summary of the Board's noise mitigation from the 2002 Decision in the Draft SEIS is misleading. The discussion in the Draft SEIS referred to by commenter makes it clear that SEA was presenting an overview of all of the noise mitigation that the Board had imposed. SEA at no time indicated or implied that all of these mitigation measures addressed horn, as opposed to wayside, noise.
2. SEA's review and discussion of the effect of the Board's conditions requiring grade separated crossings in Rochester is included in the Final SEIS, Chapter 2.
3. SEA's review and discussion of DM&E's potential operations over the IMRL lines is included in the Final SEIS, Chapter 6. Chapter 6 also addresses the commenter's request for clarification of the mitigation measures in the 2002 Decision that are dependent on coal tonnage.
4. As discussed above, it was entirely appropriate for SEA to summarize all of the noise mitigation imposed in the 2002 Decision in the Draft SEIS.
5. As discussed above and in Chapter 6 of the Final SEIS, SEA sees no need to recommend that the Board modify the noise mitigation in the 2002 Decision based on the number of trains DM&E operates, as opposed to the tons of coal DM&E transports through Rochester.
6. Commenter is correct. The number of noise sensitive receptors within the 70 dBA L_{dn} contour to receive mitigation for wayside noise levels, as shown in Table 12-1 of the Board's 2002 Decision, are additive. Thus, at 20 million tons, 15 noise sensitive receptors would be eligible for mitigation, at 50 million tons, an additional 29 noise sensitive receptors would be eligible, and at 100 million tons, an additional 44 noise sensitive receptors would be eligible for noise mitigation.
7. SEA's methodology for noise analysis was specifically upheld by the court and is no longer an issue in this case. Commenter is correct that multi-unit dwellings were likely counted as only a single noise sensitive receptor. However, should the noise mitigation required by condition Number 95 not be deemed adequate for a particular multi-unit dwelling, the Board could be asked to re-evaluate the adequacy of the mitigation for that particular multi-unit dwelling under condition Number 145.

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8. Condition Number 95 is intended to require DM&E to provide noise mitigation to the noise sensitive receptors within the 70 dBA L_{dn} contour line for wayside noise. SEA identified the number of these noise sensitive structures in EIS Table 12-1. To the extent that there were any omissions in the table, a party can request to be included in the mitigation under Condition Number 145.
9. The environmental record makes clear that the proposed project will have significant impacts due to increased levels of project-related noise, including horn noise. The EIS and SEIS make the Board aware that significantly more noise sensitive receptors would be affected by horn noise than by wayside noise. See the commenter's own reference, Draft EIS at page 3.2-61, stating "SEA recognizes that the majority of noise generated by trains is during operations resulting from horn soundings." The EIS and SEIS also make it clear that proposing mitigation for horn (as opposed to wayside) noise would significantly increase the number of noise sensitive receptors that would be eligible for mitigation.
10. SEA's environmental analysis contained in the EIS is part of the environmental record for this project and need not be reiterated in the SEIS. However, in response to this comment, SEA will clarify the information contained in Table 3.3-14 of the Draft EIS. The table contains information on the three ways noise sensitive receptors would be affected by the proposed project: wayside noise, horn noise, or both. Thus, noise sensitive receptors that would be affected by adverse levels of only wayside noise are included in the wayside noise category. Other noise sensitive receptors that would be affected by adverse levels of only horn noise are included in the horn noise category. Finally, the noise sensitive receptors that would be affected by adverse levels of wayside noise and adverse levels of horn noise are listed. In the 2002 Decision, however, the Board imposed mitigation only to address adverse levels of wayside noise. The fact that some of the noise sensitive receptors with adverse wayside noise also would experience adverse levels of horn noise was not a consideration in determining eligibility for the Board's noise mitigation.
11. Table 3.3-14 of the Draft EIS is already part of the environmental record and there is no need to reproduce it as part of the SEIS.
12. SEA's discussion of why mitigation for horn noise is not warranted and its response to the comments requesting such mitigation is included in the Final SEIS, Chapter 2.
13. SEA's discussion and response to comments on negotiated agreements is included in Chapter 2 of the Final SEIS.

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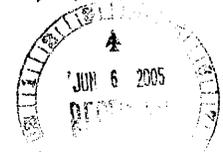
14. SEA thanks the commenter for correctly noting that 49 CFR Part 210 does not address noise limits for locomotive horns, only noise limits for other aspects of train operations.
15. As suggested by the commenter, SEA has incorporated a discussion of FRA's Final Rule into the Final SEIS in Chapter 2.
16. SEA is recommending revised mitigation to specifically require DM&E's community liaison(s) to assist in community efforts to establish quiet zones, as discussed in Chapter 2 of the Final SEIS.
17. SEA's review and evaluation of whether DM&E's acquisition of the former IMRL rail lines is a changed circumstance requiring additional environmental review of routing alternatives for DM&E's coal traffic is discussed in detail in Chapter 6 of the Final SEIS.
18. SEA does not find any reference to Rochester proposing that the Board order DM&E to not sound its horns in the first paragraph or any part of Section 2.4 of the Draft SEIS.
19. SEA's review and discussion of FRA's Final Rule and the establishment and funding of quiet zones is included in the Final SEIS, Chapter 2.
20. As discussed above, SEA measured both horn noise and wayside noise, but only noise sensitive receptors that would experience adverse wayside noise are eligible for the noise mitigation in the Board's 2002 Decision. Accordingly, SEA's position in the SEIS that denying mitigation for horn noise would be consistent with the Board's prior practice is entirely correct. See the further discussion of this issue and the fact that, in SEA's view, there is nothing exceptional about Rochester regarding horn noise that would warrant departing from the Board's consistent practice of not imposing mitigation for horn noise, as discussed in detail in Chapter 2 of the Final SEIS.
21. Comment noted. Chapter 2 of the Final SEIS explains in detail SEA's further review and consideration of the issue of horn noise mitigation.
22. SEA's review of the comment and discussion of potential grade crossing improvements that would be required in Rochester is included in the Final SEIS, Chapter 2.
23. SEA's discussion of the potential costs associated with potential horn noise mitigation measures and the various reasons why SEA ultimately decided that it

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Representing: Rochester, Minnesota
Dated: June 6, 2005
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would not recommend that the Board impose any additional horn noise mitigation, is set forth in detail in Chapter 2 of the Final SEIS. SEA's discussion and evaluation of the effect of DM&E's recent acquisition of the former IMRL rail lines on this project can be found in Chapter 6 of the Final SEIS.

24. SEA's review and discussion of the role of voluntary negotiated agreements is included in the Final SEIS, Chapter 2.

Kilson
BEFORE THE
SURFACE TRANSPORTATION BOARD



FINANCE DOCKET NO. 33407

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

COMMENTS OF
MAYO FOUNDATION

ENTERED
Office of Proceedings

JUN 06 2005

Part of
Public Record

ON THE
DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

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Dated: June 6, 2005

BEFORE THE
SURFACE TRANSPORTATION BOARD

FINANCE DOCKET NO. 33407

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

COMMENTS OF
MAYO FOUNDATION
ON THE
DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

In accordance with the schedule published by the Surface Transportation Board (STB or Board), Mayo Foundation (Mayo) hereby submits its comments on the Draft Supplemental Environmental Impact Statement (DSEIS) served on April 15, 2005. Mayo's comments will focus primarily on the remanded horn noise issue.

The Section of Environmental Analysis (SEA) prepared and issued the DSEIS in response to the remand of the 8th Circuit Court of Appeals in Mid States Coalition for Progress v. STB, 345 F.3d 520. As pertinent to the horn noise issue, the Court found the Board erred in failing to consider other types of mitigation not involving limiting the use of horns.¹ The Court observed such other mitigation measures might include, for example, sound-insulating treatments for buildings within high noise areas and installation of sound barriers.

¹ The Court indicated that the Board could appropriately defer to the Federal Railroad Administration in refusing to limit the sounding of locomotive horns. In this regard, the DSEIS points to FRA's Interim final Rules effective December 18, 2004, establishing requirements for locomotive horn soundings at grade crossings.

In remanding this issue, the court expressed serious concerns that horn noise will "increase the distance at which buildings will be subjected to average noise levels of 70 decibels from 210 feet (distance of effect of wayside noise alone) to 1110 feet." The Court observed that it is "hard to imagine how insulating affected buildings might pose a safety threat" and directed that the Board must at least explain why such mitigation is not warranted. 343 F.3d at 536.

The Adverse Impact of Horn Noise

The adverse impact of noise on patient rehabilitation and sleep requirements is not in dispute. Previously in a response to the DEIS, Mayo cited testimony of David Bishop who represented a part of Rochester in the State House of Representatives for 10 years (Mayo Comments, p. 42) and Dr. Peter Amadio of the Zumbro Valley Medical Society (Mayo Comments, p. 44) addressing the effects of noise on patient care. Attached is a copy of a study conducted in 2004 by Mayo nursing staff, which clearly defines the deleterious effects of sleep disturbance on patients because of noise disruptions.

The severity of the potential impact of persistent noise on recovering patients is graphically illustrated in the attached article that appeared in the June 2, 2005, issue of the Washington Examiner. In this instance, the Alexandria Virginia Police Department stepped in to remove an automobile with a malfunctioning alarm that caused three days of annoyance and serious sleep disruption to a woman endeavoring to recover from recent surgery. Unfortunately, Mayo patients would not have recourse to the Rochester Police Department to tow away DM&E trains blowing horns in close proximity to their sidesides. Mayo reemphasizes its alarm as to the prospective impact on its patients who

will be subjected to train whistles throughout the day and night if adequate mitigation or preventive measures are not forthcoming.

1 (cont.)

The FRA's New Regulations Will Increase The Adverse Impact Of Horn Noise On Mayo Patients

Mayo previously expressed its concerns over the proposed FRA regulations mandating the sounding of locomotive horns at highway rail crossings. Absent considerable investment of public funds that would be required to substantially upgrade grade crossings in close proximity to Mayo facilities and throughout Rochester and approval of a whistle free zone by the Federal Railroad Administration, new FRA regulations mandating sounding of locomotive horns at highway rail crossings will result in virtually uninterrupted sounding of locomotive horns from one end of Rochester to the other at all hours of the day. Mayo has reviewed and supports comments made by Olmsted County and the City of Rochester regarding the proximity of crossings within the City of Rochester and the impact of horn noise.

2

SEA's comments concerning availability of whistle free zones upon satisfaction of FRA requirements are not responsive to the Court's remand. However it should be recognized that installation and maintenance of four quadrant lights and gates at the thirteen motor vehicle grade crossings in Rochester would be very costly and there is no assurance as to the availability of assistance funds to meet those requirements.² Thus, Rochester and its constituents would be faced with the daunting task of seeking access to

² It should be noted that the first of the two grade separations mandated in the Board's previous order would not be required until traffic levels through Rochester reach 20 million tons of coal and the second not until traffic levels reach 50 million tons of coal annually. Those volume levels might never be reached depending upon the volume of PRB coal related traffic actually moved through Rochester. Thus any immediate hope for a quiet zone in Rochester would require gates and lights at all crossings within the community.

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scarce public funds from the federal or state government or most likely undertaking the burden within the impacted community in order to secure adequate relief.

2 (cont.)

Moreover, Mayo reiterates its previously expressed concerns that the FRA requirements for whistle-free zones would exacerbate other problems including increased delays for emergency and other vehicles at grade crossings.

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The SEA must fully evaluate this potential impact. Specifically, the SEA must accurately describe in the SEIS the duration of horn noise through the City of Rochester and its impact on sensitive receptors.

4

Possible Measures of Mitigation

With respect to possible measures to mitigate horn noise, SEA considered requirements for sound proofing material on buildings such as additional insulation, newer insulated windows or air conditioning so that windows would not have to be opened. However, thus far SEA has declined to recommend any of these measures for the following several reasons:

- First, this type of mitigation would constitute a departure from precedent in other cases where such measures were imposed only for wayside noise, not horn noise.
- Second, many horn noise receptors will also benefit from the mitigation previously imposed for wayside noise.
- Third, DM&E may not reach the full operational level for several years if at all. Further, due to several alternative interchange locations along DM&E's system, the City of Rochester and Mayo's facilities might never experience the full level of 37 trains per day and the associated noise.

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- Fourth, the grade crossing improvements will alleviate horn noise to some extent.
- Fifth, horn noise mitigation at the noise receptors themselves would be extremely costly – ranging from \$4.3 million to \$17.4 million in the five communities (out of 56) that have not negotiated agreements with DM&E.³
- Finally, requiring mitigation in these communities might cause the other communities to opt out of their negotiated agreements.

Mayo supports and agrees with comments submitted by Olmsted County and the City of Rochester regarding unresponsiveness, inaccuracy, and insufficient analysis demonstrated by the reasons cited by the SEA for declining to recommend any of these measures.

Furthermore, the SEA must re-evaluate the cost of mitigation by looking at a partial solution focusing on the most sensitive receptors, e.g., highly sensitive clinic and hospital facilities, retirement living centers, nursing homes and assisted living facilities. In Rochester highly sensitive facilities located within 1,110 feet of the DM&E main line (the area of impact at the 70dBA Ldn noise level) include Rochester Methodist Hospital with 794 licensed beds, Mayo Clinic Rochester (a medical group practice involving over 1600 physicians), the Federal Medical Center, Hope Lodge (a 28 unit hospice facility), Charter House (a retirement living center with more than 230 independent living units, a 32-bed Medicare certified skilled nursing facility, a 32-bed Supportive Care Center and a 45 unit residential Assisted Living Center), Central Towers (a 105 unit senior retirement

³ These estimates are based on cost-per-receptor ranging from \$1,000 to \$4,000. The particular type of sound-proofing is not identified by type or location.

living center) and Park Towers (a 180 unit senior retirement living center). Even though the SEA may ultimately conclude that it would be too costly to mitigate for all sensitive receptors, it should at least provide an analysis of the impact on, and consider recommending mitigation for, these highly sensitive populations.

The fact that smaller communities with concerns different in size and scope than those faced by Mayo and Rochester have entered into agreements with DM&E, should not be deemed as an excuse to alter or diminish the responsibility of SEA to evaluate the unique circumstances in Rochester and to reconsider in good conscience mitigation deemed warranted and sufficient to address the serious impact from horn noise to the detriment of recovering patients and to the peace and tranquility that should be assured for residents at hospice and assisted living facilities. "NEPA does not require a fully developed plan that will mitigate all environmental harm before an agency can act..." (Laguna Greenbelt v. United States Department of Transportation, 42 D.3d 517 (9th Cir. 1994).

This is the largest construction case ever reviewed by the Board and consequently it has unique ramifications including the prospective impact of 37 or more trains blowing whistles through Rochester and rumbling in close proximity to Mayo facilities where patients from around the world are depending upon a constructive environment conducive to healing. What the Board may or may not have done in other circumstances not involving such widespread critical health concerns should not preclude SEA from recommending measures adequate to ensure that the healthy environment maintained by Mayo and Rochester is not seriously degraded to the detriment of all concerned.

SEA also investigated the construction of sound walls along portions of the existing line bordered by residential areas and other sensitive receptors. Relying on cost information previously submitted by the City of Rochester, SEA estimated that it would cost \$5.8 million to erect sound walls in Rochester alone and another \$4.8 million in other communities that do not have negotiated agreements.

Beyond the cost issue, SEA opines sound walls are not effective, are unattractive, require maintenance, attract graffiti, create safety hazards for persons and animals caught between road crossings, and create visual obstructions. SEA also repeats its concern that implementation of sound barrier mitigation could undermine negotiated agreements already in place.

In view of the effectiveness of sound barriers on interstate roadways within city environments such as I-66 within the Washington DC area, SEA's dismissal of careful inquiry into possible use of such barriers as a protection for Mayo and other sensitive receptors is not justifiable. SEA should thoroughly evaluate such alternatives before making a final recommendation in a SEIS for consideration by the Board.

SEA Has Failed To Address the Most Effective Alternative

Notwithstanding the cavalier and inadequate analysis of mitigation for horn noise as remanded by the Court, more importantly, SEA has not addressed a readily apparent and compelling alternative that would serve to mitigate, indeed eliminate, the adverse impact on Mayo and its patients that would result from train horns blowing incessantly throughout Rochester as mile long trains speed by in close proximity to Mayo facilities.

At page 2-10 of the SDEIS, SEA reasons that "some communities especially those further east, might never experience the full level of 37 trains per day and

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associated levels of noise including horn noise" because "several alternative interchange locations along DM&E's existing system would allow interchange of coal traffic with other carriers." This statement is a rudimentary recognition of an important alternative that has not been rigorously explored and objectively evaluated as required by NEPA⁴.

The Board's previous decision in which it considered the nature and extent of the environmental issues involved with the proposed construction project was served on January 30, 2002. Not four weeks later on February 26, 2002, Iowa, Chicago & Eastern Railroad Corporation (IC&E), a non-carrier subsidiary of Cedar American Rail Holdings which in turn is wholly owned by DM&E, posted notice to employees of I&M Rail Link, LLC (IMRL) of its intent to acquire and operate the rail lines of IMRL. Thereafter, on June 7, 2002, IC&E filed notice of exemption to acquire and operate the assets of IMRL including (1) IMRL's existing rail lines that extend about 1,125 miles between Chicago, IL, Kansas City, MO and Minneapolis - St. Paul, MN; and across northern Iowa and southern Minnesota and (2) 275 miles of IMRL trackage rights over other carriers and other interests.

In Iowa, Chicago & Eastern Railroad Construction - Acquisition and Operation Exemption - Lines of I&M Rail Link, LLC, STB Finance Docket No. 34177, served July 22, 2002, the Board denied a request to stay effectiveness of the acquisition of IMRL. In that Decision, the Board noted that it received comments from the U.S. Department of Transportation (DOT) urging the Board to expand environmental oversight in the DM&E construction case to encompass communities on IMRL lines (July 2002 Decision, p. 5)

In the July 2002 Decision, the Board acknowledges "it is possible that construction and operation of [DM&E's proposed] new line could result in substantial

⁴ 40 C.F.R. 1502.14

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(cont.)

additional traffic on what are now IMRL lines as a result of this transaction" (Decision, p. 15). The Board then notes "[W]e did not address the proposed acquisition in our EIS in DM&E Construction, however, as the proposed acquisition transaction was not announced until after we had given approval for that line to be constructed" (July 2002 Decision, p. 18, note 29). The Board did preclude IC&E from moving any additional trains handling traffic to and from the line approved for new construction in DM&E Construction over what was IMRL lines until an environmental review is conducted (Decision, p. 19).

Subsequently on August 29, 2002, DM&E and Cedar American Rail Holdings filed an application seeking acquisition of control of IC&E (formerly IMRL) in STB Finance Docket No. 34178. A key objective cited in that application was that common control "will guarantee that DM&E will have neutral eastern routings for coal movements from the Powder River Basin (PRB) in Wyoming if and when DM&E constructs that line" (STB Finance Docket No. 34178, served February 3, 2003, p. 8).

In his verified statement in support of DM&E's proposed acquisition of control of IC&E (IMRL), Mr. Kevin Schieffer, President of DM&E stated:

1. DM&E previously negotiated for access, trackage rights and marketing arrangements with IMRL but was unsuccessful in acquisition talks in late 1999 and early 2000 (VS, p. 2).
2. Critical to the proposed combination is availability of efficient interchange at Owatonna (VS, p5)
3. The proposed common control will protect and ensure competitive and marketing benefits to be derived from the PRB project. (VS, p.6).

10 (cont.)

4. The importance of IMRL was identified in the DM&E PRB application as IMRL has always been an important connection for the PRB project. (VS, p.7,8).
5. The original modeling done on the PRB project contemplated an agreed upon power of attorney for DM&E to quote rates over the IMRL and trackage rights that would have allowed DM&E to run on IMRL tracks.⁵ Any additional control provided by ownership or common control would not naturally change the degree of flexibility and marketing authority DM&E initially assumed relative to the PRB project on initial planning as set forth before the STB (IMRL was not a party in the Construction Proceeding). (VS, p. 8).

The Department of Transportation filed comments in the control proceeding in which it recognized that once DM&E and ICE come under common control the reason for not considering cumulative environmental impacts of routing PRB coal over IC&E lines in the PRB Construction Case (that is, the asserted lack of authority to require DM&E to take action on property it does not own) "will not longer be valid (because with common control, DM&E will effectively "own" the IC&E lines).⁶

By decision served on February 3, 2003, the Board approved control by DM&E of IC&E. Thereafter the 8th Circuit vacated and remanded the Board's decision in the Construction case in Mid States. As a result, the Construction Case is not final and

⁵ (Acquisition of IMRL trackage rights would have required Board review and approval pursuant to 49 U.S.C. 11323-11326. No request for such rights was submitted in connection with Construction Application).

⁶ See, Decision No. 7 STB No. FD 34178, Appendix B, p. 37.

10 (cont.)

obviously, DM&E does not possess the requisite authority to construct and operate its proposed new line.⁷

In view of the fully disclosed interrelationship of the construction application and acquisition of control of the former IMRL by DM&E and the potential for mitigating, or avoiding entirely, the serious adverse impacts on Mayo and Rochester routing of PRB coal traffic over former IMRL lines is a compelling alternative that must now be thoroughly considered and fully evaluated.⁸

IMRL is a key factor in DM&E's plans for movement of PRB coal and acquisition of control is expected to protect and ensure benefits to be derived from the construction project by guaranteeing that DM&E will have neutral eastern routings for coal movements and direct access to Kansas City and Chicago. Critical to that objective was assurance of an efficient connection at Owatonna. That objective has been secured through a negotiated agreement with Union Pacific as noted in STB FD No. 34178, Decision No.10, served July 9, 2003.

In its prior decision the Board recognized that some of the potential impacts on Rochester associated with rebuilding the existing line might never occur as DM&E has stated it could interchange at least some of its coal traffic at points west of Rochester. (January 2002 Decision, p.21). DM&E now controls the former IMRL through ownership. With that control, it has secured availability of routings it deems to be of key importance to the construction project.

SEA has not undertaken to consider a viable type of "mitigation" not involving limiting the use of horns that would completely eliminate horn noise impacts on Mayo

⁷ SDEIS, p. 1-17.

⁸ 40 C.F.R. 1503.4

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(and Rochester) by routing PRB coal traffic onto IC&E lines prior to reaching Rochester. Such routing would also serve to eliminate virtually all other adverse impacts from PRB coal traffic on Mayo and Rochester. SEA admits in the DEIS that routing through Rochester would result in many significant impacts.⁹

The Board previously asserted that it could not require DM&E to take action on property it does not own nor could it impose requirements on a carrier which is not involved in the construction proceeding. (January 2000 Decision, p. 27). Because of DM&E's recent acquisition of IMRL, those impediments no longer exist with respect to the former IMRL. Routing of the PRB coal traffic over the IC&E lines has now become a reasonable and viable alternative that warrants detailed evaluation in direct comparison to DM&E's routing through the City of Rochester. As mandated by the CEQ regulations, the SEA must "present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision-maker and the public." (40 C.F.R. 1502.14). Further, SEA's analysis must "rigorously explore and objectively evaluate all reasonable alternatives, giving "substantial treatment" to each alternative that is considered in detail. (40 C.F.R. 1502.14 (b)). The courts have clearly held that failure to consider a viable alternative renders an alternative analysis invalid.

Recently the Board recognized that "[a]n agency is required to supplement an environmental impact statement (EIS) when there are 'significant new circumstances or information relevant to the environmental concerns and bearing on the proposed action or its impacts (40 C.F.R. 1502.9 (c)(1)(ii))." New England Transrail, LLC dba Wilmington

⁹ The CEQ regulations define mitigation, in part, as avoiding environmental impacts. (40 C.F.R. 1508.20).

10 (cont.)

and Woburn Terminal Railroad Company – Construction Acquisition and Operation Exemption, STB Finance Docket No. 34391, served May 3, 2005. Here acquisition of the former IMRL is acknowledged to be of key importance to the construction application but was not formally sought until immediately after SEA conducted its prior review and the Board served its January 2002 decision in the Construction Proceeding. DM&E’s ownership of the former IMRL has converted a possible alternative into reality.

10 (cont.)

Because an alternative routing over the IMRL clearly has the potential to be significantly more environmentally preferable, it is incumbent upon SEA to comparatively evaluate this alternative. As stated by the court in Calvert Cliff’s Coordinating Committee, Inc. v. Atomic Energy Commission, 449 F.2d 1109 (DC Cir. 1971) the evaluation of alternatives seek, “to ensure that each agency decision-maker has before him and takes into proper account all possible approaches to a particular project... which would alter the environmental impact and cost benefit analysis. Only in that fashion is it likely that the most intelligent, optimally beneficial decision will ultimately be made.” 449 F.2d at 1114.

The court in City of Carmel-by-the-Sea v. United States Department of Transportation, (123 F.3d 1142 (9th Cir. 1997), held that the range of alternatives considered is inadequate if the nature and scope of the proposed action changes between the draft and final impact statement (here between the DEIS and the FSEIS), and if the agency does not update the list of alternatives considered to reflect these changes. And, in the State of Wisconsin v. Weinberger, 745 F.2d 412 (7th Cir. 1984), the court noted that a supplemental impact statement is not necessary “unless the new information provides a seriously different picture of the environmental landscape such that another

hard look is necessary.” The court further explained that the new information must present “seriously different picture of the likely environment consequences of the proposed action” not adequately discussed in the original impact statement. In the current situation, the ramifications of acquisition of IMRL have not been adequately considered or discussed in the DSEIS. An EIS’s “form, content, and preparation [must] foster ... informed decision-making.” See State of California v. Black, 690 F.2d 753 (9th Cir.1982). Absent a comparative evaluation of routing over the IC&E, the Board would be lacking critical information for formulation of an informed decision in this proceeding.

10 (cont.)

An agency must consider an alternative even though the implementation of that alternative is not within its jurisdiction or is not authorized by its enabling legislation, SEA’s previously stated limitation in effectively considering alternative routing was said to be due to the Board’s asserted inability to require such routings with carriers who were not parties to the construction proceeding. However, in view of DM&E’s ownership of the former IMRL, that excuse is no longer valid. As stated in Mandelker¹⁰, section 10:30, “Range of Alternatives that must be addressed: “NEPA’s environmental full disclosure mandate will not be met if the agency is allowed to excessively restrict the alternatives it considers.”

Nor can the SEA fulfill its obligations by simply addressing the IMRL alternative in the FSEIS without receiving public comment on that issue. Due to the nature and extent of such additional consideration, public comment is required. Mayo maintains that a revised and expanded DSEIS must be prepared and re-circulated for comment prior to the issuance of a FSEIS in order to properly provide this new information for

¹⁰ Mandelker, Daniel R. NEPA Law and Litigation. West Group, second edition, 1999.

consideration as part of the Board's decision-making process, to legally comply with the procedural provisions of NEPA, and to meet the "hard look" requirement of the courts.

In Marsh v. Oregon Natural Resources Council, 490 U.S. 360 (1989), the Supreme Court considered the duty of agencies to prepare supplemental impact statements and concluded it would be inconsistent with NEPA's purposes "for the blinders to adverse environmental effects, once unequivocally removed, to be restored prior to the completion of agency action simply because the relevant proposal has received initial approval." 490 U.S. at 371.

CONCLUSION

Mayo has participated in these proceedings because of deep seated concern that the proposed movement of PRB coal traffic through Rochester in close proximity to Mayo facilities would seriously strain its ability to continue providing world class health care, cutting edge medical research, and top level teaching in a community environment compatible with the quality and excellence expected of Mayo in all facets of its undertakings.

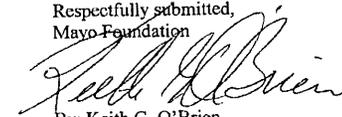
This past year Mayo Clinic Rochester handled over 1.4 million out patient visits while Saint Mary's Hospital accepted over 42,000 admissions and Rochester Methodist Hospital accepted over 18,000 admissions. All of those patients expected and received world-class medical treatment in a community that is conducive to their recovery and hospitable to their families who accompanied them from all over the world.

For all of those who will seek out Mayo for capable treatment and peaceful recovery, as a solid base within which to conduct advanced research, and as a constructive forum in which to teach and train, Mayo urges that SEA has yet to identify and adequately evaluate mitigation not involving limiting use of locomotive horns including the following:

1. Identification of the most sensitive noise receptors and consideration of measures which could mitigate disruption of patient sleep and recovery at Mayo facilities and other highly sensitive populations close to the rail line through Rochester.
2. Careful consideration and evaluation of noise barrier alternatives such as are in use to mitigate highway noise within communities.
3. Thorough evaluation of the readily apparent alternative of routing PRB coal traffic away from Mayo and Rochester over the former IMRL lines which are now essentially owned by DM&E.

The SDEIS should be revised and expanded and thereafter made available for further comment as necessary in light of the foregoing.

Respectfully submitted,
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Dated: June 6, 2005

Proposal

The Study of Environmental Noise Sources and Implementation of Noise Control Interventions at Mayo Clinic Rochester Hospitals; “Shh... Patients Healing: Spreading Noise Control”

IRB 2420-E-04 reviewed November 16, 2004

Principal Investigator: Joyce A. Overman Dube, MS, RN
Co-Principal Investigator: Melissa M. Barth, MS, RN, CCRN
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Introduction to the Problem

The hospital setting has many noise related activities that disrupt the patients' experience. This issue broadly affects multiple disciplines and departments. In a preliminary continuous improvement project done on one inpatient care unit, Francis 5C (Cmiel et al., 2004), unsolicited comments from patients alerted nurses working the night shift to the noises that were disruptive to patients' sleep. Further investigation by Cmiel et al. revealed that noises occur throughout the day and night that disrupt the patient's hospital experience, which is important as others have reported that noise interferes with the healing process (McCarthy, 1992; Wysocki, 1996). The Francis 5C project included implementation of several interventions to reduce noise and the evaluation data indicated these interventions were successful in reducing noise. Based on the findings and attention given this preliminary project, a Nursing Noise Control Replication Team (hereafter referred to as 'The Team') was formed to design a process for replicating the noise control interventions implemented on Francis 5C to all patient care units (PCU) at Mayo Clinic Rochester Hospitals.

Purpose of the Study

The purpose of this study is to evaluate a replication project aimed at controlling noise levels on all PCUs including Pre-Operative Waiting Areas (PWA) at Mayo Clinic Rochester Hospitals. Environmental noise sources will be identified through an assessment on each PCU. The *Environmental Noise Pre-Assessment* will identify issues that create disturbing noises unique to individual PCUs. Individual PCU Collaborative Practice Framework (CPF) Nursing Leadership groups will implement a minimum of one noise control intervention based on noise sources identified on unit surveys (patient, staff, and CPF Nursing Leadership). CPF Nursing Leadership groups consist of 1 or 2-Nurse Managers (NM), 1-Nursing Education Specialist (NES) and 1-

Clinical Nurse Specialist (CNS), all of which are registered nurses (RN). The Team will implement environmental noise interventions common to all PCUs after initial unit noise assessments are complete. It is predicted that with the completion of the appropriate noise control interventions, the environment in the Mayo Clinic Rochester Hospitals will be quieter for patients, contributing to a healing environment.

Study Aims

- 1) Identify the most bothersome noises in the hospital environment as described by patients, nursing staff and nursing leadership on all patient care units at Mayo Clinic Rochester Hospitals before and after implementation of noise control interventions.
- 2) Describe the five most common bothersome noises and noise control interventions utilized by patient care units at Mayo Clinic Rochester Hospitals.
- 3) Describe the level of noise heard on patient care units before and after implementation of noise control interventions as identified by patients and nursing staff.
- 4) Compare decibel readings before and after implementation of noise control interventions from selected patient care units who choose or are randomly selected to utilize a dosimeter.
- 5) Identify the times of day noise levels are most frequently reported as bothersome on patient care units before and after implementation of noise control interventions as identified by patients and nursing staff.
- 6) Identify noise control interventions common to all PCUs at Mayo Clinic Rochester Hospitals, as measured by the *Patient and Staff Noise Pre-Assessment Surveys* and an *Environmental Noise Pre-Assessment* tool that could be replicated across PCUs.

Background and Significance

X Effects of Noise

Research has shown that noise can produce many damaging psycho-physiological effects. Sleep disturbance was demonstrated as a result of noise disturbance by many researchers (Topf, 2001; Aaron, 1996; Zahr, 1995; Freedman, 2001). Stress reactions to noise (Topf, 2001; Morrison, 2003) as well as individual indicators of stress have also been demonstrated in the research literature including increased blood pressure (Fogari, 2001), increased heart rate (Fogari, 2001; Baker, 1992; Katz, 2001; Morrison, 2003; Zahr, 1995) and increased respiratory rate (Zahr, 1995).

In a study done by Morrison (2003) correlating noise with stress, salivary amylase and heart rate, findings showed that noise contributed to higher heart rates and nurses' stress levels. For every increase of 10 decibels (measured in A-weighted decibels [dB(A)] to simulate how the human ear hears), the nurses' average heart rate increased by 6 beats per minute and a 27 point (using a 100 point rating scale) increase in self reported stress ratings was found.

Increased body temperature and motor activity related to noise exposure has been demonstrated in neonates (McCarthy, 1992). In addition, noise exposure has been demonstrated through the literature to cause acute drops in SaO₂ (Zahr, 1995), delayed wound healing and decreased weight gain (Wysocki, 1996), impaired immune function (Redwine, 2000; McCarthy 1992), and hearing loss (Noise and Hearing Loss Consensus Statement 1990).

Increased facial electromyographic (EMG) activity has been documented by Trapanotto (2004), who not only found that louder noises created higher rises in muscle tension, but that muscle tension continued to increase even after exposure to the noise sources ended. Behavioral changes in activity, such as sudden limb and head movements, were also evident following noise exposures and continued to remain evident long after the noises abated (Trapanotto, 2004).

Implementation of Noise Control Interventions

While it has been demonstrated that noise can have many detrimental effects, research has shown that reductions in noise levels can be obtained through staff education and modification of the physical environment. Many of these studies demonstrate effective noise control interventions through staff education and utilizing simple techniques while keeping cost to a minimum.

Staff Education/Behavioral Modifications

A study investigating whether staff education (therefore increasing awareness and knowledge about noise) would decrease noise levels in an intensive care unit setting was conducted by Elander (1995). The most common noise source was conversation. Prior to staff education, conversation occurred during 62% of the recorded periods. Following staff education, conversations occurred during 14% of the recorded periods (144 measurements). The nurses were not aware of the times of the recordings. The researchers recommended that simple interventions such as staff education can reduce noise levels considerably and without additional cost.

Kahn (1998) studied noise levels in an intensive care unit. Following the implementation of a three-week behavior modification program, statistically significant ($p=0.0001$) decreases in mean peak sound levels, as measured in dB(A), occurred in three of four time blocks. Based on these findings, the researchers stated that behavior modification should be strongly advocated and recommended development of an official noise control policy.

Schnelle (1999) utilized behavioral interventions with staff in a nursing home setting to control noise levels. Schnelle's approach involved a staff in-service, feedback on noise sources and levels, noise abatement interventions (such as closing patient's room doors, decreasing television

volumes, and limiting intercom use), and creating individualized patient care plans for incontinence care (thus limiting unnecessary interruptions and therefore producing less noise in those patients' rooms). Noise levels in this study were also measured in dB(A). The behavioral interventions utilized in this study resulted in statistically significant changes in noise levels. Schnelle stated that staff resistance caused difficulty in the implementation of noise control interventions. The authors concluded that behavioral and environmental interventions should be utilized over the entire 24 hours to reduce noise levels even lower than they were able to obtain in their study. In addition, most of the noises identified were within the staff's control and therefore created a compelling argument for the importance of staff education programs.

The development of an environmental noise protocol was studied by Johnson (2003). A five-step process was utilized. They assessed the environment, developed a protocol, educated the staff, implemented the protocol, and evaluated the process. The protocol involved the implementation of a quiet hour during the last hour of each shift. Mean noise levels, as measured in dB(A) were found significantly decreased during the quiet hour.

Environment Modification

The use of acoustical foam inside neonatal incubators was found to be an effective intervention by Johnson (2001). Average noise levels inside the incubators were found decreased by 3.27 decibels. Along with reducing the noise levels, benefits to the patients were also found. Oxygenation improved by one percentage point for all infants as well as improved sleep states as evidenced by a change from a drowsy semi-dozing state to a light REM sleep state. These effects were maintained 10 minutes following the removal of the acoustical foam from the incubator.

Combined Staff Education and Environment Modification

Walder (2000) implemented noise control guidelines to shape staff behavior in a surgical intensive care setting. The guidelines incorporated closing patient room doors systematically, reducing the intensity of alarm sounds, talking in lower voices, coordinating nursing cares and limiting nursing interventions during the night shift as well as refraining from using direct light, telephones, intercoms, televisions, and radios during the night shift. Average noise levels, peak noise levels, and the frequency of alarms sounding, all decreased after the implementation of the guidelines.

A study performed by Walsh-Sukys (2001), looked at reduction of light and sound in a neonatal intensive care unit. Modifications were done over a six-month period. Nursing staff were educated on the potential impacts of light and sound, and a series of sound modifications were done. The various noise control modifications included placing weather stripping on all doors and drawer fronts, replacing any metal garbage cans with plastic cans, placing covers over incubators, installing carpet along the center of the nursery (covering about 28% of floor space), and using sound-absorbent materials in all monitor bays. Their interventions led to lower actual (as assessed by decibel levels) and perceived (as assessed by staff surveys) sound levels. The study demonstrated that reductions in light and sound can be made for relatively modest cost and without impacting patient safety.

In a unit-based project by Cmiel et al. (2004), a decrease in decibel levels was found following the implementation of noise control interventions. The interventions focused on staff education and behavior modification as well as some simple and inexpensive equipment and environmental modifications. Peak noise levels were reduced from 113dB(A) to 86dB(A) following intervention implementation. This is a greater than 80% decrease in peak noise level

intensity. Average noise levels for the entire night shift, as well as the evening and morning shift changes were reduced following the noise control interventions. (Table 1)

Table 1: Dosimeter Results-Decibel Levels dB(A)

Measured Event/Time Frame	Pre-Intervention	Post-Intervention
Highest Peak	113	86
Nighttime Average	45	42
Evening Shift Change Average	53	41
Morning Shift Change Average	50	43

The overall conclusions in many literature references emphasize the importance of staff education, behavior modification, equipment modification, environmental modification, and the creation of guidelines and policies to control noise. This study has broad implications for implementing environmental noise changes across entire hospitals/healthcare systems. While the literature points out many studies evaluating interventions on individual patient care units, there were no studies evaluating the implementation of noise control measures throughout an entire hospital. The Team will summarize data compiled in this study to identify noise control interventions that could be replicated across all PCUs at Mayo Clinic Rochester Hospitals.

Study Design and Data Collection Methods

A descriptive prospective pre and post evaluation design utilizing *Patient and Staff Noise Pre and Post Assessment Surveys* and an *Environmental Noise Pre and Post Assessment* tool will be used to examine the levels of perceived noise present on PCUs before and after implementation of noise control interventions. The Team will compile an Environment Noise Pre-Assessment Packet for each PCU. Contents include:

- *Environmental Noise Education/Information Tool* (Appendix A)

- *Environmental Noise Pre-Assessment*, one copy (Appendix B)
- *Invitation to Participate; Patient*, 30 copies (Appendix C)
- *Patient Survey for Noise Pre-Assessment*, 30 copies (Appendix E)
- *Invitation to Participate; Staff*, sent electronically via E-mail equal to the number of RN, Licensed Practical Nurse (LPN), Patient Care Assistant (PCA) and Unit Secretary (US) staff on the PCU; one paper copy included for reference (Appendix F)
- *Staff Survey for Noise Pre-Assessment*, Online hyperlink sent electronically via e-mail equal to the number of RN, LPN, PCA and US staff on the PCU; one paper copy included for reference (Appendix G)
- Marketing Paper Flyer to Complete Online Staff Survey (Appendix H)

The study goal, purpose and process will be shared at Nursing Division meetings prior to survey distribution. A cover letter will instruct CPF Nursing Leadership group on the specific details of the process that includes distribution and collection of the *Patient and Staff Noise Pre-Assessment Surveys* and the completion of the *Environmental Noise Pre-Assessment*.

Once each CPF Nursing Leadership group has completed the *Environmental Noise Pre-Assessment* during an identified two-week data collection time frame January 10-23, 2005, they will keep the original and send a copy to the Administrative Assistant of the Team.

CPF Nursing Leadership individuals or staff RNs (referred to as consenters- Appendix I) who have completed the IRB training course "Mayo Training Program for Protecting Human Subjects (MTP-PHS)" will obtain patient (or family member) consent and distribute staff surveys during an identified two-week data collection time frame, January 10-23, 2005. The two week time frame was selected to allow completion time for the surveys and *Environmental Noise Pre-Assessment* without prolonging the data collection time frame excessively. Patient surveys will be hand

distributed by a consentor to patients (or family members) on the PCUs. During this time frame, the goal is to collect up to a maximum of 30 patient surveys (family member may complete if the patient is unable). The patient survey will be placed in an attached envelope labeled with the Principal Investigators name and intra clinic mail address and given to the patient's nurse to return via intra clinic mail to the Principal Investigator.

Patient inclusion criteria for this study include ability to read and write in English, alert and oriented, ability to hear environmental noises, and a minimum of 12 hours on the PCU. The number of patient surveys collected in a two week time frame is dependent on many individual unit factors such as unit census, patient population, and willingness to participate in the survey. Data collected from patient surveys will be entered and collated by an identified Administrative Assistant utilizing a Microsoft Access database. Within a month from the start of data collection, summary data report will be returned to each PCU CPF Nursing Leadership groups.

Staff Survey for Noise Pre-Assessment will be completed via a online electronic method. The invitation to participate and the hyperlink to the survey will be emailed to staff by the Administration Assistant to the Team. A marketing paper flyer to complete the web based staff survey (Appendix H) will be posted on each PCU as a visual reminder for all staff to check their email for the survey. Additionally, a follow up e-mail reminder (Appendix J) will be sent to PCU staff 10 days following the original distribution date to complete the *Staff Survey for Noise Pre-Assessment*. The staff survey will collated electronically and stratified reports will be sent to each PCU CPF Nursing Leadership group within a month from the start of data collection.

Data collected from the *Environmental Noise Pre-Assessments* will be entered and collated by an identified Administrative Assistant utilizing a Microsoft Access database. The Team will review

the aggregate data from all PCU *Environmental Noise Pre-Assessments* in order to identify noise control interventions that could be replicated across all PCUs at Mayo Clinic Rochester Hospitals.

Once the *Patient Survey for Noise Pre-Assessment*, *Staff Survey for Noise Pre-Assessment* and *Environmental Noise Pre-Assessments* are complete and the CPF Nursing Leadership group on each PCU receive the reports, they will identify at least one noise control intervention to implement within 2-4 weeks after receiving the summary reports.

CPF Nursing Leadership groups on each PCU will be asked to repeat the survey distribution and collection process 3 months following the initial survey. The Team believes it may take up to two months for the CPF Nursing Leadership group on each PCU receive the reports and complete the plan for implementation of noise control intervention(s), thus a 3 month time frame was chosen for post-implementation evaluation. The Team will compile an *Environment Noise Post-Assessment Packet* for each PCU. Contents include:

- *Environmental Noise Education/Information Tool* (Appendix A)
- *Environmental Noise Post-Assessment*, one copy (Appendix K)
- *Invitation to Participate; Patient*, 30 copies (Appendix C)
- *Patient Survey for Noise Post-Assessment*, 30 copies (Appendix L)
- *Invitation to Participate; Staff*, sent electronically via e-mail equal to the number of RN, LPN, PCA and US staff on the PCU; one paper copy included for reference (Appendix F)
- *Staff Survey for Noise Post-Assessment*, Online hyperlink sent electronically via e-mail equal to the number of RN, LPN, PCA and US staff on the PCU; one paper copy included for reference (Appendix M)
- Marketing Paper Flyer to Complete Online Staff Survey (Appendix H)

The second data collection process will be the same as the first. The Team will review summary data reports and compare noise levels as perceived by patients before and after intervention(s), noise levels as perceived by staff before and after intervention(s), and types of noises as identified on the *Environmental Noise Assessment* tool before and after intervention(s). The *Environmental Noise Post-Assessment* tool will identify data related to the intervention(s) implemented to control noise and the perceived effectiveness of the intervention(s).

A convenience sample of 12 PCUs will be randomly selected to measure noise levels in decibels, pre and post noise control intervention, over a 24 hour period with the use of a dosimeter. The dosimeters will be placed at a central desk location on the PCUs. The dosimeter readings will be obtained during the same 2 week data collection period. Data collection will begin at 0600. Additionally, individual PCUs will have the ability to request dosimeters. The practicality of collecting dosimeter readings on every PCU prohibits inclusion of all units. The distribution of the dosimeters will be coordinated by the Team with the assistance of the Division of Environmental Safety.

Measurement Tools

Building on previous research and the knowledge gained from the Francis 5C project, the *Environmental Noise Pre and Post Assessment* tools were developed by members of the Team to identify noise sources and interventions on PCUs. The *Staff Survey for Noise Pre and Post Assessment* and the *Patient Survey for Noise Pre and Post Assessment* were developed by the Team, based on information gathered by patients and staff on Francis 5C and input by the Team members. Content validity was established for both patient and staff surveys by having the Team of six experts review a number of drafts and revising the content accordingly. Additional input was

provided by other CPF Nursing Leadership individuals within the Department of Nursing. No further validity or reliability testing has thus far been completed for any of these tools. The Q300 Noise Dosimeter (Quest Technologies) measures a criterion range level of 40-140 decibels. The dosimeter will measure levels of noise on selected PCUs.

Study Variables

Noise: Defined by the patient or staff member completing the survey. This may include elements as identified on the *Patient Survey and Staff Survey for Noise Assessments*.

Sources of Noise: Defined by those completing the noise assessments and could include: individuals or groups of individuals, equipment used in the PCU, etc. Sources of noise will be identified utilizing *Patient and Staff Noise Pre and Post Assessment Surveys* and an *Environmental Noise Pre and Post Assessment* tool.

Noise Control Interventions: Those elements chosen by the patient care units to control the noises identified through the survey process. Noise Control Interventions will be identified utilizing *Environmental Noise Post Assessment* tool.

Dosimeter readings: The measurement of noise in decibels using a dosimeter.

Setting

All PCUs including Pre-Operative Waiting Areas at Mayo Clinic Hospitals, Rochester, MN.

Characteristics of the Study Population

The population for this study will include three groups:

Nursing Staff: (RN, LPN, US, PCA)

A convenience sample of all nursing staff on all PCU/PWA at the Mayo Clinic Rochester Hospitals will be invited to complete the *Staff Survey for Noise Pre and Post Assessment*.

Patients (or family member if patient is unable to complete):

A convenience sample of a maximum of 30 patients (or family member if patient is unable to complete) on each PCU will be invited to complete the *Patient Survey for Noise Pre and Post Assessment*.

CPF Nursing Leadership Groups:

The CPF Nursing Leadership group will complete the *Environmental Noise Pre and Post Assessment* tool on all PCU/PWA.

Estimated Number of Subjects

The sample will consist of those above who voluntarily choose to complete the survey and/or assessment tools.

Patients and/or families = maximum of 1830 (possible 30 patients and/or families X 61 PCUs)

Patient Survey for Noise Pre- Assessment, one copy

Patient Survey for Noise Post-Assessment, one copy

Nursing Staff (PCU) = 3527 on 61 PCUs (RN = 2738 + LPN = 69 + PCA = 422 + US = 298)

Nursing Staff (PWA) RN = 100

Staff Survey for Noise Pre- Assessment, one copy

Staff Survey for Noise Post-Assessment, one copy

CPF Nursing Leadership groups = 148 on 61 PCUs (NM = 62; CNS = 43; NES = 43)

Environmental Noise Pre-Assessment, one copy per PCU CPF Nursing Leadership group

Environmental Noise Post-Assessment, one copy per PCU CPF Nursing Leadership group

Study Interventions

This replication study is being implemented on all PCUs in the Mayo Clinic Rochester Hospitals as an innovations project and is a formal evaluation of its success. The CPF Nursing Leadership group on each individual PCU will determine the noise intervention felt to be most appropriate to implement on the PCU following completion and review of the *Patient and Staff Noise Pre-Assessment Surveys* and the *Environmental Noise Pre-Assessment Tool*. The Team will implement interventions identified as common across all PCUs after completion of the initial surveys and assessment. Information will be shared with all CPF Nursing Leadership groups and staff suggesting common interventions for specific noise issues.

Education

CPF Nursing Leadership groups will coordinate staff education and determine appropriate teaching methods following the completion of the survey tools and assessment. Education will include utilization of the *Environmental Noise Education/Information Tool*. Additional and/or individualized unit education will be provided to staff after the CPF Nursing Leadership groups identify the noise control intervention(s) to be implemented. The AJN article by Cmiel et. al. will be used as a resource and educational tool. Consultation with The Team will also be available upon request.

Protection of Human Subjects

The survey process will be voluntary. There will be no identifying information on the *Patient Survey for Noise Pre-Assessment and Post-Assessment* or the *Staff Survey for Noise Pre-Assessment and Post-Assessment*. All patients will be reassured in a cover letter that participation is voluntary and the decision to participate will not jeopardize their care in any way. All staff will be reassured

in a cover letter that their participation is voluntary and the decision to participate will not jeopardize their employment in any way. The *Environmental Noise Pre Assessment and Post Assessment* tools will not collect any data on human subjects. It is believed that this study is minimal risk to human subjects.

Data Analysis

Data will be analyzed using descriptive summary statistics. A comparison of perceived noise levels before and after unit and hospital wide interventions will be described. The most common noises across all-patient care units will be described as well as the most common interventions implemented. Decibel measurement readings will be compared pre and post noise control interventions for those units randomly selected to measure noise levels utilizing a dosimeter.

Timeline

Upon approval of this study, the team of investigators will begin distribution of the Environmental Noise Pre-Assessment Packets to each PCU. The initial data collection is expected to be completed by December 2004. CPF Nursing Leadership groups on each PCU will be asked to look at their data and implement intervention(s) to control noise levels. CPF Nursing Leadership groups on each PCU will again be asked to collect data in approximately 3 months, March 2005, after initial data collection. The team of investigators will distribute the Environmental Noise Post-Assessment Packets to each PCU in March 2005. The Team will collate, summarize and disseminate the findings of the study by June 2005.

Limitations

- 1) Tools not tested, limiting conclusions that can be drawn
- 2) No control of interventions as described above
- 3) One setting with unique patients and staff
- 4) Different patients and staff may complete the pre and post tools
- 5) Convenience sample of patients and staff
- 6) Lack of a randomized, controlled design
- 7) Lack of fidelity or integrity measures to assure nurses are implementing the interventions accurately and reliably
- 8) Lack of consistency expected for the identified interventions and how these are implemented

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Appendix

A) Environmental Noise Education/Information Tool

B) Environmental Noise Pre-Assessment

C) Invitation to Participate; Patient

E) Patient Survey for Noise Pre-Assessment

F) Invitation to Participate; Staff

G) Online Staff Survey for Noise Pre-Assessment

H) Marketing Paper Flyer to Complete Staff Survey

I) List of Consenters

J) E-Mail Reminder to Staff

K) Environmental Noise Post-Assessment

L) Patient Survey for Noise Post-Assessment

M) Online Staff Survey for Noise Post-Assessment

Appendix A

Environmental Noise Education/Information Tool
 "Shh... Patients Healing: Spreading Noise Control" Replication Team

- Suggested interventions are listed for your reference
- This may assist in identifying information/education needs for the staff on your patient care unit

Suggested Tools	Suggested Intervention
Decibel level measurement	Dosimeter measurements (coordinated by the Team & obtained from safety)
Patient/Family Noise Assessment	Survey
Staff Noise Assessment	Survey
Sources of Noise/Issues	
Equipment	Suggested Intervention
Paper towel dispensers	Folded sheet or non perforated roll
Phone ringer volume	Set to low volume
Hallway phone use	Limit use (certain hours)
Hallway radio volume level	Set to low volume
Cardiac monitor alarm volume (bedside)	Low volume where appropriate
Cardiac monitor alarm volume (nursing station)	Shift appropriate volumes
Pulse oximeter alarm volume	Volume/alarm adjustment
Appropriate monitor alarm settings	<ul style="list-style-type: none"> ◆ Patient specific alarm setting ◆ Volume/alarm adjustment
Cart(s) noise level	Identify source, i.e. wheels, speed
Other:	
Environment/People	Suggested Intervention
Noise issue knowledge deficit	Multidisciplinary Staff Education
Overhead/intercom paging	Limit when appropriate (certain hours)
Paging/calling into patient room to answer call light	Answer call light in person
Nursing shift report	Give in enclosed report room where appropriate
Physician rounds	<ul style="list-style-type: none"> ◆ Lower speaking voice ◆ Limit side conversations
Individual voice volume level	Lower speaking voice
Activity noise levels of staff	Self recognition of volume/activities that may increase noise
Noise transmission into patient room from hallway	<ul style="list-style-type: none"> ◆ Patient door closure ◆ Quiet signs
Noise transmission onto nursing unit from inside patient room	Partial door closure onto unit
Patient interruptions	<ul style="list-style-type: none"> ◆ Grouping cares when appropriate ◆ Eliminate unnecessary interruptions ◆ Ear plugs (maintenance) ◆ White noise machine
Roommate noise	<ul style="list-style-type: none"> ◆ Multidisciplinary collaboration ◆ Eliminate unnecessary test/procedure
Unnecessary tests &/or procedures	Dim unit lights during eve/night hours to promote quiet atmosphere
Unit based atmosphere	
Other:	

Appendix B

Environmental Noise Pre-Assessment

"Shh... Patients Healing: Spreading Noise Control"
 Replication Team

Date: January 2005
 Unit: _____

- Please designate a member of your Collaborative Practice Framework (CPF) team to assess perceived noise sources on your patient care unit.
- The team acknowledges that noise control efforts that may have already been initiated, however, please use this tool to assess the **current** perceived noise sources.
- Complete this form by **January 23, 2005** and return a copy to **Joyce Overman Dube, EI L-9**. Please retain your original.
- A **Post-Assessment** is planned for completion by April 2005.

Perceived Noise Sources	Pre-Assessment
Equipment	Check if Current Issue
Non-perforated roll paper towel dispensers	
Perforated roll paper towel dispensers	
Phone ringer volume levels	
Hallway phone use near patient rooms	
Hallway radio volume level	
Cardiac monitor alarm volume (bedside)	
Cardiac monitor alarm volume (nursing station)	
Pulse oximeter alarm volume	
Appropriate (patient specific) monitor alarm settings	
Cart(s) noise level	
Environment/People	
Noise issue knowledge deficit	
Overhead/intercom paging	
Paging/calling into patient room to answer call light	
Nursing shift report given in open areas, near patient rooms	
Physician rounds	
Individual voice volume level	
Activity noise levels of staff	
Noise transmission into patient room from hallway	
Noise transmission onto nursing unit from inside patient room	
Patient interruptions	
Roommate noise	
Unit based atmosphere	
Other	

Invitation to Participate in

The Study of Environmental Noise Sources and Implementation of Noise Control Interventions at Mayo Clinic Rochester Hospitals

Patient (or family member if patient is unable to complete)

You (the patient or family member if patient is unable to complete) are invited to participate in a study to identify environmental noise sources on hospital patient care units. We are interested in the noises you feel disrupt your hospital experience. We hope this information will help to inform and teach caregivers about the things that disrupt a patient's hospital stay and allow us to make changes in the hospital environment to promote a quieter place in which to heal.

If you decide to participate in the study, please complete the attached survey. Return of the survey implies voluntary and informed consent. The survey should take you approximately 5 minutes to complete. Your decision to participate will not influence your care as a patient (or family member of the patient) in any way. If you do not wish to participate, please indicate by checking the box below. Please return the invitation and survey to your nurse.

You may talk to Joyce A. Overman Dube, MS, RN at any time about any questions or concerns you have regarding this study. You may contact Joyce by calling the Mayo operator at telephone (507) 284-2511. You can get more information about Mayo policies, the conduct of this study, or the rights of research participants from Cindy L. Boyer, Administrator of the Mayo Foundation Office for Human Research Protection, telephone (507) 284-2329 or toll free (866) 273-4681.

I choose not to participate in this study.

Patient Survey for Noise Pre-Assessment

Date: _____
Unit: _____

The "Shh...Patients Healing: Spreading Noise Control" Department of Nursing Replication Team would like you (or a family member if patient is unable to complete) to please take some time to reflect on your hospital stay and answer the following questions about the noise levels you encountered. Your feedback will be used to implement future noise control interventions.

Thank you for your time.

1. How would you rate the level of noise that you hear during the **morning (7am-12noon)** on the patient care unit?
 Very Quiet Quiet Good/Neutral Loud Very Loud
2. How would you rate the level of noise that you hear during the **afternoon (12noon-5pm)** on the patient care unit?
 Very Quiet Quiet Good/Neutral Loud Very Loud
3. How would you rate the level of noise that you hear during the **evening (5pm-10pm)** on the patient care unit?
 Very Quiet Quiet Good/Neutral Loud Very Loud
4. How would you rate the level of noise that you hear during the **night (10pm-7am)** on the patient care unit?
 Very Quiet Quiet Good/Neutral Loud Very Loud
5. What time of the day are the noise levels the **MOST** bothersome for you?
 Morning Afternoon Evening Night
6. Please identify the **MOST** bothersome noises/activities on the patient care unit:
 Telephones Carts Voices
 Radios Overhead paging Traffic
 Cardiac monitor/alarms Pulse oximeter/alarms
 Other _____
7. Suggestions you may have on how to reduce the noise levels:

Please place the completed survey in the attached envelope and return to your nurse.
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Appendix F

Invitation to Participate in

The Study of Environmental Noise Sources and Implementation of Noise Control Interventions at Mayo Clinic Rochester Hospitals

Patient Care Unit Staff

You are invited to participate in a study to identify environmental noise sources on hospital patient care units. We are interested in the noises you feel disrupt your patient's hospital experience. We hope this information will help to inform and teach you as caregivers about the things that disrupt a patient's hospital stay and allow us to make changes in the hospital environment to promote a quieter place in which to heal.

If you decide to participate in the study, please click on the hyperlink and complete the survey. Return of the survey implies voluntary and informed consent. The survey should take you approximately 5 minutes to complete. Your decision to participate will not influence your employment at Mayo Clinic Rochester. If you do not wish to participate, please indicate by checking the box: I choose not to participate in this study and click on submit.

You may talk to Joyce A. Overman Dube, MS, RN at any time about any questions or concerns you have regarding this study. You may contact Joyce by calling the Mayo operator at telephone (507) 284-2511. You can get more information about Mayo policies, the conduct of this study, or the rights of research participants from Cindy L. Boyer, Administrator of the Mayo Foundation Office for Human Research Protection, telephone (507) 284-2329 or toll free (866) 273-4681.

Appendix G

Online Staff Survey for Noise Pre-Assessment

The "Shh...Patients Healing: Spreading Noise Control" Department of Nursing Replication Team would like you to please take some time to reflect on the noises that patients are exposed to on your patient care unit. Your feedback will direct future noise control interventions.

Thank you for your time.

1. I choose not to participate (scroll down and hit the submit button)
2. Which unit do you work on? (there will be a pick list to select unit)
3. What is your role? RN LPN PCA/NT US
4. How would you rate the level of noise that you hear during the **morning (7am-12noon)** on your patient care unit?
 Very Quiet Quiet Good/Neutral Loud Very Loud
5. How would you rate the level of noise that you hear during the **afternoon (12noon-5pm)** on your patient care unit?
 Very Quiet Quiet Good/Neutral Loud Very Loud
6. How would you rate the level of noise that you hear during the **evening (5pm-10pm)** on your patient care unit?
 Very Quiet Quiet Good/Neutral Loud Very Loud
7. How would you rate the level of noise that you hear during the **night (10pm-7am)** on your patient care unit?
 Very Quiet Quiet Good/Neutral Loud Very Loud
8. What time of the day are noise levels the **MOST** bothersome for patients? (pick one)
 Morning Afternoon Evening Night
9. Please identify the **MOST** bothersome noises/activities on your patient care unit (pick one):
 Telephones Carts Voices
 Radios Overhead paging Traffic
 Cardiac monitor/alarms Pulse oximeter/alarms
Other _____
10. Please check noise control interventions that are currently being used which benefit patients on your patient care unit (pick all that apply).
 Ringers turned down Limit overhead paging White noise
 Alarms turned down Lower speaking voices Dim lights
 Other sounds turned down Close patient doors Quiet signs
 Quiet carts Other _____
11. Please provide additional noise control intervention suggestions you may have:

Click on Submit Button

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Appendix J

E-mail Reminder to Staff

Approximately 10 days ago, you were invited to participate in a study to identify environmental noise sources on hospital patient care units. As you know, the team of investigators are interested in the noises you feel disrupt your patient's hospital experience. We hope this information will help to inform and teach you as caregivers about the things that disrupt a patient's hospital stay and allow us to make changes in the hospital environment to promote a quieter place in which to heal. If you have already decided to participate in the study by completing the online survey, thank you.

This e-mail is being sent as a reminder to complete the survey if you wish to participate by January 23, 2005. Return of the survey implies voluntary and informed consent. The survey should take you approximately 5 minutes to complete. Your decision to participate will not influence your employment at Mayo Clinic Rochester. If you do not wish to participate, please indicate by checking the box: I choose not to participate in this study and click on submit.

You may talk to the Principal Investigator, Joyce A. Overman Dube, MS, RN 255-4596 or any of the Co-Investigators at any time about any questions or concerns you have regarding this study:

- Melissa M. Barth, MS, RN, CCRN 255-7151
- Shelly M. Olson, BSN, RN, 255-2605
- Cheryl A. Cmiel, BAN, RN, 255-4715
- Susanne M Cutshall, MS, RN, APRN, 255-7298
- Stephanie J. Sulla, MS, RN, 284-0486
- Steven C. Sobczak, MIS, CSP, CIH, 284-4595
- Jeffrey C. Nesbitt, MS, CSP, 255-6043

Thank you for your time.

Appendix K

Environmental Noise Post-Assessment
 "Shh... Patients Healing: Spreading Noise Control"
 Replication Team

Date: _____
 Unit: _____

- Please designate a member of your Collaborative Practice Framework (CPF) team to assess perceived noise sources on your patient care unit. Indicate those noises that remain an issue.
- Identify interventions implemented since the pre-assessment and whether or not you feel they were effective.
- Suggested interventions are listed for your reference. This may assist problem solving perceived noise sources.
- Complete this form by **March 2005** and return a copy to **Joyce Overman Dube, EI L-9**. Please retain your original.

Perceived Noise Sources	Suggested Interventions	Post Assessment Check Remaining Issue(s)	Intervention Assessment Effective Intervention Yes / No
Equipment	Equipment		
Non-perforated roll paper towel dispensers	Folded sheet or non perforated roll dispenser		
Perforated roll paper towel dispensers	Folded sheet dispenser		
Phone ringer volume levels	Set to low volume		
Hallway phone use near patient rooms	Limit use (certain hours)		
Hallway radio volume level	Set to low volume		
Cardiac monitor alarm volume (bedside)	Low volume where appropriate		
Cardiac monitor alarm volume (nursing station)	Shift appropriate volumes		
Pulse oximeter alarm volume	Volume/alarm adjustment		
Appropriate (patient specific) monitor alarm settings	♦ Patient specific alarm setting ♦ Volume/alarm adjustment		
Cart(s) noise level	Identify source, i.e. wheels, speed		
Environment/People	Environment/People		
Noise issue knowledge deficit	Multidisciplinary Staff Education		
Overhead/intercom paging	Limit when appropriate (certain hours)		
Paging/calling into patient room to answer call light	Answer call light in person		
Nursing shift report given in open areas, near patient rooms	Give in enclosed report room where appropriate		
Physician rounds	♦ Lower speaking voice ♦ Limit side conversations		
Individual voice volume level	Lower speaking voice		
Activity noise levels of staff	Self recognition of volume/activities that may increase noise		
Noise transmission into patient room from hallway	♦ Patient door closure ♦ Quiet signs		
Noise transmission onto nursing unit from inside patient room	Partial door closure onto unit		
Patient interruptions	♦ Grouping cares when appropriate ♦ Eliminate unnecessary interruptions		
Roommate noise	♦ Ear plugs (maintenance) ♦ White noise machine		
Unit based atmosphere	Dim unit lights during eve/night hours to promote quiet atmosphere		
Other	Other		

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Date: _____
Unit: _____

Patient Survey for Noise Post-Assessment

The "Shh...Patients Healing: Spreading Noise Control" Department of Nursing Replication Team would like you (or a family member if patient is unable to complete) to please take some time to reflect on your hospital stay and answer the following questions about the noise levels you encountered. Your feedback will be used to implement future noise control interventions.

Thank you for your time.

- How would you rate the level of noise that you hear during the **morning (7am-12noon)** on the patient care unit?
 Very Quiet Quiet Good/Neutral Loud Very Loud
- How would you rate the level of noise that you hear during the **afternoon (12noon-5pm)** on the patient care unit?
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- How would you rate the level of noise that you hear during the **evening (5pm-10pm)** on the patient care unit?
 Very Quiet Quiet Good/Neutral Loud Very Loud
- How would you rate the level of noise that you hear during the **night (10pm-7am)** on the patient care unit?
 Very Quiet Quiet Good/Neutral Loud Very Loud
- What time of the day are the noise levels the **MOST** bothersome for you?
 Morning Afternoon Evening Night
- Please identify the **MOST** bothersome noises/activities on the patient care unit:
 Telephones Carts Voices
 Radios Overhead paging Traffic
 Cardiac monitor/alarms Pulse oximeter/alarms
 Other _____
- Suggestions you may have on how to reduce the noise levels:

Please place the completed survey in the attached envelope and return to your nurse.
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The "Shh...Patients Healing: Spreading Noise Control" Department of Nursing Replication Team would like you to please take some time to reflect on the noises that patients are exposed to on your patient care unit. Your feedback will direct future noise control interventions.
Thank you for your time.

- I choose not to participate (scroll down and hit the submit button)
- Which unit do you work on? (there will be a pick list to select unit)
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 Ringers turned down Limit overhead paging White noise
 Alarms turned down Lower speaking voices Dim lights
 Other sounds turned down Close patient doors Quiet signs
 Quiet carts Other _____
- Please provide additional noise control intervention suggestions you may have:

Click on Submit Button

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Shattered peace in Alexandria

Persistent car alarm enrages neighbors

BY DAVID HALE
Examiner Staff Writer

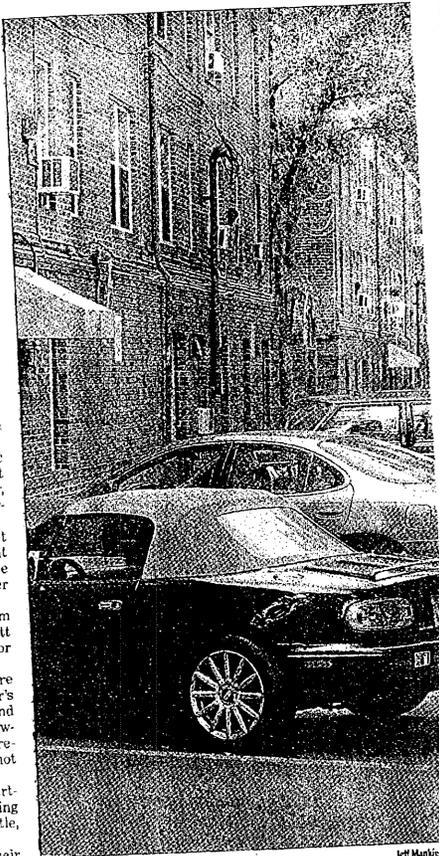
Honking horns and carsplitting car alarms tend to fade into the background amid the hustle and bustle of city traffic, but in the quiet community surrounding Monticello-Lee Apartments in Old Town Alexandria where

dow and the alarm still ringing in her ears, said Singleton.

Because the car was parked on private property at 724 S. St. Asaph St., police informed Singleton they were powerless to have the vehicle towed and employees of Scott Management refused to get involved, she said. Finally, another neighbor, nearly a block away, called the police once again and the car was removed.

"And the horn was going off all the way down the street," Singleton said.

Amy Bertsch, a spokeswoman for the Alexandria Police Department,



Jeff Montic/EA

Alexandria residents near the intersection of South St. Asaph and Jefferson streets were treated to a car horn blaring for several days recently.

"By the second day I was physically shaking. I'd had no sleep." — Debra Singleton, an Alexandria resident, who was disturbed by a car alarm outside her apartment.

Debra Singleton resides, one obnoxious alarm provided nearly three full days of constant annoyance.

A malfunctioning alarm in a silver Saturn parked just outside the bathroom window of Singleton's first-floor apartment provided a near-constant soundtrack of beeping, despite repeated calls to the Alexandria Police Department and Scott Management Inc., the property management company that owns the apartment complex, she said.

"By the second day I was physically shaking. I'd had no sleep," said Singleton, who was supposed to be resting after recent surgery. "I was in tears on the phone with the on-site manager. I was begging them to do something about it."

Although the police responded to Singleton's calls three separate times from May 22 to May 24, each time they left with the car still parked beneath her win-

ment, said there were specific requirements that had to be met before the city could tow the car, but that police should have intervened sooner than they did.

"The property management could have had it towed right away," she said. "From a police standpoint, it takes a little longer to occur."

Despite repeated calls from *The Examiner*, no one from Scott Management was available for comment.

Bertsch said that police were able to locate one of the car's owners after the initial call and have her disarm the alarm. However, the honking quickly returned and the owner could not be contacted again.

Bertsch said the police department control staff was looking into the matter, but it's too little, too late for Singleton.

"I don't understand why their own cops don't know what to do," she said.

dhale@examiner.com

SEA's Response to Comment Letter From: Keith G. O'Brien

Representing: Mayo Foundation

Dated: June 6, 2005

SEA Environmental Correspondence Tracking Number: EI-1529

- SEA acknowledged in the EIS and this SEIS that the proposed project would have significant impacts as a result of increased noise. Comment that this would be so noted.
- Prior to issuance of FRA's Final Rule, Minnesota State law required the sounding of train horns at grade crossings. Therefore, Rochester should experience no change in horn soundings under FRA's new rule. The Final SEIS, in Chapter 2, responds to the commenter's concern that installation of four quadrant gates and lights at the motor vehicle grade crossings in Rochester would be costly and that the availability of assistance funds is not assured.
- SEA does not see how whistle-free, or quiet zones, would increase delays for emergency vehicles. Implementation of supplementary safety measures would not increase the time a crossing is blocked by a train or the time crossing protection is deployed to prevent vehicles from entering the grade crossing. Therefore, SEA does not agree with commenter's position that the FRA requirements for quiet zones would increase delays for emergency and other vehicles at grade crossings.
- SEA's noise methodology was specifically upheld by the court and is not one of the remanded issues. In the EIS, SEA modeled horn noise for its development of noise contours. The modeling considers volume, duration, and location of the horn noise that would result from this project. Since the only issue remanded by the court was whether there is a need for horn noise mitigation, no additional evaluation of the duration of the horn noise is required in this SEIS. See also response Number 2 (explaining that Rochester should experience no change in horn soundings under FRA's Final Rule).
- SEA's response to this comment and additional discussion of the reasons why it is not recommending any additional horn noise mitigation in the SEIS is included in Chapter 2 of the Final SEIS.
- Chapter 2 of the Final SEIS explains all the reasons why SEA believes horn noise mitigation is not warranted for Rochester.

EI-1530
yr

SEA's Response to Comment Letter From: Keith G. O'Brien
Representing: Mayo Foundation
Dated: June 6, 2005
SEA Environmental Correspondence Tracking Number: EI-1529

- 7. SEA's additional discussion of negotiated agreements is included in the Final SEIS, Chapter 2. Chapter 2 also thoroughly explains why, contrary to the commenter's view, the noise faced by Rochester is not unique.
- 8. The reasons why Rochester is not exceptional when it comes to horn noise and why SEA sees no reason to depart from the Board's consistent practice of not imposing horn noise mitigation in rail construction cases is presented in detail in Chapter 2 of the Final SEIS.
- 9. SEA's response to comments regarding sound walls (and why they would be costly and not particularly effective here) is included in the Final SEIS, Chapter 2.
- 10. SEA's evaluation of the effects of DM&E's recent acquisition of the former IMRL rail lines on this case is discussed in detail in Chapter 6 of the Final SEIS.



Donley Darnell

1311 Morrissey Road
Newcastle, WV 25701
(307) 746-4044

"Beneath the Eagle's Wings"

DRY BEAVER INC

D&W Livestock Inc

Victoria Rutson
Section of Environmental Analysis
Surface Transportation Board
1925 K Street
Washington, D.C. 20413-001

Re: STB Finance Docket No. 33407 - Dakota, Minnesota and Eastern Railroad Corporation Construction into the Powder River Basin
Draft Supplemental Environmental Impact Statement Comments

This DSEIS is very confusing. On page 4-11 you state that the 1998 Decision found that the lowest rate BNSF and UP might charge is 8.25 mills per ton mile. From there you work backwards to determine that amount of coal traffic the DME might attract.

STB Docket No. 42051 shows costs as low as 5.93 mills per ton mile for an incumbent carrier from the Antelope Mine in the Southern Powder River Basin to Wisconsin Power and Light Co. This would most likely be in the core market for DME. So, a prudent person could deduce that the incumbent carrier "might" charge 6.00 mills per ton mile or 7.00 mills per ton mile. Why did you assume this 8.25 mills per ton mile figure?

Maybe you did not want to introduce new evidence. But then I get to page 4-17 and I find that the NEMS model you are using assumes a continued historical downward trend for coal transportation costs. Would this downward trend in transportation costs include a downward trend in rail freight rates for coal? Would the downward trend in coal freight rates be a major reason that coal transportation rates are declining? What range did you use for coal freight rates and how much of the transportation costs are these rates?

You say in the 1998 Decision that the argument that PRB rates will decline is "unpersuasive" and a more likely scenario is that the rates will rise 0.50 mills per year through 2007. This is one of the major legs you base the decision on that the DME will be viable. Another is that they will attract enough tonnage to generate a profit and this has some linkage to rates. The third leg is interest rates. When you saw one leg off the stool, it falls over.

The 1998 Decision is based on rail rates that increase. Introducing declining rates into the DSEIS is contrary to the 1998 Decision and in effect introduces new evidence that has consequences to the core the 1998 Decision. It changes the economics. Plug this scenario into table III of the 1998 Decision and run it out to 2025 as you do in the DSEIS with your "rate sensitivity analysis" and the project becomes much less attractive, maybe even a disaster.

1

2

3

To determine the range of adjustments to apply to the NEMS model, the SEA used a three step process with each step based on the 1998 Decision. Then , when you assumed a downward trend in transportation costs [freight rates] that is tantamount to introducing evidence contrary to the basis of the 1998 Decision.

If you assume declining transportation cost (rail rates) for the next twenty years and you use your 1998 Decision to set up your NEMS Model, you must update your 1998 Decision to reflect this new contradictory scenario.

Page 55 of the Decision in MSC v STB states "We expect the board will incorporate its new findings appropriately into the body of evidence that it has already amassed before making a final determination on this matter."

When the document makes statements like "SEA says" or "SEA determined" and it speaks of the "SEA analysis" I assume that all these tasks were accomplished by the people listed in the List of Preparers. Is this correct? Which of these preparers gathered the information on the models uses and who determined which were appropriate? Who developed the transportation rate sensitivity analysis scenarios?

The List of Preparers is inadequate and does not list the qualifications of the preparers as required in the National Environmental Policy Act at 1502.17.

"§1502.17 List of preparers.

The environmental impact statement shall list the names, together with their qualifications (expertise, experience, professional disciplines) of the persons who were primarily responsible for preparing the environmental impact statement or significant background papers, including basic components of the statement."

"§1502.6 and 1502.8). Where possible the persons who are responsible for a particular analysis, including analyses in background papers, shall be identified. Normally the list will not exceed two pages."

While the DSEIS claims that the requirement of the Circuit Court to complete the Programmatic Agreement before the decision has now been "fixed" because it was signed, albeit months after the decision. Note that none of the "Invited" signatories who are anywhere close to the project ever signed. Only two far removed tribes signed. Not a single South Dakota, Wyoming or Minnesota tribe or Indian organization signed that document. Why did the SEA and the Board "invite" those Native Americans to sign and then totally disregard their opinions on this project? Did the SEA make any effort for this Draft Supplement to identify the reasons why signatures were withheld? Did the SEA make any effort to involve the "invited" signatories in the preparation of the Draft Supplement?

Sincerely,

Donley and Nancy Darnell
Mid-States Coalition for Progress

SEA's Response to Comment Letter From: Donley and Nancy Darnell

Representing: Citizens

Dated: Undated

SEA Environmental Correspondence Tracking Number: EI-1530

1. In response to comments suggesting that Chapter 4 of the Draft SEIS was confusing. SEA has attempted to clarify and better explain the rate sensitivity analysis in Chapter 4 of the Final SEIS. SEA's use of 8.25 mills per ton mile is based on the Board's findings in the 1998 Decision and is explained in detail in the Draft SEIS, Chapter 4, at pages 4-11 to 4-12 and further in the Final SEIS, Chapter 4.
2. SEA's explanation of why the rail transportation rates used in the Board's 1998 Decision and the rail transportation rates used in the NEMS study are not inconsistent is included in the Final SEIS, Chapter 4.
3. Chapter 4 of the Final SEIS responds to the comment raising concerns about the declining rail transportation rates forecast in NEMS and the determination that rail transportation rates would increase in the Board's 1998 Decision. A discussion of the commenter's concerns about the need for the project relative to the projected demand for PRB coal is also discussed in the Final SEIS, Chapter 4. And Chapter 4 thoroughly discusses why updating the information in the 1998 Decision for the SEIS was not necessary or appropriate.
4. As the commenter requests, SEA has included additional information in the List of Preparers included in this Final SEIS on the agency staff that worked on the remanded air emission issue. Specifically, Michael J. Boyles, a Transportation Industry Analyst in the Board's Office of Economics, assisted SEA in selecting an appropriate model, developing model inputs for the sensitivity analysis, and interacting with EIA. Mr. Boyles, a 1983 graduate of Princeton University who majored in engineering and managerial systems, has a long history of working with computer models. These models include transportation network models, transportation asset management models, and various railroad and telecommunications cost models.
5. Chapter 5 of the Final SEIS addresses the comments regarding Tribal involvement in the development of the Programmatic Agreement and Tribal signatories to the document.

21-1531

VJ



Eastside Pioneers Neighborhood Association

neighbors helping neighbors
vecinos ayudando a vecinos

1143 1/2 St. SE
Rochester, MN 55904

Phone: 507-282-2667
Email: mlaplante@aol.com

President: Ms. Victoria Rutson
 Michael LaPlante Section of Environmental Analysis
 Case Control Unit
 Secretary/ Treasurer: Finance Docket No. 33407
 Mari Fleming Surface Transportation Board
 1925 K Street, NW
 Board Members: Washington, DC 20423-0001

5/28/2005



Derrick Hansen
Phil LaPlante
Greg Dukart
Lynn Keeler

Dear Ms. Rutson:

The Eastside Pioneers Neighborhood Association (ESPNA) has studied the Draft Supplemental Environmental Impact Statement (DSEIS) as prepared by the Section of Environmental Analysis (SEA) of the Surface Transportation Board (STB). We held a neighborhood meeting regarding this very important document and invited several local experts to provide more information and to answer questions. In light of the information compiled thus far, we are very concerned by the numerous shortcomings of the Draft Supplemental Environmental Impact Statement (DSEIS). Our neighborhood of about 1400 people is bisected by the Dakota, Minnesota and Eastern (DME) railroad corridor. We are the only neighborhood association in Rochester bisected by the main DME railroad corridor. We have been fighting for seven years, since 1998, to protect our neighborhood from the impact of the proposed DME Railroad's Powder River Basin expansion project. Uppermost in our minds is that typically open fields, industrial parks or crime-ridden ghettos are found near railroad corridors supporting rail traffic of this magnitude (upwards of 37 or more mile long unit coal trains). The inadequacy of the DSEIS not only jeopardizes the permanence of our neighborhood but it may also lead to a detrimental ripple effect throughout our world-class medical community.

The ESPNA neighborhood has a large pool of unique older affordable homes, ideal for those that live here, the elderly on fixed incomes, the disabled, the first-time homebuyers, and a diverse group of minorities. Many that moved here did so because the affordability of the homes allowed them the chance to buy a home, to raise a family and to live in a secure and peaceful setting. It is a unique, appealing neighborhood because we feel we have everything we need close by, work, downtown stores, a civic theatre and auditorium, four parks, two elementary schools, a swimming pool, a ball park, and bike paths.

There are a number of small businesses, located in the ESPNA. They range from hairstylists to daycare facilities, to construction, to hardware repair facilities, most of these are home-based businesses and are a credit to the hardworking neighbors that own and operate them.

The ESPNA is also lobbying to reestablish a senior citizens center at the Town Hall Estates located on East Center Street just off from the DME railroad corridor. The ESPNA was pleased that the Boys and Girls Club chose our association to locate their facility, it is

Trustees:
Don German
Nancy German
Don Flott
Don Chadbourn
Kathy Fritsche
Deb Dukart
Patrick Sheedy
Robert Callier

ESPNA comments on the DSEIS
Finance Docket No. 33407
Page 2 of 5

a good fit. Located in the heart of our neighborhood, at 1026 East Center Street, just a block or so away from the DME railroad corridor, a number of neighborhood children take advantage of their after-school and summer programs. We are even more excited by the possibility of a collaborative effort between Headstart and the Boys and Girls Club geared toward helping the neighborhood's disadvantaged children at an earlier age.

The ESPNA is a unique, affordable, blue collar neighborhood and as you can tell we like it here. That is why we have invested so much of our time, money and effort in this neighborhood. We are very concerned that we are in immediate danger of losing it all now due to the failure of the SEA to fully examine the court-ordered remanded points from the Eighth Circuit Court of Appeals regarding the environmental issues of horn noise, noise and vibration synergies, and air-quality. The STB has failed to comply with the law as required by the National Environmental Protection Act (NEPA) and the court order to take the required "hard look" analysis of the impacts from the proposed project and the alternatives that might be available to address those impacts. We are fully aware of the deficiencies inherent in the arguments present in the DSEIS against mitigation or prevention of horn noise. We are disappointed but not surprised by the errors of omission present in the DSEIS by the SEA's non-consideration of: a) the final rule from the Federal Railroad Administration (FRA) on quiet zones; b) a viable alternative DME route through Iowa for unit coal trains; and c) vital information from the 2000 Census data.

The ESPNA suggests that the SEA's poor performance on the DSEIS is indicative of the STB's ulterior motives, namely to push the DME railroad expansion project through at all costs. The STB has acknowledged the proposed DME expansion project could potentially have significant adverse environmental impacts on Rochester including horn and wayside noise and vibration, air quality etc.. Yet, in the recently released DSEIS, the SEA seems to attempt, through a very weak game of smoke and mirrors, semantic gymnastics, and convoluted rationalizations to wash its hands (thereby absolving the DME of any significant responsibility and financial obligations created as a result of their expansion project) of any meaningful solutions and mitigation measures.

Olmsted County has made a number of excellent remarks in their comments/reactions to the STB. The ESPNA has selected a few comments from Olmsted County as well as other sources that are of particular interest:

- 1) The SEA made remarks regarding air quality in the DSEIS to the effect that:
 - a) Little additional coal will be produced nationally or regionally if the DME project were built
 - b) Additional levels of air quality emissions will be less than 1%
 - c) Impact on air quality unknown
 - d) No additional air quality mitigation necessary

The ESPNA notes that the DME passed the business-related aspect of the EIS, it was said that they were going to be the 3rd major coal hauler out of the Powder River Basin. How does the finding of no additional coal production affect the need for the proposed project, its impact on other carriers or the financial viability of the proposed DME coal train expansion project?

- 2) The DSEIS discusses mitigation of horn noise by insulating buildings housing sensitive receptors and by constructing sound walls and discussing whistle-free or quiet zones. The DSEIS lays out several arguments that apply to any type of mitigation or horn noise prevention, including

- a) the STB has never ordered the type of mitigation being considered for horn noise before;
- b) many receptors will already receive mitigation for wayside noise;
- c) other interchange options would direct rail traffic elsewhere, so that anticipated noise levels would not be reached; and
- d) the two grade separations ordered for Rochester will reduce horn noise impacts anyway

The ESPNA notes that the proposed DME coal train expansion project is the most significant railroad construction project in one hundred years. The STB has never dealt with this type of project before, they deal mostly in railroad closings and mergers. It is in the very nature of this project to have a number of first time occurrences. For instance this was the first time ever, in the history of the STB, that a contested STB decision was remanded back to them, by a Circuit Court of Appeals for further consideration and analysis. Regarding the proposed mitigation the STB says it has never imposed...there is a first time for everything. The ESPNA also notes that, unless the project is rejected, or the unit coal train traffic is definitely diverted elsewhere, through less populated areas, then the situation would be such that mitigation would be in order here.

The ESPNA wonders just how many sensitive receptors in our neighborhood will actually receive any type of mitigation as there seems to be so many conditions, stipulations and threshold levels attached to their implementation. Noise mitigation should not be limited to just the sensitive receptors at the 70 dBA Ldn level of wayside noise, the sensitive receptors that are in the 65 dBA Ldn wayside noise level should receive some form of noise mitigation as well. The STB's parent organization, the U.S. Department of Transportation and many other Federal agencies, such as the Department of Housing and Urban Development (HUD) use the 65 dBA Ldn as the point at which noise levels become unacceptable.

The ESPNA is concerned that we could have unacceptable noise levels yet never reach SEA's elusive threshold. The DSEIS fails to ask or answer the questions at what levels of train traffic does mitigation kick in and what types of mitigation should be ordered at that level?

The ESPNA does not buy the contention that the two grade separations ordered for Rochester will reduce horn noise. The problem is finding the acceptable, advantageous intersections at which to place grade separations that would be effective in reducing horn noise. The spacing of the intersections along the DME railroad corridor are so close and the speed of the trains are such that horn noise areas overlap, thereby making it next to impossible to reduce horn noise by this method.

The ESPNA thinks it is interesting to note that 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. The SEA had to say this as the STB has ordered sound insulation to mitigate noise for structures affected by wayside noise. However, the SEA argues against ordering the DME to provide sound insulation for homes affected by horn noise alone saying that it could cost as much as \$4,000 per structure. The SEA says this would be too costly for the DME. The ESPNA asks is it fair to shift the burden of sound abatement mitigation from the project initiator, the DME, on to the affected people after destroying their homes and a life time of personal investment? It should be noted that studies show that with the increase in noise levels, a homeowner, could expect to lose as much as 10% of the value of their home. We stand to lose a lot more than \$4,000 if mitigation is not required. Naturally the SEA disputes concerns about noise impacts on property values. They rationalize that residential property values are based on a number of determinants (season of the year, economic trends, desirability of a location, proximity to amenities and proximity to rail lines) and that it is difficult to single out one as the greatest influence. They do state that "while some decline in property values

may occur as a result of increased train traffic, the SEA does not anticipate the decline would be significant." However, the issue seems complex enough to warrant more investigation than just data drawn from the Draft Supplemental Environmental Impact Statement (DEIS) based on the sale of 7 homes in Brookings, South Dakota. It seems, the SEA, after pondering the issue of noise impacts on property values, seems to conclude in the FEIS, that it is just too complex for useful analysis and settles on the simpler solution based on the sale of just 7 homes in Brookings, South Dakota. It should be noted that a very useful body of research exists that covers the impact of noise on property values. Using statistical models it separates out determinants such as seasonality, economic trends, proximity to favorable and unfavorable locations, noise etc.. This statistical model does show that there is a significant relationship between noise and property values. It should be noted that other agencies within the U. S. Department of Transportation, SEA's parent organization use this model in their environmental justice analysis.

3) The ESPNA is concerned about the negative impact the proposed DME coal train expansion project will have on our disadvantaged neighbors, the retired elderly person on a fixed income, who oftentimes is already burdened with increasing medical problems and bills, the disabled person who lives on a fixed income and more than likely has mounting health care costs as well, the first-time home buyer who more than likely is in a low-income job and has struggled to put together a realistic financial package and loan to buy their first home, the first step to building equity and a life time of investment, the minorities (Somalis, Hispanic, Asians, Middle-Easterners, African-Americans, etc.) that have come to Rochester and settled in affordable neighborhoods such as the ESPNA seeking a better life for themselves. Since the SEA raised the issue of burden of payment for noise mitigation on the DME, the ESPNA feels it has the right to raise the issue of environmental justice and the burden of payment for the loss in property values on our disadvantaged neighbors due to unmitigated noise resulting from DME's coal train expansion project. It is interesting to note that Rochester is one of the fastest growing cities in the state, we have grown from 70,745 in 1990 to nearly 95,000 by most recent estimates. The 2000 census data indicates that the size of minority and economically sensitive populations (including the population of students eligible for free and reduced price lunch) have increased significantly in Rochester since 1990. The minority population in both Olmsted County and the city of Rochester was 2.6 times greater in 2000 than the 1990 minority population. The SEA used 1990 and in some cases 1989 data in determining economic impacts on environmental justice groups. The ESPNA feels that the SEA should re-examine their Environmental Justice Analysis taking into account the dramatically changed circumstances. The ESPNA also feels that the SEA should change its environmental justice methodology to more accurately determine the presence or non-presence of environmental justice groups. We suggest something to detect environmental justice groups in small neighborhoods such as the ESPNA, perhaps more on the Census Block Level Data rather than Census Block Group Level Data such as was done for the Bayport Loop, in Houston, Texas. We also suggest that the SEA re-examine their interpretation of guidance they received from the U.S. Environmental Protection Agency regarding detection of Environmental Justice groups in relatively affluent counties.

- 4) The ESPNA points to the SEA excuses for not installing sound walls to abate noise impacts as a prime example of rationalizations and failure to research alternatives.
- a) The SEA makes the assertion that the effectiveness of sound walls will be uncertain along the DME corridor as there are too many openings due to intersections, thereby allowing sound to escape. If you look at the spacing of at-grade crossings along the corridor you will see that with one exception they are all pretty much two blocks apart. Yet the SEA contends that the Charter house, which is less than a block long will be able to effectively shield adjacent structures such as the expansive Methodist Hospital from noise impacts. So which is it?
 - b) If sound walls are so ineffective, why does the STB's parent organization, the U.S. Department of

Transportation recommend using them along highway projects to cut down on highway noise?

c) The SEA's assertion that sound walls may attract graffiti, vandalism or may create a permanent visual component in neighborhoods is true but things can be done to offset these problems and they are certainly better than the alternative, which would be sound levels above 65dBA Ldn and loss of property values.

Our neighbors are frustrated, angry and scared, we are on the frontlines in the battle for our homes and our neighborhood. We feel as if our backs up against the wall. All we can see right now is a determined foe, the railroad and their supporting, so-called regulatory agency, the Surface Transportation Board (STB) getting ready to blow our neighborhood away. We will be the first to deal with the reality of the destruction to our neighborhood and to our lives. We will be the first to deal with the loud, thundering trains, and the sleepless nights. We will be the first to deal with the financial burdens. We are tired of the double-talk, the platitudes, the lip-service, the excuses and the rationalizations.

It is the hope of the ESPNA that the SEA would take the necessary hard look at the Eighth Circuit Court of Appeals remanded points to the STB regarding environmental impacts of increased horn noise, the relationship between vibration and horn noise, and the impact of increased coal consumption on air quality in the region served by the DME. The ESPNA asks that the SEA would, in light of further research and investigation, substantially augment and revise its Draft Supplemental Environmental Impact Statement (DSEIS). We would also ask that the SEA provide an adequate comment period for all concerned before proceeding on to a Final Supplemental Environmental Impact Statement.

Respectfully submitted,



Michael J. LaPlante

President

Eastside Pioneers Neighborhood Association

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(cont.)

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16

SEA's Response to Comment Letter From: Michael J. LaPlante

Representing: Eastside Pioneers Neighborhood Association

Dated: May 28, 2005

SEA Environmental Correspondence Tracking Number: EI-1531

1. SEA appreciates the commenter providing information on the character of the Eastside Pioneers Neighborhood Association and acknowledges the commenter's concerns about the potential effects of the DM&E project on their neighborhood. SEA believes that it adequately addressed the 4 remanded issues in the Draft SEIS and, as required by NEPA, has fully responded to the comments on the Draft SEIS in this Final SEIS.
2. SEA's further assessment of horn noise mitigation in response to this and other comments on the Draft SEIS discussion is included in Chapter 2 of the Final SEIS.
3. As requested by this and other commenters, SEA has thoroughly evaluated FRA's Final Rule on horn soundings in Chapter 2, of the Final SEIS. SEA's discussion of the comments suggesting that SEA should assess in this SEIS the potential routing of DM&E coal trains over the former IMRL rail lines is included in the Final SEIS, Chapter 6.
4. This comment involving the appropriate census data to use for this case is addressed in the Final SEIS, Chapter 2 and also in Chapter 6.
5. SEA points out that the court in Mid States specifically found that, with the exception of the four remanded issues, the Board there "did a highly commendable and professional job." SEA has spent nearly eight years conducting extensive evaluation of the potential environmental consequences related to this project and in its 2002 Decision the Board imposed 147 mitigation conditions at a cost of nearly \$140 million on its approval of DM&E's proposal to reduce or eliminate, where appropriate, potential environmental impacts that would result from construction and operation of the proposed project.
6. This comment related to whether the conclusions of the rate sensitivity analysis are counterintuitive is addressed in the Final SEIS, Chapter 4, Section 4.4.
7. SEA agrees with the commenter that this project is the largest railroad construction project ever to come before the Board. In recognition of that, SEA recommended and the Board imposed more extensive and far-reaching environmental mitigation than it has in any other rail construction case to date. The Board's 2002 Decision contains all of the mitigation the Board imposed,

SEA's Response to Comment Letter From: Michael J. LaPlante
Representing: Eastside Pioneers Neighborhood Association
Dated: May 28, 2005
SEA Environmental Correspondence Tracking Number: EI-1531

including mitigation for noise. That mitigation (including SEA's recommended revisions to the community liaison(s) condition Number 29) also is included in the Executive Summary of this Final SEIS. In several cases, including condition Number 95 addressing mitigation for individual noise sensitive receptors, the mitigation is tied to specific levels of train traffic, as stated in the mitigation measure itself. Chapter 6 of the Final SEIS provides further explanation of this issue. The commenter would like more noise mitigation than SEA has recommended but, as explained in Chapter 3 of the Final SEIS, has failed to show that the circumstances presented here are so exceptional as to warrant departing from the Board's consistent practice of not requiring mitigation for horn noise.

8. This comment is addressed in the Final SEIS, Chapter 2.
9. This comment is addressed in the Final SEIS, Chapter 2.
10. This comment is addressed in the Final SEIS, Chapter 2.
11. This comment is addressed in the Final SEIS, Chapter 2 and Chapter 6.
12. This comment is addressed in the Final SEIS, Chapter 2.
13. This comment is addressed in the Final SEIS, Chapter 2.
14. SEA acknowledges the concerns of the Association. As discussed in detail in the EIS, this SEIS, and the 2002 Decision, the Board has imposed extensive mitigation to reduce the potential impacts of the project, where appropriate. But for the reasons set forth in Chapter 2 of this Final SEIS, SEA reasonably decided not to recommend horn noise mitigation for Rochester. At the same time, as discussed in the Final SEIS, Chapter 2, SEA encourages the Association to coordinate with City of Rochester officials, and/or DM&E, to pursue the development of one or more quiet zones to reduce the need to sound train horns. Alternatively, it might be possible to reach a voluntary negotiated agreement with DM&E that could help the Association to address the neighborhood's concerns. Finally, SEA is hopeful that the changes to condition Number 29 recommended by SEA in this Final SEIS could help entities like the Association establish or find funds for one or more quiet zones.
15. As the SEIS shows, in response to the court's remand in Mid States, SEA has conducted additional evaluation of each of the remanded issues and fulfilled the court's requirements for taking a "hard look" at those four issues.

SEA's Response to Comment Letter From: Michael J. LaPlante
Representing: Eastside Pioneers Neighborhood Association
Dated: May 28, 2005
SEA Environmental Correspondence Tracking Number: EI-1531

16. SEA's responses and additional analysis for comments on the Draft SEIS are contained in the Final SEIS. The commenter suggests that the comment period was inadequate. However, SEA did not receive any requests for an extension of time, and no extension was considered.

EI-1532



Eastside Pioneers Neighborhood Association

U

Rochester, Mn.
May 16, 2005

Case Control Unit
Finance Docket No. 33407
Surface Transportation Board
1925 K Street, NW
Washington D.C.
20433-0001

The railroad right of way established in the 1800s followed near downtown areas of the cities being served. This was for the convenience of passengers, U.S. Mail, and freight services. The railroad lines were considered a friendly neighbor.

Since the demise of the passenger and mail service here in Rochester, the freight trains have continued to operate. As a matter of fact, the freight train traffic through Rochester has gradually expanded to an average of 75 cars through Rochester three to five times a day.

Concurrently, the automobile traffic in the city has expanded at a faster rate. Add to this a 135 car coal train 1.4 miles long coming through Rochester every 39 minutes, it would cause severe traffic problems.

1

The utilization of the 1800s railroad right of way by the coal trains will not only do harm to Rochester, but to all other cities along the route as well.

2

The Northeast Pioneers neighborhood where I live would be particularly affected. Within two blocks of the tracks there are 354 homes and 245 apartment and condominium units, and four railroad crossings.

3

If this coal train proposal is permitted to go forward, it will cause severe and irreparable damage to my neighborhood.

Sincerely,

Berdine Erickson
Mr. Berdine Erickson
1420 East Center St.
Rochester, Mn.
55904-4737

Attention: Victoria Rutson
Section of Environmental Analysis

SEA's Response to Comment Letter From: Berdine Erickson

Representing: Eastside Pioneers Neighborhood Association

Dated: May 16, 2005

SEA Environmental Correspondence Tracking Number: EI-1532

1. In response to the commenter's concern about traffic delays, SEA notes that it conducted an extensive analysis of the issue of traffic delays that could result from increased train traffic in Rochester in the EIS. SEA has reviewed the comment and concludes that no additional analysis of potential traffic delays is warranted.
2. SEA conducted an extensive analysis of the potential impacts of increased train traffic along DM&E's existing rail line in the EIS. SEA has reviewed the comment and concludes that no additional analysis is required.
3. SEA acknowledges commenter's concerns and appreciates commenter's participation in the environmental review process.

E1-1533
JR

Powder River Basin Resource Council



Encouraging Responsible Development Today...
For Tomorrow...

934 North Main, Sheridan WY 82801 Phone 307-672-5809 Fax 307-672-5800
prbrc@powderriverbasin.org

6/6/05

Victoria Rutson
Section of Environmental Analysis
Surface Transportation Board
1925 K Street, NW
Washington D.C. 20423-0001

Re: STB Finance Docket No. 33407 - Dakota, Minnesota, and Eastern Railroad Corporation
Construction into the Powder River Basin
Draft Supplemental Environmental Impact Statement Comments

Dear Ms. Rutson,

Following are our comments on STB Finance Docket No.33407.

General Comments: The impartiality of the third party contractor for this supplemental EIS is immediately brought into question when one visits the Burns and McDonnell website. On that site, under project descriptions, the heading concerning the D, M and E expansion is "**Burns & McDonnell Keeps Historic Project on Track.**" With such a statement, Burns and McDonnell has declared that their primary goal is to have the project approved, not to provide unbiased information to the public and to the STB. It appears Burns and McDonnell are more worried about future contracts with government agencies than they are with citizen access to unprejudiced information. Which brings forth the question: who is actually paying for the EIS? Is it the Surface Transportation Board? It is well known that under certain agencies, such as the BLM, most EIS documents are paid for by the developing industry. This sort of practice again raises the question of impartiality and viability of such studies, and we hope that this is not the case in this EIS. We are not questioning the ability of Burns and McDonnell to conduct the study, but we do question their motivation.

List of Preparers: On a project such as this, and as required under NEPA, it would be assumed that information on the background and experience of the preparers would be a top priority to insure the trust of the public. No information on the STB employees beyond their names and position is given. Michael J. Boyles name does not appear on the STB website. The public needs to place its trust in these people and therefore needs to know if they have the capacity and knowledge to oversee such a project study. A CV with relevant experience in such matters should be presented in the EIS. The Contractors' names and degrees are provided but not their relevant experience or background. Again, this information needs to be provided if this document is to secure the public's trust. The lack of information on the preparers' experience leaves the public in the dark as to whether the best project study was done.

Air Quality: The decision of which model to run appears in the end, to have been based on cost. The fact that a scientific study should cross check against existing models if available appears to have been superceded by the need for a "cost effective" model. "After carefully assessing existing computer models" SEA selected the National Energy Modeling System because "since EIA agreed to run the model for the Board at no cost in this case." The IPM model was also judged as being able to "provide meaningful information". However this model was developed by EPA, in association with ICF Consulting, and was supposed to have been costly. Considering that this model assesses the potential air pollution impacts throughout the US over the next 20 years, it seems clear that all efforts should have been made to use this model as a cross check against the less extensive NEMS model. The fact that IPM uses information from NEMS would have given the results of the combination of the two models a much higher degree of scientific reliability. How much is too costly? No actual amounts are given; and given the fact that the decision will affect tens of millions of US citizens, possibly that cost was bearable. Was the EPA invited to be a cooperating agency so that they could have negotiated with ICF Consulting for a reduced cost? If not, Why not? Without the input of the EPA, this EIS loses much of the scientific, legal, and moral authority that it should be infused with. In fact, without the EPA imprimatur on this document, the viability of the air quality decision provided is under question.

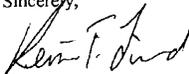
NEMS vs. Revenues/Rates: The study to determine average mileage savings to plants in DM & E's core markets are predicated on the 1998 decision and on the 2002 projected rates for UP and BNSF. As 2002 is now far behind us, why not use the actual rates of UP and BNSF instead of the projected ones for this study? Using projections that are seven years old when actual rates are available does not bode well for the viability of the study.

The STB decision of December 10, 1998, states "that DM& E's netback assumptions based on its worst case rate assumption appear to be reasonable". *These netback assumptions are based on an increasing rate of mills per ton-mile projected to 2007.* The April 2005 EIS states "*the NEMS model assumes a continuation of the historical downward trend of coal transportation rates over the NEMS forecast period.*" ... "*Therefore, the addition of the DM& E routes may be implicitly included in the downward transportation rate trend.*" Obviously, these two statements are not consistent.

In the above paragraph STB uses different projections of transportation costs to justify the finding needed under different sections of the proposal. For Revenue projections, the rate of return goes up. For the Air Quality projections, the model presupposes that the rate projections goes down. The STB cannot have it both ways. Which projections reflects reality? There are seven years between the statements. The recent 2005 study is still based on projections from 1998 when the real numbers are currently available. On this alone, the air quality decision should be called into question.

Thank you for the chance to comment.

Sincerely,


Kevin F. Lind - Director

SEA's Response to Comment Letter From: Kevin F. Lind

Representing: Powder River Basin Resource Council

Dated: June 6, 2005

SEA Environmental Correspondence Tracking Number: EI-1533

1. As the third-party contractor for the proposed project, Burns & McDonnell works under the direction, supervision, and control of SEA. Like any other third-party contractor in an STB proceeding, Burns & McDonnell has signed a Memorandum of Understanding outlining the roles and responsibilities of the third party contractor and a disclosure statement verifying that it has no other interest in the project. Consistent with the CEQ guidelines, DM&E is responsible for defraying the costs incurred by the third-party contractor, but takes no role in directing the work of the third-party contractor. Therefore, there is no reason for SEA to question the impartiality of the third party contractor.
2. As the commenter requests, SEA has included additional information in the List of Preparers included with the Final SEIS on the agency staff that worked on the remanded air emission issue. Specifically, Michael J. Boyles, a Transportation Industry Analyst in the Board's Office of Economics, assisted SEA in selecting an appropriate model, developing model inputs for the sensitivity analysis, and interacting with EIA. Mr. Boyles, a 1983 graduate of Princeton University who majored in engineering and managerial systems, has a long history of working with computer models. These models include transportation network models, transportation asset management models, and various railroad and telecommunications cost models.
3. This comment related to SEA's sensitivity analysis is addressed in the Final SEIS, Chapter 4.
4. This comment related to SEA's use of data from the Board's 1998 Decision is addressed in the Final SEIS, Chapter 4.
5. This comment related to the inputs for the rate sensitivity analysis is addressed in the Final SEIS, Chapter 4.

SEA's Response to Comment Letter From: Paul Wilson

Representing: Olmsted County

Dated: June 2, 2005

SEA Environmental Correspondence Tracking Number: EI-1534

These comments are the same as those filed by Raymond Schmitz and Philip H. Wheeler, by letter dated June 6, 2005, under SEA tracking number EI-1499. The reader is referred to SEA's previous responses to these comments.

WYOMING
GAME AND FISH DEPARTMENT



"Conserving Wildlife - Serving People"

June 1, 2005

WER 8818
Surface Transportation Board
Finance Docket No. 33407
Draft Supplemental Environmental Impact
Statement
Dakota, Minnesota and Eastern Railroad
Corporation
Powder River Basin Expansion Project

Case Control Unit
Finance Docket No. 33407
Surface Transportation Board
1925 K Street, NW
Washington, D.C. 20423-0001

Dear Ms. Rutson:

The staff of the Wyoming Game and Fish Department has reviewed the Draft Supplemental EIS for the Dakota, Minnesota, and Eastern Railroad Corporation's Powder River Basin Expansion Project. We have no further concerns with the project.

Thank you for the opportunity to comment.

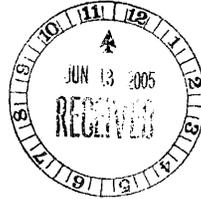
Sincerely,

BILL WICHERS
DEPUTY DIRECTOR

BW:VS:as

cc: Mary Flanderka-Governor's Planning Office
USFWS

Headquarters: 5400 Bishop Boulevard, Cheyenne, WY 82006-0001
Fax: (307) 777-4610 Web Site: <http://gf.state.wy.us>



SEA's Response to Comment Letter From: Bill Wichers

Representing: WY Game and Fish Department

Dated: June 1, 2005

SEA Environmental Correspondence Tracking Number: EI-1538

1. SEA acknowledges the comment of the Wyoming Game and Fish Department and thanks the Department for participating in the environmental review process.

EI-1539

yr

Heather Hyde
517 N. Grand Ave.
Pierre, S. Dak. 57501

June 5, 2005



Case Control Unit
Finance Docket No. 33407
Surface Transportation Brd.
1925 K Street NW
Washington, D.C. 20423-0001

Attn: Victoria Rutson
Section of Environmental Analysis

Dear Ms. Rutson:

The purpose of this letter is to comment on the SEIS for D M & E's proposed project. My comments are not directly on the topics for which they were solicited, but I cannot in good conscience let this opportunity to make a comment pass.

I have read the opinion written by the 8th Circuit Court of Appeals and the SEIS for the D M & E's application. I am discouraged that there has been little or no consideration of local economic or aesthetic issues regarding Pierre, South Dakota.

Pierre is a pretty town situated on the banks of the Missouri River. It is the state capitol. The old one-track railroad bridge crossing the river is picturesque. There are no passenger trains any more, and the freight trains haven't been a problem. That's about to change.

The railroad lines through Pierre separate the north and south sides of town, areas that have been known for generations as "the hill" (north, residential) and "the flat" (south, downtown, close to the river.) Recent economic developments, especially the location of a Super Walmart on the east edge of town, have decimated the home-grown businesses in downtown.

There are four railroad crossings in Pierre. The proposed mitigations do not include grade changes at two of those crossings. People who might patronize the local businesses will be discouraged from going downtown via a direct route by the prospect of having to wait at a train crossing for a long coal train. There will be as many as 37 trains every day! Those shoppers will take their business to the big-box stores east of town. The crossing delays will seal the fate of downtown businesses.

Those of us who can foresee these consequences fervently hope that D M & E will at least make grade change mitigations at the two unimproved crossings.

We love Pierre and would hate to see, in addition to the obvious aesthetic consequences, its economy permanently damaged.

Thank you for the opportunity to comment.

Very truly yours,

Heather Hyde
Heather Hyde.

SEA's Response to Comment Letter From: Heather Hyde

Representing: Citizen

Dated: June 5, 2005

SEA Environmental Correspondence Tracking Number: EI-1539

1. SEA conducted an extensive evaluation of the potential project-related impacts to Pierre, South Dakota in the EIS. SEA acknowledges the concerns of the commenter, but no additional analysis of the issues raised in the comment is required in the SEIS because no party challenged the Board's assessment of Pierre in the court proceeding in Mid States, and, therefore, the issue of project-related impacts on Pierre is not one of the remanded issues that SEA is assessing in this SEIS.
2. SEA conducted an extensive evaluation of the potential traffic delays at the railroad crossings in Pierre, South Dakota in the EIS. No additional analysis is required in this SEIS.

EI-1540
-13

Karla Johnson
826 Northland Place NE
Rochester, MN 55906
June 5, 2005



BEFORE THE
SURFACE TRANSPORTATION BOARD
FINANCE DOCKET NO. 33407
DAKOTA MINNESOTA & EASTERN RAILROAD CORPORATION
CONSTRUCTION INTO THE POWDER RIVER BASIN

Surface Transportation Board
1925 K Street, NW
Washington, DC 20423-0001

Attention Victoria Rulison, Chief
Section of Environmental Analysis

Dear Board,

I want to respond to two issues in the DSEIS: historic preservation and the environmental affects of increased consumption of coal.

While I agree with the conclusion reached by the STB, that the Programmatic Agreement, PA, for historic preservation is signed. I disagree with the STB's comments on how this came to pass. The delay was a result of dissembling and/or confusion on the part of DME and its' engineers, not respondents to the DEIS or signers of the PA. Nowhere in the DEIS is the possible destruction of the 17 historic stone bridges or other historic artifacts clearly discussed. Nowhere in DME's CEO Schieffer's extensive comments to the press, is this mentioned. And nowhere in DME's initially proposed PA is this brought up or attempted to be mitigated, the initial PA dealt with archaeological concerns. Employees at both the STB and DME's hired engineering company told me the plan was to take out the 17 stone bridges Officially, in 2002, DME was stating they didn't know what they were going to do. Yet in the late 90's, Schieffer was personally telling residents that lived adjacent to the stone bridges that the bridges would be saved. Weeks before the comments to the DEIS were due, the MN SHPO did not know the EIS and the Section 106 process were being combined for this project. DME hadn't contacted him for "years". Clearly historic preservation and the Section 106 process were not being taken seriously by DME. They should have known better because the STB's own hired architectural historians opinion was that the line was eligible for the historic register as a "linear historic district." DME's stubbornness in addressing this issue in the PA created the delay in signing the PA.

1

The second area of the DSEIS that I am concerned about is that the STB does not plan to study the environmental and personal health harms of increased coal consumption. Not only are many more options for electricity production becoming available and viable, nuclear energy is a very viable option for the target market for the coal line, Chicago. The Chicago area has successfully operating existing nuclear power plants. Also the eastern half of Lake Michigan, near Chicago, has also been ranked as "excellent" area by the Department of Energy as a source of wind power. The STB response to the issue of increased coal consumption, obfuscated the issue. The STB should go ahead and make reasonable assumptions, not necessarily using one of the models, and come up with some data.

2

I hope my comments are considered.
Sincerely,

Karla K. Johnson

SEA's Response to Comment Letter From: Karla Johnson

Representing: Citizen

Dated: June 5, 2005

SEA Environmental Correspondence Tracking Number: EI-1540

1. As part of the EIS, SEA conducted an extensive evaluation of the potential historic and archaeological resources found along the existing DM&E rail line. SEA determined that the proposed project could have significant impacts to these resources, including, but not limited to, the numerous stone arch bridges located along the existing rail line. The Programmatic Agreement, to which the Minnesota State Historic Preservation Officer is a signatory, is designed to provide for the appropriate treatment of historic and archaeological resources, including bridges, that may be affected by the project.
2. The Draft SEIS does address the potential environmental harms of the various pollutants studied. SEA has complied with the court's remand of the issue of increased coal consumption, and resulting air emissions that might result from this project, as discussed in detail in the Draft and Final SEIS, Chapter 4.

EI-1541
Gael Entrikin
Raymond Schmitz

1508 28th St SW
Rochester Mn 55902

507 288 3948



June 5, 2005

Victoria Rutson
Section of Environmental Analysis
Surface Transportation Board
1925 K Street
Washington DC 20413-001

Re: Surface Transportation Board Docket #33407 Dakota Minnesota and Eastern Railroad Corporation Construction into the Powder River Basin Supplemental Draft Environmental Impact Statement Comments

In the section of the SDEIS dealing with the air quality impacts of the movement of a substantial quality of coal from the PWB to utilities by the DM&E you have found that it is not likely that there will air quality impact because there will not be a substantial amount of new coal introduced in to the markets. You do concede that it is possible that individual areas will be impacted but not the overall air quality.

This conclusion simply ignores the SEA material in the EIS and the STB findings. Reviewing the original submissions by the DM&E and the EIS it is clear that the DM&E has premised its project on finding new markets for coal, this would, in large part, be due to increased use of PWB coal to comply with air quality regulations. This finding of no impact on existing haulers from the PWB was fundamental to fulfill the requirement that the introduction of this new competitor to the market place not have a deleterious impact on those railroads. This is particularly significant because the competitors in public reports on their income clearly show that absent earnings from the PWB they would not be profitable. The specter of two major intercontinental haulers falling back into unprofitable status clearly is not in the best interests of the county and is a situation that the STB is charged with preventing.

We suggest that either the original conclusion was in error and thus needs to be addressed in amended findings or your conclusion in the SDEIS needs to be reviewed.

Respectfully

Gael Entrikin
Gael Entrikin

Raymond Schmitz
Raymond Schmitz

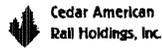
SEA's Response to Comment Letter From: Gael Entrikin and Raymond Schmitz

Representing: Citizens

Dated: June 5, 2005

SEA Environmental Correspondence Tracking Number: EI-1541

1. SEA acknowledges the comment. Chapter 4 of the Final SEIS addresses the commenter's concern about the alleged inconsistency between the discussion of increased demand for PRB coal in the EIS and the conclusion in the sensitivity analysis that it is not likely that there will be significant impacts on air emissions under the PRB Expansion Project (at least on a national and regional basis) because little additional coal will be used if the DM&E line is constructed and operated.



Kevin V. Schieffer
President & Chief Executive Officer

6 June 2005



Case Control Unit
Finance Docket No. 33407
ATTN: Victoria Rutson
Surface Transportation Board
1925 K Street, NW
Washington, DC 20423-0001

Dear Ms. Rutson:

In accordance with the *Public Review and Comment* provisions outlined with the release of the Draft Supplemental Environmental Impact Statement, Finance Docket No. 33407, (Draft SEIS) prepared by the Surface Transportation Board's (Board) Section of Environmental Analysis (SEA), this letter conveys the comments of the Dakota, Minnesota and Eastern Railroad (DM&E).

The Draft SEIS exhaustively assesses the four issues remanded to the Board by the 8th Circuit Court of Appeals. We believe the SEA went well above and beyond the court's limited remand requirements, and has produced an extensive analysis that results in the inevitable and correct conclusions. The 8th Circuit was clear in its assessment of the Board's Final EIS when it stated in its October 2, 2003 ruling:

"Although we find it necessary to vacate the Board's final decision so that it may correct certain deficiencies, we think that on the whole the Board did a highly commendable and professional job in evaluating an enormously complex proposal. We are confident that on remand the Board will quickly address those few matters that we have identified as requiring a second look, and will come to a well informed and reasonable conclusion."

In the case of horn noise mitigation the Court noted that:

"This is not to say that the Board must ultimately mitigate for horn noise, but it must at least explain why mitigation is unwarranted."

In reference to the noise and vibration issue which was remanded, the Court wrote:

"Although the agency is not required to include in its final analysis every factor raised by ...a comment' and may respond, for example, by explaining why the comment does not warrant [further] agency response..."

Ms. Victoria Rutson
Surface Transportation Board
Page 2

With meticulous thoroughness the Draft SEIS addresses each of the issues questioned by the court. The noise and vibrations issues were addressed in-depth and the outcome is reasonably set forth in the Draft SEIS. We have nothing to add or suggest in that regard.

With regard to the effects of increased coal consumption, the Court cited 40 C.F.R. 1502.22 writing:

"Then, '[i]f the information relevant to reasonably foreseeable significant adverse impacts cannot be obtained because the overall costs of obtaining it are exorbitant or the means to obtain it are not known,' the agency must include in the environmental impact statement:

(1) A statement that such information is incomplete or unavailable; (2) a statement of the relevance of the incomplete or unavailable information to evaluating reasonably foreseeable significant adverse impacts on the human environment; (3) a summary of existing credible scientific evidence which is relevant to evaluating the reasonably foreseeable significant adverse impacts on the human environment, and (4) the agency's evaluation of such impacts based upon theoretical approaches or research methods generally accepted in the scientific community."

We believe that the air quality modeling was an extreme exercise of marginal value, such that the court decision did not require. However, given the likely event that opponents will challenge every assumption that went into the model, we would encourage the Board to reconsider whether the modeling was necessary at all. This goes to the completeness, availability and reasonable foreseeability issues raised in the initial court decision.

However, since the modeling was completed, we note certain market and price assumptions used in the modeling that relate to rail market and rates, primarily referenced in chapter 4. With respect to market assumptions, the Draft SEIS correctly notes the wide variety of general markets reviewed, and some of the relative advantages and disadvantages of each. It also discusses rates at some length. It is impossible, at this time, to determine or realistically predict exact prices or know with certainty which markets will be served by DM&E, as the original STB Order correctly noted. However, the market and rate input assumptions used by SEA in the Draft SEIS appear reasonable.

We urge the Board to resist inevitable demands to restudy the restudied. These issues have been considered and reconsidered over the past 7 ½ years, and again most exhaustively in the past 18 months, resulting in what we believe are well-founded conclusions -- again. The initial EIS and STB Order already have imposed unprecedented conditions that add extraordinary costs to this project, with more issues reviewed and higher mitigation requirements than those ever imposed on Class I railroads

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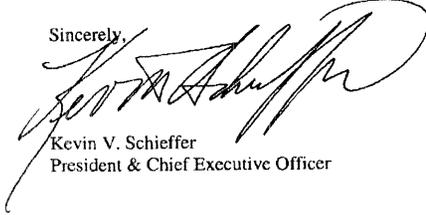
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Ms. Victoria Rutson
Surface Transportation Board
Page 3

whose densest corridors serving a *national market* today *already* experience train traffic volumes five time greater than we hope to generate in our densest corridor *ten years from now* to serve the *regional market* defined in this proceeding.

The time has come and long since passed – since our original filing in February 1998 – to bring this case to closure. We respectfully urge prompt issuance of the Final SEIS and final STB Order bringing this matter to closure. Thank you for your consideration.

Sincerely,



Kevin V. Schieffer
President & Chief Executive Officer

KVS (vs/wend/STB Case Control 6/24/05)

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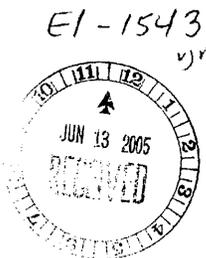
SEA's Response to Comment Letter From: Kevin V. Schieffer

Representing: Dakota, Minnesota and Eastern Railroad (DM&E)

Dated: June 6, 2005

SEA Environmental Correspondence Tracking Number: EI-1542

1. SEA acknowledges DM&E's comments supporting the conclusions in the Draft SEIS regarding the horn noise mitigation and noise and vibration synergies issues.
2. On the air emission issue, SEA acknowledges DM&E's view that modeling was not required to comply with the court's remand in Mid States. SEA further acknowledges the railroad's comment that the market and rate assumptions used by SEA in developing inputs for the sensitivity analysis appear reasonable, and that, at this time, it remains impossible to determine or realistically predict exact coal transportation prices or know with certainty which markets would be served by DM&E, as the 1998 Decision had noted.
3. Comment that the Board imposed unprecedented mitigation in the 2002 Decision and that there has been a 7 ½ year environmental review process in this case noted.



June 6, 2005

Surface Transportation Board
1925 K Street, N.W.
Washington, DC 20423-0001

RE: DM&E Railroad Proposed Expansion Project

Dear Sir or Madam:

I am a resident of Rochester, Minnesota, and am a native of this city. I purchased a home at 1309 East Center Street twelve years ago. My husband and I have made improvements over the years, and have flower beds that took years to establish that are now the envy of the neighbors and something we really enjoy. We are very happy here. We enjoy our porch and listening to the birds in our backyard. It is one of the oldest neighborhoods in Rochester, with homes that were built in the 1910's and 1920's that have been well-taken care of. They have character.

With the knowledge of the possibility of DM&E Railroad expanding its line into the Powder River Basin and upgrading the line to accommodate approximately 33 trains per day, my husband and I are uncertain of our future in this neighborhood and the future of the neighborhood itself. If the DM&E expansion becomes reality, I see no alternative but to move away. The increased rail traffic noise, vibration, and pollution will make the area undesirable. The fate of an established neighborhood, a section of Rochester's population, and its history rests on this decision. I fear that the result of an expansion will be decline and crime--in a word, a ghetto.

Taking into account the environmental impact your decision has on Southeastern Minnesota's most densely populated area is something I hope you will give all the consideration it deserves.

Sincerely yours,

Linda Sybrant

SEA's Response to Comment Letter From: Linda Sybrant

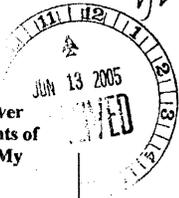
Representing: Citizen

Dated: June 6, 2005

SEA Environmental Correspondence Tracking Number: EI-1543

1. SEA appreciates commenter's participation in the environmental review process and acknowledges commenter's concerns about the potential effects of the project on commenter's neighborhood.

EI 1544



To Whom it may concern:

June 5, 2005

I would like to submit my comments regarding the proposal on the powder river basin expansion as to the serious financial impact it will have on many residents of Winona Minnesota including my wife and I who are homeowners in this city. My understanding that the number of trains running directly through the city of Winona would be double or triple the number presently being run. Just the assumption that this might happen has already affected the real estate situation in Winona as people are well aware of what living conditions will be like for any home owners who are in close proximity to the railroad tracks. Many of these people will find their homes to be unsellable and others will lose a great amount of their property value. Many of these homeowners are in their advanced years and have been in their homes for many years. Their homes for some are their security. If you allow these trains to increase you will inflict some very serious financial problems on people who can ill afford it. Sound barriers and cash allowances to protect your home against noise and vibrations will not work. Homes as far away as three blocks from the tracks can feel the vibrations. Also the fact that they want to run coal trains through this city should concern whoever makes the final decision as this trains coming through here now are pulling over 100 cars and there is no way you can prevent a significant increase of coal dust that will be dispersed as they go through Winona. Winona is unique in that the tracks run right through the center of the city not on the outskirts. Something to think about is that if you run 60 or even 40 trains a day that would be between 4000 to 6000 cars vibrating through this city in very close proximity to some very decent homes. As for ourselves, we have invested a considerable amount of money into our home and now being in our 70s we plan on eventually selling our home when we can no longer take care of a house and if our property values decrease as I'm sure they will, it will create an unwanted and unexpected hardship on us. I find it hard to comprehend that the surface transportation board or any other government agency would even consider such a move. I wonder has anyone ever come to Winona and sat in anyones living room or backyard when the trains come through. I think not. I would hope that before you wreak financial havoc on a lot of undeserving home owners that you find a suitable alternative to hauling coal. I hope that I do not wake up some morning and find I own a home with no resale value. Thank you for taking the time to listen to my Great concern about the future of our home values.

Eugene P. Brah
 Eugene P. Brah
 1086 Marian St'
 Winona, mn 55987

507-454-8511

SEA's Response to Comment Letter From: Eugene P. Brah

Representing: Citizen

Dated: June 5, 2005

SEA Environmental Correspondence Tracking Number: EI-1544

1. SEA acknowledges the concerns of the commenter on the potential impacts of this project on Winona, Minnesota. SEA addresses the issue of project-related impacts to property values in the Final SEIS, Chapter 2.
2. SEA responds to all comments raising concerns about noise and vibration in Chapters 2 and 3 of the Final SEIS.
3. SEA discussed the issue of coal dust extensively in the EIS and, as it is not one of the remanded issues, no additional analysis of this issue is required.

JAMES B. DOUGHERTY

#E/1552 JV
ATTORNEY AT LAW

June 6, 2005

Victoria Rutson
Section on Environmental Analysis
Surface Transportation Board
1925 K St. NW
Washington, D.C. 200423-0001

Re: Sierra Club's Comments on Draft Supplemental EIS
- Dakota, Minnesota & Eastern Railroad Corporation
Construction into the Powder River Basin, STB Finance Docket No. 33407

Dear Ms Rutson:

In *Mid-States Coalition for Progress v. Surface Transportation Board*, 345 F.3d 520 (8th Cir. 2003), the Eighth Circuit Court of Appeals invalidated the Final EIS for the DM&E project, chiefly on the grounds that it had failed to explore the long-term and long-range air pollution implications of burning an additional tens of millions of tons of coal from the Powder River Basin in mid-west electric powerplants. The STB had argued in its briefs to the Eighth Circuit that it could not predict with any confidence how much additional coal would be produced and thus burned as a result of the project, and that it was thus, in effect, "off the hook" of having to perform a NEPA analysis of these issues. However, the court disagreed. Specifically, the court held:

the proposition that the demand for coal will be unaffected by an increase in availability and a decrease in price, which is the stated goal of the project, is illogical at best. The increased availability of inexpensive coal will at the very least make coal a more attractive option to future entrants into the utilities market when compared with other potential fuel sources, such as nuclear power, solar power, or natural gas. Even if this project will not affect the short-term demand for coal, which is possible since most existing utilities are single-source dependent, it will most assuredly affect the nation's long-term demand for coal as the comments to the DEIS explained.

345 F. 3d at 549.

The Sierra Club was therefore greatly surprised to read the draft SEIS for this project. In the section addressing future air pollution impacts, the STB simply reasserted its previously discredited position, namely that increases in coal consumption as a result of the project were too difficult to project. The draft SEIS provides the public, and the courts, with no more information than was provided in the FEIS invalidated by the court. It, too, is therefore inadequate under NEPA.

709 3rd ST. SW, WASHINGTON, D.C. 20024; PHONE: (202)488-1140
FAX: (202)484-1789; E-MAIL: JIMDOUGHERTY@AOL.COM
RECYCLED PAPER (100%PC)

Ms. V. Rutson, SEA-STB
June 6, 2005
page 2

NEPA Requires Analysis of the Indirect Air Pollution Effects of the DM&E Project

"NEPA requires every agency to take a genuinely 'hard look' at the environmental impact of a proposal." *City of Richfield, Minnesota v. Federal Aviation Administration*, 152 F.3d 905 (8th Cir. 1998). When an agency evaluates the scope of the environmental effects of a decision, it must examine the forest as well as the trees. CEQ's NEPA regulations require that every EIS discuss the direct and indirect (or secondary) effects of the proposed project. 40 C.F.R. § 1508.8. See also *Sierra Club v. Marsh* 769 F.2d 868, 878-80 (1st. Cir. 1985) (secondary environmental impacts of federally-licensed port development must be evaluated).

In *Sierra Club v. Sigler*, 695 F.2d 957 (5th Cir. 1983), the Army Corps of Engineers had prepared an EIS on a river channelization project, but had limited its environmental review to the effects on the river; it had overlooked the downstream impacts of increased cargo traffic that the channelization would cause later in time -- such as spills of chemicals. This, the Fifth Circuit held, violated NEPA. Of special relevance to this case is the court's notation that the defendant agency had trumpeted the cargo-enhancing aspects of the project as long-term, "secondary" benefits that helped substantially to justify it financially. Then, however, the agency declared the long-term, secondary environmental effects as too remote and speculative to evaluate. This the Court would not accept. "The Corps cannot tip the scales of an EIS by promoting possible benefits while ignoring their costs." 695 F.2d at 979.

In *Illinois Commerce Comm'n v. ICC*, 848 F.2d 1246, 1259 (D.C. Cir. 1988), the ICC was held to have wrongly ignored the environmental impacts of rail line abandonment on the expectation that other federal agencies would address them. Six years later the ICC was making the same mistake, with the same result. *Idaho by & Through Idaho Public Utilities v. I.C.C.*, 35 F.3d 585, 596 (D.C. Cir. 1994) (remanding for same reason).

See also *Sierra Club v. ICC*,¹ a case whose parallels to this one are remarkable. In a challenge by an environmental group to a decision to permit construction of a new rail line -- for the purpose of transporting coal from mines in the PRB to power plants, the ICC refused to consider the long-term, long-range air pollution implications, noting that the generation of electricity from PRB coal would have environmental effects in other states, but that "[t]he exact nature of these impacts is not reasonably foreseeable due to the inability to fully anticipate how and under what conditions the coal and energy will be utilized." The D.C. Circuit vacated the decision.²

¹ 1978 U.S. App. LEXIS 12538; 1978 Fed. Carr. Cas. (CCH) P82,768

² 1978 U.S. App. LEXIS 12538 at *19.

The STB Made a Serious Error in Reaching its Conclusion that the DM&E Project Will Not Significantly Increase Mid-West Coal Consumption

Though the Eighth Circuit's opinion states that licensing the DM&E project will obviously lead to more coal production, lower coal prices, and therefore more coal burning, the draft SEIS doggedly adheres to arguments offered in the STB's briefs to the court - that coal consumption will remain unaffected. The chief difference in the two positions is that the STB's now offers a "study" to support its position.

This so-called study is seriously flawed. According to the draft SEIS, the study looked simplistically at whether coal consumption would be influenced by possible decreases in coal transportation costs caused by the proposed DM&E project:

"SEA's analysis has focused on two primary questions:

- (1) How the transportation rates for PRB coal would change with DM&E's entrance into the market place.
- (2) Given the change in transportation rate, what, if any, would be the potential air quality impacts." p. 4-2.

Given that decreases in coal transportation costs may actually increase because the price tag for this incredibly expensive project has now exceeded \$2 billion, it was not surprising that SEA concluded that no increases in coal burning would be caused by changes in transportation costs:

In short, the study demonstrates that the expected changes in transportation rates from the construction of the proposed DM&E line would only minimally affect national coal production and consumption, compared to the AEO 2005 reference case.

p. 4-24 (emphasis added).

What SEA overlooked is that coal consumption can be expected to increase simply because adding 100 million tons of new coal supplies to the mid-west coal market will shift the supply curve - causing a decrease in the price of coal and thus more consumption of it. This is so regardless of whether or not there are modest increases or decreases in transportation costs. This fact was a foundation of the Board's 1998 determination of public convenience and necessity, in which it concluded that the proposed rail line would marry (1) increased supplies of PRB coal on its western end with (2) increasing demand for coal by electric utilities on its eastern end, thus leading inexorably to increased burning of coal.

In its 1998 decision, the Board cited DM&E projections "that plants currently burning Wyoming coal would burn an additional 71 million tons by 2010. Of the plants in DM&E's prospective market area not currently burning any PRB coal, it projects that 63 to 85 million tons may be burned in 2010." 3 STB 847 at n. 42.

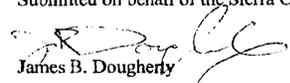
The Board also cited evidence that existing nuclear generating plants would reach the end of their service lives and be replaced by low-cost, coal-burning power plants. See id. at n. 51 and accompanying text.

It is not merely foreseeable that shipping enormous amounts of PRB coal to the mid-West will lead to increased air emissions and adverse environmental impacts; such impacts were, in fact, foreseen by the agency in the preceding environmental review process. The STB explicitly pointed to such impacts as an inevitable result of its licensing decision.³ In fact, the FEIS, at p. 10-2, has a paragraph lightly touching on matters such as "global warming," "acid rain," and other "national air quality impacts" resulting from the increased burning of PRB coal in mid-West power plants. What the Eighth Circuit demanded in its decision was simply a more complete and understandable treatment of these very issues. It is now too late for the STB to claim that such environmental impacts are "not foreseeable" or "speculative" and were therefore properly excluded from the NEPA review.

This point was hit upon repeatedly by the Eighth Circuit: "As discussed above, it is reasonably foreseeable - indeed, it is almost certainly true - that the proposed project will increase the long-term demand for coal and any adverse effects that result from burning coal." 345 F. 3d at 549. There is thus no basis for your continued refusal to come to grips with the obvious reality that facilitating new supplies of coal will lead to more consumption of that coal.

The Sierra Club urges you to revise the draft SEIS to remedy this glaring error, and to do what the Eighth Circuit directed you to do: conduct a good-faith examination of what it would mean for our nation's - and the world's - environment if we were to make a large scale shift toward using more coal as the nation's principal energy supply, as compared with the alternatives.

Submitted on behalf of the Sierra Club.


James B. Dougherty

³ See DEIS Appendix C at p. C-73.

SEA's Response to Comment Letter From: James E. Dougherty

Representing: Sierra Club

Dated: June 6, 2005

SEA Environmental Correspondence Tracking Number: EI-1552

1. Sierra Club's argument that SEA has not complied with the court's remand in Mid States is addressed in Chapter 4 of the Final SEIS. As explained there and in the Draft SEIS, to study the air emission issue remanded by the court, SEA reasonably decided to develop a rate sensitivity analysis and used the NEMS model to forecast how much additional coal would, or would not be, consumed as a result of this project. Sierra Club appears to suggest that SEA was required to assess the potential impacts of increased overall use of PRB coal rather than the air quality impacts of any changes in coal usage resulting from this specific project. But the issue before the Board on remand in this case is simply whether this project will increase coal usage and thereby adversely affect air quality. Therefore, SEA has properly focused on how much additional coal would be used over and above the increases already forecast by EIA in the AEO 2005 report. The fact that SEA's conclusions on national and regional impacts differ from commenter's assertion that coal use must necessarily be greatly increased as a result of this project--- and that the information that would be needed to accurately predict the location and extent of any local impact on coal usage is not available--- does not invalidate SEA's conclusions or show that SEA's evaluation was not thorough and extensive. Rather, as the SEIS shows, SEA has done the additional analysis required by the court.
2. SEA's analysis did not overlook the commenter's concern that the proposed project would add 100 million tons of new coal to the marketplace and would result in "shift[ing] the supply curve -- causing a decrease in the price of coal and thus more consumption of it." Neither SEA nor the Board have suggested that 100 million tons of *new* coal will be transported as a result of this project, only that DM&E is expected to transport 100 million tons of coal. Specifically, as discussed in more detail in Chapter 4 of the Final SEIS, the Final EIS anticipated production of 336.5 million tons of coal from the PRB in 1999 and the AEO 2005 reference case forecasts 497 million tons of coal from the PRB in 2010 -- an increase of 160 million tons. The Board's prior decisions expected that DM&E would handle a maximum of 100 million tons of coal in 2010. The maximum 100 million tons of coal DM&E would carry is expected to come from the already-forecasted increase in PRB production between now and 2010. Therefore, SEA's rate sensitivity analysis already assumes more than 100 million tons of additional PRB coal production and properly found that the lower transportation costs that would result from this project would have minor effects on coal usage and resulting air emissions, at least on a national and regional basis.

SEA's Response to Comment Letter From: James E. Dougherty
Representing: Sierra Club
Dated: June 6, 2005
SEA Environmental Correspondence Tracking Number: EI-1552

The commenter seems to assume that any increase in demand for PRB coal up to 100 million tons would be met by DM&E alone. But as detailed in Chapter 4 of the Final SEIS, there is every reason to believe that, regardless of whether DM&E were to enter the PRB transportation market as a third competitor, the expected year-by-year increases in demand for PRB coal would be met by the existing carriers' expanding capacity on their existing routes. Thus, Sierra Club has not cast doubt on the conclusion of the rate sensitivity analysis that, to the extent there is an increase in demand for PRB coal in the future, very little of it would be attributable to this project.

3. The commenter mischaracterizes the Draft SEIS when it suggests that SEA simply found that projecting the impacts of this project on air emissions is not reasonable and feasible. As explained in Chapter 4 of both the Draft and the Final SEIS, the NEMS modeling provides ample documentation for SEA's determination that, on a national and regional basis, there would be only minor impacts on coal usage and resulting air emissions at power plants. As those chapters make clear, it is only the potential local impacts of this project on coal usage that cannot be accurately predicted because the information that would be needed to make a reasoned determination on the location or extent of any increase in coal usage is simply not available.

Because of the inherent uncertainty and data gaps discussed in detail in Chapter 4 of the Draft SEIS (and summarized in Chapter 4 of the Final SEIS), SEA properly concluded that any attempt to quantify air emissions on a local basis would lack a sound foundation and would instead be largely conjectural. Under these circumstances, SEA appropriately followed the process set out in the CEQ rules at 40 CFR 1502.22 for situations where the information needed to examine reasonably foreseeable impacts is missing and unavailable. Sierra Club is taking SEA's determinations regarding potential local impacts and applying them to its conclusions regarding national and regional impacts, which is inappropriate and incorrect.

John R. Swanson
3400 Edmund Blvd
Minneapolis, MN 55406

3 June 2005

Dear Mr. [unclear]
1925 [unclear] St. N.W.

Washington, DC

Dear Sirs;

Please accept my following comments concerning the
Dakota, Minnesota and E. Wisconsin Railroad Corporation, 22409,
Powder River Basin, Draft Supplemental Statement.

This project will impact cultural resources, including historic places and
archaeological sites, many of national significance.
and this project will promote air pollution by presenting into the atmosphere:
sulfur dioxide,
nitrogen oxides,
carbon monoxide,
carbon dioxide, and
mercury.

Sincerely,
John R. Swanson



SEA's Response to Comment Letter From: John R Swanson

Representing: Citizen

Dated: June 3, 2005

SEA Environmental Correspondence Tracking Number: EI-1558

1. SEA determined in the EIS that the proposed project had the potential to have significant adverse impacts to historic and archaeological resources. To protect these resources, SEA developed a Programmatic Agreement, to address cultural resources issues, as discussed in the court's decision in Mid States and in the Final SEIS, Chapter 5.
2. Concerns raised by this and other commenters related to air emissions that could result from this project are addressed in the Final SEIS, Chapter 4.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 REGION 8
 999 18TH STREET- SUITE 300
 DENVER, CO 80202-2466
 Phone 800-227-8917
 http://www.epa.gov/region08

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 jr

JUN 11 2005
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Ref: 8EPR-N

JUN 20 2005

Victoria Rutson
 Section of Environmental Analysis
 Case Control Unit
 Finance Docket No. 33407
 Surface Transportation Board
 1925 K Street, NW
 Washington, D.C. 20423-0001

Re: Comments on the Dakota, Minnesota and
 Eastern Railroad Corporation Construction
 into the Powder River Basin DM&E
 CEQ#20050163

Dear Ms Rutson:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA), 42 U.S.C. Section 4321, et. seq., and Section 309 of the Clean Air Act, 42 U.S.C. Section 7609, the Region 8 office of the Environmental Protection Agency (EPA) has reviewed the referenced Draft Supplemental Environmental Impact Statement (DSEIS) for the Dakota, Minnesota and Eastern Railroad Corporation Construction into the Powder River Basin Project (DM&E).

EPA has reviewed the DM&E document and offers a few general comments concerning the analysis as required by the 8th Circuit Court of Appeals Decision in *Mid States Coalition for Progress v. STB*. EPA finds that the analysis concerning horn noise, noise and vibration synergies, and programmatic agreement to be sufficient. However, there are remaining air quality questions in the DSEIS which the following comments address.

We recognize the difficulties in determining impacts from long-term projects concerning energy and coal usage. However, the new analysis in the DSEIS seems to contradict statements of purpose and need found in Chapter 2 of the Final EIS. The most obvious example includes the following simple generalization. In the Final EIS, Chapter 2 on Purpose and Need, discusses the need for Powder River Basin (PRB) coal to reduce SO₂ emissions and how the vastly reduced cost of PRB coal will greatly increase demand for coal from Wyoming. Those statements when contrasted with projections in the DSEIS that forecast very minor increases in coal usage and electricity generation does not provide a clear understanding of what the potential for regional air quality impacts from this project potentially might include.

Since the completion of the Final DEIS, the price of natural gas has dramatically increased making the outlook for coal usage even more competitive making the DSEIS analysis appear even more confusing. Primarily, it is not clear that the Energy Information Administration's coal usage forecast supporting the air quality modeling in the DSEIS analysis reflects these recent gas price predictions.

Although some of the increased usage of PRB coal will be replacement of more costly and higher sulfur content coal, the increased availability of inexpensive coal could reduce or preclude the competitiveness of other low emission sources of electricity which would have additional environmental benefits. It must also be understood as is pointed out in the analysis that PRB coal will continue to emit NO_x, mercury and CO₂. EPA concurs with the analysis that there could be large benefits for replacing higher sulfur content coal with PRB coal. However, the DSEIS analysis also points out that NO_x and mercury emissions will remain the same or increase under this scenario. In addition, the DSEIS analysis does not consider the climate changing aspects of increases to CO₂ emissions nor is there mention of the potential for reducing these impacts by using emerging technologies such as carbon sequestration.

Finally, the 8th Circuit Court of Appeals specifically requested a long-term evaluation of air quality impacts from PRB coal usage on local use areas and regional areas. EPA agrees with the difficulties of specifically determining the local area impacts caused by future coal usage from this project. We also found the results of the regional impact analysis for predictions to be appropriate, as was determined in the DSEIS. However, EPA does question using a 15 year projection (2005 to 2020) to be a comprehensive look at the long-term nature of potential impacts from this rail expansion project when the expected life of the rail project and production of PRB coal would extend well past the year 2020.

EPA's previous comments on the prior Final EIS are enclosed and we request that the new Final EIS incorporate those concerns as well as the comments noted above. Based on the procedures EPA uses to evaluate the potential effects of proposed actions and the information in the DSEIS, the Proposed Actions identified by the DSEIS for the Dakota, Minnesota and Eastern Railroad Corporation Construction into the Powder River Basin has been rated EC-1. A copy of the EPA rating system has also been enclosed. Please call me at (303) 312-6004 if you have any questions concerning our comments.

Sincerely,

Larry Svoboda
 Director, NEPA Program
 Office of Environmental Protection and
 Remediation

Enclosures

Cc: Kathleen Kowal, EPA Region V



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8
899 18TH STREET - SUITE 300
DENVER, CO 80202-2466
Phone 800-227-8917
<http://www.epa.gov/region08>

December 27, 2001

Ref: 8EPR-N

Ms. Victoria Rutson, Project Leader
Section of the Environmental Analysis
Surface Transportation Board
1925 K Street, NW
Washington, D.C. 20423

RE: DM&E Railroad Final Environmental
Impact Statement (FEIS) - Surface
Transportation Board Finance Docket No.
33407 (CEQ Docket # 010444)

Dear Ms. Rutson:

In accordance with the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, Environmental Protection Agency (EPA) offices of Regions 5 and 8 have reviewed the referenced FEIS.

EPA would like to recognize the Surface Transportation Board (STB) for their commitment to diligently identifying and reducing impacts that could result from this project. The extensive mitigation requirements itemized in Chapter 12 will have a large impact on how the project proceeds with respect to protecting the environment. The changes that have been made to the FEIS as a result of STB's response to our comments on the Draft Environmental Impact Statement (DEIS) have addressed the majority of our original concerns that were identified in our comment letter.

The concerns from our comments on the DEIS that remain are discussed below. If concerns identified in our previous comments on the DEIS are not discussed, STB should conclude that we believe those comments were adequately addressed in the FEIS. In addition, new information has been identified since our comments on the DEIS were submitted. Specifically, the issues related to the M-2 option near Mankato, Minnesota. Please refer to our agreed upon language as discussed below.



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General Comments

Air Quality

EPA's prior comments on air quality impacts and mitigation in the DEIS pointed out that no mitigation had been identified and that the negotiations to identify air mitigation had not yet been completed. The revised summary of air impacts analysis in the FEIS was a marked improvement over the DEIS and we believe this adequately identifies potential air impacts that would result from this project. However, our current information concerning the Air Quality Working Group, as of the date on this letter, is that these negotiations have not yet reached a conclusion. As a result, mitigation for impacts and the associated costs were still not identified in the FEIS. EPA supports STBs intent to keep all stakeholders involved in the process to ultimately determine the necessary mitigation for the identified air quality impacts and the associated costs.

Section 12.8 did not mention mitigation for air impacts. The FEIS should have included the costs for mitigation requirements 82 and 83 (Section 12.9.1.6).

Section 10.2 Air Quality anticipated that no violations of National Ambient Air Quality Standards are expected. This statement should be revised since recent violations of the PM10 standard were incurred at monitoring locations in the Powder River Basin. Although the significance of these violations has not been determined, STB's decision document should appropriately address sources of particulates in this region.

Water Quality and Wetlands

With regard to watersheds and wetlands impacts, during the Draft EIS (DEIS) stage, Region 5 provided fifteen pages of detailed comments to the Section of Environmental Analysis (SEA) on specific elements of the DEIS that needed to be addressed or explained. SEA attempted to address these comments in Volume IV-A, Appendix B of the FEIS, but the response was extremely difficult to follow and it was impossible to determine if our comments were addressed at all. By comparing portions of the DEIS with the FEIS, we were able to determine that some of our comments were recognized, even though SEA did not always change its original recommendations. In most other cases, however, it was impossible to determine if our comments were at all considered. In those cases, we repeat our original comments for additional information that needs to be provided to the Corps of Engineers/St. Paul District Office (COE) to satisfy the requirements of the 404 permit application.

Mankato Southern Bypass or M-2 Option

New information supplied to STB in the "DM&E Expansion Project Comments on Draft EIS" prepared by Blue Earth County and dated February 2001, has come to our attention and relates to impacts in the Blue Earth River in the vicinity of the Town of Skyline. It was our

understanding that STB was in possession of this information and the report was used to supplement the baseline information to evaluate costs to mitigate impacts for the M-2 option. The preliminary design information in the Blue Earth County report identified the possibility that a large amount of fill could be placed into the Blue Earth River.

On December 19, 2001, representatives from EPA Regions 5 and 8, Office of Federal Activities (OFA), Office of Wetlands, Oceans and Watersheds (OWOW) and the STB held a conference call to discuss the issues surrounding the Mankato, Minnesota alternatives and their impacts. Of concern to EPA was the availability of new engineering information in the Blue Earth County report for the Southern Bypass alternative (M-2) suggesting that a portion of the Blue Earth River would require to be filled in order to accommodate this alternative. Discussions with STB to clarify this issue has identified that the fill into the Blue Earth River could be eliminated by using different slopes for cut and fill and incorporating retaining walls into the design. At the end of discussions, it was agreed that new language should be introduced into the Record of Decision (ROD) outlining explicitly that if the DM&E chooses to place fill into the Blue Earth River, then the DM&E would be required to notify the STB of this decision. The STB would then examine this matter and consult with EPA to determine the impacts and the appropriate level of mitigation and reporting. EPA has had the opportunity to review this new draft ROD language and is satisfied with the condition it sets forth (see attached language).

Specific Comments

Water Quality Impacts

We note that Chapter 4.1.4 and Table 4-2 present information on waters that are listed as impaired under Section 303(d) of the Clean Water Act (CWA). We concur with the conclusions and recommendations in the FEIS regarding anticipated impacts to these waters and proposed measures to reduce those impacts. However, we recommend that SEA provide to the COE a map showing the locations of these waterbodies and the places where the rail line will cross them. SEA could also indicate crossings of impaired waters by referencing stream crossing numbers used in Volume V, Project Maps, that were part of the Section 404 permit application.

General Recommendations for Wetland Mitigation

We repeat our request that DM&E commit to selecting former wetland sites that were legally altered (i.e., prior converted cropland) for mitigation sites. Please advise the COE of this information.

We repeat our suggestion that DM&E consider other factors in the selection process that may influence or enhance success and functional values of the wetland, as described in our letter of March 20. These factors include, but are not limited to, adjacency to streams, water bodies, or other wetlands, basin morphology, landscape position, location in the watershed,

and opportunities to combine the mitigation with enhancement, restoration, or preservation efforts by State, local, or private resource agencies.

Again, we emphasize the need to permanently protect all mitigation sites. All selected mitigation sites must contain easements, deed restrictions, or similar measures to ensure that they will remain jurisdictional waters of the U.S. and not be altered for any purpose.

We repeat our request for specific information on how DM&E will ensure that the mitigation sites will have sufficient hydrology to comply with the requirements of the 1987 Wetlands Delineation manual. Please advise the COE of this information.

We again recommend that DM&E commit to replacing wetland vegetation types in kind, i.e., forested wetland replacement for forested wetland loss.

We again request that DM&E commit to producing conceptual wetland restoration plans, including plant selection, planting plans, assurance of proper hydrology, control of alien species, success criteria, monitoring, and replacement or other corrective measures. Please provide the COE with this information.

Middle East Staging Area

We concur with the reasoning behind SEA's recommendation of Option B, provided the wetland loss is fully mitigated at a ratio of at least 1.5:1.

Wetland Delineation and Mitigation

In the Public Notice of September 29, 2000, the COE/St. Paul District stated that the total wetland impact in Minnesota was 240 acres. This is the figure we used in our wetland impact and mitigation calculations, and we have seen no evidence in the FEIS to suggest a lower figure. However, Chapter 12, Attachment D, shows a total of only 230 acres of wetland, assuming that Alternative M-2 is chosen. The FEIS apparently excluded, without explanation, the 10 acres of lakes and streams that were in the DEIS, for which mitigation will also be needed. Without evidence to the contrary, we will still base our mitigation recommendation on a total of 240 acres of wetlands and other waters impacted.

We are pleased to note that the General Mitigation Measures in Chapter 12.7.1 as well as Attachment D include an anticipated wetland mitigation ratio of 2:1. However, the Measures and Attachment D propose a ratio of only 1:1 for "isolated" wetlands. Although the FEIS states that none of the wetlands in Minnesota are isolated, we disagree with the notion that these wetlands are worth less than other wetlands. In many cases they provide critical habitat functions that cannot be performed entirely by existing adjacent wetlands. Furthermore, the definition of "isolated" will be based on a jurisdictional decision by the COE with advice from U.S. EPA, and it is premature to speculate on which wetlands are jurisdictionally "isolated."

EPA's comments on the DEIS for information on wetland mitigation remain unanswered in the FEIS. In view of the fact that the project's wetlands mitigation information has not been fully detailed within the FEIS, EPA maintains its environmental concerns in this area. Accordingly, EPA reserves the right to potentially provide further comment on the subject of a satisfactory wetlands compensation plan on behalf of this project, in accordance with our authorities under Section 404 of the CWA.

With regard to the City of Rochester, EPA has reviewed the discussions for the recommended mitigation measures for the through town alternative. Although the recommended mitigation measures will go a long way toward alleviating some of the concerns voiced by the residents of Rochester, EPA still perceives the impacts of the through-town alternative as a nuisance to public health and safety due to the increased frequency and duration of unit coal trains.

We appreciate the opportunity to offer comments on this project. If you should have any question, please contact Mr. Mazin Enwiya in Region 5 at 312/353-8414 or email at enwiya.mazin@epa.gov or Gregory Oberley in Region 8 at 303/312-7043 or email at oberlev.gregory@epa.gov.

Sincerely,

Elyana Sutin, Acting Chief
NEPA Unit
Ecosystems Protection Program

Enclosure

cc: Mazin Enwiya, EPA Region 5
Wendy Schmitzer, USDA Forest Service
Bill Carson, USDI Bureau of Land Management
Karen Lawrence, US Army Corps of Engineers
Tim Fell, US Army Corps of Engineers
Kenneth Parr, USDI Bureau of Reclamation
Bruce L. McLaren, US Coast Guard

5

Environmental Protection Agency Rating System for Draft Environmental Impact Statements Definitions and Follow-Up Action*

Environmental Impact of the Action

LO -- Lack of Objections

The Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC -- Environmental Concerns

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

EO -- Environmental Objections

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU -- Environmentally Unsatisfactory

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1 -- Adequate

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 -- Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

Category 3 -- Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.

SEA's Response to Comment Letter From: Larry Svoboda

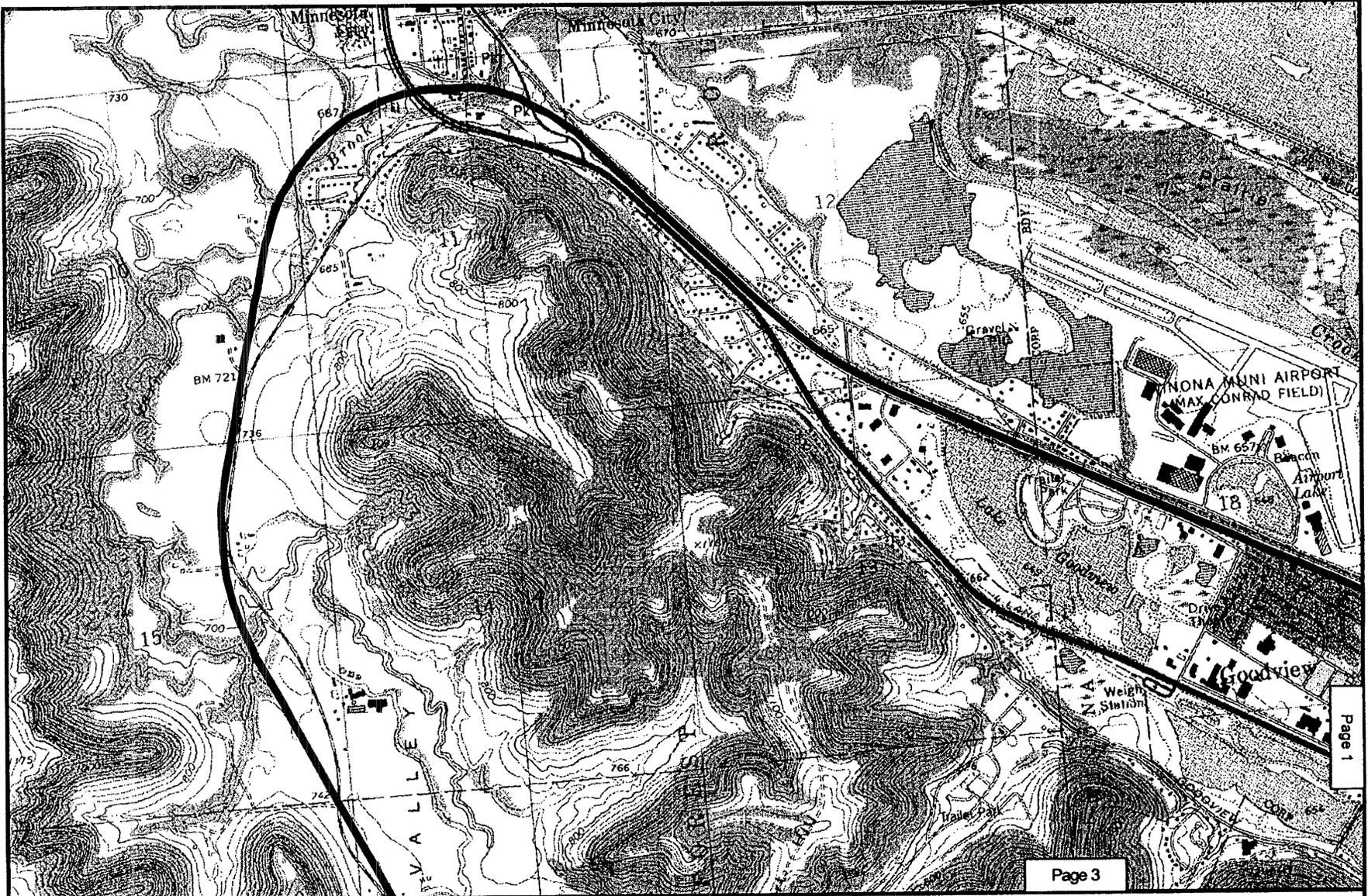
Representing: EPA Region 8

Dated: June 20, 2005

SEA Environmental Correspondence Tracking Number: EI-1578

1. Comment that EPA finds SEA's analysis in the Draft SEIS concerning horn noise, noise and vibration synergies sufficient and the Programmatic Agreement adequate is noted. EPA's concerns and questions about the remanded air emissions issue are addressed in the Final SEIS, Chapter 4.
2. This comment asking whether EIA's coal usage forecast reflects recent increases in the price of natural gas is addressed in the Final SEIS, Chapter 4.
3. SEA responds to the comments regarding SEA's discussion of the potential project-related impacts to SO₂, NO_x, mercury, and CO₂ emissions in the Final SEIS, Chapter 4.
4. The response to the comment regarding carbon dioxide as a climate-changing emission is addressed in the Final SEIS, Chapter 4. In addition, SEA acknowledges that EPA finds SEA's regional impact analysis appropriate and concurs with SEA's view that it is difficult to specifically determine the local area impacts that would be caused by future coal usage from this project.
5. SEA does not believe the 20-25 year modeling period used for both the AEO2005 basecase reference and the rate sensitivity analysis is too short. EPA is incorrect that only a 15-year projection was used in this case. See the further discussion in the Final SEIS, Chapter 4.
6. As requested, SEA has reviewed EPA's prior comments on the Final EIS. SEA has responded to EPA's prior comments on wetlands in the Final SEIS, Chapter 6. SEA has also attached to this comment response, for EPA's convenience, copies of maps from the Draft EIS, Volume V, showing the locations where the project crosses Clean Water Act, Section 303(d) impaired waters.

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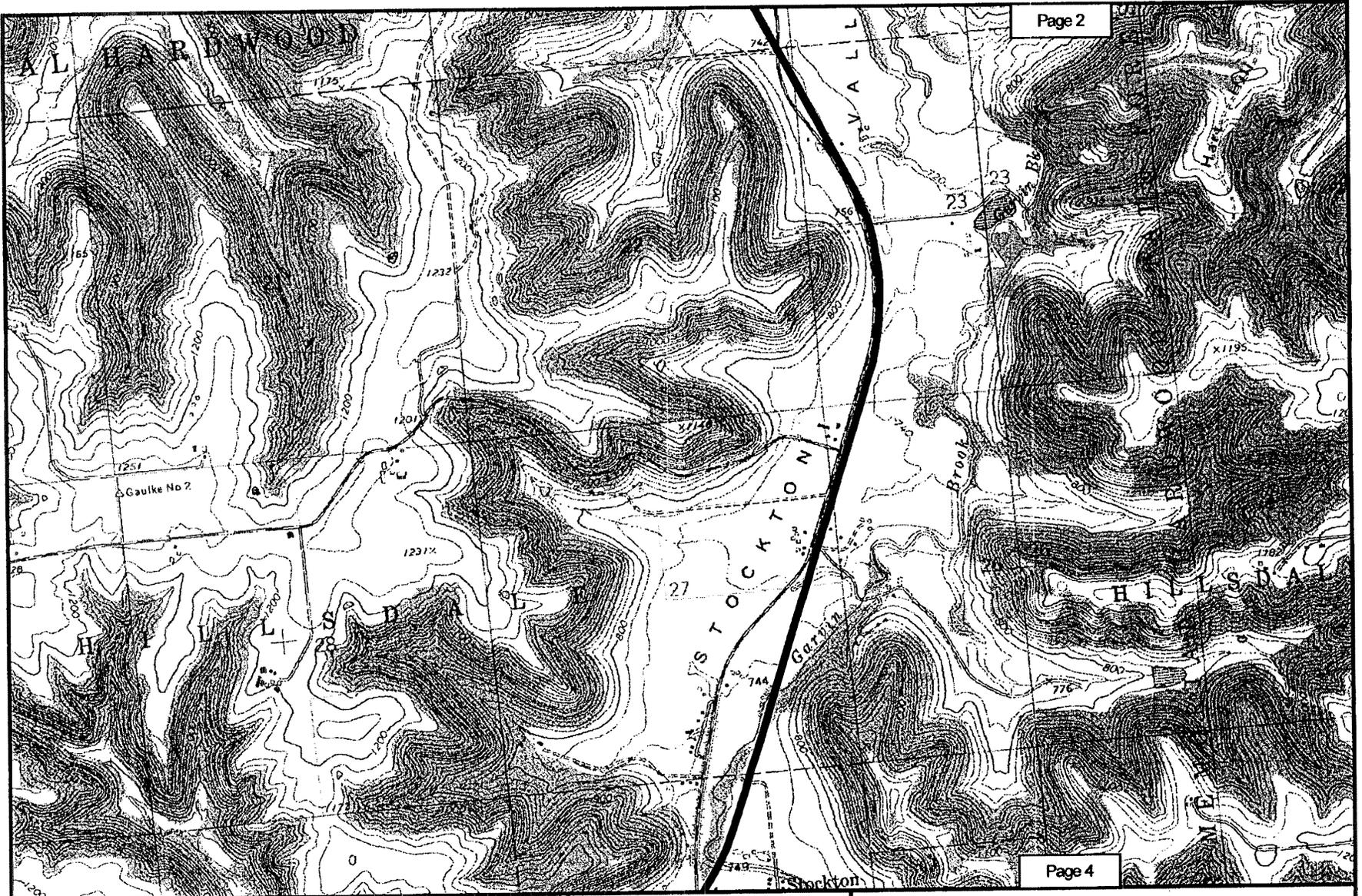
— Existing Rail Line
 - - - Bypass Proposal

Map 2
 POWDER RIVER BASIN EXPANSION PROJECT
 EXISTING DM&E RAIL LINE*
 WINONA COUNTY, MN
 WINONA WEST, ROLLINGSTONE QUADS
 * Formerly Chicago and Northwestern Rail Line

Page 3

Page 2

Page 4

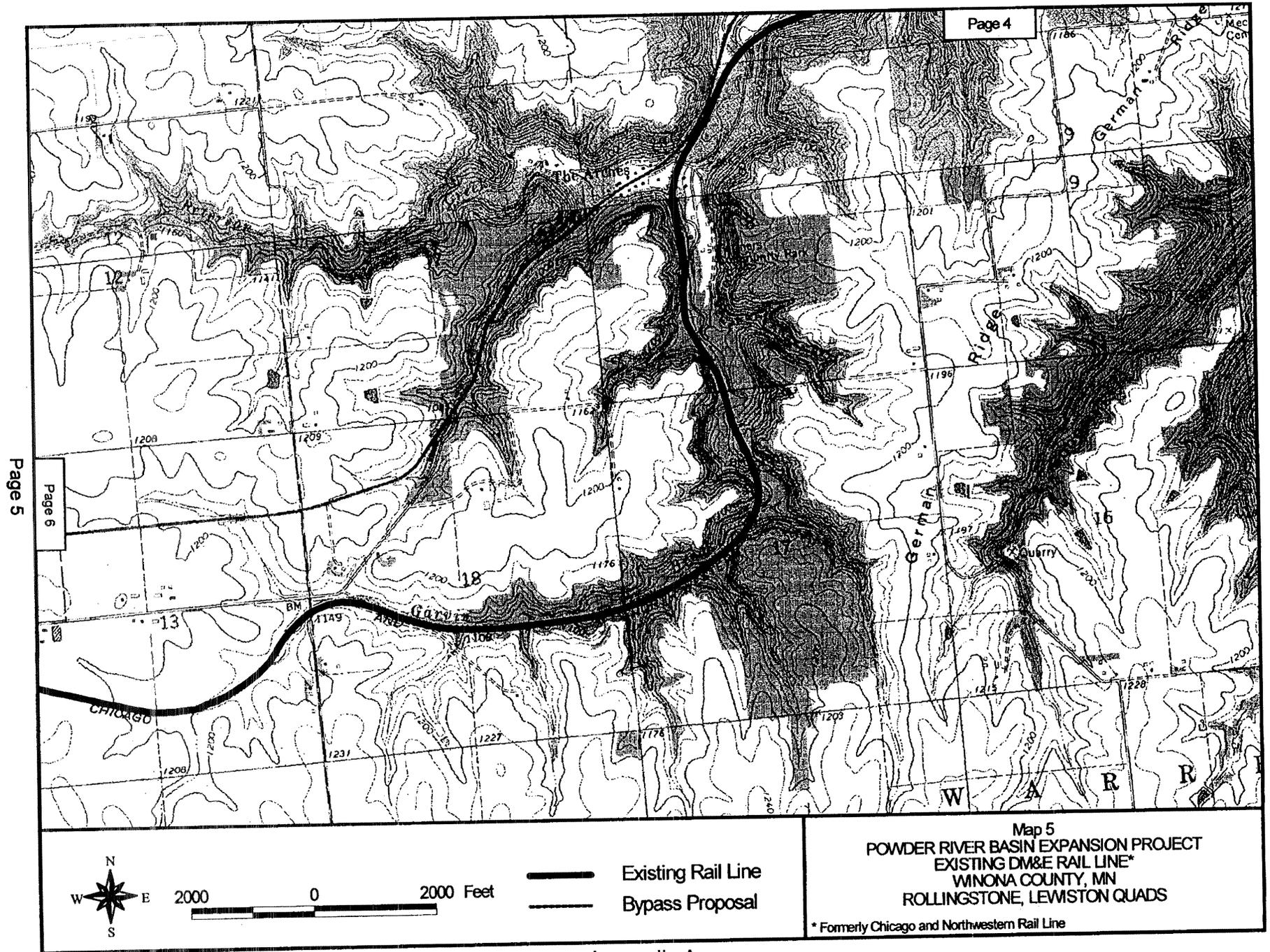


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— Existing Rail Line
 - - - Bypass Proposal

Map 3
 POWDER RIVER BASIN EXPANSION PROJECT
 EXISTING DM&E RAIL LINE*
 WINONA COUNTY, MN
 WINONA WEST, ROLLINGSTONE QUADS

* Formerly Chicago and Northwestern Rail Line



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Page 4

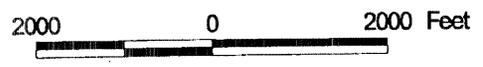
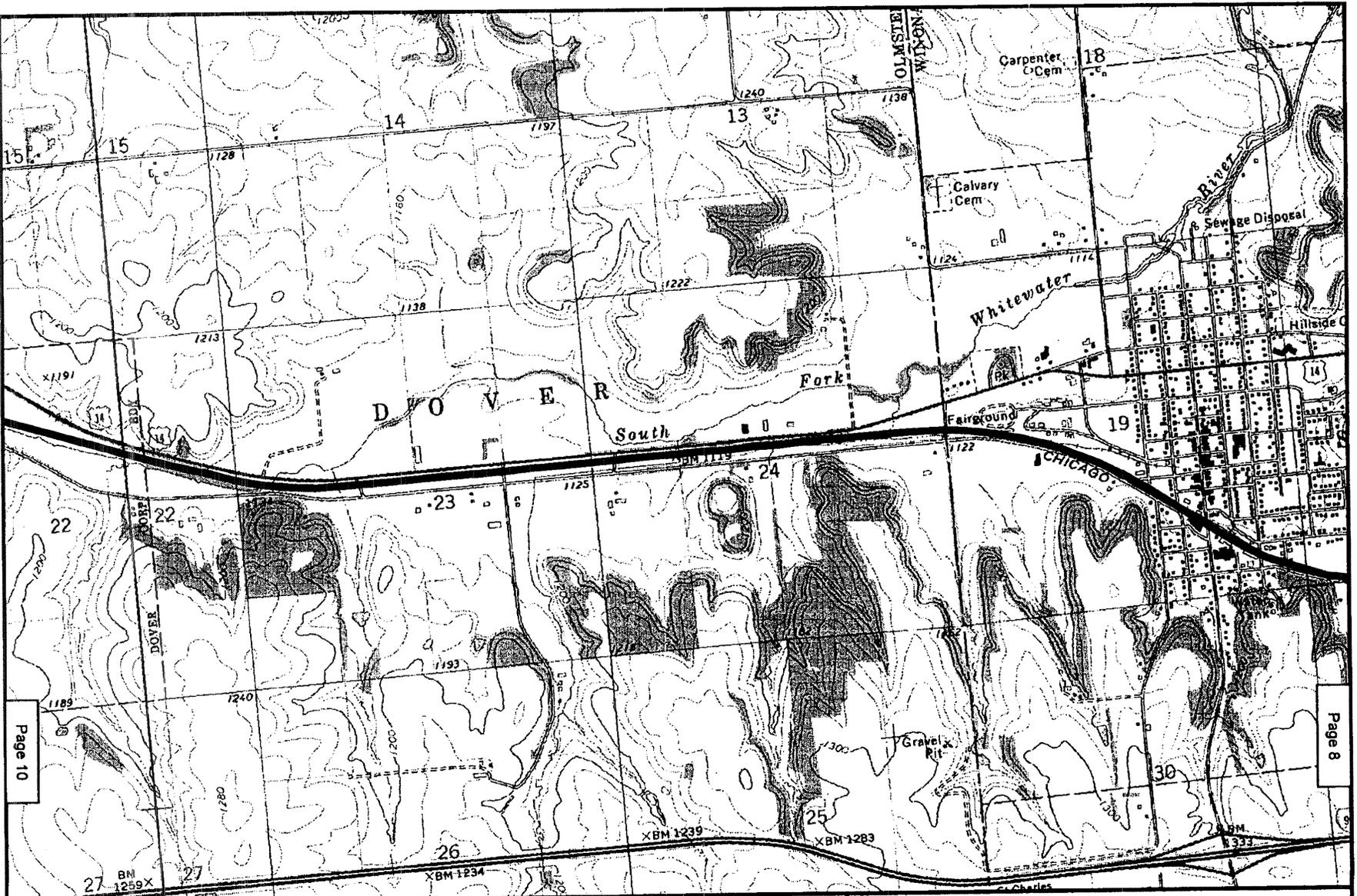


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Existing Rail Line
Bypass Proposal

Map 5
POWDER RIVER BASIN EXPANSION PROJECT
EXISTING DM&E RAIL LINE*
WINONA COUNTY, MN
ROLLINGSTONE, LEVISTON QUADS

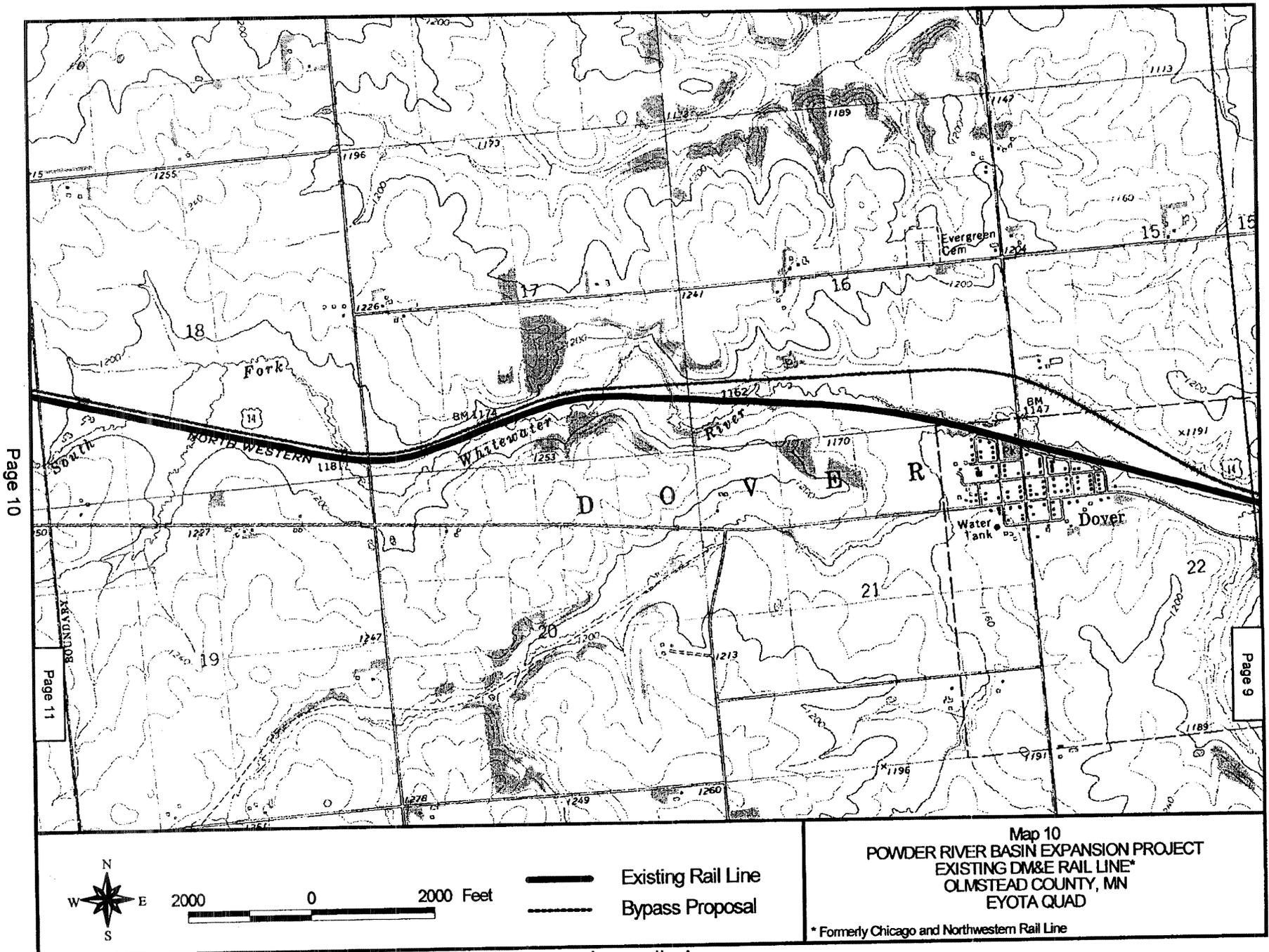
* Formerly Chicago and Northwestern Rail Line



-  Existing Rail Line
-  Bypass Proposal

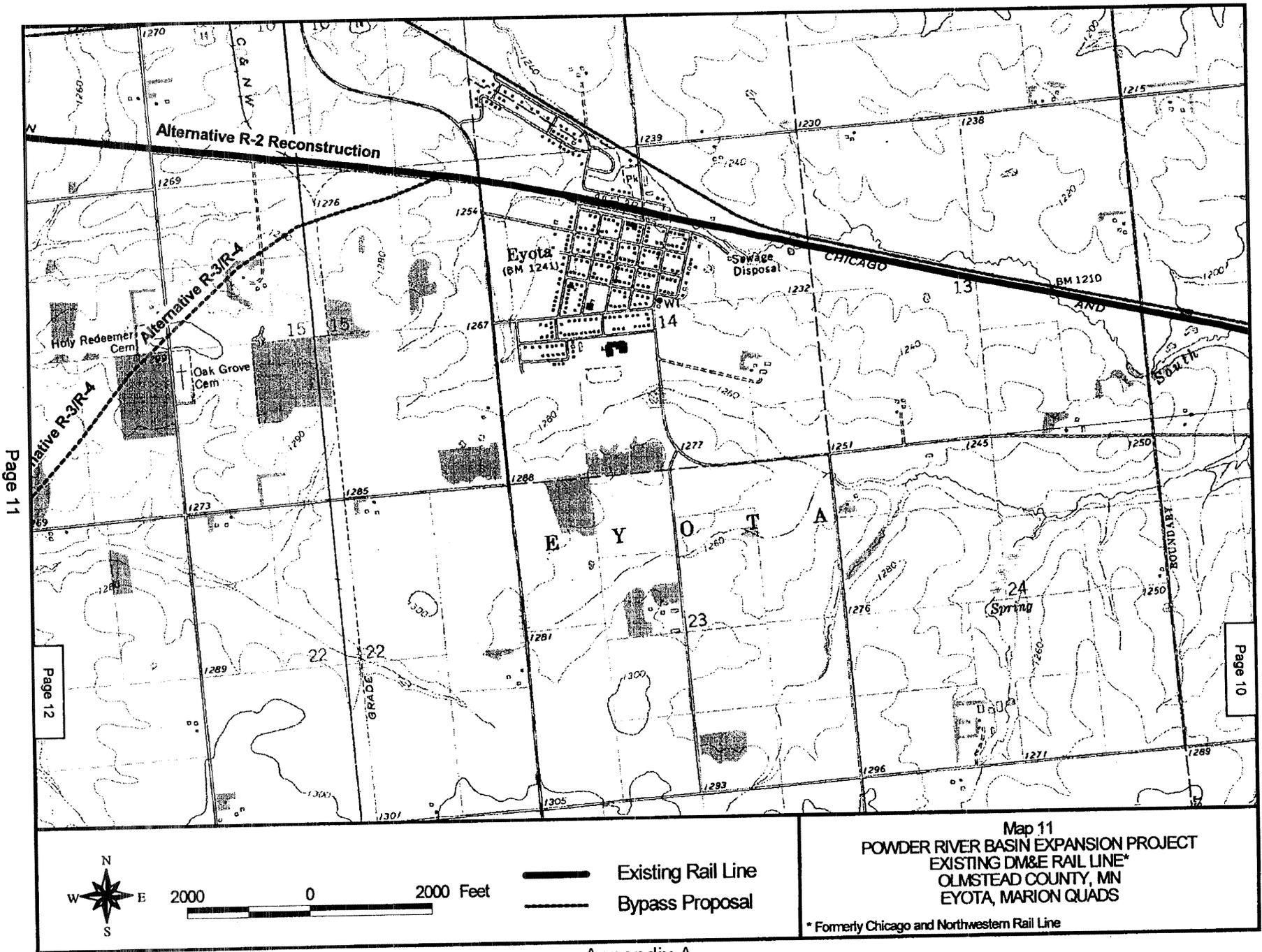
Map 9
 POWDER RIVER BASIN EXPANSION PROJECT
 EXISTING DM&E RAIL LINE*
 OLMSTEAD COUNTY, MN
 SAINT CHARLES, EYOTA QUADS

* Formerly Chicago and Northwestern Rail Line



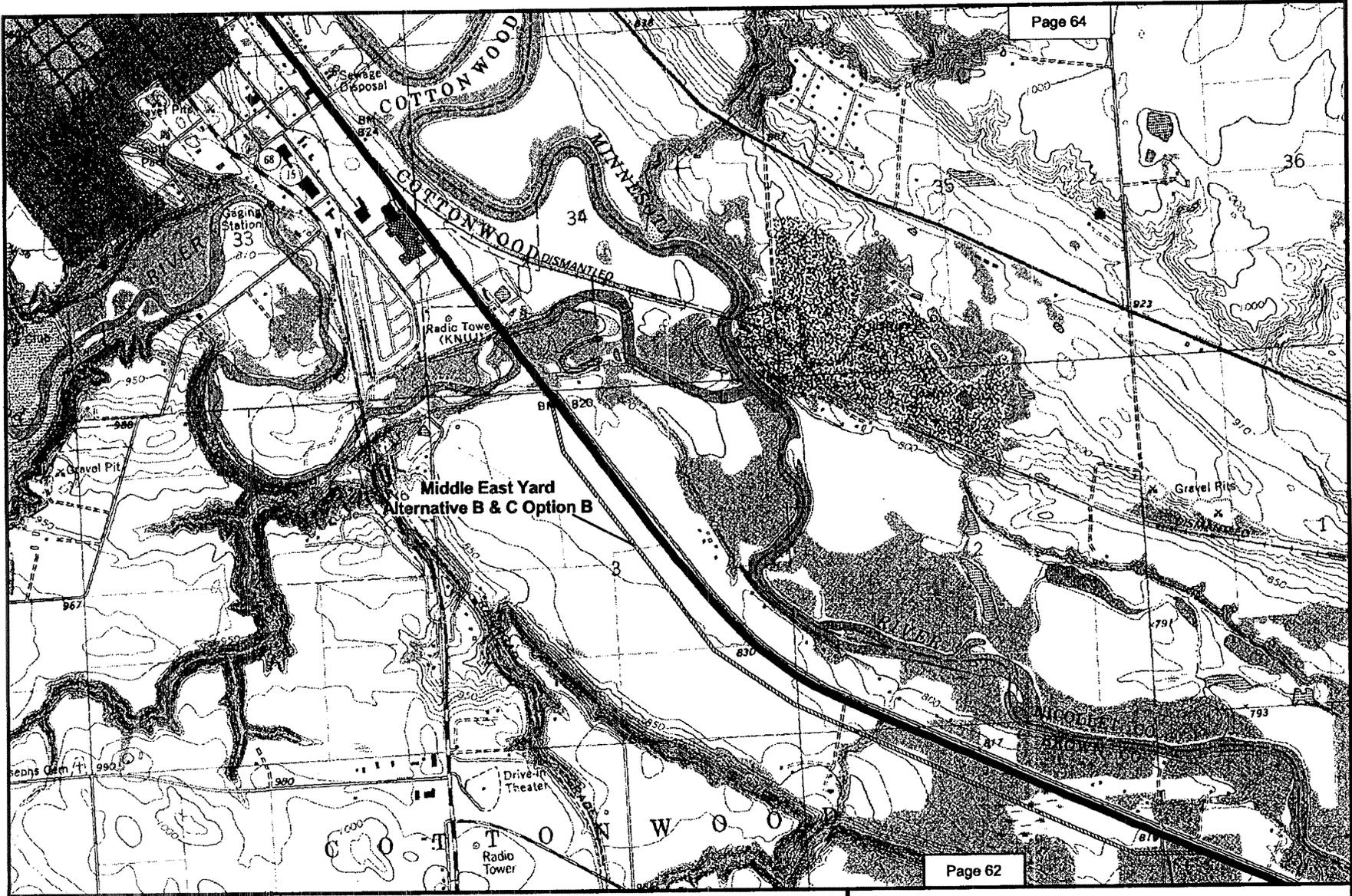
Map 10
 POWDER RIVER BASIN EXPANSION PROJECT
 EXISTING DM&E RAIL LINE*
 OLMSTEAD COUNTY, MN
 EYOTA QUAD

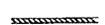
* Formerly Chicago and Northwestern Rail Line



Map 11
 POWDER RIVER BASIN EXPANSION PROJECT
 EXISTING DM&E RAIL LINE*
 OLMSTEAD COUNTY, MN
 EYOTA, MARION QUADS

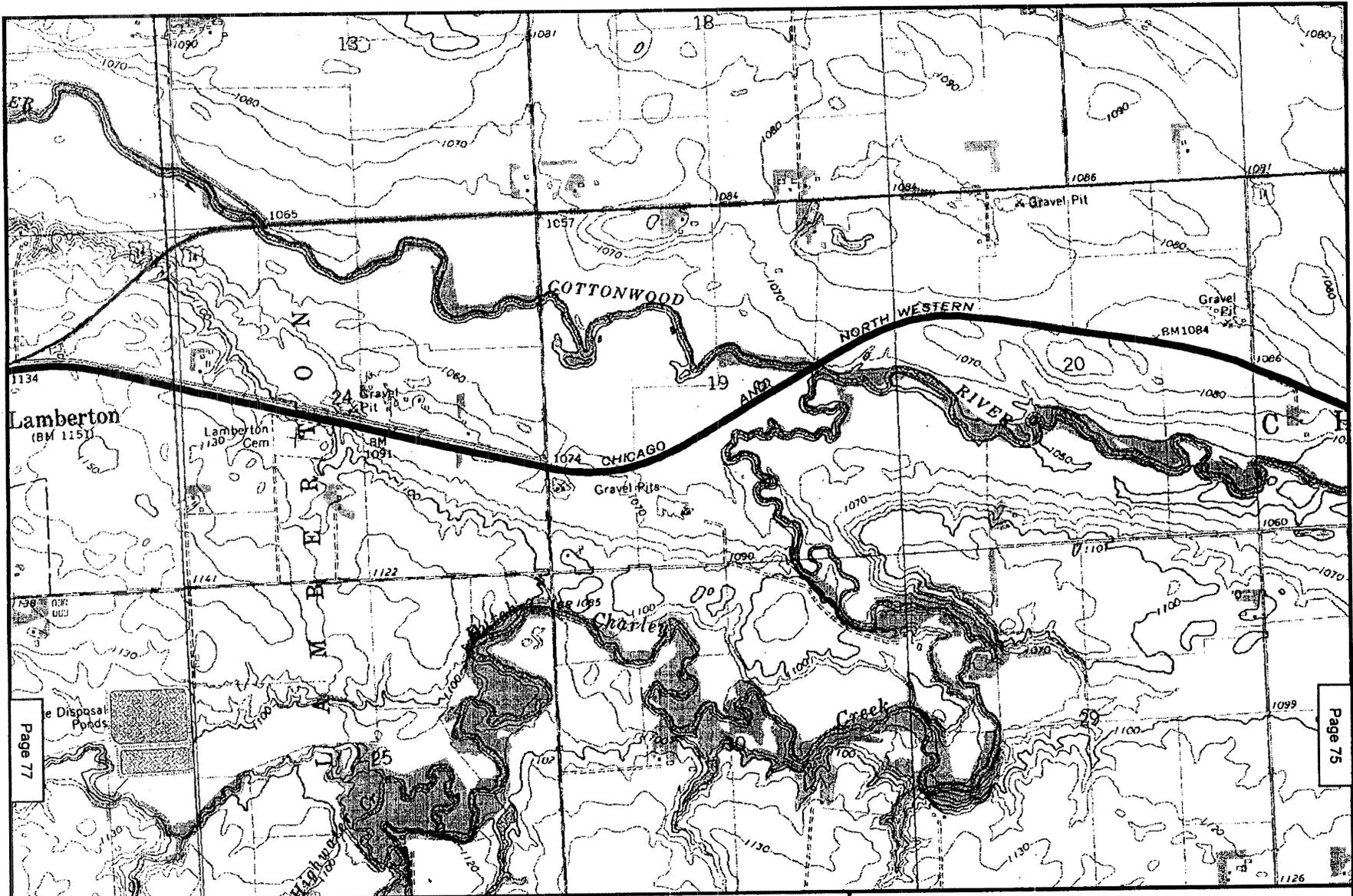
* Formerly Chicago and Northwestern Rail Line



-  Existing Rail Line
-  Bypass Proposal
-  Proposed Rail Yard

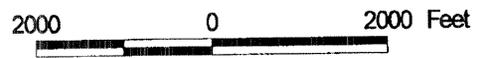
Map 63
 POWDER RIVER BASIN EXPANSION PROJECT
 EXISTING DM&E RAIL LINE*
 BROWN COUNTY, MN
 NEW ULM QUAD

* Formerly Chicago and Northwestern Rail Line



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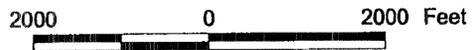
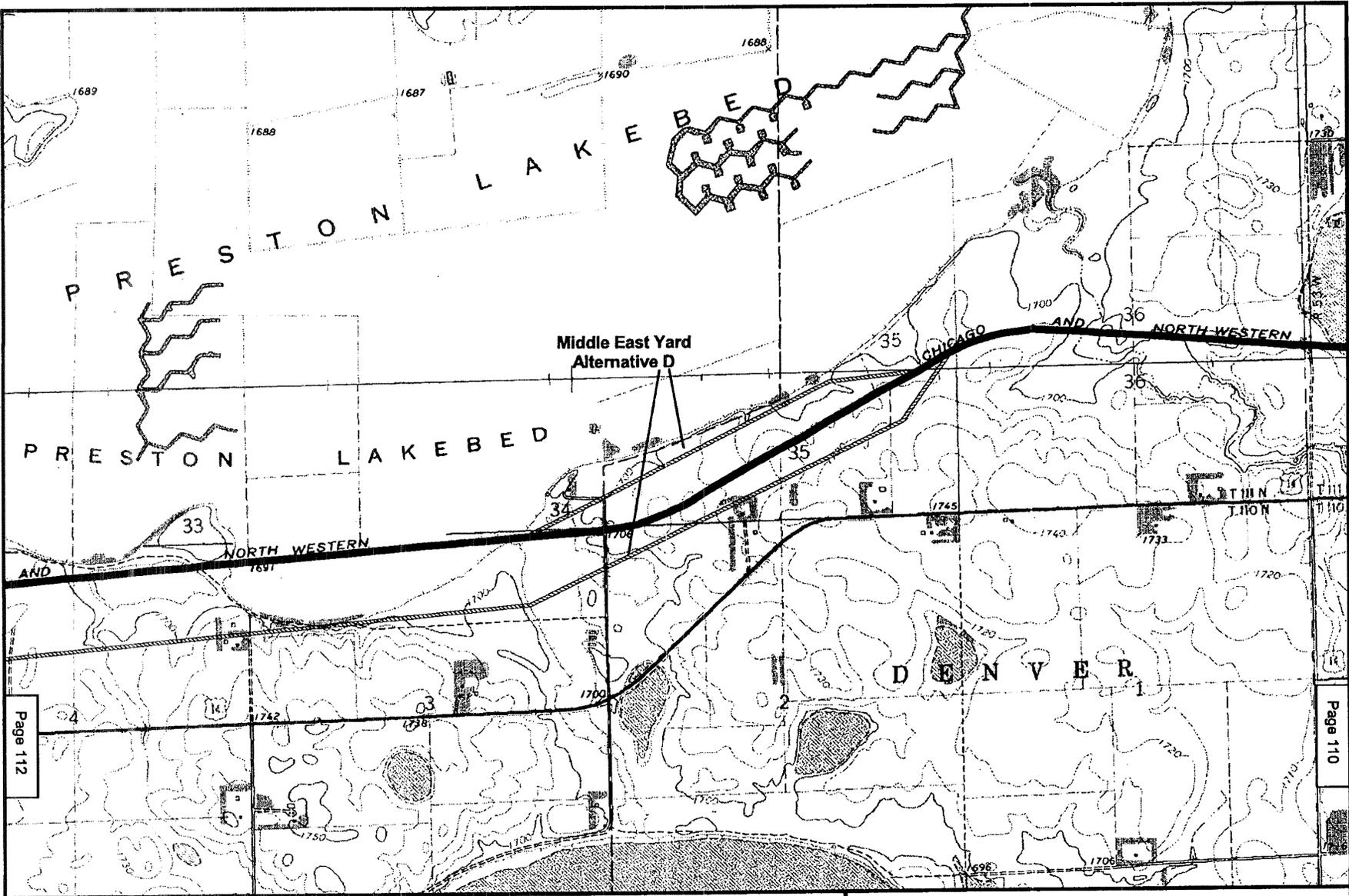
Page 75



- Existing Rail Line
- Bypass Proposal

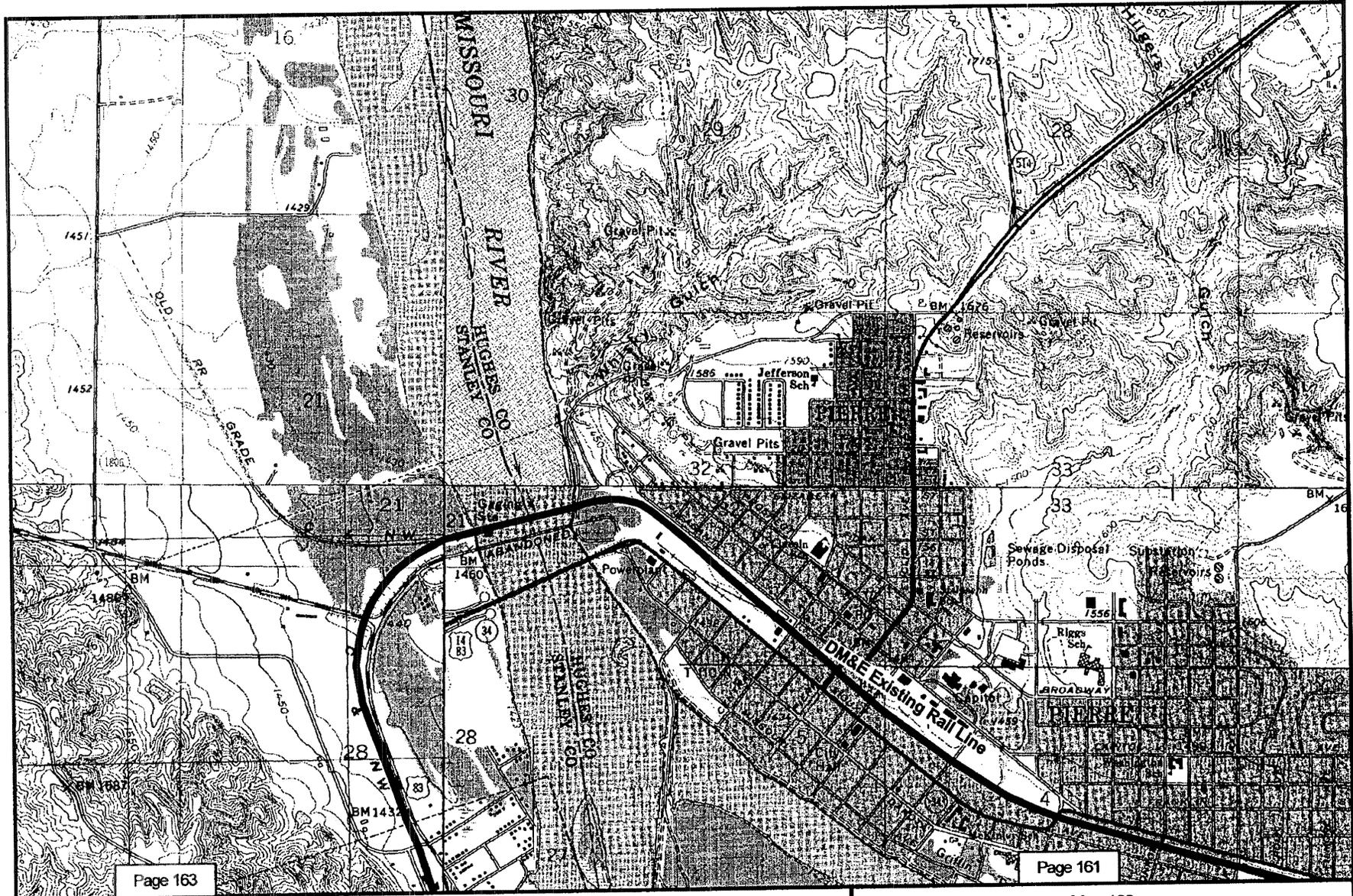
Map 76
 POWDER RIVER BASIN EXPANSION PROJECT
 EXISTING DM&E RAIL LINE*
 REDWOOD COUNTY, MN
 SANBORN, LAMBERTON QUADS

* Formerly Chicago and Northwestern Rail Line



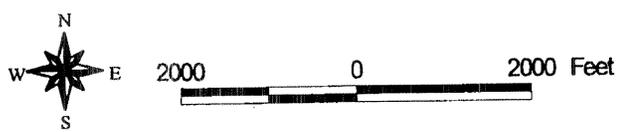
- Existing Rail Line** (represented by a thick solid black line)
- Bypass Proposal** (represented by a dotted line)
- Proposed Rail Yard** (represented by a hatched area)

Map 111
POWDER RIVER BASIN EXPANSION PROJECT
EXISTING DM&E RAIL LINE*
KINGSBURY COUNTY, SD
LAKE PRESTON NE, LAKE PRESTON EAST QUADS
 * Formerly Chicago and Northwestern Rail Line



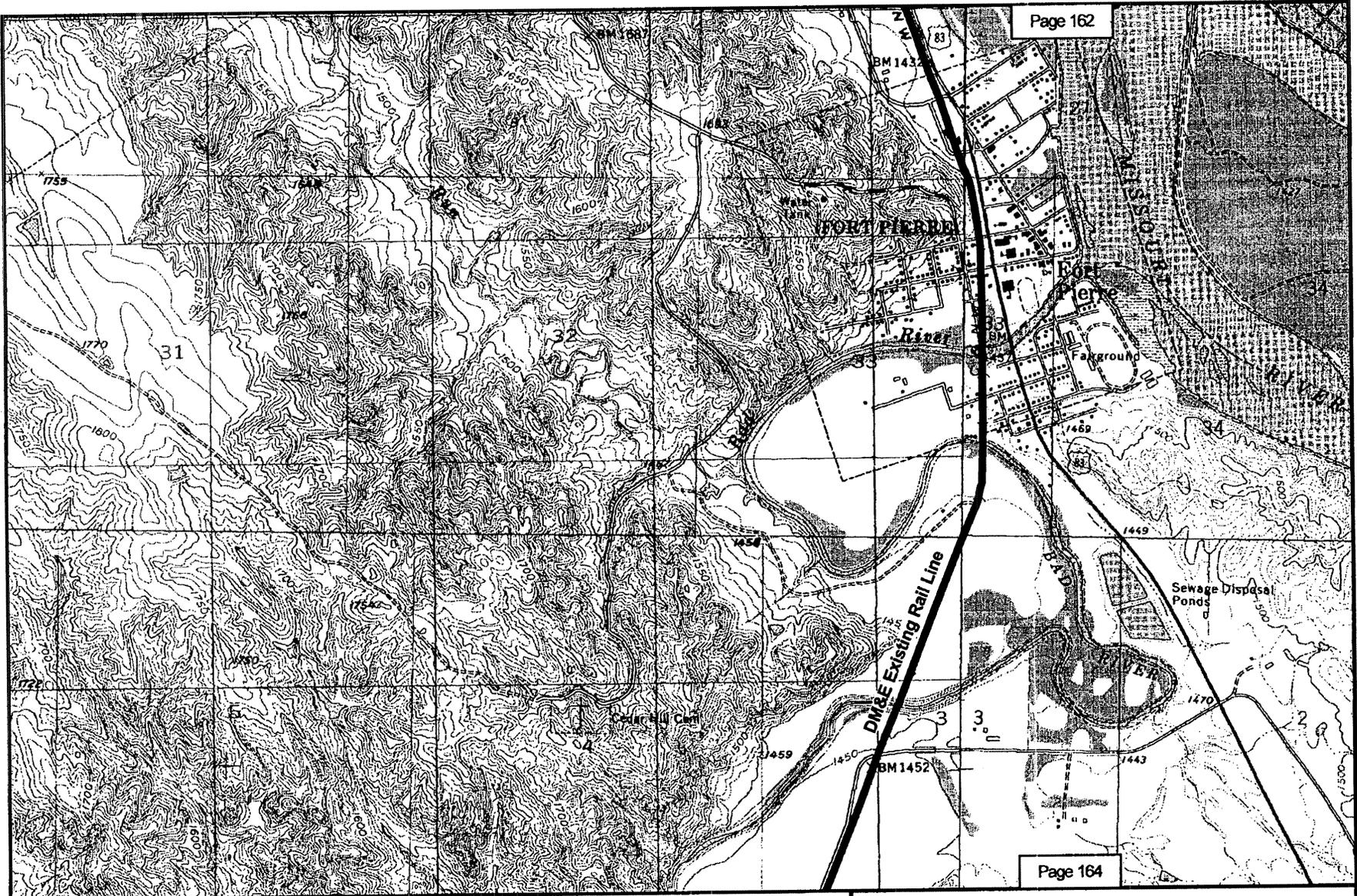
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Page 161



-  Existing Rail Line
-  Bypass Proposal

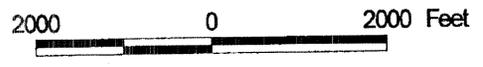
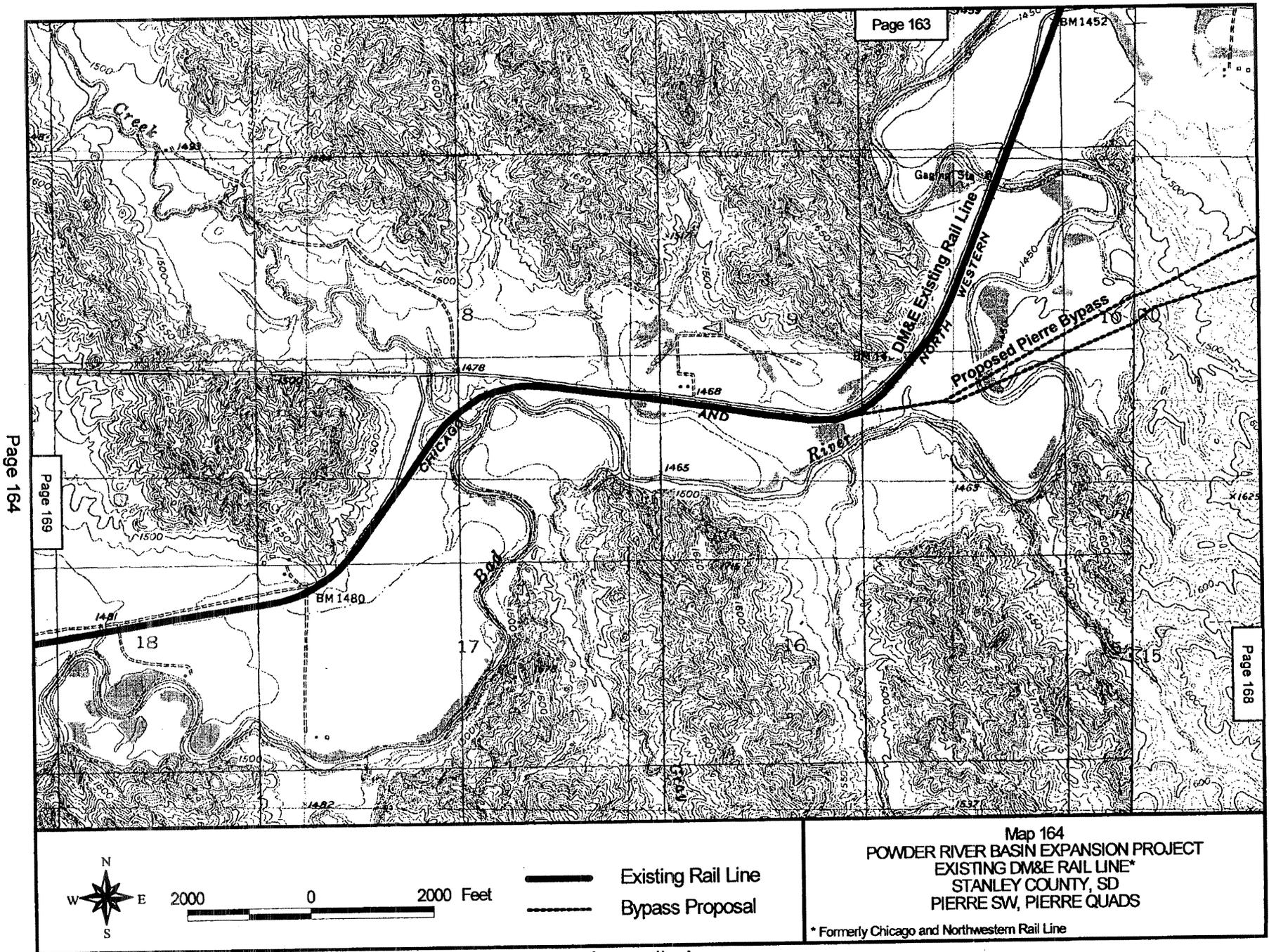
Map 162
POWDER RIVER BASIN EXPANSION PROJECT
EXISTING DM&E RAIL LINE*
STANLEY COUNTY, SD
OAHE DAM, PIERRE NE, PIERRE SW, PIERRE QUADS
 * Formerly Chicago and Northwestern Rail Line



-  Existing Rail Line
-  Bypass Proposal

Map 163
 POWDER RIVER BASIN EXPANSION PROJECT
 EXISTING DM&E RAIL LINE*
 STANLEY COUNTY, SD
 PIERRE SW, PIERRE QUADS

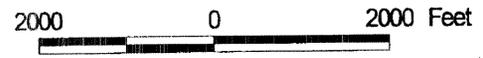
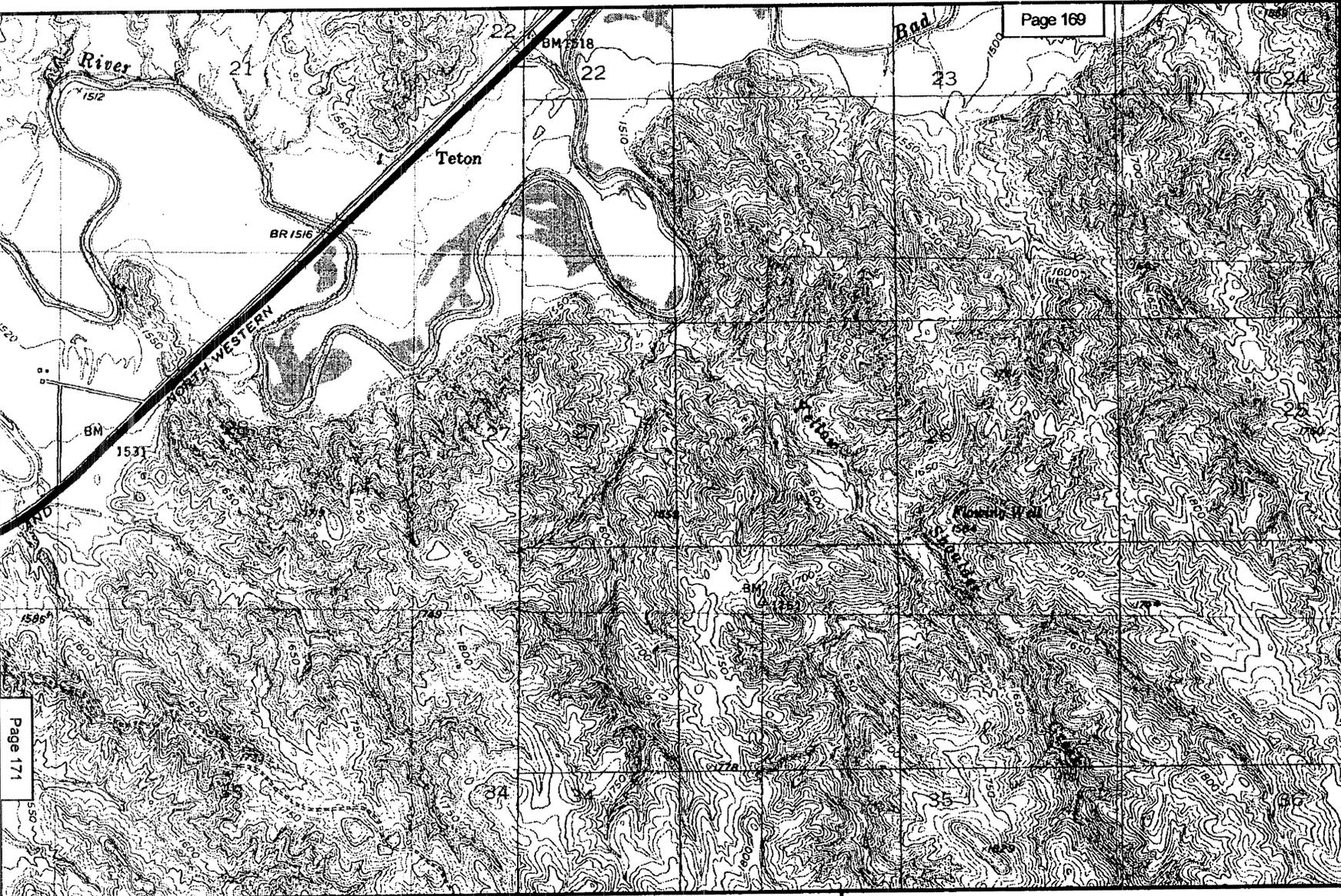
* Formerly Chicago and Northwestern Rail Line



Existing Rail Line
 Bypass Proposal

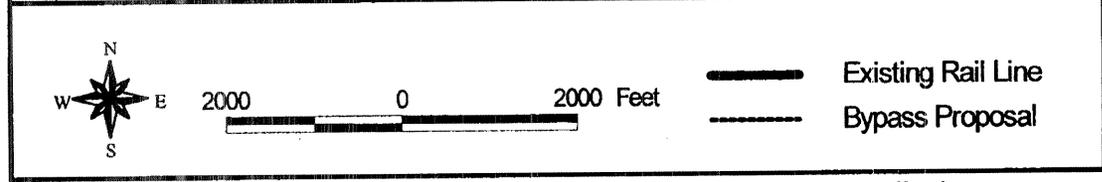
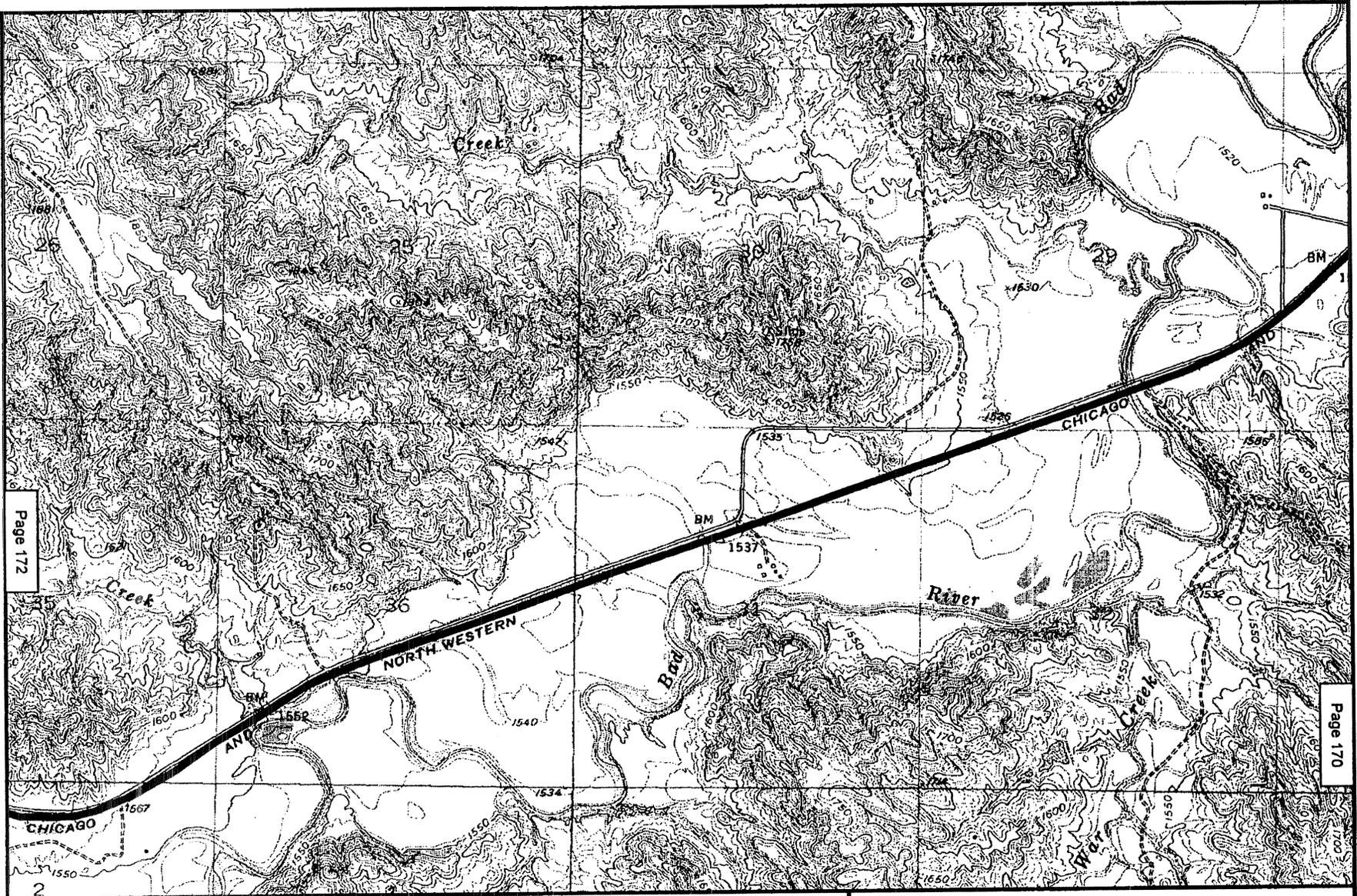
Map 164
 POWDER RIVER BASIN EXPANSION PROJECT
 EXISTING DM&E RAIL LINE*
 STANLEY COUNTY, SD
 PIERRE SW, PIERRE QUADS

* Formerly Chicago and Northwestern Rail Line



-  Existing Rail Line
-  Bypass Proposal

Map 170
 POWDER RIVER BASIN EXPANSION PROJECT
 EXISTING DM&E RAIL LINE*
 STANLEY COUNTY, SD
 TETON, PIERRE SW QUADS
 * Formerly Chicago and Northwestern Rail Line

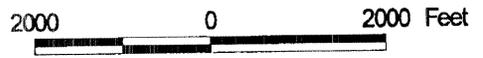
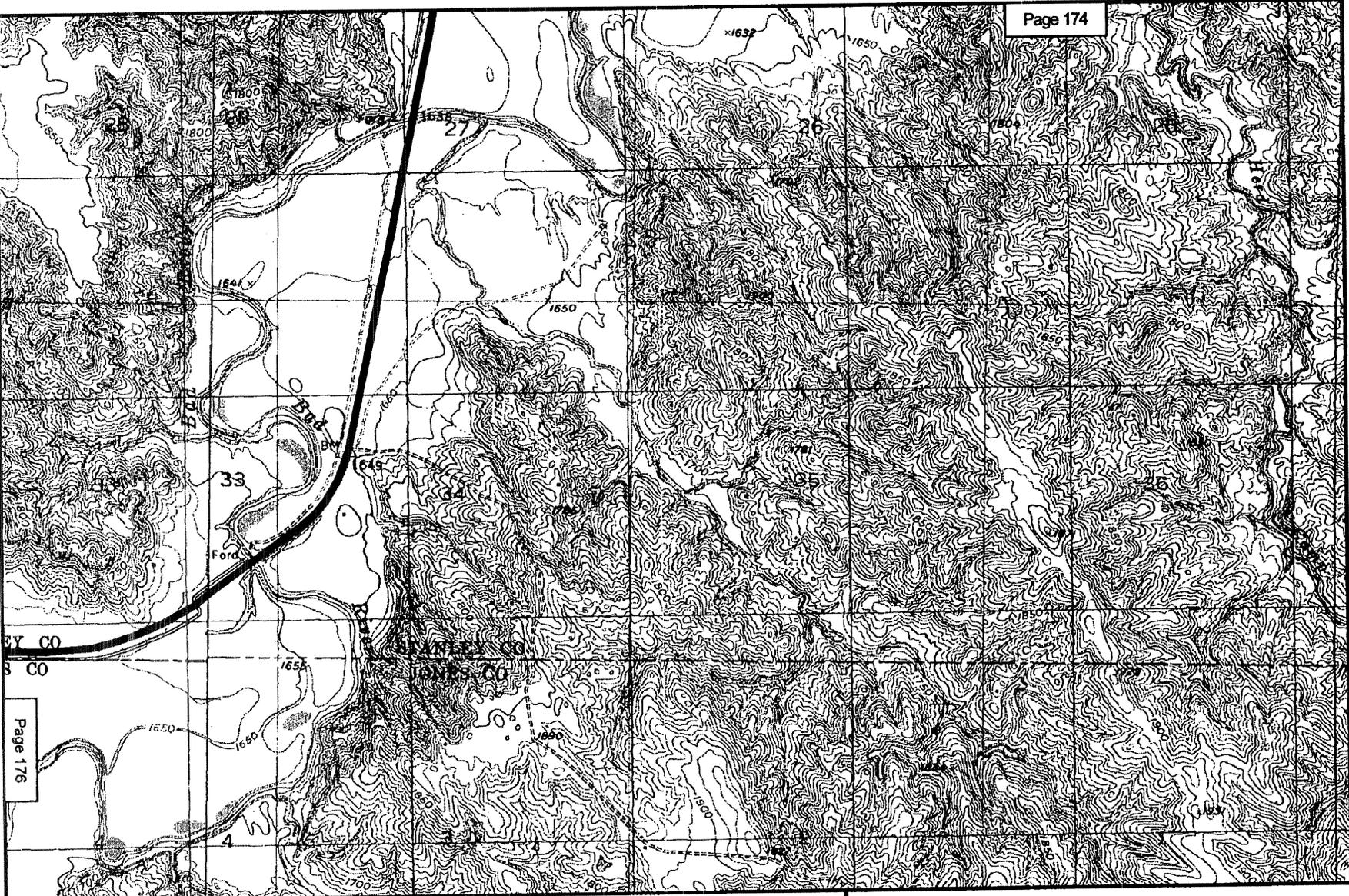


 Existing Rail Line
 Bypass Proposal

Map 171
 POWDER RIVER BASIN EXPANSION PROJECT
 EXISTING DM&E RAIL LINE*
 STANLEY COUNTY, SD
 TETON QUAD
 * Formerly Chicago and Northwestern Rail Line

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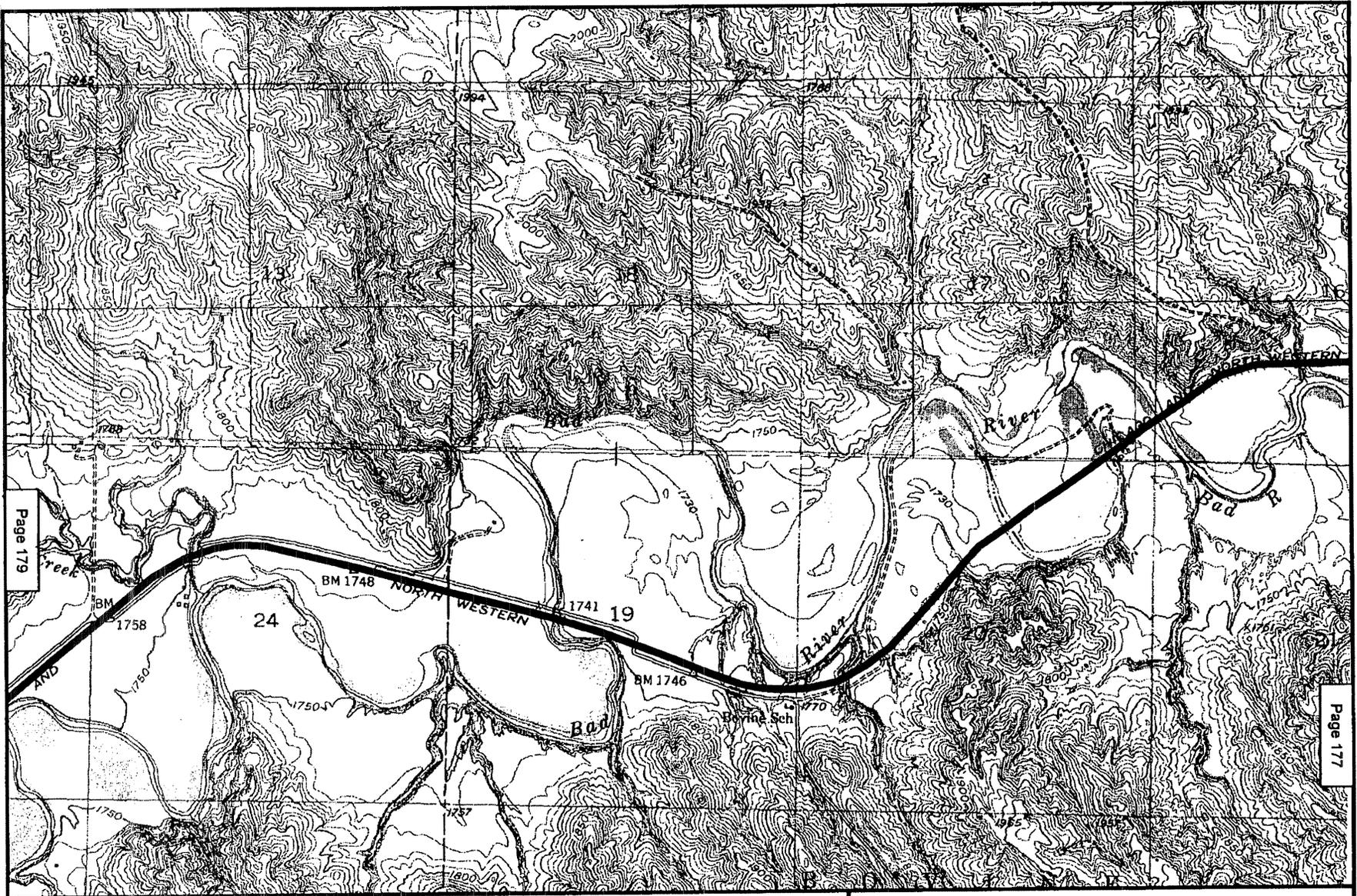


 Existing Rail Line
 Bypass Proposal

Map 175
 POWDER RIVER BASIN EXPANSION PROJECT
 EXISTING DM&E RAIL LINE*
 STANLEY COUNTY, SD
 VAN METRE, WENDTE QUADS

* Formerly Chicago and Northwestern Rail Line

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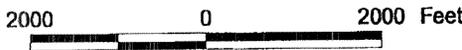
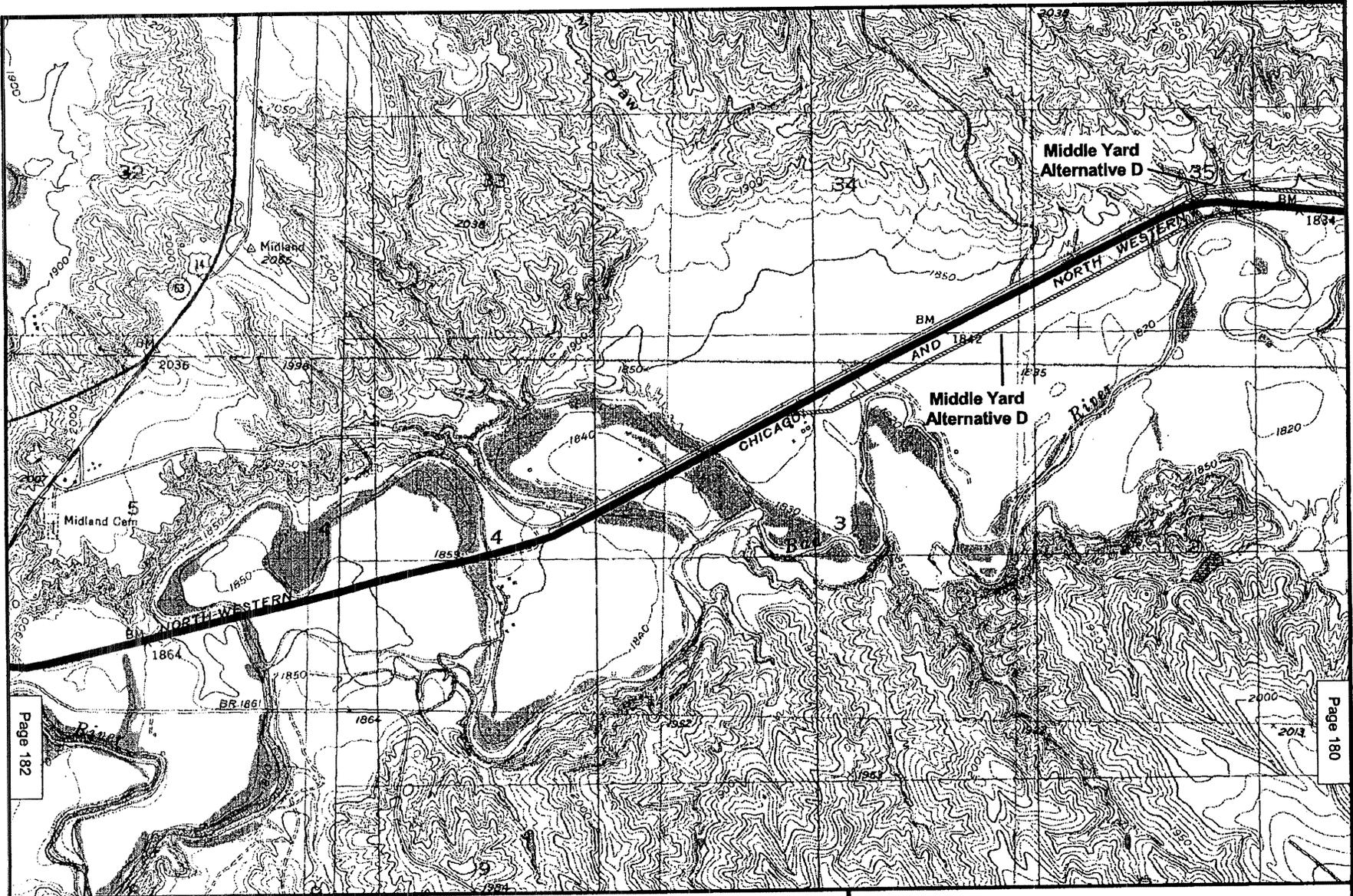


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— Existing Rail Line
 - - - Bypass Proposal

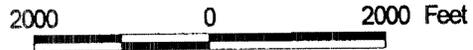
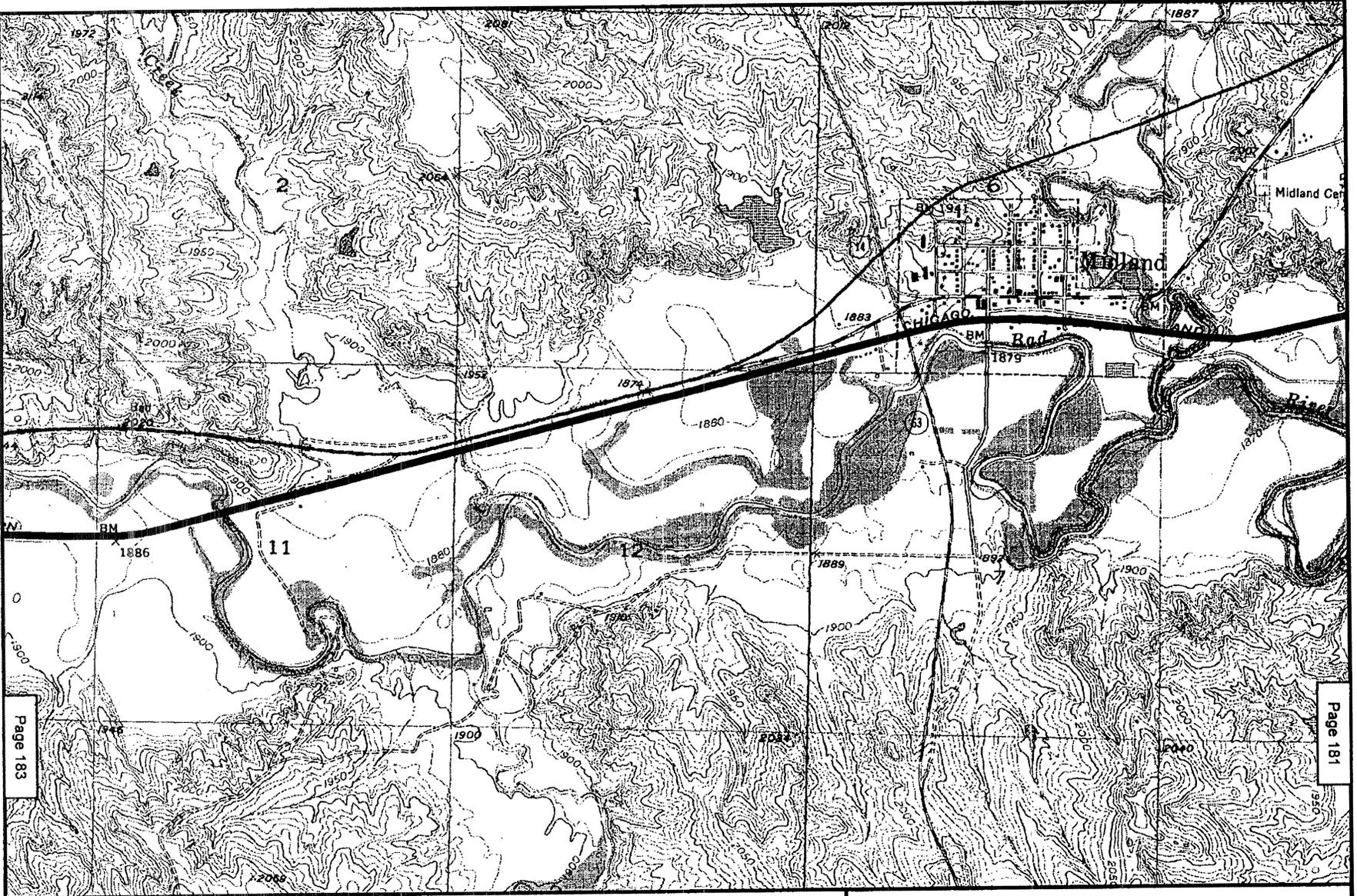
Map 178
 POWDER RIVER BASIN EXPANSION PROJECT
 EXISTING DM&E RAIL LINE*
 JONES COUNTY, SD
 CAPA NW, CAPA QUADS

* Formerly Chicago and Northwestern Rail Line



-  Existing Rail Line
-  Bypass Proposal
-  Proposed Rail Yard

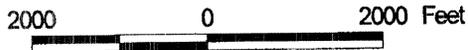
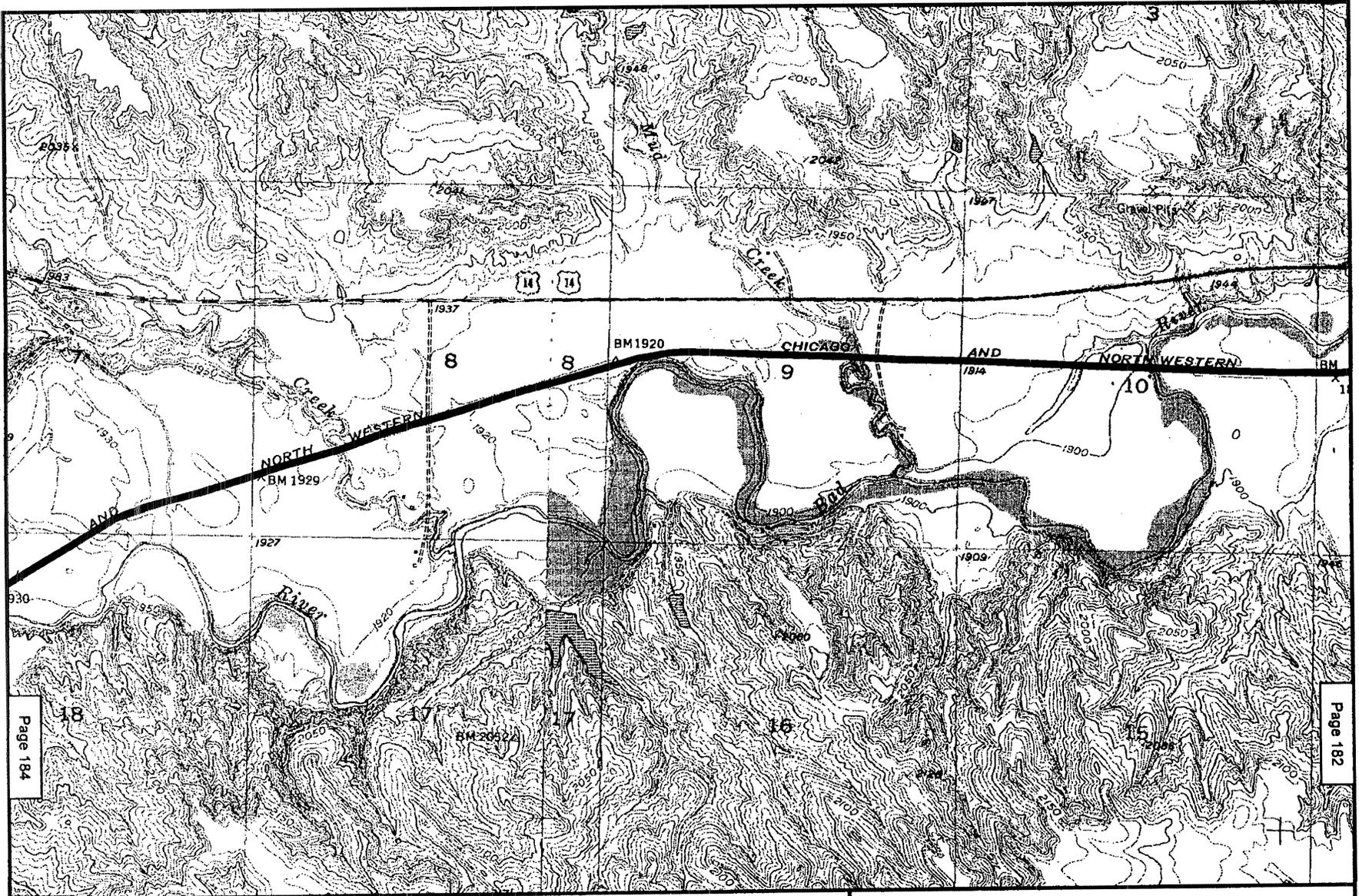
Map 181
 POWDER RIVER BASIN EXPANSION PROJECT
 EXISTING DM&E RAIL LINE*
 HAakon COUNTY, SD
 MIDLAND, MIDLAND SE QUADS
 * Formerly Chicago and Northwestern Rail Line



 Existing Rail Line
 Bypass Proposal

Map 182
 POWDER RIVER BASIN EXPANSION PROJECT
 EXISTING DM&E RAIL LINE*
 HAAKON COUNTY, SD
 MIDLAND QUAD

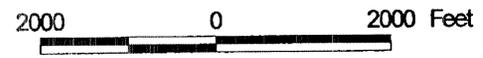
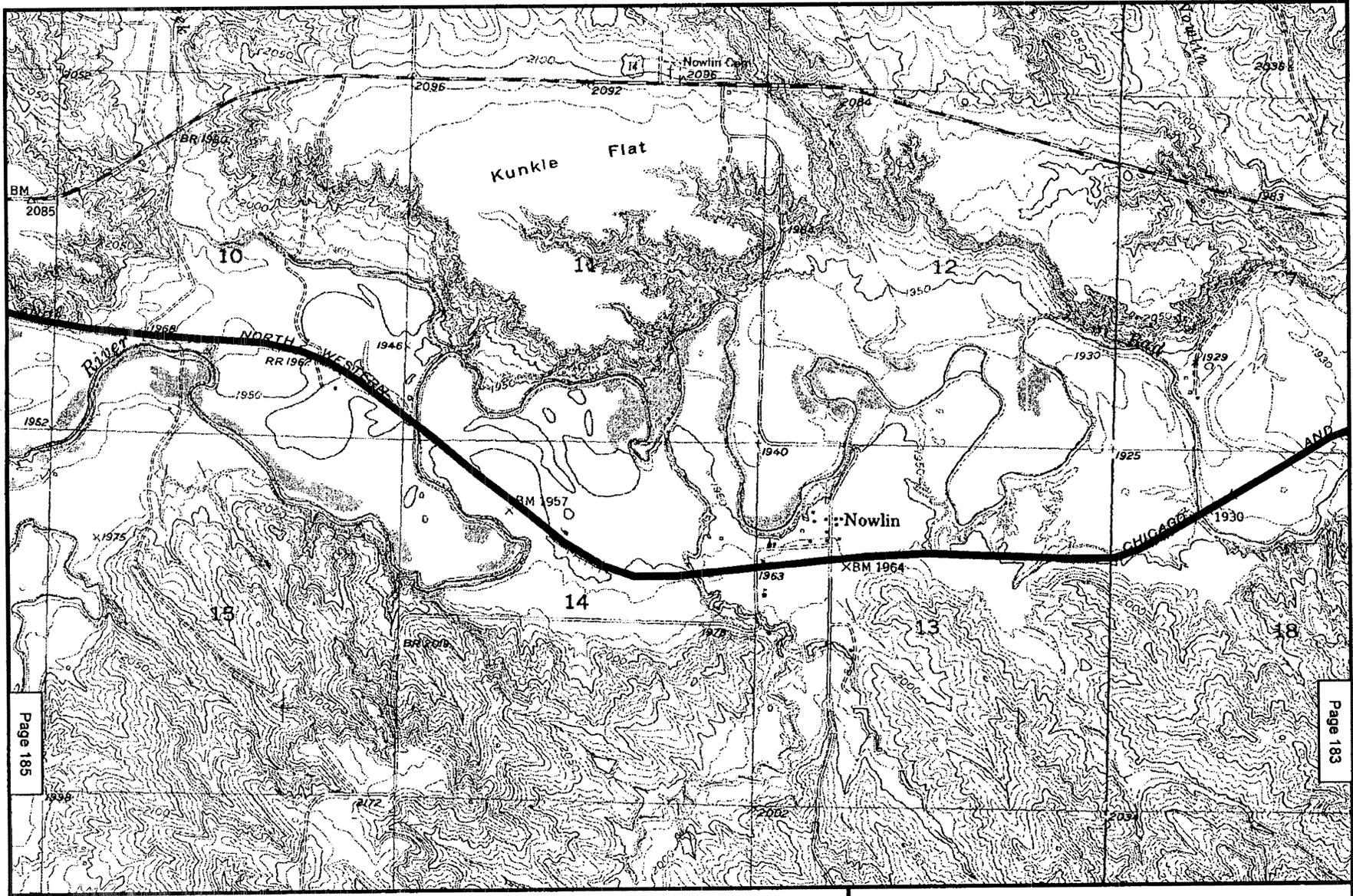
* Formerly Chicago and Northwestern Rail Line



-  Existing Rail Line
-  Bypass Proposal

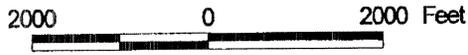
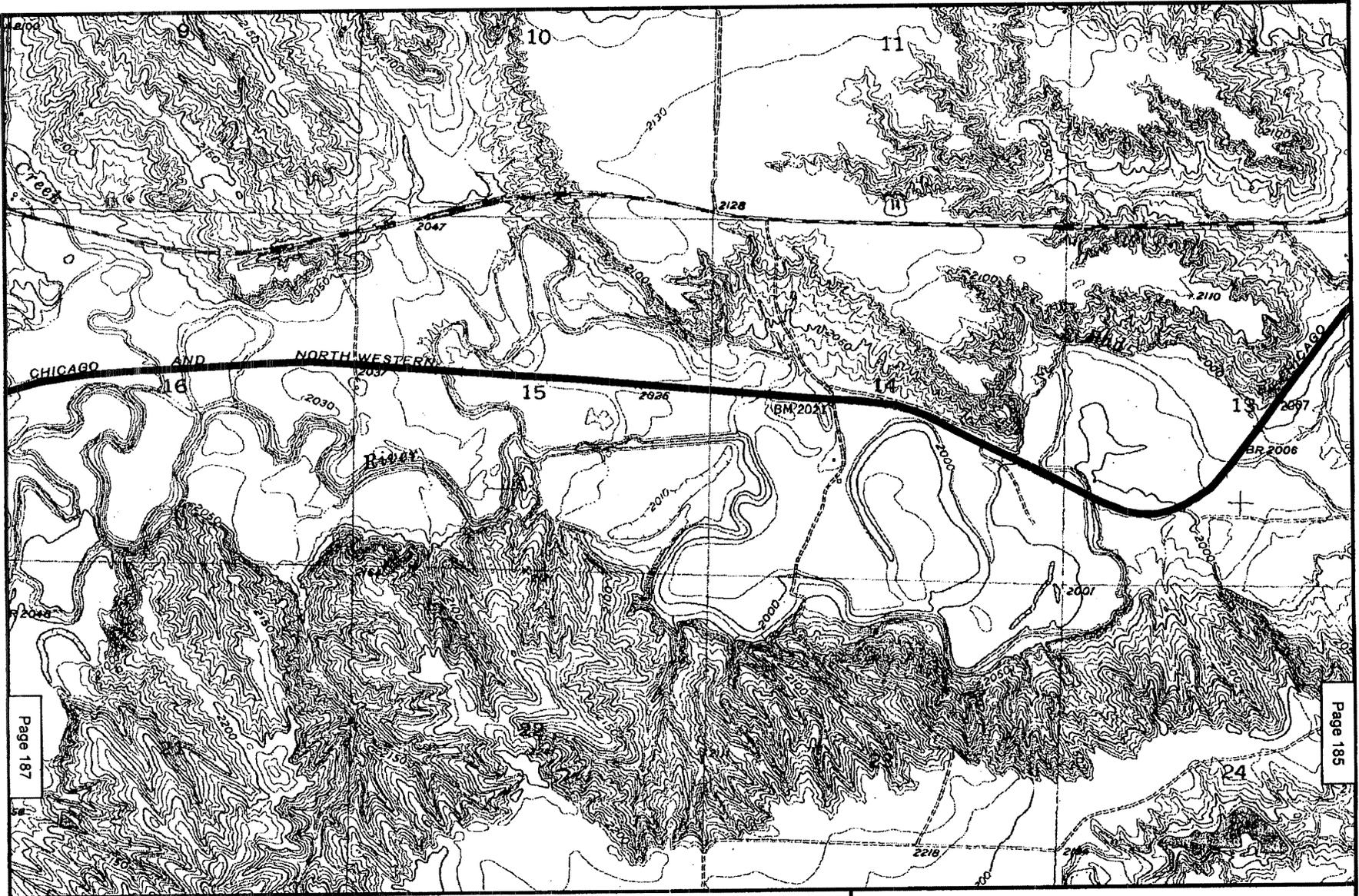
Map 183
 POWDER RIVER BASIN EXPANSION PROJECT
 EXISTING DM&E RAIL LINE*
 HAakon COUNTY, SD
 NOWLIN, MIDLAND QUADS

* Formerly Chicago and Northwestern Rail Line



 Existing Rail Line
 Bypass Proposal

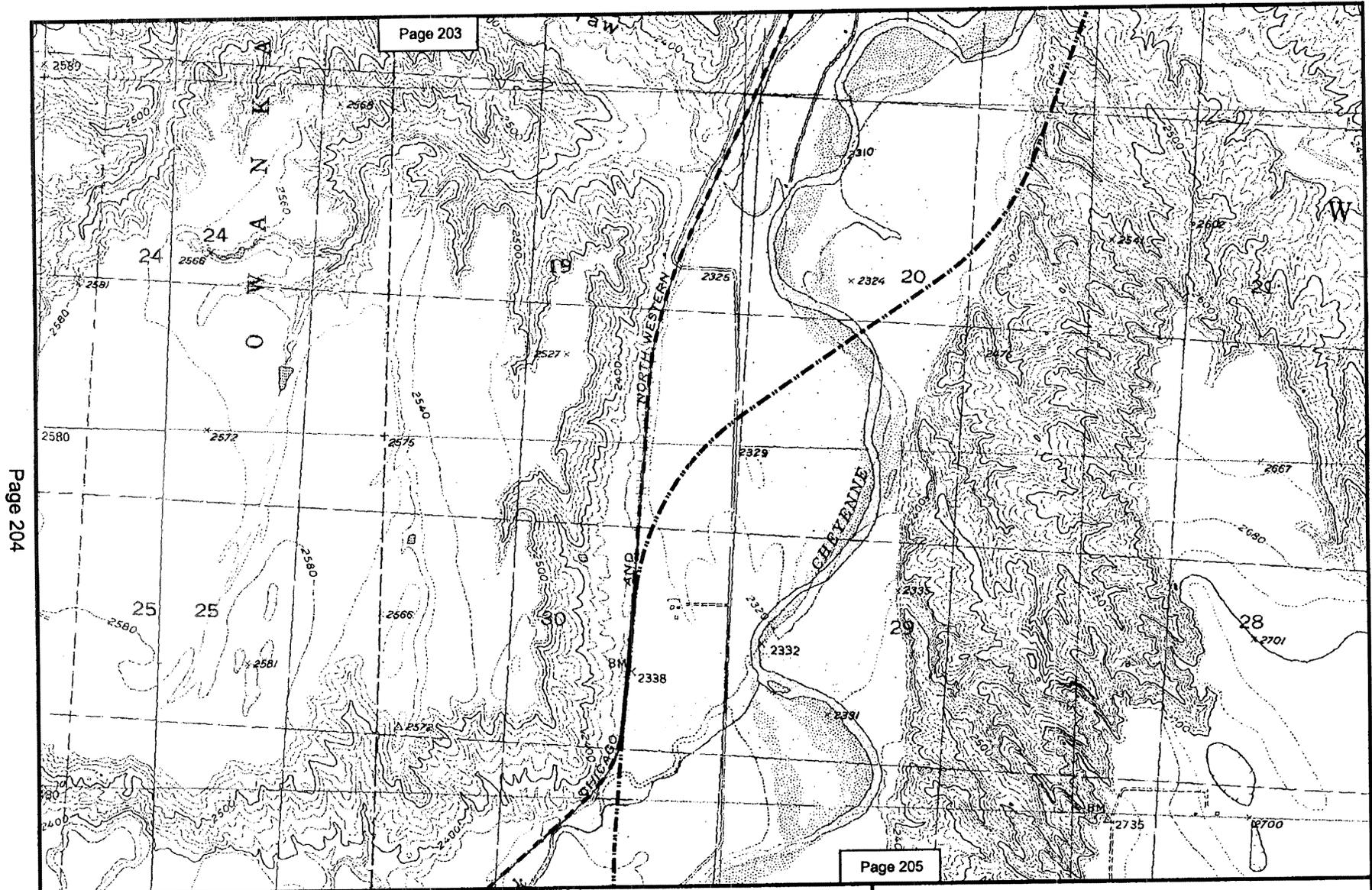
Map 184
 POWDER RIVER BASIN EXPANSION PROJECT
 EXISTING DM&E RAIL LINE*
 HAAKON COUNTY, SD
 NOWLIN QUAD
 * Formerly Chicago and Northwestern Rail Line



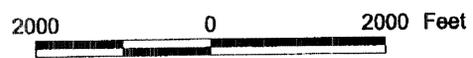
-  Existing Rail Line
-  Bypass Proposal

Map 186
 POWDER RIVER BASIN EXPANSION PROJECT
 EXISTING DM&E RAIL LINE*
 HAAKON COUNTY, SD
 POWELL QUAD

* Formerly Chicago and Northwestern Rail Line



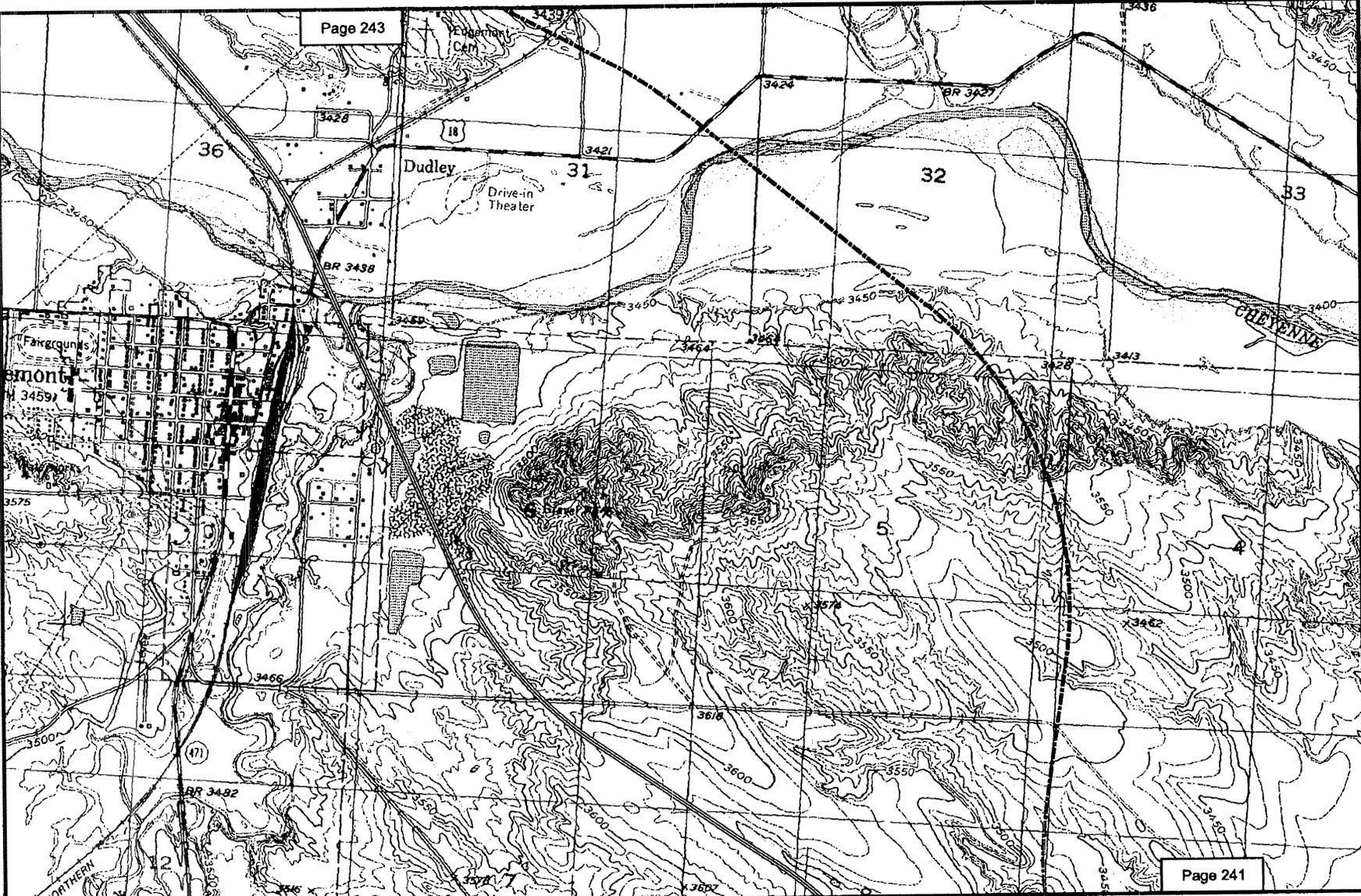
Page 204



- Alternatives B, C, & D
- · - · - Alternatives B & C
- - - - - Alternative D*

Map 204
 POWDER RIVER BASIN EXPANSION PROJECT
 NEW RAIL LINE EXTENSION ALTERNATIVES
 PENNINGTON COUNTY, SD
 OWANKA, WASTA QUADS
 * Formerly Chicago and Northwestern Rail Line

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2000 0 2000 Feet

==== Alternative B
 - - - - Alternatives C & D

Map 242
 POWDER RIVER BASIN EXPANSION PROJECT
 NEW RAIL LINE EXTENSION ALTERNATIVES
 FALL RIVER COUNTY, SD
 EDMONT QUAD

EI-1623

Tina Liebling
State Representative

District 30A
Rochester



Minnesota House of Representatives



July 21, 2005

Ms. Victoria Rutson
Section of Environmental Analysis
Case Control Unit
Finance Docket No. 33407
Surface Transportation Board
1925 K Street NW
Washington D.C. 20423-0001

Dear Ms. Rutson:

I am writing today regarding my concerns with the proposed Dakota, Minnesota and Eastern (DME) rail project that would run through Rochester, Minnesota and the Surface Transportation Board's (STB) Draft Supplement Environmental Impact Statement (DSEIS).

A number of constituents have contacted me regarding DME's proposal and how it will adversely affect the City of Rochester. I would like to share my concerns and echo theirs over the disruptions the increased rail traffic will create and the lack of measures in the STB's recommendations to mitigate them.

Rochester is a rapidly growing city that is now the third largest in Minnesota and an economic engine to the entire state. The DME proposal will create a significant increase in the level of noise and vibrations neighboring residents and businesses will experience, endanger public safety and have other adverse effects. This will not only negatively impact the quality of life for a great number of people but also cause financial harm as property values diminish and visitors and businesses are discouraged from coming to Rochester. 1

It greatly disappoints me that while the STB acknowledges these negative effects of the expansion, it has not taken the necessary steps to combat them. The easiest way to achieve this is to approve an alternative route that bypasses Rochester, for instance the old Iowa, Chicago and Eastern tracks that DME now owns. At the very least, the STB could recommend sound walls and more assistance to insulate properties against the adverse impacts of the increased rail traffic. 2

The good news is there is still time to take advantage of these and other alternatives that would benefit the people of Rochester and allow the project to move forward. I hope you do follow the orders of the 8th Circuit Court of Appeals and take a serious second look at the items outlined. There are a number of positive alternatives available that will solve or lessen many of the issues myself and others have with the DSEIS. Again, the best of which is the alternative route to the south that bypasses Rochester.

Thank you in advance for your time and attention to this very important issue to the residents of Rochester.

Sincerely,

Tina Liebling
State Representative

State Office Building, 100 Rev Dr Martin Luther King Jr Blvd, St. Paul, Minnesota 55155-1298

FAX: (651) 296-5071 TTY: (651) 296-9896 Email: rep.tina.liebling@house.mn

(651) 296-0573
(800) 339-9038



SEA's Response to Comment Letter From: Tina Liebling

Representing: State Representative

Dated: July 21, 2005

SEA Environmental Correspondence Tracking Number: EI-1623

1. SEA has reviewed the comment and acknowledges the commenter's concerns about noise, vibration, and diminished property values in Rochester as a result of this project. The issues of concern to that commenter are thoroughly discussed in the EIS and Chapters 2 and 3 of the Final SEIS show that, in accordance with NEPA, SEA has taken the requisite hard look at all the concerns noted by the commenter during the lengthy environmental review process.
2. The comment suggests that the Board re-examine the proposed Rochester bypass. However, the court in Mid States specifically affirmed the Board's rejection of that alternative in the 2002 Decision, and it is no longer at issue before the Board. To the extent the commenter is suggesting that SEA now consider as a new routing alternative for this coal traffic use of the IMRL lines DM&E recently acquired, that issue is fully addressed in the Final SEIS, Chapter 6.