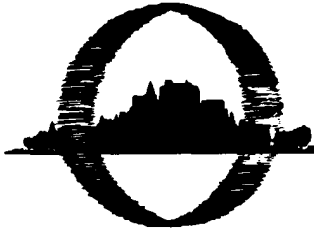


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COUNTY OF
Olmsted

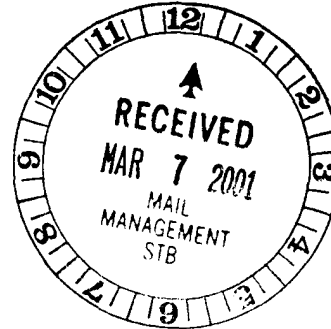
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Office of the Secretary
Case Control Unit
STB Finance Docket No. 33407
Surface Transportation Board
1925 K St. NW
Washington DC 20423-0001



February 28, 2001

Dear Ms Rutson:

Since November 3, 1998 the Olmsted County Board has maintained the "no build" option as it pertains to the DM & E Coal Train Project.

While we understand the need to upgrade the rail for agricultural products so vital to this region, we continue to believe that the Coal Train Project as proposed by the DM&E does not provide the solution for our farming community.

On February 27, the county board accepted the reports of the county's Environmental Commission, county staff and other county elected officials. What a marvelous job they have done in the time consuming task of identifying the errors and omissions in the Draft Environmental Impact Statement produced by the Section of Environmental Analysis of the Surface Transportation Board.

The scientific research and study done by the staff and the very able members of the Environmental Commission proves the serious nature of the environmental concerns that are either not mitigated or not addressed in the DEIS. We urge you to use this report as the starting point not for an EIS, but for developing a supplemental DEIS and restructuring the process that will truly lead to an understanding of the environmental impacts of this proposal as well as workable and meaningful mitigation. Enclosed you will find:

- Resolution requesting the Minnesota Pollution Control Agency (MPCA) conduct or require an Air Toxics Review of the DM&E proposal in a timely manner so as to be included in the Final EIS;
- Comments on the Draft Environmental Impact Statement, contributors being the Olmsted County Environmental Commission, staff and public volunteers;
- Comments by the Olmsted County Attorney;



AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER

BOARD OF COMMISSIONERS

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SECOND DISTRICT
CAROL J. KAMPER

THIRD DISTRICT
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FOURTH DISTRICT
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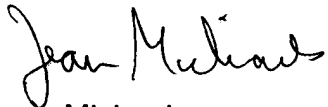
SIXTH DISTRICT
JEAN R. MICHAELS

SEVENTH DISTRICT
JEFFREY THOMPSON

- Comments by the Olmsted County Sheriff;
- Comments by the Olmsted County Community Action Program (CAP).

Unless or until the DM&E gets serious about responding to these environmental concerns, the County Board sees no reason to veer from their "no coal trains" position and will continue to pursue all options at their disposal.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jean Michaels".

Jean Michaels
Chair, Olmsted County Board

POWDER RIVER BASIN EXPANSION PROJECT



**COMMENTS ON THE
DRAFT ENVIRONMENTAL IMPACT
STATEMENT**

Submitted to

**SURFACE TRANSPORTATION BOARD
STB FINANCE DOCKET NO. 33407**

Prepared by

**OLMSTED COUNTY
BOARD OF COMMISSIONERS**

Olmsted County, Minnesota

February 28, 2001

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Attachments

- **Resolution requesting the Minnesota Pollution Control Agency (MPCA) conduct or require an Air Toxics Review of the DM&E proposal in a timely manner so as to be included in the Final EIS.**
- **Comments by the Olmsted County Attorney.**
- **Comments by the Olmsted County Sheriff.**
- **Comments by the Olmsted County Community Action Program (CAP).**

Overview

Olmsted County of the State of Minnesota has reviewed the portions of the Draft Environmental Impact Statement (DEIS) pertaining to Olmsted County prepared by the Surface Transportation Board (STB) of the United States Government on September 27, 2000 in response to a proposal from the Dakota, Minnesota & Eastern Railroad (DM&E) to expand service into the Powder River Basin Coal Mining Area of Wyoming, hereafter referred to as the "Project". The Project proposes an upgrade the entire DM&E track between Wyoming and Winona, Minnesota, including the section that passes through Olmsted County, in order to accommodate 34 unit coal trains passing in both an east and west direction through Olmsted County each day of the year after the project is completed.

On March 5, 1999 the STB published a Scoping Document that outlined the requirements for the Environment Impact Statement (EIS) related to this project. The EIS was to provide an analysis the potential environmental impacts of proposed activities associated with the construction and operation of DM&E's new rail facilities, as well as construction and operation activities associated with the rebuilding of DM&E's existing mainline. The scope of analysis was to include the proposed upgrade along DM&E's existing track from the point of connection between Wasta, South Dakota and Winona, Minnesota.

The EIS was to address potential impacts from the proposed construction and operation of new rail facilities on the human and natural environment. Impact areas addressed were to include the categories of land use, biological resources, water resources, geology and soils, air quality, noise, energy resources, socioeconomics as they relate to physical changes in the environment, safety, transportation systems, cultural and historic resources, recreation, aesthetics, environmental justice, and cumulative effects. The EIS was to include a discussion of each of these categories as they currently exist in the project area and address the potential impacts from the proposed project on each category.

The Olmsted County review is focused on what the County believes are significant errors, omissions, and incorrect conclusions in the DEIS.

Common abbreviations

STB = Surface Transportation Board

DM&E Dakota, Minnesota & Eastern Railroad

OC = Olmsted County

EC = Environmental Commission

DEIS = Draft Environmental Impact Statement

FEIS = Final Environmental Impact Statement

SEA = Section of Environmental Assessment

Section = DEIS section number to reference

Page = DEIS page where reference text is located

1. Land Use

Surface Transportation Board DEIS Requirements – Land Use:

- A. Describe existing land use patterns, management, and ownership (private and public) within the project area for new rail line construction and along the existing rail line to be rebuilt and identify those land uses and the amounts of each potentially impacted by new rail line construction and rail line rebuild.**
- B. Describe the potential impacts associated with the proposed construction and operation of new rail line and existing rail line to be rebuilt to cropland, pastureland, rangeland, grassland, woodland, developed land, school endowment land, BLM lands, Forest Service lands, state lands, utilities, and any other land uses identified within the project area. Such potential impacts may include but not be limited to impacts to farming/ranching activities, introduction of noxious weeds, fire hazard, incompatibility with existing land uses, relocation of residences or businesses, and conversion of land to railroad uses.**
- C. Propose mitigative measures to minimize or eliminate potential adverse project impacts to land use, as appropriate.**

Section 3.3.2.4.3 pages 3.3-53-54 – Land Use

Comment: If a bypass is approved it would increase the amount of commercial and industrial land development in agricultural areas.

The information presented in the sections in which land use is discussed includes errors both of omission and commission. These errors are discussed by reference to the paragraphs in Chapter 3.

At 3.1.4.1, in the discussion of agriculture, it is asserted that “farming is the principal enterprise in the project area.” It is true that agriculture is the land use accounting for the largest land area. In Olmsted County, services and manufacturing account for a larger share of the regional economy than agriculture in terms of the number of firms, the number of employees, the dollar value of commodities sold, and the value of payroll. Establishing the relative importance of agriculture for the area served by the railroad should entail an analysis of these factors. It may be that the description of agricultural land use does not matter to the assessment of environmental impact. If that is the case, it is difficult to discern an analytical purpose for the statement.

A more purposeful discussion of farming land uses would list the numbers and types of farms, their proximity to the railroad, any land use incompatibilities that now exist between farm uses and the railroad, how these incompatibilities have affected farm operations (if they have), and how these relationships may change if the project is approved. It may be that increased train traffic will affect the productivity of dairy herds, turkey hatcheries, hog farrowing operations, and other farm uses in which livestock animals are sensitive to stress from noise and vibration. Alternatively, it may be that improved rail conditions will reduce transportation costs for commodity shippers and increase prices received by area farmers. Confirming or refuting either hypothesis requires information about agricultural operations not provided in the DEIS. However, the fact that all of the noise and air quality impact analyses assume that coal traffic will be added only to existing, and not to expanded, agricultural and industrial traffic may indicate that no expansion of agricultural shipping is anticipated. If improved service is to be provided to

area agricultural interests, some indication of the increased rail traffic that would result will need to be provided in order to evaluate the total impact of the proposed project.

The analysis of residential land use presented at 3.1.4.2 appears to describe the area immediately adjacent to the railroad, but it does not specify the depth used to detect residential land uses. Without this information, the statement on page 3.1-15 that the "... existing DM&E rail line is adjacent to approximately 12.0 miles of land classified as residential" is meaningless. If a residential neighborhood is separated from the railroad by a commercial use and a public street with a total depth of 100 feet, is the residential neighborhood considered "adjacent"? What if the separation is created by a bikeway corridor with a total depth of 50 feet? Without this sort of simple definitional information, the discussion is devoid of meaningful content. A more purposeful discussion of residential land uses would list the numbers and types of housing within a specified distance, land use incompatibilities that now exist between residential uses and the railroad (if any), how these incompatibilities have affected property values (if they have), and how these relationships may change if the project is approved. None of the subsequent discussions of noise and vibration or property value impacts rely on data presented in this section. Providing a single source for the residential land use data relied upon in subsequent sections of the DEIS would have been of value. It is asserted that "some residential areas are in close proximity to the rail line." A detailed discussion of the residences and the impacts of "close proximity" is necessary for this statement to be useful.

At 3.1.4.3, in the discussion of business and industrial uses, it is asserted that "small business and industrial areas occur adjacent to the existing rail line in nearly every community along the rail line. Many of these facilities utilize the rail line to ship and receive material." While the truth of this statement depends on the interpretation of the term "many," it is at least misleading in its implication that rail shipment is a significant factor for businesses in communities along the rail line at least in Olmsted County. There are 3,125 establishments with payrolls in Olmsted County¹. Of these, only a handful (nine, according to the list on page 3.3-53 of the DEIS) use rail to ship or receive material. Nine establishments represent less than half of one percent of the employers in Olmsted County.

Establishing the significance of rail shipment to businesses and industries in the counties through which the rail line passes would require identifying the number of firms relying on the rail line to ship and receive materials and detailing their economic importance in the region. That data is not provided in the DEIS. The FEIS should provide this information. However, given that total shipments amounted to 58,000 rail car loads in 1998, and that of these 50% were grain or grain products, the total number of rail carloads shipped or received by non-agriculture related establishments could not exceed 29,000. Of the 9,496 establishments in counties along the line in Minnesota (1994 Minnesota County Business Patterns, U.S. Bureau of the Census), 145 were agricultural services, leaving 9,351 other establishments. Dividing the 29,000 carloads among these establishments results in roughly three carloads per year per establishment divided among all establishments and 58 carloads per year per establishment divided among all manufacturing establishments. While rail shipment is clearly important to some shippers and some communities, it appears unlikely that this represents a significant share of all materials shipping in the region. Finally, since the number of trains used in projections of impact for noise and air quality is simply the sum of current traffic plus projected coal traffic, it does not appear that the DEIS projects expanded service to area agricultural and non-agricultural interests. This should be clarified in the FEIS.

¹ Minnesota Department of Economic Security Research and Statistics Office, Minnesota Covered Employment and Wage Data, 1999 Annual Averages, at <http://www.mnworkforcecenter.org/lmi/es/ann-summ.htm>.

3.1.4.5. At 3.1.4.5, in the discussion of public facilities, the DEIS addresses the presence of schools, hospitals, ambulance, fire, and police services in communities affected by the proposed project. Unfortunately, it does not discuss how these facilities are presently affected by the railroad and how they might be affected by increased rail traffic. In the case of public facilities in the City of Rochester, proximity to the railroad has been a minor inconvenience for the most part. Increased rail traffic would seriously affect the schools and other public facilities that are sensitive receptors of noise, disrupt recreational and cultural events in the parks and civic center adjacent to the rail line, interfere with emergency response by the ambulance service and the police and fire departments, and jeopardize security at the Federal Medical Center. These problems are the results of land uses in close proximity to a rail line that is compatible with these land uses at the present level of use but would be incompatible at the projected twelve-fold increase in train traffic.

On page 3.1-18, the Federal Medical Center, operated by the Federal Bureau of Prisons, is erroneously characterized as a state prison medical facility.

Table 3.1-7, on page 3.1-20, characterizes the East Side State WMA as having hunting and hiking opportunities. This area is a large wetland with shallow water and emergent vegetation. Hiking opportunities are not provided at this site. During most seasons of the year, the recreational opportunities provided by this site consist of spectacular bird watching and bird- and frog-listening. The auditory experience at present is affected minimally by traffic noises along County State Aid Highway (CSAH) 9 and further away along Trunk Highway 14. With at-grade crossings in close proximity at CSAH 9 and CSAH 11, horn and wayside noise increases may adversely affect human enjoyment (at least) of the site. The question of whether the waterfowl, shoreland birds, and amphibians present at the site are sensitive to noise and vibration impacts from increased train traffic should be examined and addressed in the FEIS.

Table 3.1-7 also characterizes the Rochester Game Refuge as an area with hunting opportunities. In fact, hunting is prohibited within the area of the Game Refuge. The footnote (page 3.1-22) identifies the game refuge as "... privately owned and ... established to ensure hunting rights were not taken away from area residents." This is in error. The exact opposite is the case. The Refuge includes both public and private land and was established to prohibit hunting in and around the densely developed areas of Rochester and its environs.

Community Profiles. Beginning on page 3.1-39 is a profile of land uses in Olmsted County provided in connection with a discussion of noise receptors. For all communities, the 1990 Census population is provided, which for reasons addressed in the section of these comments dealing with environmental justice should be replaced with updated information.

Dover: The first paragraph discusses the City of Dover, which is characterized as including "... high schools, middle schools, elementary schools, churches, and parks." There is a small alternative high school in the City of Dover operated as part of the Dover-Eyota School system. There are no middle schools or elementary schools. The last sentence of the first paragraph states that "existing noise sensitive receptors in the 65 dBA L_{dn} contour, due to wayside and horn noise, total 80 based on twelve trains per day." This is in error. The current level of train traffic through the City of Dover is less than three trains per day, with correspondingly lower wayside and horn noise impacts. With a wayside noise distance at the 65 dBA L_{dn} level of 65 feet (interpolating from Table F-6, page F-16, as above in Table N5, there are no churches or parks affected by wayside noise currently. There are four residences on parcels at least part of which are within 100 feet of the line, so it is possible that these residences would be affected currently by wayside noise. With a horn noise distance at the 65 dBA L_{dn} level of 417 feet (interpolating from Table F-6, page F-16, as in Table 6 of the section of these comments addressing noise calculations), there are no churches or parks affected by horn noise currently in the City of Dover. There are 54

properties with structures for which at least part of the parcel is within 400 feet of the rail line. Of these, 36 have residential structures.²

With a 65 dBA L_{dn} distance of either 2,230 (Table F-6, page F-16) or 2,732 (Table 4, above), essentially all of Dover will be in a serious noise impact condition. A good share of Dover will be affected by wayside noise, as well. Fourteen residences are within 200 feet of the line and would experience noise levels above 80 dBA L_{dn} , not accounting for cumulative vibration impacts on noise perception.

Eyota: The second paragraph on page 3.1-39 describes the City of Eyota. It is asserted that "the community includes high schools, middle schools, elementary schools, churches and parks." The Dover-Eyota School District does not have a middle school. Both the primary school and the high school are located in the City. There is only one of each. It is stated that "existing noise sensitive receptors in the 65 dBA L_{dn} contour, due to wayside and horn noise, total 238 based on twelve trains per day." This is in error. The current level of train traffic through the City of Eyota is less than three trains per day, with correspondingly lower wayside and horn noise impacts. One single family residence and one multifamily structure are on parcels at least part of which are within 100 feet of the line and may be affected by wayside noise. There are 94 structures on parcels at least partly within 400 feet of the rail line, of which 60 include dwellings. Three of these structures are multi-family residences, two of which are within 200 feet of the track. As noted in the section of these comments discussing environmental justice, there is a significant potential for serious noise impact for the seven single-family dwellings and the multi-family dwellings and manufactured homes in close proximity to the track. At 37 trains per day, all of these will experience noise levels exceeding 80 dBA L_{dn} , not accounting for cumulative vibration impacts on noise perception.

Chester: The third paragraph on page 3.1-39 discusses land uses in Chester. It is asserted that "existing noise sensitive receptors in the 65 dBA L_{dn} contour, due to wayside and horn noise, total 99 based on twelve trains per day." This is in error. The current level of train traffic through Chester area is less than three trains per day, with correspondingly lower wayside and horn noise impacts. There are 37 structures on parcels at least partly within 100 feet of the line, of which 26 include residences. Some of these residences may be close enough to the line to be affected by wayside noise. There are 62 structures on parcels at least part of which are within 400 feet of the line. These structures could be affected currently by horn noise. Of these, 44 are residences (all are single family residences). The 26 residences within 100 feet of the line will experience noise levels higher than 85 dBA L_{dn} , not accounting for cumulative vibration impacts on noise perception, at a train traffic level of 37 trains.

Rochester: The fourth paragraph on page 3.1-39 discusses land uses in Rochester. This information is incomplete and the tables in the section of these comments addressing noise (Tables 5 and 6) should be relied on to provide more complete information. The existing number of sensitive receptors is significantly inflated based on an erroneous number of trains per day. Fewer than three trains per day currently pass through the City of Rochester, as reflected in the information in Tables 5 and 6.

Byron: The final paragraph on page 3.1-39 discusses the City of Byron. It is asserted that "existing noise sensitive receptors in the 65 dBA L_{dn} contour, due to wayside and horn noise, total 469 based on twelve trains per day." This is in error. The current level of train traffic through Byron is less than three trains per day, with correspondingly lower wayside and horn noise impacts. Again, the number of existing noise receptors is inflated by reliance on a train traffic number that is more than four times as high as the actual train traffic. There are 114 structures on parcels at least part of which lies within 100 feet of the track, some of which structures may be within 65 feet of the track and be subject to wayside noise impacts

² This data is derived from real property information from the office of the Olmsted County Assessor.

exceeding 65 dBA L_{dn} . Of these, one is a multi-family structure, one is a church, and 103 are single family dwellings. There are 298 structures (184 additional structures) on parcels at least partly within a 400 foot distance from the track. Of these, 276 are residential structures (172 additional residential structures), one is a church, and one is a school. The residential structures include one duplex, four multifamily dwellings (three additional multifamily structures, one of which is within 200 feet of the line), and four townhouse units. The two multifamily structures within two hundred feet of the line and the 130 single family units within 200 feet of the line may experience noise levels in excess of 80 dBA L_{dn} , not accounting for cumulative vibration impacts on noise perception, at 37 trains per day. Those within 100 feet of the line may experience noise levels in excess of 85 dBA L_{dn} , not accounting for cumulative vibration impacts on noise perception. As the map shown in the noise comment indicates, nearly all of the City of Byron will be affected by high noise levels at 37 trains per day.

Unincorporated Areas Except Chester: Absent from the discussion is any detailed mention of unincorporated areas outside the Chester area. The most significant noise-sensitive public facility in the unincorporated areas along the railroad line is Chester Woods Park, which provides overnight camping, picnicking, hiking, horseback riding, swimming, and boating opportunities and which includes some of the largest undisturbed prairie and woodland plant communities in Olmsted County. Excluding Chester Woods Park, there are 77 structures on parcels at least part of which lie within 400 feet of the rail line in other unincorporated areas, of which 37 are located on parcels at least part of which lie within 100 feet of the line. Of these structures, 61 are residences (all single-family), of which 30 are located on parcels at least part of which lie within 100 feet of the line. These 30 residences may experience noise levels in excess of 85 dBA L_{dn} , not accounting for cumulative vibration impacts on noise perception.

Bypass Area: Land uses along the proposed bypass route are discussed in 3.3.2.4 beginning on page 3.3-50. As with the discussion of land use addressed above, the information provided is general in nature and insufficiently quantified to identify or compare environmental impacts. The figures cited for agricultural land and prime farmland need to be clarified in order to provide for verification. It appears from the figures in the last paragraph on page 3.3-50 that the DEIS assumes a 200 foot right-of-way width in its calculations of land use impact. Applying that width to local GIS information based on recent aerial photography, there are 546 acres of cultivated land along the version of the bypass route R-4 for which maps are provided in Volume 5 and 577 acres of cultivated land along the version of the bypass route provided by the City of Rochester in its June, 1999 submittal. The figure of 606 acres of prime farmland may be based on older land cover information or on soils information. Verifying its accuracy requires that the FEIS reveal the source of the information.

The total land area in the bypass routes is 857.6 acres in the DEIS proposal and 814.3 acres in the June, 1999 submittal. The FEIS should clarify which proposal it is analyzing, define the terms it is using, clarify the measurements it makes, and quantify the impacts it identifies.

2.Biological Resources

Surface Transportation Board DEIS Requirements – Biological Resources:

- A. Describe the existing biological resources within the project area for new rail line construction and along the existing rail line to be rebuilt, including vegetative communities, wildlife and fisheries, federally threatened or endangered species, and any sensitive vegetation and wildlife identified and the potential impacts to these resources resultant from construction and operation of new rail line and the existing rail line to be rebuilt.**
- B. Describe the wildlife sanctuaries, refuges, and national or state parks, forests, or grasslands within the project area for new construction and along the existing rail line to be rebuilt and the potential impacts to these resources resultant from construction and operation of new rail line and existing rail line to be rebuilt.**
- C. Propose mitigative measures to minimize or eliminate potential adverse project impacts to biological resources, as appropriate.**

Section 2.1, page 2.1-2.6-5 -- Biological Resources

Comment: While this Biological Assessment addresses the limited suite of Federally-listed Endangered, Threatened or Sensitive species, the impacts on species of similar concern to the State of Minnesota and the Fish & Wildlife Service (USDI) and Biological Resources Division (USGS) need to be similarly assessed.

Comment: Contrary to the statement in 7.8.7 – 73, there are NO “terms set forth in the Biological Assessment” that guide the applicant’s actions, beyond complying with applicable laws (ESA, 16 USC 1531-1533; CWA, 33 USC 1251; MBTA, 16 USC 703; etc.) and regulations (50 CFR 17, ESA; 33 CFR 330, CWA; 50 CFR 10, MBTA, etc.) That is not the function of a Biological Assessment.

Section 3.1.8, page 3.1-56 – Biological Resources

Comment: The DEIS uses only Natural Area vegetative community descriptions to assess the broad spectrum of biological settings and resources. This is only one tiny component of the far more comprehensive Ecological Classification System (ECS) adopted by the States of Minnesota, Wisconsin and Michigan, in conjunction with the Forest Service (USDA) and other federal, state, tribal and non-governmental organizations in 1995. This Interagency Information Cooperative uses ECS to address planning assessments and management plans – AND SO SHOULD THE SEA/STB. ECS was originally developed by the Forest Service (USDA) in 1993, as the “National Hierarchical Framework of Ecological Units”, based on pioneering work of R.G. Bailey (1983, Environ. Manage. 9:271-276). It integrates the influences of climate, geology, hydrology, topography and soils, as well as current and potential vegetation as factors affecting and affected by human management. This is THE standard for description and assessment of environmental conditions for project planning, and it has not been applied to this project. It needs to be applied before the FEIS is completed.

For instance, Olmsted County lies in the Eastern Broadleaf Forest Province (one of three across Minnesota); within the Paleozoic Plateau Section; and occupies parts of the Rochester Plateau and Blufflands Sub-Sections. Minnesota DNR has identified the Ecological Land Types within these Sub-Sections, and described the component Ecological Land Type Associations, characterized by bedrock types, water table depth, slope gradient, typical rare plants and animals, and 15 other factors. Analyses of the PRB scope require assessments at all these scales, and not just at the smaller Community (the vegetative communities described) and Site scales.

Omitting this standard for analysis is a serious failure in appropriate Methodology, crippling any attempt to accurately and consistently describe and evaluate the relationships between species and the ecological criteria contributing to their habitats, as well as the probable impacts of the proposed DM&E/PRB project in Minnesota.

Section 3.1.8.2, page 3.1-61– Biological Resources

DEIS: “Many wildlife species have adapted and thrive under current conditions”

Comment: This fatuous statement omits the fact of past wildlife losses to habitat modification (by railroad development, among other impacts), and assumes that surviving (depauperate) wildlife populations can co-exist with an up-graded railroad. Such biased assumptions have no place in an impartial analysis of potential impacts, before the fact of analysis.

Comment: Further, recent Executive Order 13186 (January 10, 2001) now requires all executive departments or agencies (including the STB) “taking actions that have, or are likely to have, a measurable negative effect on migratory bird populations” to (1) “support the conservation intent of the Migratory Bird conventions by integrating bird conservation principles, measures and practices into agency activities, and by avoiding or minimizing .. adverse impacts on migratory bird resources when conducting agency actions; (2) restore and enhance the habitat of migratory birds; (3) prevent or abate the pollution or detrimental alteration of the environment for the benefit of migratory birds; (4) design migratory bird habitat and population conservation principles, measures and practices into agency plans and planning processes; (6) ensure that environmental analyses of Federal actions required by the NEPA or other established environmental review processes evaluate the effects of actions and agency plans on migratory birds, with emphasis on species of concern; and (9) identify where unintentional take reasonably attributable to agency actions is likely to have a measurable negative effect on migratory bird populations.” Such assumptions violate this direction, before analysis.

Section 3.1.8.2.3, pages 3.1-67 and Table 3.1-13– Biological Resources

Comment: Table 3.1-13 identifies only two kinds of hawks across 6 Minnesota Counties – Red-tailed hawks and “Unknown Buteos”. This is NO measure of “existing condition” or use by raptors, entirely missing Loggerhead Shrikes (although mentioned in T 3.1-15 and -16) and American Kestrels, that key on this type of habitat, as well as all Accipiters, common in wooded areas.

Comment: Again, cursory dismissal of migratory bird use of these habitats violates E.O. 13186, and needs to be remedied before the FEIS.

Comment: Description of "existing conditions" does not assess the extent of use of track-side ballast as snake refugia or habitat; the extent of mortality to small, slow-moving reptiles, amphibians, or small mammals from existing train traffic or maintenance activities; or a real measure of use of track-side habitat by aerial raptors.

Section 3.1.8.2.3, pages 3.1-64— Biological Resources

Comment: "The law states that federal actions may not destroy active nests (nests that contain eggs or young birds, usually between April and August). Nests that are in the process of being constructed or those that have been abandoned after a breeding season are not considered to be active (Strgar-Roscoe-Fausch, Inc. 1993)" (emphasis added) is a PATENT FALSEHOOD, inconsistent with the real text of the Migratory Bird Treaty Act (16 USC §§ 703-712) and enacting regulations in 50 CFR 10. Executive Order 13186 also clarifies "unintentional" "take", which is prohibited in the MBTA: "it is unlawful to pursue, hunt, take, capture or kill .. any migratory bird, part, nest egg or product" of any migratory bird. There is no "active/inactive" provision in law. 50 C.F.R. § 17.3 explains that ["taking"] "may include significant habitat modification where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering."

Comment: Again, contrary to the requirements of NEPA and E.O. 13186, no analysis of "Species of Concern" is presented here, depicting the status of birds already in decline across the region. That information is easily available from the Fish & Wildlife Service (USDI), or the Biological Resources Division (USGS). "Declining Species" documented in Minnesota include:

Species	Adjusted Trend	N routes	(Unadjusted Trend P value)
Common Nighthawk	-7.1241	14	(-9.4770.....0.0184)
Western Meadowlark	-6.5387	61	(-6.665.....0.0000)
Ruby-crowned Kinglet	-6.3485	21	(-6.5680.....0.0000)
Grasshopper Sparrow	-5.9217	45	(-7.2420.....0.0123)
Bank Swallow	-5.5224	42	(-7.4040.....0.0362)
American Bittern	-5.4152	39	(-5.9830.....0.0031)
American Coot	-5.1260	25	(-5.7330.....0.0099)
Red-headed Woodpecker	-4.1573	45	(-4.2150.....0.0000)
Broad-winged Hawk	-3.5051	19	(-4.0210.....0.0857)
Yellow-headed Blackbird	-3.2951	43	(-3.4090.....0.0028)
Blue-winged Teal	-3.2437	42	(-3.4430.....0.0204)
Ruffed Grouse	-3.1879	30	(-3.3600.....0.0179)
Eastern Meadowlark	-3.1303	39	(-3.3720.....0.0414)
Purple Martin	-2.9107	46	(-2.9510.....0.0001)
Vesper Sparrow	-2.9022	58	(-2.9520.....0.0002)
Indigo Bunting	-2.7680	56	(-2.8720.....0.0120)
Ring-necked Pheasant	-2.0985	40	(-2.1320.....0.0048)
Rock Dove	-1.8494	56	(-1.8820.....0.0138)
Mourning Dove	-1.5426	66	(-1.5630.....0.0159)
Veery	-1.3779	46	(-1.3890.....0.0067)
Eastern Towhee	-1.2594	15	(-1.2710.....0.0337)
Least Flycatcher	-1.1581	61	(-1.1710.....0.0419)

Comment: Mis-spelling of scientific names (Dumatella carolinensis) and common names (common grackle) betray lack of knowledge. Similarly, Keen's Myotis is Myotis keeni, not merely spp., and Prairie Vole is Microtus ochrogaster.

Section 3.2.10.2.3, pages 3.2-70,71-- Biological Resources

Comment: "Overall impacts to amphibians and reptiles would be insignificant" fails to assess the continued and increased barriers to dispersal and migration posed by railroad tracks and beds, and mortality from increased train passages and vibration, leading perhaps to genetic isolation and even local or regional extirpation of some populations, demes, or species.

Neither does this groundless dismissal assess the impacts on already tenuous populations of Endangered, Threatened, "Sensitive", or Species of Concern -- mentioned in T 3.1-16, but not realistically addressed or assessed here.

Comment: "Following reconstruction and revegetation...raptors would again use the area" does not accurately address the permanent impacts of modification on Species of Concern, such as Loggerhead Shrike, that key on trackside habitat and tall/older vegetation for feeding and nesting. (Un-addressed in 3.2.10.4 ETS, either.) These losses will likely never be recovered (under proposed vegetation management), leading to permanent population declines, since little similar habitat occurs elsewhere in the region.

Comment: "Revegetation of the right-of-way could provide nesting and cover habitat for a variety of species", but not in the lifetimes of 3 to 10 generations of short-lived songbirds. Those habitats, nesting attempts and populations would thus be lost, leading to local impoverishment of these species. Recolonization after such traditions and use are lost could also require many more years, during which newly-modified right-of-ways represent losses of habitable area and nesting opportunities. Again, these losses are inconsistent with the requirements of 50 CFR 17 and Executive Order 13186, and need to be better minimized and mitigated.

Comment: "Losses would be minimal and insignificant" fails to address the documented and significant barriers posed to individual movement, and consequent deleterious effects on genetic diversity and stability, and habitat utilization, by existing and especially expanded track beds, structures, and train passages. These effects need to be better analyzed and described before the FEIS.

Section 3.2.10.2.2, page 3.2-69-- Biological Resources

Comment: "These losses would be minimal" dismisses real impacts, much above existing levels. Increasing train passages by 12 times over current disturbances, especially when right-of-way vegetation has been removed, allows noise impacts to propagate further into adjacent remaining habitat. Noise-sensitive wild turkey, in particular, would be negatively impacted, far beyond the right-of-way.

The fact that "precocial" gamebird chicks leave the nest within hours of hatching has nothing to do with the impact of 37 train passages a day for the 19 to 23 days the hen must incubate those eggs in a frequently disturbed nest. This is misleading.

Section 3.3.2.8.1, page 3.3-70– Biological Resources

Comment: What are the endangered plant and animal communities? What is the plan for saving them? Will state, local or federal permits be issued for these areas to be disturbed? Who will monitor these activities to insure compliance?

Section 3.3.2.9.2, page 3.3-74– Biological Resources

Comment: “None of these listed species are known to inhabit the project areas of the Rochester Alternatives” is simply not true. The Loggerhead Shrike documentation in T 3.1-15 near Byron is on or near the proposed bypass route. Check with MN DNR.

This statement also ignores the declining bird species identified by the Fish & Wildlife Service (USDI) and Biological Resources Division (USGS), whose locations, habitats and needs must be addressed under Executive Order 13186.

Table 5.1-6– Biological Resources

Comment: This Table does not assess the impacts on all species identified by the State of Minnesota DNR as “of concern”, nor does it address species identified by the Fish & Wildlife Service (USDI) and Biological Resources Division (USGS) as “declining”. They all need to be assessed, and impacts on them disclosed, before the FEIS.

Comment: “Operation” environmental impacts displayed do not assess or disclose the documented adverse impacts posed by railroad tracks, their construction or operation, on amphibians, reptiles and small mammals (genetic isolation, barriers to mobility, migration, etc).

Section 7.8.7, page 7-24– Biological Resources

Comment: Identification of State-listed Endangered, Threatened, Sensitive, or Species of Concern, or species identified as “declining” by the Fish & Wildlife Service (USDI) or Biological Resources Division (USGS) should ALSO cause the applicant to “immediately cease construction” to assess the effects/impacts of construction or operation, until guidance is received from listing agencies.

3. Water Resources

Surface Transportation Board DEIS Requirements – Water Resources:

- A. Describe the existing surface and groundwater resources within the project area for new rail line construction and along the existing rail line to be rebuilt, including lakes, rivers, streams, stock ponds, wetlands, aquifers, wells, and floodplains and the potential impacts on these resources resultant from construction and operation of new rail line and the existing rail line to be rebuilt.**
- B. Describe the existing uses of water resources in the project area for irrigation, livestock, residential, and municipal water supply.**
- C. Describe the permitting requirements for the proposed new rail line construction and existing rail line rebuild in regard to wetlands, stream crossings, water quality, and erosion control.**
- D. Propose mitigative measures to minimize or eliminate potential adverse project impacts to water resources and users, as appropriate.**

Section 3.2, page 3.2-18 – Water Resources

Comment: The DEIS does not recognize the extent of interconnectedness of surface and ground water in southeastern Minnesota. This interconnection was quantified in ground water recharge modeling in the Rochester area conducted by the US Geological Survey (Table WR-1). Delin reports that about nine percent of the aquifer recharge in the city can be attributed to stream leakage.

Table WR-1. Computer Modeled Water Budget for the Approximate Area Contributing Water to Rochester

Sources	Rate	Percent
	(Mgal/yr)	
Recharge to top of aquifer layers	6,500	90.9
Leakage from streams (1)	<u>650</u>	<u>9.1</u>
Inflow	7,150	100
Discharges		
Groundwater withdrawal	3,950	54.9
Groundwater seepage to streams	<u>3,250</u>	<u>45.1</u>
Outflow	7,200	100

(1) Stream leakage is addressed later in this chapter in the section titled "Areas of Contribution."

Source: USGS Water Resources Investigations Report 90-4081 (Delin, 1991).

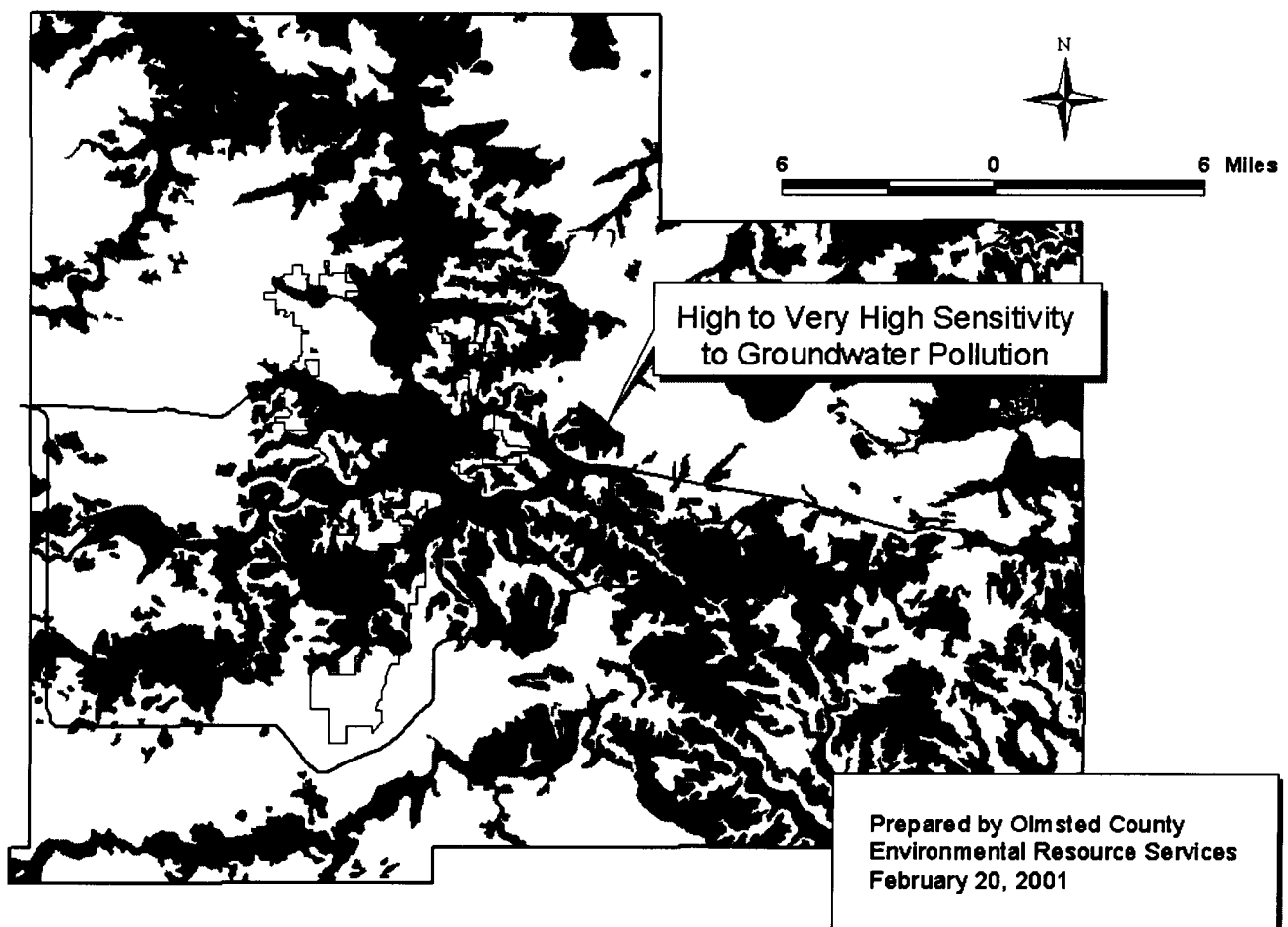
Comment: A ground water pollution sensitivity map prepared by the Minnesota Geological Survey (MGS) illustrates the relative quickness with which pollutants at the surface can be expected to reach the underlying aquifers. Since the DM&E expects to continue to haul

potentially hazardous materials, the FEIS should do a better job in defining areas near population centers sensitive to groundwater pollution. For example, there are several areas along the existing DM&E line east of Rochester as well as along the proposed Rochester bypass route that are highly vulnerable to groundwater pollution (Figure WR-1). This figure illustrates the two most sensitive ground water pollution sensitivity ratings for the water table aquifer. These ratings are described by the MGS as:

Very High – Contaminants will almost certainly reach the water table in hours to months.

High – Contaminants will probably reach the water table in weeks to years; little natural protection exists to retard the vertical movement of liquids.

Figure WR-1. Sensitivity of the Water Table Aquifer to Pollution in Olmsted County.



Source: Geology adapted from Geologic Atlas of Olmsted County, Minnesota, County Atlas Series Atlas C-3, Plate 6 of 9, Pollution Sensitivity, Minnesota Geological Survey, (Balaban, 1988).

Comment: The DEIS does not recognize that the DM&E rail line crosses over the focused ground water recharge area that occurs at the terminal edge of the Decorah shale. This is the area identified by the US Geological Survey as contributing about half percent of the recharge for the City of Rochester's water supply (**Table WR-2, Figure WR-2 and Figure WR-3**). The *1998-2002 Olmsted County Comprehensive Water Management Plan*, and the Basin Alliance for the Lower Mississippi River in Minnesota (BALMM) *2000 Management Plan*, both identify this hydrogeologic setting, the "Decorah Edge Groundwater Recharge Management Area", as a high priority water resource management area.

Table WR-2. Computer Modeled Recharge Rates & Percent Contributions to the St. Peter-Prairie du Chien-Jordan Aquifer in the Rochester-Zumbro Aquifer-shed.

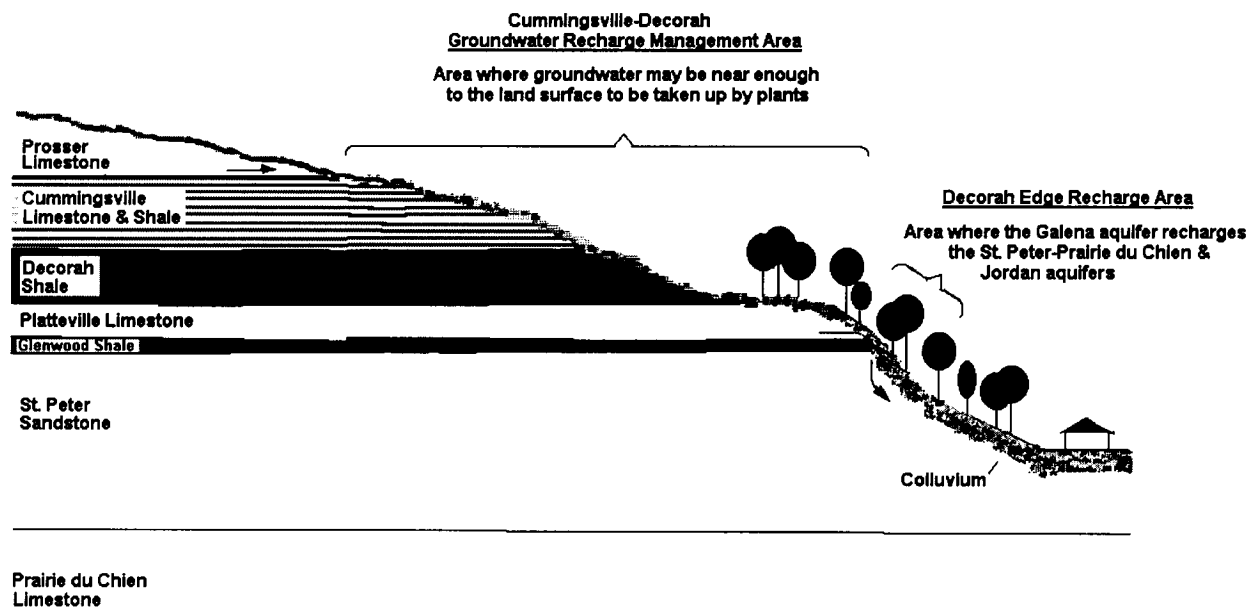
Recharge Zone	Recharge Rate(1) (inches/year)	Modeled Rate(2) (inches/year)	Recharge (percent)
Edge of Decorah Confining Unit.	5-17	13	54
Prairie du Chien Group Uppermost Unit	2-6	5	26
Sewered Area of Rochester	2-6	4.5	10
Decorah Confining Unit	0-2	0.4	8
Thick Glacial Drift	0-2.5	1	2

(1) Recharge Rate - range of recharge rates in Rochester groundwater contribution area.

(2) Modeled Rate - recharge rate at which model simulation was best.

Source: USGS Water Resources Investigations Report 90-4081 (Delin, 1991).

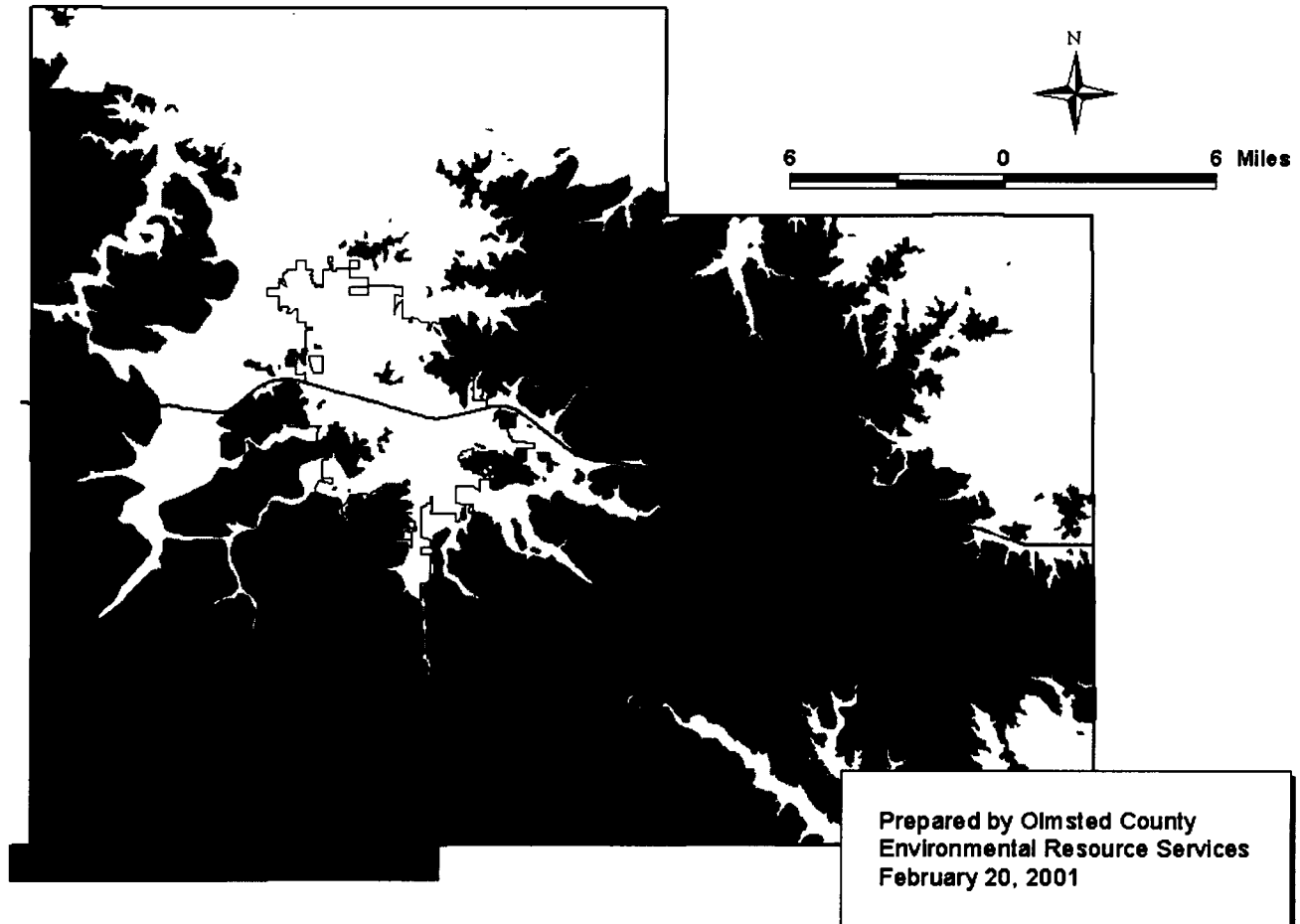
Figure WR-2. Hydrogeology in the Decorah-Edge Groundwater Recharge Management Area.



Source: Adapted from USGS Water Resources Investigations Report 90-4081 (Delin, 1991).

Comment: The rail line crosses the Decorah Edge west and east of Rochester as well as west of Dover (**Figure WR-3**). Where the existing DM&E rail crosses the Decorah Edge in western Olmsted County the bedrock is covered by glacial till to a depth of 50 to 100 feet. Consequently, the hydrology of that area is dominated by till features rather than by bedrock conditions.

Figure WR-3. Extent of the Decorah Shale Bedrock Unit within Olmsted County.



Source: Geology adapted from *Geologic Atlas of Olmsted County, Minnesota, County Atlas Series Atlas C-3, Plate 2 of 9, Bedrock Geology, Minnesota Geological Survey, (Balaban, 1988).*

Comment: Construction in the Decorah Edge hydrogeologic setting has the potential to interrupt ground water recharge and to hinder the natural attenuation processes that occur in this setting. Studies suggest that the soils and vegetation in the Decorah-Edge setting are responsible for removing nitrogen from recharge waters. The FEIS should identify specific measures for mitigating the interruption of groundwater recharge and the disruption of pollutant attenuation in the Decorah Edge setting.

Comment: Studies conducted in the Rochester area have documented serious structural damage in this hydrogeologic setting. This includes unstable roadbeds, slumping in road cuts, foundation instability, wet basements, and damage to sidewalks and retention walls. Derailments caused by structural instability in this setting could have much greater impacts to groundwater than those that occur in other hydrogeologic settings. This is because the large volume of water recharge has the potential to carry contaminants directly and deeply into underlying aquifers.

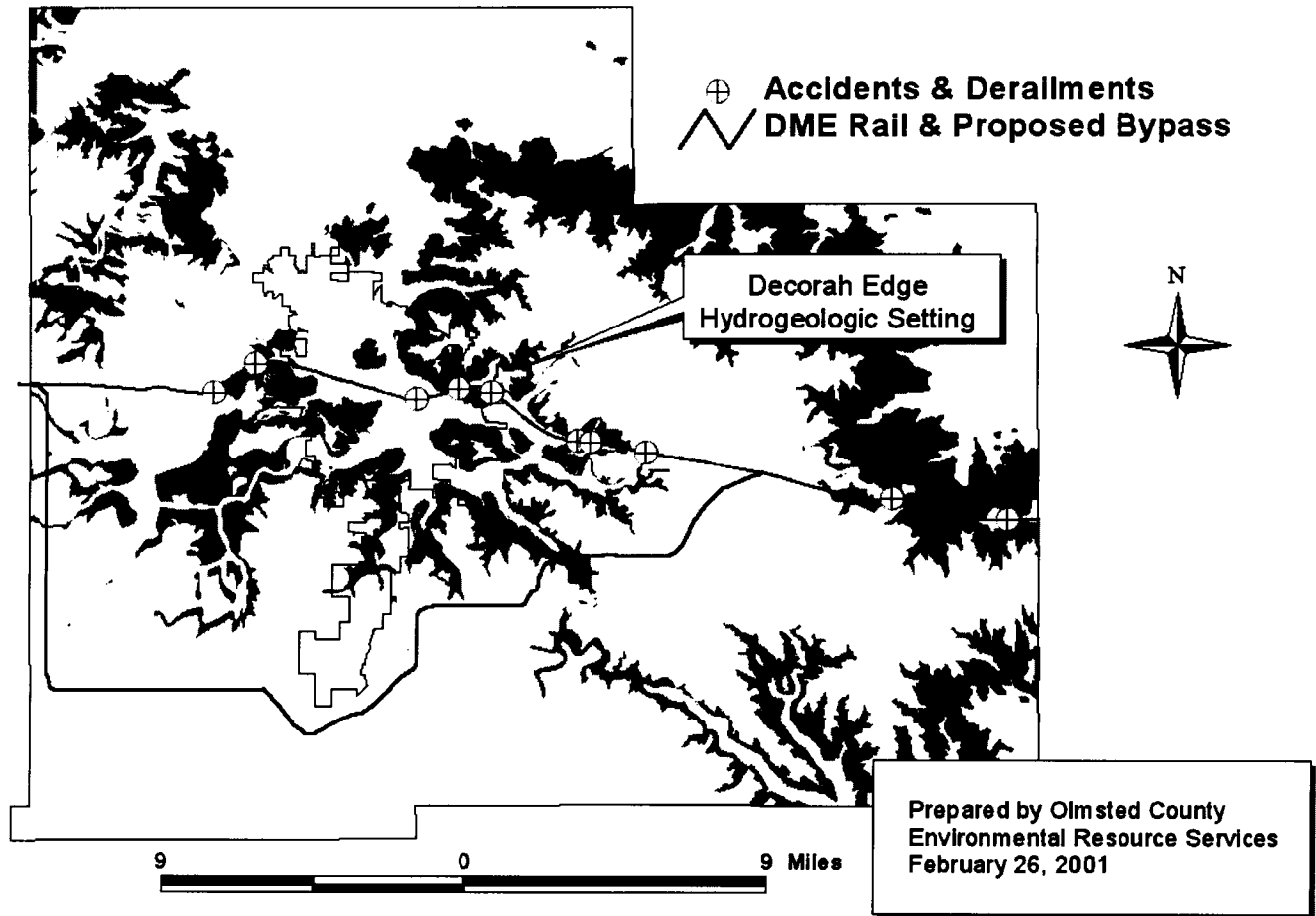
Comment: Ten of the eleven DM&E/CNW rail accidents and derailments in Olmsted County reported in the Federal Railroad Administration's database have occurred in the Decorah-Edge hydrogeologic setting (Table WR-3 and Figure WR-4).

Table WR-3. Accidents and Derailments in Olmsted County as Reported in the Federal Railroad Administration Accident Database (<http://safetydata.fra.dot.gov/officesafety/>).*

Accident or Derailment	Year Incident Occurred	Location (Railroad Mile Post)
1	1983	30
2	2000	33.5
3	1992	41
4	1975	42.7
5	1994	42.7
6	1992	43.1
7	1978	46.1
8	1992	47.1
9	1977	48.4
10	1975	53.3
11	1976	54.8

*** Note that this table does not include rail accidents that occur at road crossings – the Federal Railroad Administration manages the data for those accidents in a separate database.**

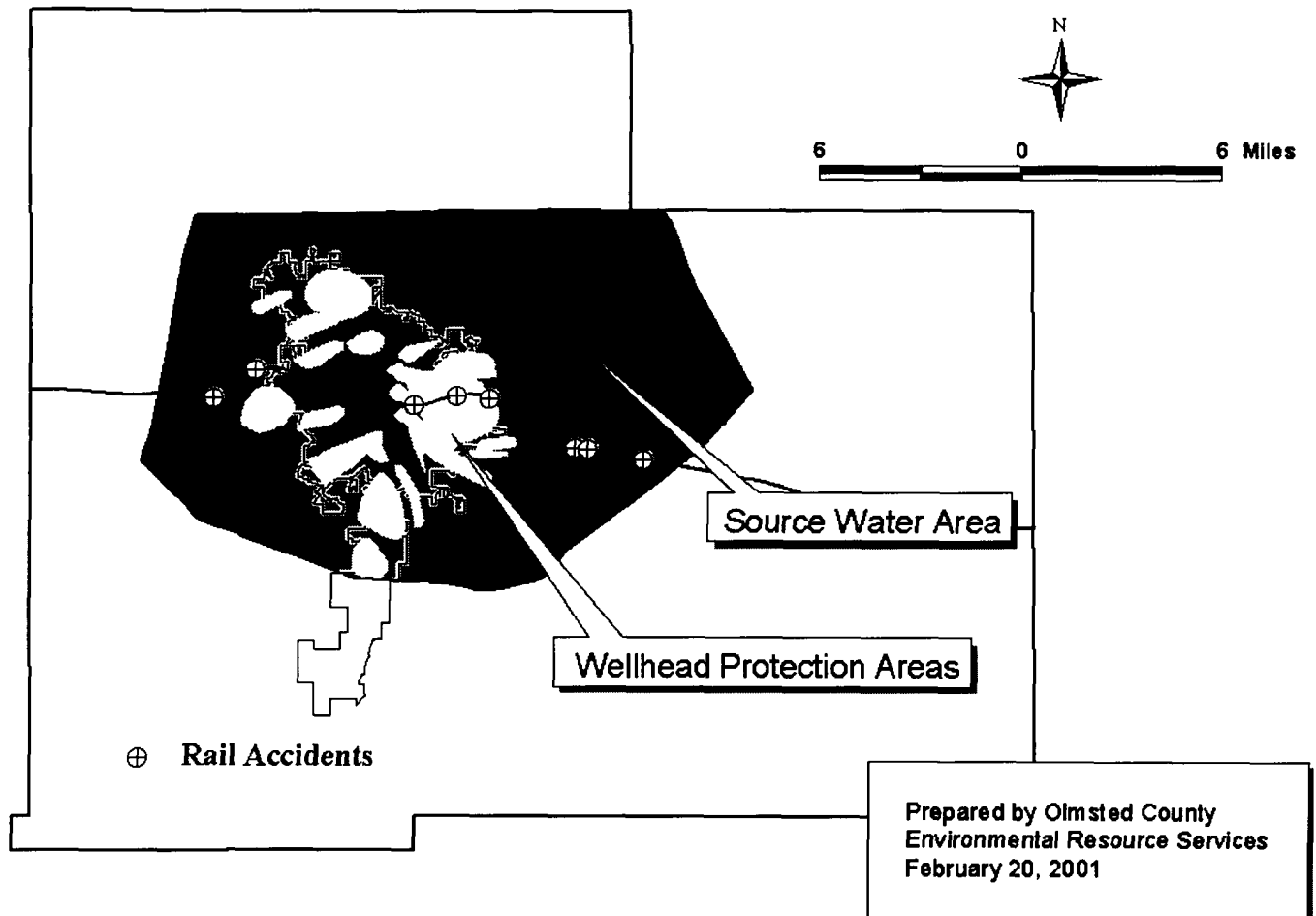
Figure WR-4. Decorah Edge Hydrogeologic Setting in Olmsted County and Reported Rail Accidents and Derailments.



Source: Geology adapted from Geologic Atlas of Olmsted County, Minnesota, County Atlas Series Atlas C-3, Plate 2 of 9, Bedrock Geology, Minnesota Geological Survey, (Balaban, 1988).

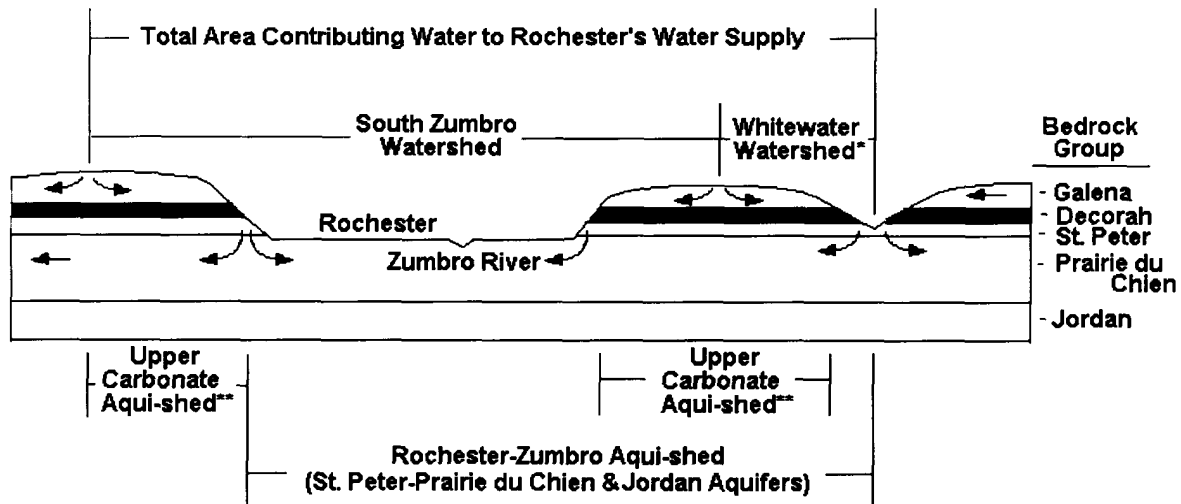
Comment: Nine of the accidents and derailments have occurred within the Rochester/Zumbro Aquifer-shed – the primary source water for the City of Rochester’s drinking water supply and three occurred within the City’s Wellhead Protection Area (**Figure WR-5**). These are the areas designated for special protection as required by the federal Safe Drinking Water Act. The areas contributing to the Rochester Water Supply Aquifer can be seen in (**Figures WR-6, WR-7, and WR-8**).

Figure WR-5. Rochester-Zumbro Aqui-shed Source Water Area and the Rochester Wellhead Protection Areas and Reported Rail Accidents and Derailments.



Source: Adapted from USGS Water Resources Investigations Report 90-4081 (Delin, 1991).

Figure WR-6. Approximate Areas Contributing Water to the Rochester Water Supply Aquifer in Cross-section.

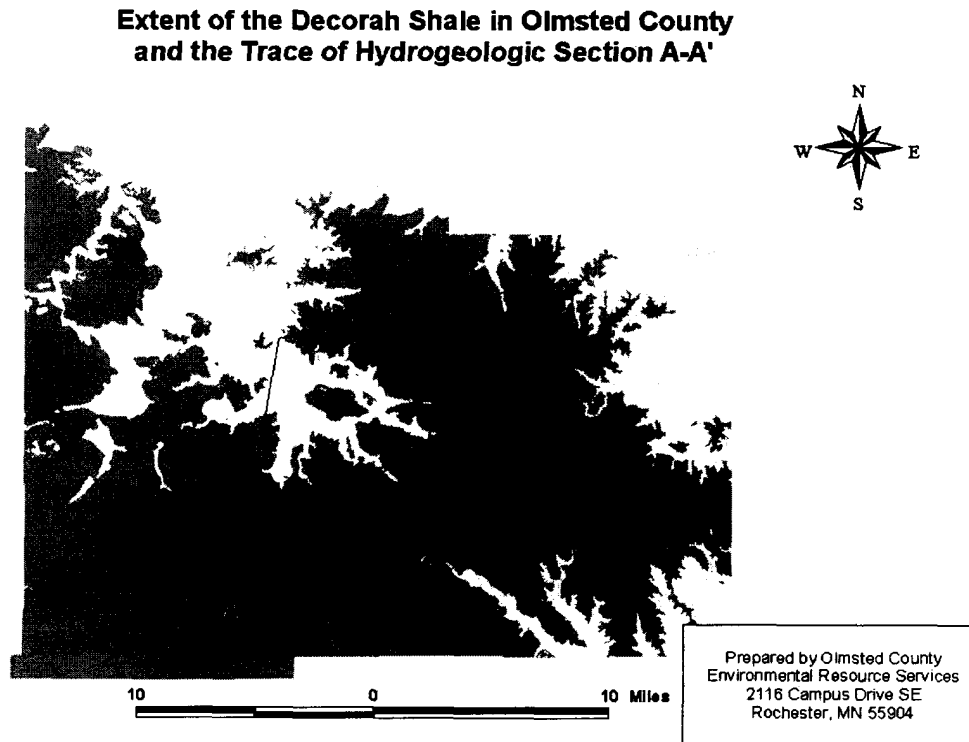


* Only the western-most area of the Whitewater watershed contributes to Rochester's water supply.

** Galena bedrock group aquifer

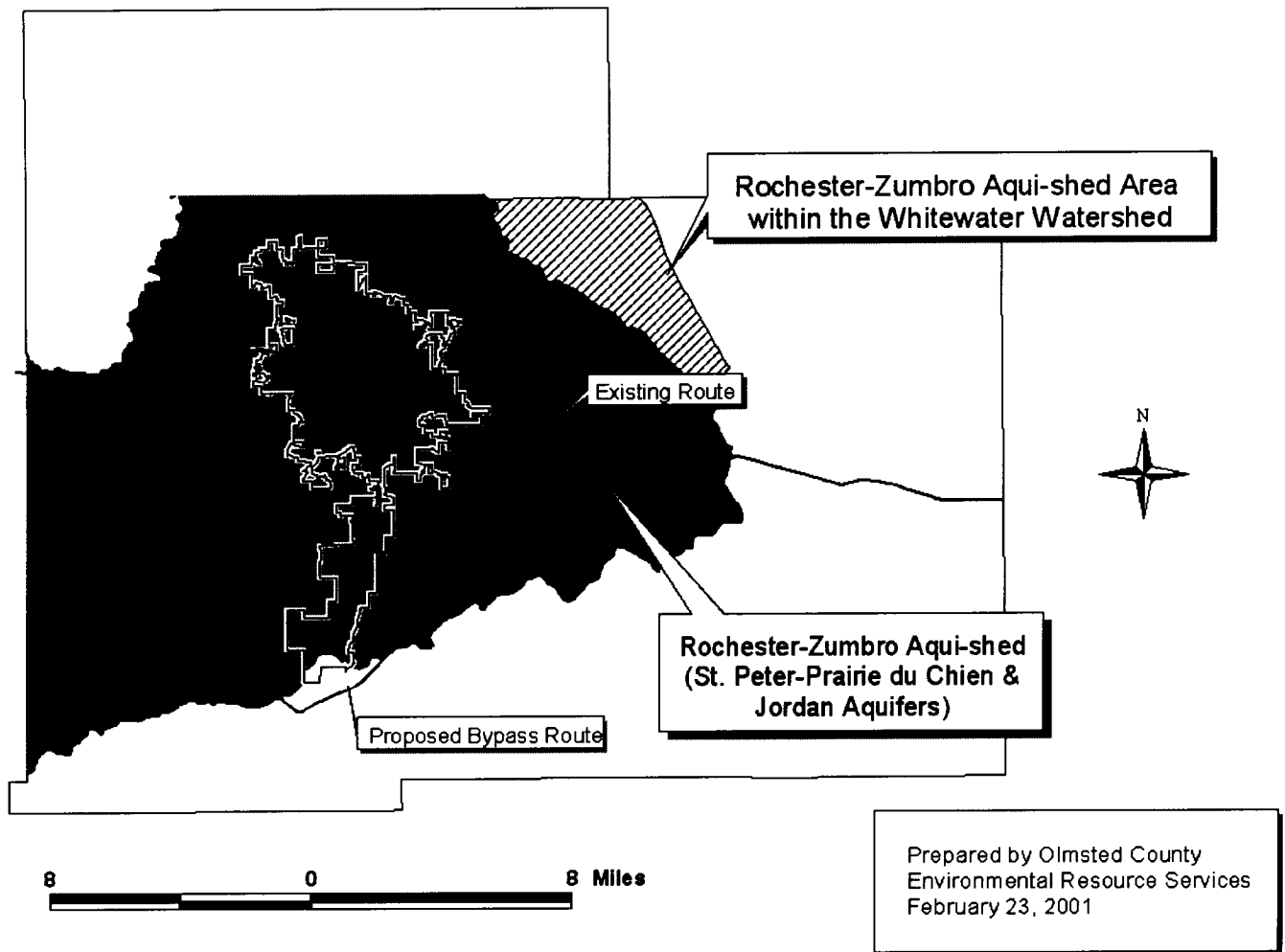
Source: Adapted from USGS Water Resources Investigations Report 90-4081 (Delin, 1991).

Figure WR-7. Extent of the Decorah Shale in Olmsted County and the Trace of Hydrologic Section A-A'.



Source: Adapted from USGS Water Resources Investigations Report 90-4081 (Delin, 1991).

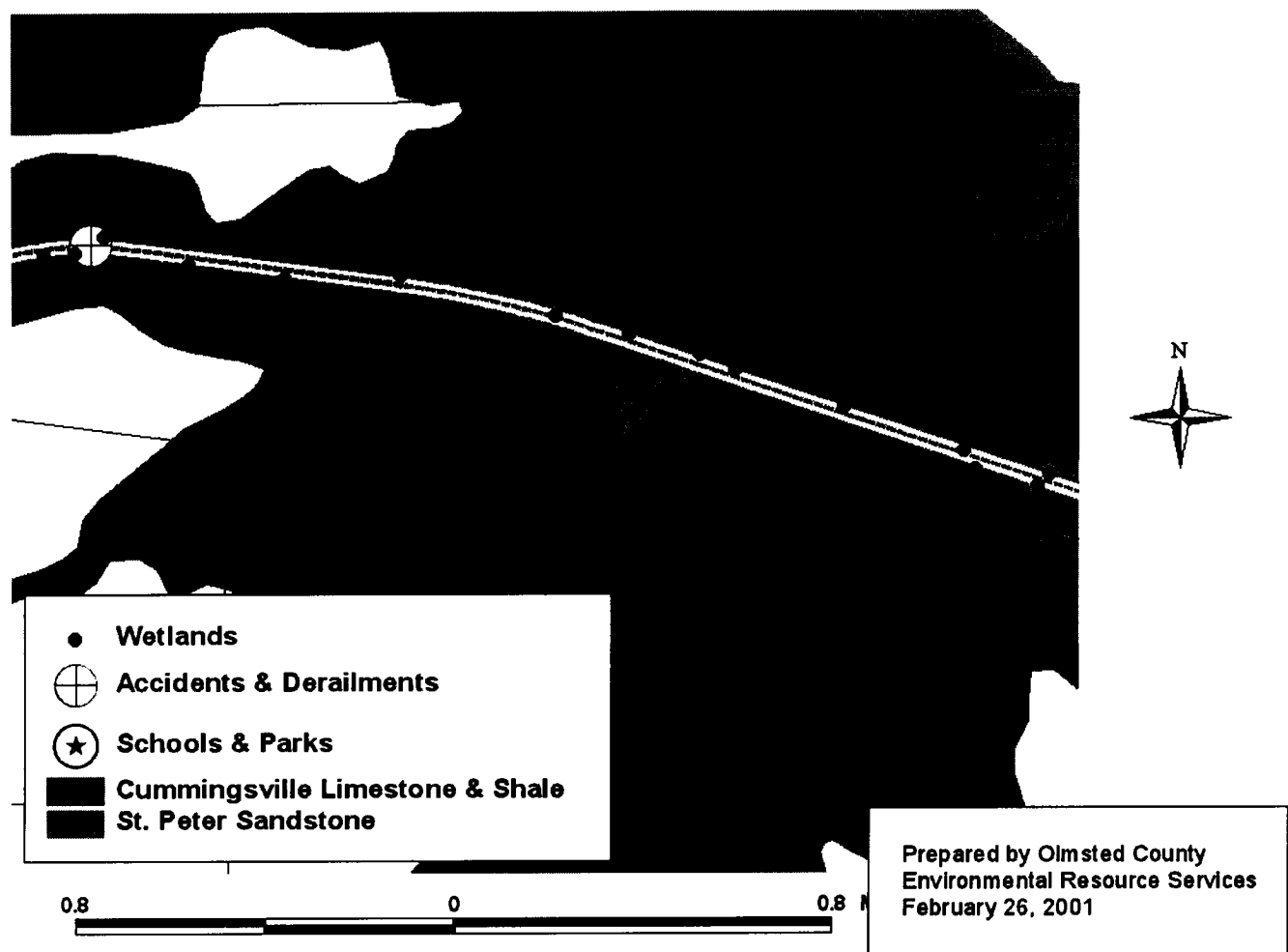
Figure WR-8. Approximate Areas Contributing Water to the Rochester Water Supply Aquifer.



Source: Adapted from USGS Water Resources Investigations Report 90-4081 (Delin, 1991).

Comment: SEA may also have underestimated the probability of future derailments and the associated downtime and cleanup costs -- particularly when the derailments are likely to occur in groundwater recharge areas and Wellhead Protection Areas. **Figure WR-9** illustrates a derailment that occurred in 2000 in the Decorah Edge area immediately upgradient from the Village of Dover (eastern Olmsted County) and within the source water area for the city's water supply well.

Figure WR-9. Derailment Site in the Dover Area in Year 2000..



Source: Geology adapted from Geologic Atlas of Olmsted County, Minnesota, County Atlas Series Atlas C-3, Plate 2 of 9, Bedrock Geology, Minnesota Geological Survey, (Balaban, 1988).

Comment: Howard Hobbs, Minnesota Geological Survey surficial geologist suggests that the increased frequency of derailments in the Decorah Edge area is likely attributable to the following:

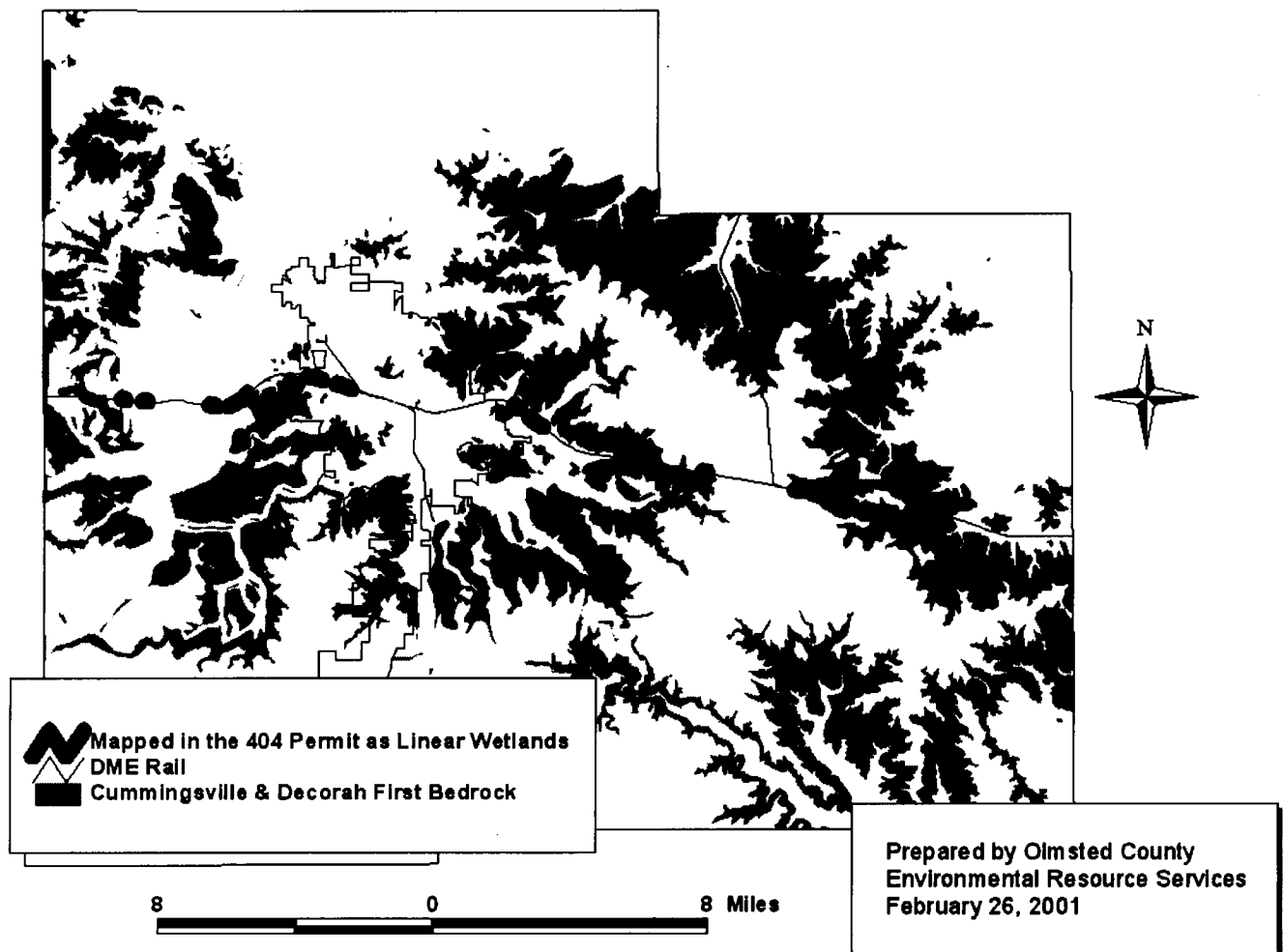
- 1) softness of the shales and to a lesser extent their shrink/swell properties,
- 2) the fact that the shale exposures typically occur on slopes which are naturally unstable and prone to slumping, and
- 3) the large volume of water that drains from overlying aquifers -- a recently completed but not yet published study by the US Geological Survey (Richard L. Lindgren, Personal Communication) estimates the water spilling over the Decorah shale (into springs and through soils) in the Chester area to be about 18,000 gals/ft/year; that compares to about 18 gals/ft/year for a typical upland summit site.

MGs staff note that the St. Lawrence and Franconia formations in Winona County appear to have hydrogeologic characteristics similar to those found at the terminal edge of the Decorah (Anthony Runkel, Personal Communication).

This assessment is supported by the railroad engineering literature, e.g. The Track Cyclopedia, American Railway Engineering Association, (Cerny and Richardson, 1985), notes:

"The design, construction and maintenance of today's track structure has benefited substantially from advancements made in geotechnical knowledge – what we know about the nature of soil and rock deposits. Repetition cannot be made too often that both track and train performance depend upon the stability of the subgrade, or foundation. Without a stable roadbed even high quality rail, ballast and ties are of little value."

Figure WR-10. Linear Wetlands Mapped in the Army Corps of Engineers 404 Permit Application.

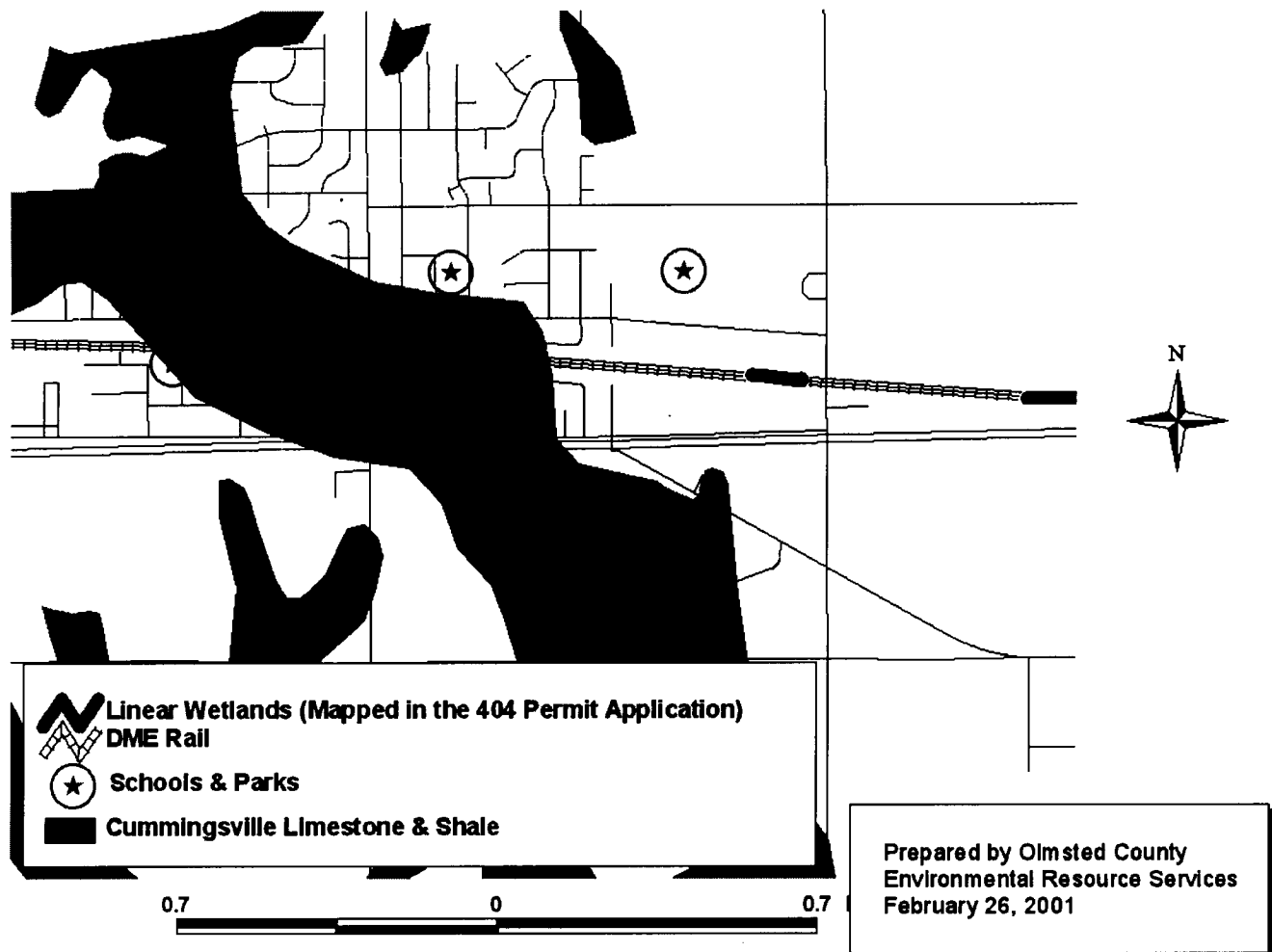


Source: Geology adapted from Geologic Atlas of Olmsted County, Minnesota, County Atlas Series Atlas C-3, Plate 2 of 9, Bedrock Geology, Minnesota Geological Survey, (Balaban, 1988).

Comment: Because areas of Olmsted and Winona Counties underlain by shale and siltstone appear to have a higher incidence of derailments and that groundwater contamination in these areas can be particularly disastrous, the FEIS should answer structural questions such as:

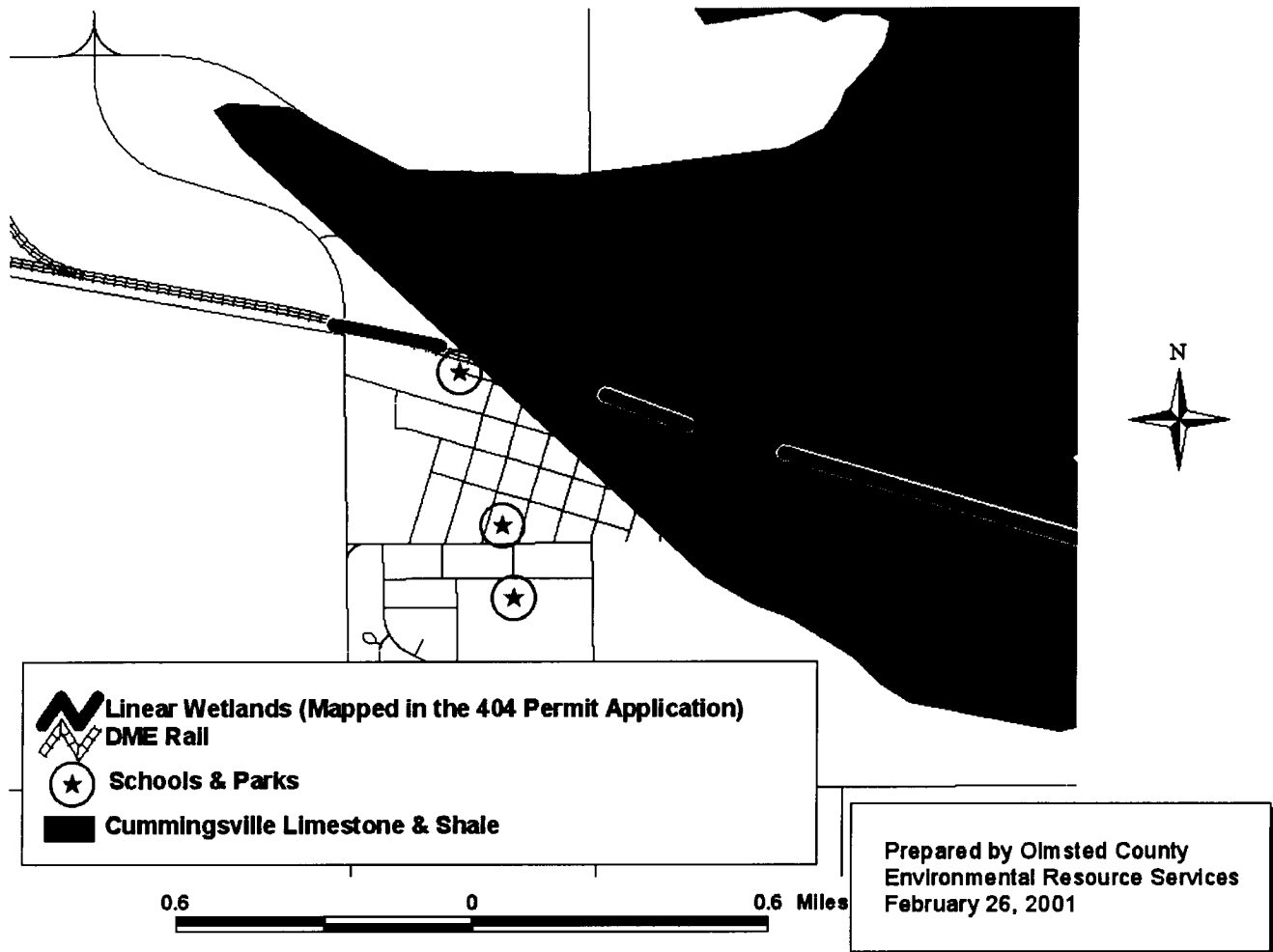
- 1) Is it possible that the reason that the DM&E has a higher than average incident of derailments may be as much related to the geology of their route as the quality of the rail infrastructure?
- 2) Are the DM&E's proposed engineering designs for track upgrades adequate for these hydrogeologic settings? The DEIS does not identify the Decorah Edge or the analogous hydrogeologic siltstone setting in Winona County as unique or problematic geologic formations. It also makes no mention of the shale-derived soils that lie down-gradient from these formations.
- 3) Are there feasible methods for reducing the structural instability in this setting, particularly for the heavier coal trains? The only engineering diagrams that were included in the DEIS that might apply to these settings are those provided for wetlands. Since there are numerous wetlands associated with these hydrogeologic settings (**Figure WR-10**), it might be assumed that these engineering diagrams would apply. However, the large volume of groundwater flow over the terminal edge of these shales and siltstones might present distinctively different structural engineering challenges.
- 4) Are there mitigative design measures that can be taken to contain chemicals that escape during derailments that occur in these settings – both liquid and gaseous? This question is particularly important regarding the groundwater recharge zones for Rochester, Byron, Dover, St. Charles, Utica and Stockton. These communities are or will soon be developing EPA required Wellhead Protection Area plans which identify water contribution areas and pollution reduction measures. This is also important in that local populations can be at risk to gases released during accidents and derailments. **Figures WR-11 and WR-12.**

Figure WR-11. Linear Wetlands, Area Where the Cummingsville is the First Encountered Bedrock, DM&E Rail Line, and the City of Byron's Schools, Parks and Churches.



Source: Geology adapted from Geologic Atlas of Olmsted County, Minnesota, County Atlas Series Atlas C-3, Plate 2 of 9, Bedrock Geology, Minnesota Geological Survey, (Balaban, 1988).

Figure WR-12. Linear Wetlands, Area Where the Cummingsville is the First Encountered Bedrock, DM&E Rail Line, and the City of Eyota's Schools, Parks and Churches.



Source: Geology adapted from Geologic Atlas of Olmsted County, Minnesota, County Atlas Series Atlas C-3, Plate 2 of 9, Bedrock Geology, Minnesota Geological Survey, (Balaban, 1988).

Section 3.2.7.3, pages 3.2-19 – Water Resources

Comment: The DEIS is very inadequate in the way that water resources are described and accidents handled. There is not a complete plan for handling of derailments or accidents. Need to address hazardous freight movement along with a response plan to deal with any release of contaminants.

Comment: The rebuild of the existing DM&E rail line in Minnesota “should” not result in significant impacts to groundwater aquifers or wells in the project area. The word ‘should’ should be replaced with ‘shall’. Given the geology and frequency of train derailments the DM&E

has experienced in the past, the emergency response plan is inadequate. The Emergency Response Plan should be included in the FEIS so that it can be evaluated.

Section 3.3.2.4.6, pages 3.2-55 – Water Resources

Comment: Under alternative R-3 & R-4/ Public lands would be impacted by a bypass. The fens located in Rock Dell Township have a watershed area that extends out 2 miles in each direction from the fen according to the Minnesota DNR.

Section 3.3.2.5.2 – Water Resources

Comment: The DEIS does not recognize that some of the most biologically diverse wetlands in Olmsted County occur in the Decorah-Edge hydrogeologic setting. These wetlands are sensitive to disruption from dewatering as a result of upgradient construction activities.

Comment: Alt. R-2: While acknowledging that “Alterations to drainage patterns...could change the amount of water available to adjacent wetlands potentially causing them to dry up”, the size area, and extent of reasonably connected wetlands (outside the right-of-way) is not assessed or disclosed. The extent of these impacts must be disclosed and analyzed, in the FEIS and the Corps of Engineers §404 Permit application.

Comment: Alt. R-3: Similarly, the FULL extent of “loss of wetlands that occur outside the proposed right-of-way” MUST be analyzed and disclosed before the FEIS is completed.

Section 3.3.7.2, pages 3.2-17-18 – Water Resources

Comment: “impacts to approximately 187.8 acres of wetlands (Table 3.1-8) within the right-of-way in Minnesota” does not address the “reasonably connected” impacts and effects of proposed actions on the entire wetlands contiguous to the right-of-way. NEPA requires assessment and disclosure of those reasonably connected effects, including changes in hydrology, vegetation, and human and wildlife uses across the entire contiguous wetland resultant from excavation, filling and re-alignment of water bodies, even under authority of a Corps of Engineers §404 Permit. Real and connected effects will impact much larger areas than 188 acres.

Table 5.1-6 – Water Resources

Comment: Impacts to and loss of contiguous wetlands, beyond those directly filled or in right-of-ways, are not assessed or disclosed.

Section 5.3 and Table 5.1-10 – Water Resources

Comment: Wetlands and water resources would also have long term environmental resource impacts in addition to vibration and noise receptors.

Comment: The column in Table 5.1-10 with unique Geological Formations represents Alternatives that have areas of Karst Geology underlying the proposed tracks. Under Alt. R-3 & R-4 additional impacts would be Wetlands, Sinkholes, Fens and Streams in addition to the Karst Geology.

Section ES 9.3.2, page ES-57 – Water Resources

Comment: Wetland “conversion” mentioned in conjunction with the main proposal and Alternatives is analyzed only by acres directly covered/lost/converted by proposed actions. This does not assess the “reasonably connected” impacts on entire contiguous wetlands, as required by NEPA. Acreage of wetlands detrimentally impacted is thus much larger than displayed here. Hydrology, vegetation and wildlife and human uses of affected wetlands change dramatically following alteration and filling of inlets/outlets, even under authority of a Corps of Engineers §404 Permit.

4. Geology and Soils

Surface Transportation Board DEIS Requirements – Geology and Soils:

- A. Describe the geology, soils, and mineral resources found within the project area for new rail line construction and along the existing rail line to be rebuilt, including unique or problematic geologic formations or soils, prime farmland soils, and recoverable mineral resources.**
- B. Describe measures employed to avoid or construct through unique or problematic geologic formations or soils.**
- C. Describe the impacts of new rail line and existing rail line rebuild construction activities on prime farmland soils.**
- D. Describe the potential impacts to mineral resources within the project area for new construction and along the existing rail line to be rebuilt.**
- E. Describe the potential general impacts to paleontological resources in the project area for new construction and along the existing rail line to be rebuilt due to new rail line construction and existing rail line rebuild activities, if necessary and required.**
- F. Propose mitigative measures to minimize or eliminate potential adverse project impacts to geology, soils, mineral resources, and paleontological resources, as appropriate.**

Note that the Water Resources comments in the preceding section contain a great many comments regarding geology and soils.

Comments: From a geological and ecological perspective there are four fundamental issues of environmental impact that should be addressed more thoroughly:

- The time scale of environmental impacts is not adequately disclosed. Some construction impacts are immediate and short lived; operational impacts may be short term to long term but will end when the rail service stops but construction of a new rail bed grade will have a permanent impact.
- The DEIS technical review of natural resources impact is perfunctory and superficial especially as related to geology, hydrology, wetlands and ecology. Brief treatment of these subjects affects the DEIS conclusions.
- The difficulty of predicting the outcome of environmental impacts in relation to hydrology (wetlands, surface water, groundwater) and ecology (wildlife, natural plant communities and invasive plants) is not discussed and no attempt is made to clearly define either the environmental impacts or the environmental risks.
- The environmental impact to humans can often be mitigated, however, the impact to natural landscapes and ecosystems are not as adaptable.

A brief discussion of these issues below:

The time scale of environmental impacts is not adequately disclosed:

Comment: Each environmental impact of the proposed upgrade will have a time scale that should be disclosed, discussed and understood in terms of environmental risk. Environmental planners and managers typically work to define risks as acute and immediate or chronic and long term in order to minimize risk or to manage the consequences. This perspective is missing in the DEIS. Consider, for example, the short scale of time and definable risk associated with the construction necessary to upgrading the existing 100 year old line or consider the short term issues and potential long term impact of hazardous material handling. If a construction accident or haz-mat spill occurs the impact is immediate and requires an immediate response, but, if the construction or a spill results in water pollution a different level of community response is required to deal with the long-range or permanent impacts. In order to evaluate the environmental impact the DEIS should more clearly define the time scale for the expected environmental impact.

It is interesting to note that the opening pages of Volume II Chapter 3 the DEIS report recognizes the permanence of environmental impacts related to the construction of a rail bed grade. The DEIS report states: *"When the existing DM&E rail line was constructed across Minnesota, alterations in the topography immediately adjacent to the rail line were necessary. Low areas and valleys were filled; hills and high points were cut -through in order to provide a rail bed grade suitable for train alterations. These cut and fill activities likely altered local drainage patterns, and in some cases streams may have been channelized or realigned to accommodate the rail line. Most of the changes took place over 100 years ago."* While there is recognition that the rail bed grade construction is a permanent impact there has been no effort in the DEIS to disclose the range of environmental impacts that are known to have occurred, nor is there any effort to predict or manage the expected environmental impacts of the project.

In the area east of Eyota in the headwaters of the Whitewater River, it can clearly be seen that the rail bed grade and highway altered the local drainage patterns and resulted in channelizing the stream. The impact on the flora and fauna and the change to the headwater hydrology of one of Minnesota's premier trout streams was immediate and irrevocable. Even though it has long been known that the upper reaches of the Whitewater will no longer support trout because of hydrologic disturbances there is no effort in the DEIS to disclose these permanent impacts nor is this historic knowledge and experience used to predict the environmental impact of new sidings or a new bypass. Similar issues related to the scale and permanence of environmental impacts are evident for each class of environmental impact ranging from the hydrogeology, air, transportation, health and safety or cultural resources and the Final Environmental Impact Statement should be required to disclose and evaluate the issues from the perspective of time so that decision makers have the ability to decide whether the project is reasonable or whether avoidance, mitigation or management will be required for environmental protection.

The DEIS technical review of natural resources impact is perfunctory and superficial.

Comment: The DEIS does not adequately describe the geologic setting in Olmsted County and therefore does not provide a basis for evaluating geologic or environmental risk and is especially deficient in describing the potential risk to water resources. It is important to note that the

Olmsted County Geologic Atlas (1988, Minnesota Geological Survey) and "Water Resources of the Zumbro River Watershed, Southeastern Minnesota (1975, US. Geological Survey) are two widely available published references that provide detailed descriptions of the geology and hydrology along the existing rail line and along the proposed bypass yet the available information was not used for the DEIS. It is also interesting to compare the DEIS to historic geologic evaluations performed for other railroads, for example, the 1873 "Report of a Geological Reconnaissance Along the Union Pacific Railroad" was published 128 years ago by the US Geological Survey and includes a geologic cross section and detailed descriptions of the soils, rocks and waters in the railroad right of way from St. Paul, MN to Seattle WA. This type of information is missing in the DEIS and in the "Information Age" the authors should have provided enough accurate geological information for the public to make informed comments and decisions related to the environmental impact of the proposed upgrade.

The most fundamental omission is the failure of the DEIS to identify the four important geologic terrain found in Olmsted County. These fundamentals are the key to understanding and managing environmental risk in our region.

The DEIS should include a more complete and descriptive analysis for Olmsted County that discusses the geological and environmental risk in the following geological terrains:

- Karst, the carbonate controlled uplands and slopes with a variety of features ranging from fractures and solution features like sinkholes and caves that provide a direct conduit to the groundwater to the massive hard rock that requires blasting to excavate;
- Bedrock controlled uplands and slopes where the rocks at the surface may range from dense shale to saturated clay or rapidly permeable sandstone. The shale on the Decorah Edge are unstable for rail bed construction and are areas known to have focused groundwater discharge that drain to the underlying permeable sands that are direct conduits to drinking water aquifers;
- Glacial controlled uplands and slopes where a wide variety of glacial materials have complex interbedded relationships and complex hydrologic interactions that influence wetlands and fens and form the headwaters of local rivers and streams;
- Fluvial terrains formed as sediments deposited by rivers and streams where floods and flashfloods routinely occur and where groundwater recharge and discharge is focused.

Another technical deficiency is the DM&E failure to use standardized methods to identify jurisdictional wetlands along the path of the upgrade alternatives. The railroad used an unapproved "pilot" method of identifying wetlands from published maps and air photos even though wetland regulations at the Federal and State level (US section 404 of the Clean Water Act and the Minnesota Wetland Conservation Act) mandate that wetland boundaries, types and values and functions be identified using the US Corps of Engineers 1987 Wetland Delineation Manual, the Cowardin "Classification of Wetlands and Deep Water habitats and the Minnesota Routine Assessment Methodology for Evaluating Wetland Functions. The minimal requirements were not met in the DEIS or in the 404 application. Because of this basic deficiency the public and wetland regulators are unable to verify or predict wetland impacts and are unable to evaluate whether any of the proposed alternatives will adversely impact ecosystems, water quality or groundwater interactions.

The difficulty of predicting the environmental impact of hydrological disturbances is not disclosed and no attempt is made to clearly define the impacts or the associated environmental risks.

Comment: While local decision makers and the public has gained a growing awareness and understanding the fundamentals of surface water and groundwater interactions geologic experts still do not have enough understanding of the local geologic terrain to evaluate the risks associated with massive land disturbance. It will require detailed mapping, soil borings and excavation observations to determine potential contaminate pathways along the upgrade or to determine whether a new excavation or construction dewatering would have minimal temporary impact on an isolated lense or would drain a continuous aquifer that affects a groundwater recharge area or sustains the hydrology in a fen. Even with the expanding interest in protecting wetlands, fens and the purity of our groundwater detailed geological and hydrological evaluations have not been presented in the detail necessary to understand the impact of massive grading projects or spills of hazardous materials. The DEIS does not provide any level of detail and therefore the public is not able to evaluate the environmental impact of the project.

Minnesota Statutes that protect calcareous fens are a prime example of the importance placed on understanding the hydrologic interactions that sustain these unique wetlands (MN rules 8420.1010 thru 8420.1070). Fens are peat-accumulating wetlands with distinct groundwater inflows and specific hydrophytic plant communities that are known to occur along the route of the Bypass alternative and in the headwaters of the Whitewater River between Eyota and Dover. Because fens cannot be drained, filled or otherwise altered without a management plan approved by the Commissioner of the DNR any grading project within a one to two mile radius of peat accumulating wetlands must conduct a hydrologic characterization and identify the complex stratigraphy sequences that sustain fen hydrology. While the rail bed upgrade would likely have little new impact on groundwater fed wetlands or fens any new sidings or a bypass will require detailed stratigraphy and hydrologic analysis to determine whether grading and construction will disturb or interrupt the hydrology.

The environmental impact to humans can often be mitigated, however, the impact to natural landscapes and ecosystems are not as adaptable.

Comment: The DEIS does not provide adequate information to evaluate impact to natural landscapes and natural ecosystems and while the public debate has focused on human impacts, most of these human impacts of traffic, noise or land use can be mitigated. Unfortunately the impact to ecosystems along the existing rail line or along a new bypass affects plant and animal communities that have no recourse for action or opportunity to seek mitigation. The DEIS should describe in detail the environmental impacts of habitat fragmentation and habitat loss.

SUMMARY

In summary from a geological, hydrological and ecological standard the DEIS does not provide the level of detail necessary to evaluate environmental impacts or environmental risk.

Section 3.2 – Geology and Soils

Comment: The DEIS should have utilized the readily available geology and hydrogeology information published by the US and Minnesota Geological Surveys.

Section 3.3.2.3.2, page 3.3-49 – Geology and Soils

Comment: The figure of 606 acres of prime farmland soils is probably too low. What is total area of prime farm land disturbed with the proposed route? What is the additional prime farm land disturbance when the Rochester Bypass proposal is added to this?

Section 3.2.5.3, page 3.2-4 – Geology and Soils

Comment: Unclear from EIS who oversees grading permits, erosion control, wetlands and environmentally sensitive land, before and after construction starts. Will this be a local, state or federal permit?

Section 3.3.2.5.2, page 3.3-59 – Geology and Soils

Comment: Fails to recognize that the existing track is also in a Karst geology area.

Section 5 and Tables 5.1-6 and 5.1-10 – Geology and Soils

Comment: While the DEIS does recognize that the karst geology of Southeastern Minnesota is susceptible to sinkhole formation there is no recognition that there are similar geologic conditions within the City of Rochester. Building contractors working in the city often encounter solution cavities and caverns during foundation excavations. Further evidence of these geologically unstable conditions was documented in studies of sinkholes that occurred in the City of Rochester both north and south of the DM&E rail line.

Comment: Table - Geological Hazards – considering the fragile nature of karst geology, the continuous surface disturbances associated with this geology, and the ease with which groundwater contamination is possible, “No impacts expected” must be an ERROR. The possibility of groundwater contamination is noted on the third page of the table.

Comment: Table - Unique Geologic Formations – considering the fragile nature of karst geology leading to significant ground shifts and the ease with which groundwater contamination is possible, “No impacts expected” must be an ERROR.

5. Air Quality

Surface Transportation Board DEIS Requirements – Air Quality

- A. Discuss the existing air quality in the project area for the new construction, along the existing rail line to be rebuilt, and those portions of the UP and CP rail systems within Goodview and Winona, Minnesota.**
- B. Evaluate rail air emissions on new rail line, the existing rail line to be rebuilt, and those portions of the UP and CP rail systems within Goodview and Winona, Minnesota that exceed the Board's environmental thresholds in 49 CFR 1105.7(e)(5)(I), in an air quality attainment or maintenance area as designated under the Clean Air Act. The threshold anticipated to apply to this project is eight trains per day on any segment of new rail line.**
- C. Evaluate rail air emissions on new rail line, the existing rail line to be rebuilt, and those portions of the UP and CP rail systems within Goodview and Winona, Minnesota, if a Class I or non-attainment area as designated under the Clean Air Act is affected. The threshold for Class I and non-attainment areas anticipated to apply to this project is 3 trains per day or more.**
- D. Evaluate the potential air quality impacts associated with the increased availability and utilization of Powder River Basin coal.**
- E. Discuss the net increase in emissions from increased railroad operations associated with the proposed operations over new rail line, the existing DM&E system and other rail systems as appropriate, including those portions of the UP and CP systems within Goodview and Winona, Minnesota.**
- F. Discuss the potential air emissions increases from vehicle delays at new and existing grade rail crossings where the rail crossing is projected to experience an increase in rail traffic over the threshold described above for attainment, maintenance, Class I, and non-attainment areas and that have an average daily vehicle traffic level of over 5,000. Emissions from vehicle delays at new and existing grade rail crossings and idling diesel engines and coal dust will be factored into the emissions estimates for the affected area, as appropriate.**
- G. Describe the potential air quality impacts of emissions from idling diesel locomotives and coal dust produced during train operation.**
- H. Describe the potential air quality impacts resulting during new rail line and existing rail line rebuild construction activities.**
- I. Propose mitigative measures to minimize or eliminate potential adverse project impacts to air quality, as appropriate.**

The following comments have been developed following a review of the Draft Environmental Impact Statement (DEIS) as prepared by the Surface Transportation Board for the Powder River Basin Expansion Project. The comments address air quality issues and concerns only, and are presented in summary order following the sequence of the documents. The quotations as noted are taken directly from the DEIS, with the reference location in the DEIS noted in parenthesis. The comments provided also include a reference where appropriate.

OBLIGATIONS OF STB

DEIS: "The Surface Transportation Board (STB) regulations require STB's Section of Environmental Analysis (SEA) to evaluate potential air quality impacts on both the new construction segments in Wyoming and South Dakota, as well as along the other portions of DM&E's rail system. SEA conducted a detailed analysis of potential air quality impacts along the existing DM&E rail line to be reconstructed in Minnesota." (Ref. 3.2-21)

Comment: The STB failed to conduct a detailed analysis of potential air quality impacts along the existing DM&E rail line to be re-constructed in Minnesota. The Air Quality analysis included in the Draft Environmental Impact Statement (DEIS) contains substantive errors, omissions and misleading conclusions, detailed in the attached comments, that preclude an accurate and informed decision on the part of the STB and cooperating agencies. Further, the absence of an accurate summary of cumulative impacts on the environment (Chapter 5) and the absence of mitigation measures with regard to current violations of federal National Ambient Air Quality Standards (NAAQS) (Chapter 7), which would be further exacerbated by this Project, constitute a prejudicial abuse of discretion on the part of the SEA and the STB, further evidenced by the footnote on page 7-2, to wit:

"In enacting the ICC Termination Act in 1995, Congress intended to facilitate rail line construction. Congress did so by changing the statutory standard from requiring approval, if the agency finds that a project is consistent with the public convenience and necessity, to requiring approval unless the agency finds that the project is inconsistent with the public convenience and necessity. The [Surface Transportation] Board noted that "[u]nder the revised statute, proposed rail constructions are to be given the benefit of the doubt."

Comment: This Project as proposed is inconsistent with the public convenience and necessity and therefore is not entitled to receive the "benefit of the doubt." This preface to the environmental analysis establishes a bias in favor of the Project proposer, DM&E Railroad Corporation, that precludes a meaningful analysis of the environmental impacts associated with the Project.

Comment: The air quality analysis contained in the DEIS is not consistent with the scope and magnitude of this Project. The STB up to this point has never had to evaluate such a large and complex project: "The Dakota, Minnesota & Eastern Railroad Corporation's (DM&E) proposal to construct new rail facilities into Wyoming's Powder River Basin is a complex project. It is the largest and most challenging construction proposal ever before the Board." (Ref. 6-1)

SCOPING DOCUMENT

DEIS: "The EIS will:

- A. Evaluate rail air emissions for existing rail lines that exceed the Board's environmental thresholds in 49 CFR 1105.7(e)(5)(I) *[sic]*, in an air quality attainment or maintenance area as designated under the Clean Air Act. The thresholds anticipated to apply to this project include:

- (1) A 100 percent increase in rail traffic on any segment of DM&E's existing system.
 - (2) An increase of eight trains per day on any segment of rail line affected by the proposed construction.
- B. Evaluate rail air emissions, if the proposed project affects a Class I or non-attainment area as designated under the Clean Air Act. Thresholds for Class I and non-attainment areas anticipated to apply to this project are as follows:
- (1) An increase in rail traffic of 50 percent or more or
 - (2) An increase of 3 trains per day or more.
- C. Discuss the net increase in emissions from increased railroad operations associated with the proposed operations over the existing DM&E system..."
(Ref. Appendix A, p25.)

Comment: The DEIS fails to establish its authority for the emission screening methodology, nor does it identify the source of the emission screening levels presented in Table 3.2-1, which are inconsistent with those emission screening levels shown in Appendix E. (Ref. Appendix E.1.1)

Comment: The DEIS failed to adequately evaluate rail air emissions for existing rail lines as required by the Scoping Document. The DEIS acknowledges the federal nonattainment status of Olmsted County for SO₂ but failed to evaluate this condition, as obligated, through an impact analysis, air dispersion modeling, evaluation, and mitigation methods. The DEIS is deficient in its analysis of threshold excursions for NO_x in all counties in Minnesota by failing to provide air dispersion analyses for determination of compliance with NAAQS.

CLEAN AIR ACT OF 1990

DEIS: "SEA compared the results of its [air quality] analysis to the Environmental Protection Agency's (EPA's) major source thresholds for stationary sources. This use of threshold screening is consistent with previous SEA studies. EPA's major source thresholds for stationary sources provide the emissions level for each criteria pollutant at which a stationary source of that pollutant would be required to apply for a major construction or operating permit. No thresholds are currently established for mobile emission sources, such as locomotives."

Comment: By subjecting the Project to environmental analyses consistent with that required for stationary emission sources, the STB also subjects the Project to regulatory review and comment under the provisions of the Clean Air Act of 1990 and Federal Part 70 permit requirements. To subject the Project to environmental analyses consistent with that required for stationary emission sources, and then to fail to conduct adequate air dispersion modeling and health risk assessment, is to disregard real and calculated environmental consequences of the Project to the detriment of public health and welfare. The threat to the public health and welfare by the Project has been demonstrated in the DEIS Air Quality analysis, in particular in Olmsted County, Minnesota where NO_x emissions are expected to exceed State and Federal Permitting Thresholds by a factor of 6.5, and where SO₂ emissions will exceed not only State Permitting Thresholds but contribute to a continuing exceedance of NAAQS in a county that is classified by EPA as nonattainment for SO₂.

Comment: The DEIS fails to acknowledge that Minnesota has a federally-approved State Implementation Plan (SIP) which contains air quality permit thresholds more stringent than federal requirements, as shown in the following Table AQ-1.

Table AQ-1
Comparison of Clean Air Act Thresholds
(MPCA and USEPA) to
Proposed DM&E Emissions (tons/year)

Pollutant	Permit Thresholds ¹		DM&E Coal Transport ²		
	MPCA	USEPA	20 MNT	50 MNT	100 MNT
CO	100	100	30	66	126 †
NO _x	100	100	155 †	345 †	659 †
SO ₂	50	100	19	41	79 ‡
PM	100	100	NR	NR	NR
PM ₁₀	25	100	7	17	32 ‡
Lead	0.5	10	0.001	0.001	0.001
VOC/HC	100	100	11	24	46
Combined HAPS*	25	25	NR	NR	NR
Single HAP	10	10	NR	NR	NR

¹: Source – MPCA Air Quality Rules

†: Exceeds Federal and Minnesota Threshold

²: Source – DEIS Tables 3.2-2, 3.2-3, 3.2-4

‡: Exceeds Minnesota Threshold

NR: Not Reported

*: HAP: Hazardous Air Pollutant

Note: DM&E emissions estimates were reported to be based on future operational conditions (e.g., Tier 1 locomotives and diesel fuel with sulfur content less than or equal to 26 ppm). Emissions using existing locomotives and fuel were not provided and may be higher.

Comment: The DEIS fails to compare the proposed DM&E emissions to established state and federal permit thresholds to allow the reader to clearly understand the magnitude of the expected exceedances.

Comment: Given that portions of Olmsted County are nonattainment for SO₂, with a Minnesota threshold of 50 tons/year, the Final EIS must identify the maximum number of trains that will be allowed to pass through Olmsted County so as to not exceed the SO₂ threshold. Furthermore, the operational makeup of the “train” must be defined (i.e., locomotive Tier level, number of locomotives, fuel sulfur content, maximum payload capacity, unit train velocity, etc.), along with the consequences to DM&E for exceeding any allowable thresholds.

CHAPTER 3 – MINNESOTA

3.1.6 – Air Quality

DEIS: “The Clean Air Act, which was last amended in 1990, requires the Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment.” “[T]he EPA Office of Air Quality Planning and Standards (OAQPS) has set NAAQS for six principal pollutants, which are called ‘criteria pollutants.’”

They include: sulfur dioxide (SO₂), carbon monoxide (CO), ozone (O₃), nitrogen dioxide (NO₂), lead (Pb), and particulate matter (PM). Attainment status was determined for the project area based on the above pollutants. Attainment refers to the concentrations of criteria pollutants in the area being present at or below levels established by the EPA for the protection of air quality. One county in the project area, Olmsted County, is partially non-attainment for sulfur dioxide. That is, sulfur dioxide is found to be above the levels set by the U.S. EPA for the protection of human health and welfare.”

Comment: Minnesota’s New Source Review (NSR) Program for Nonattainment Areas, or “Offset” rule, became federally enforceable on May 31, 1994. The rule is found at Minn. R. Ch. 7007.4000-4030. The Offset rule applies to new major sources or major modifications in nonattainment areas (for the pollutant that the area is designated nonattainment), or new major sources or major modifications that would contribute to a violation of the NAAQS in a nonattainment area. In general, new sources wanting to locate in a nonattainment area must go through nonattainment NSR if they have the potential to emit 100 tons/year (tpy) or more of the criteria pollutant for which the area is designated nonattainment. If a facility already located in a nonattainment area (e.g., Olmsted County) wants to do a modification, that facility must go through the nonattainment NSR process if the change would result in a net emission increase in the following amounts as shown on the following Table AQ-2.

**Table AQ-2
Minnesota Nonattainment NSR Thresholds**

<u>Pollutant</u>	<u>Minnesota Allowable Net Emission Increase (tons/year)¹</u>	<u>Proposed DM&E Emission Increase in Olmsted County (tons/year at 100 MNT)²</u>
CO	100	126‡
SO ₂ *	40	79‡
PM ₁₀	25	32‡
Lead	0.6	0.001
Ozone	40 (as VOCs)	46‡
NO _x	40	659‡

¹: Source – MPCA Air Quality Rules

‡: Exceeds Minnesota Nonattainment NSR Threshold

²: Source – DEIS Table 3.2-4*Portions of Olmsted County are nonattainment for SO₂

Comment: Table 3.2-3, “Comparison of Emission Increases in Minnesota to EPA thresholds for the 50 million net tons/year” indicates that SO₂ emissions in Olmsted County are expected to increase by an additional 41 tpy (Ref. 3.2-25), thus contributing to a continued violation of the NAAQS in a nonattainment area.

Comment: Table 3.2-4, “Comparison of Emission Increases in Minnesota to EPA thresholds for the 100 million net tons/year” indicates that SO₂ emissions in Olmsted County are expected to increase by an additional 79 tpy (Ref. 3.2-25), thus contributing to a continued violation of the NAAQS in a nonattainment area and exceeding the State Permit Threshold of 50 tpy of SO₂, for which an MPCA Air Quality Permit would be required.

3.2.8 - Air Quality

DEIS: "SEA performed a system-wide air quality analysis to analyze the potential impacts of the proposed project on air quality resulting from the overall increase in emissions (in tons/year) for sulfur dioxide (SO₂), hydrocarbons (HC) [see relevant footnote re: VOCs], particulate matter (PM), nitrogen oxides (NO_x), carbon monoxide (CO), and lead (Pb)." (Ref. 3.2-22)

Comment: The DEIS applies stationary source thresholds for the criteria pollutant impact evaluation but fails to include any reference to or discussion of Hazardous Air Pollutants (HAPs). Given this approach, the DEIS must also include analysis and impact evaluation for Hazardous Air Pollutants (HAPs). (Ref. 40 CFR §61) The DEIS contains no analysis for HAPs as required by Title III of the Clean Air Act.

DEIS: "SEA compared the results of its analysis to the Environmental Protection Agency's (EPA's) major source thresholds for stationary sources. This use of threshold screening is consistent with previous SEA studies. EPA's major source thresholds for stationary sources provide the emissions level for each criteria pollutant at which a stationary source of that pollutant would be required to apply for a major construction or operating permit. No thresholds are currently established for mobile emission sources, such as locomotives." (Ref. 3.2-22)

Comment: EPA has established permitting thresholds for HAPs. (Ref. 40 CFR §61) The DEIS contains no analysis for HAPs as required by Title III of the Clean Air Act.

DEIS: "...[N]o thresholds are currently established for mobile emissions sources, such as locomotives. Therefore, SEA used the EPA threshold for stationary sources as a reference. If the projected county-wide emissions levels exceed the air quality screening levels shown in Table 3.2-1, then SEA performed a more detailed air dispersion modeling." (Ref. 3.2-22)

Comment: The air quality screening levels shown in Table 3.2-1 reflect Federal Permit Thresholds. The Minnesota Pollution Control Agency has established State Permit Thresholds that are less than Federal Permit Thresholds for sulfur dioxide (SO₂), Fine Particulate Matter (PM₁₀), and lead (Pb). In addition, both the Federal Permit Thresholds and State Permit Thresholds establish criteria for Combined HAPs and Single HAPs. (Ref. MPCA Air Quality Permit Rules)

Comment: SEA conducted detailed air dispersion modeling only on the new construction proposed in Wyoming and South Dakota even though the projected county-wide emission levels exceeded both the State of Minnesota and Federal Permit Thresholds for nitrogen oxides (NO_x), sulfur dioxide (SO₂), CO and PM₁₀ in Olmsted County (See Table AQ-1). SEA must conduct air dispersion modeling in Olmsted County including, at a minimum, the following parameters:

- Background (i.e., preconstruction monitoring) ambient concentrations of criteria pollutants and HAPs
- Model inputs specific to Rochester and Olmsted County topography (e.g., canyon effects in downtown Rochester)
- Climate conditions, including wind speed and direction
- Appropriately characterized population for our unique demographics (e.g., medically impaired, elderly, and children)

- Multiple operational scenarios
- Modeled parameters, including but not limited to criteria pollutants; HAPs, including mercury; known diesel locomotive emission constituents and diesel particulate matter (DPM); and fugitive coal dust

Comment: Tables 3.2-2, 3.2-3, and 3.2-4, "Comparison of Emission Increases in Minnesota to EPA Thresholds," includes reference to EPA Federal Permit Thresholds only. (Ref. 3.2-24, 3.2-25) The MPCA has established, through its State Implementation Plan approved by EPA, State Permit Thresholds that are more stringent than Federal Permit Thresholds for sulfur dioxide (SO₂), Fine Particulate Matter (PM₁₀), and lead (Pb). (Ref. MPCA Air Quality Permit Rules)

DEIS: "For the 20 and 50 million ton per year options, SEA predicted that only NO_x emissions would exceed the major source thresholds in several counties." (Ref. 3.2-26)

Comment: Emission increases for the 50 million ton per year option would exceed the Federal and State Permit Threshold for NO_x of 100 tons/year in all ten affected counties in Minnesota. Emission increases for the 50 million ton per year option would also exceed the State Permit Threshold for SO₂ of 50 tons/year in Blue Earth and Brown County. (Ref. MPCA Air Quality Permit Rules)

DEIS: "For the 100 million ton per year option, SEA predicted NO_x, CO, and SO₂ emissions would exceed the major source thresholds in several counties." (Ref. 3.2-26)

Comment: Emission increases for the 100 million ton per year option would exceed the Federal and State Permit Threshold for NO_x of 100 tons/year in all ten affected counties in Minnesota; would exceed the Federal and State Permit Threshold for CO of 100 tons/year in Winona, Olmsted, Blue Earth, Brown and Lyon Counties; would exceed the State Permit Threshold for PM₁₀ of 25 tons/year in Winona, Olmsted, Blue Earth, Brown, and Lyon Counties; would exceed the Federal Permit Threshold for SO₂ of 100 tons/year in Brown County; and would exceed the State Permit Threshold for SO₂ of 50 tons/year in Winona, Olmsted, Waseca, Blue Earth, Brown, Redwood, Lyon and Lincoln Counties. (Ref. MPCA Air Quality Permit Rules)

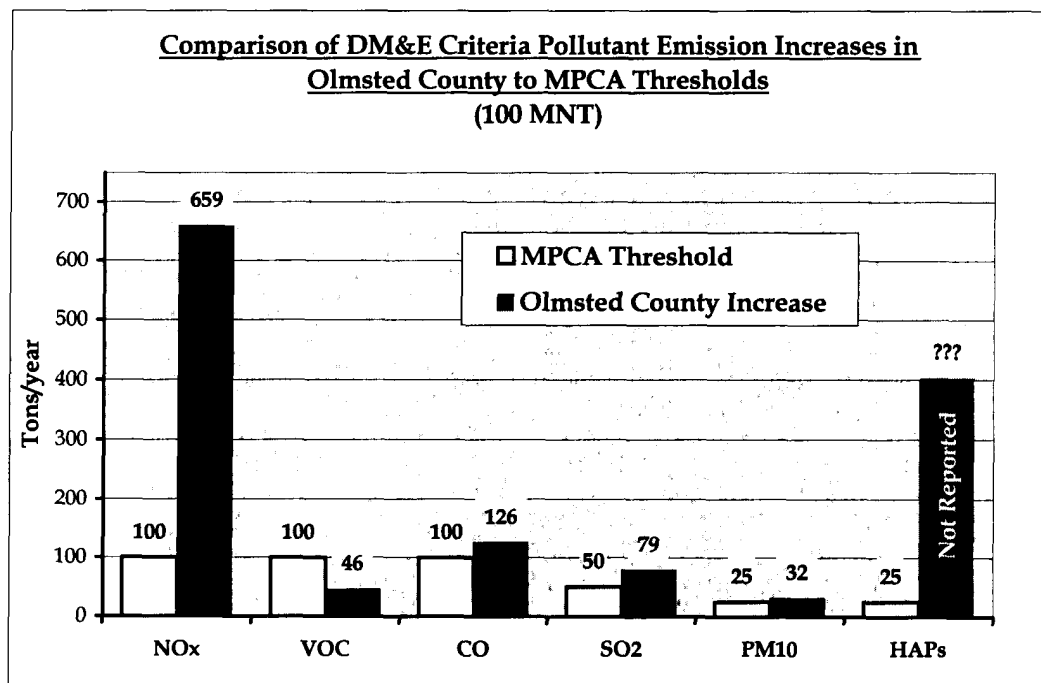
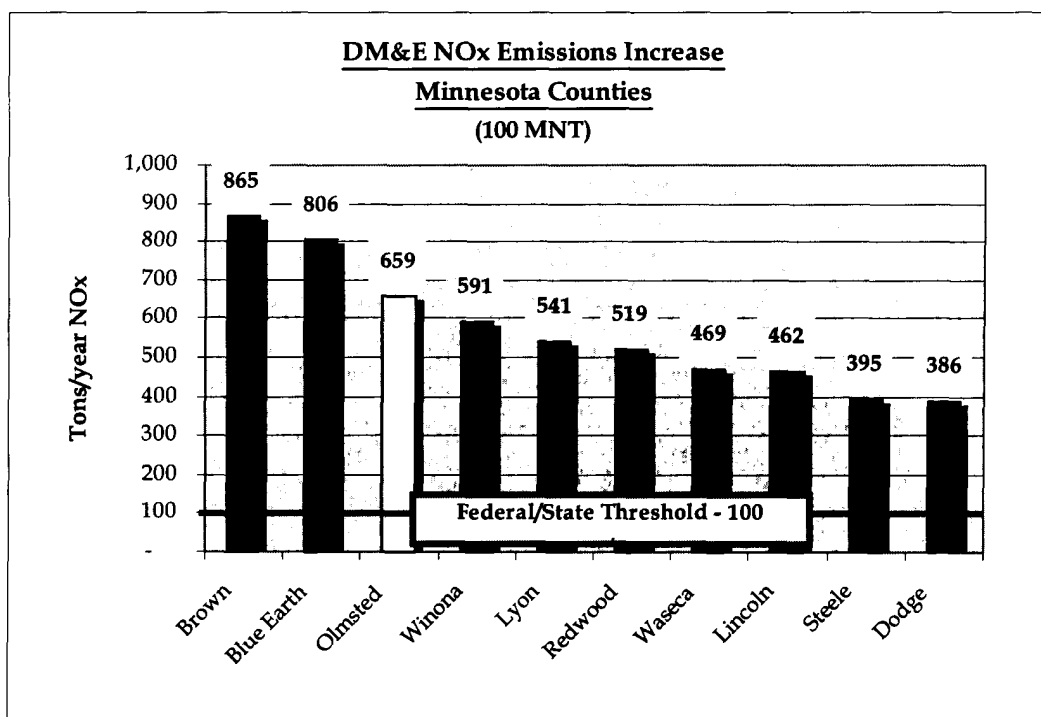
Comment: Portions of Olmsted County, Minnesota are classified as nonattainment for SO₂ by the EPA. (Ref. MPCA)

Comment: Given that NO_x emissions would exceed both State and Federal Permit Thresholds of 100 tons/year in Minnesota for each scenario envisioned, the Project must submit to review under the Prevention of Significant Deterioration (PSD) provisions of the New Source Review (NSR) program. (Ref. 40 CFR §52)

DEIS: "...[T]herefore, the results of the CALPUFF air dispersion modeling were reviewed to determine if the impacts from the increase in rail traffic would be expected to exceed the National Ambient Air Quality Standards (NAAQS) or Prevention of Significant Deterioration (PSD) increments." (Ref. 3.2-26)

Comment: PSD review is part of the New Source Review (NSR) program under 40 CFR §52. The NSR program was designed to ensure that new facilities would not threaten air quality and still allow for economic growth. PSD review applies to all major facilities located in attainment areas. Areas in Olmsted County located in the nonattainment area would be subject to NSR

Figure AQ-1. DM&E NOx Emissions Increase in Minnesota Counties.



under 40 CFR §52. The addition of such a significant increase in SO₂ emissions in Olmsted County would threaten economic growth in the area by preempting other new NO_x-emitting industries with greater local benefit from locating here. Furthermore, the contribution of DM&E emissions may delay indefinitely the County's compliance with NAAQS and its redesignation as an attainment area.

Comment: In all three scenarios evaluated (20, 50, and 100 million net tons/year) the increase in emission of NO_x attributable to the Project exceeds the State and Federal Permit Thresholds of 100 tons/year. In Olmsted County, as an example, under the 100 million net ton/year scenario, NO_x emissions are estimated to be 659 tons/year, versus a State and Federal Permit Threshold of 100 tons/year. According to Appendix E (Ref. E.1.6 – Criteria of Significance) only those counties in the vicinity of the Powder River Basin were subjected to the CALPUFF dispersion modeling analysis.

Comment: The DEIS is misleading as it informs the reader that detailed air dispersion modeling and analysis was conducted in the counties where emission levels exceeded the air quality screening levels shown in Table 3.2-1. In fact, the only air dispersion modeling that was performed was in northeastern Wyoming and southwestern South Dakota even though criteria pollutant emission increases for the 100 million ton per year option would exceed the Federal and State Permit Threshold for NO_x of 100 tons/year in all ten affected counties in Minnesota; would exceed the Federal and State Permit Threshold for CO of 100 tons/year in Winona, Olmsted, Blue Earth, Brown and Lyon Counties; would exceed the State Permit Threshold for PM₁₀ of 25 tons/year in Winona, Olmsted, Blue Earth, Brown, and Lyon Counties; would exceed the Federal Permit Threshold for SO₂ of 100 tons/year in Brown County; and would exceed the State Permit Threshold for SO₂ of 50 tons/year in Winona, Olmsted, Waseca, Blue Earth, Brown, Redwood, Lyon and Lincoln Counties. It appears from the record that the MPCA was never invited to participate in the air quality-related discussions, nor was the MPCA provided the opportunity to review and comment on the air dispersion modeling protocol. (Ref. Appendix E, Draft Technical Support Document, p. 1-1)

DEIS: "The NAAQS are an air quality standard established by EPA for the protection of human health and welfare. They provide the maximum allowable concentrations for a pollutant in a particular county, and take into consideration emissions inside and outside the county that could affect the county. The NAAQS for the various pollutants are:

- NO_x: 100 micrograms/cubic meter (annual average),
 - CO: 40,000 micrograms/cubic meter (1 hour average),
 - CO: 10,000 micrograms/cubic meter (8 hour average),
 - SO₂: 80 micrograms/cubic meter (annual average),
 - SO₂: 365 micrograms/cubic meter (24 hour average),
 - SO₂: 1,300 micrograms/cubic meter (3 hour average – secondary standard),
 - PM₁₀: 50 micrograms/cubic meter (annual average),
 - PM₁₀: 150 micrograms/cubic meter (24 hour average)"
- (Ref. 3.2-26)

DEIS: "PSD increments are established by EPA. PSD standards have been established which serve to keep areas which have very good air quality from being degraded to NAAQS by allowing only certain increments (increases) above existing background air quality conditions. PSD allowable increments are not the same for all areas of the country. For purposes of allowable increases, areas of the country have been designated as either Class I or Class II." [All affected Minnesota counties are considered Class II] (Ref. 3.2-27)

DEIS: "Class II increments have been identified for NO_x, SO₂, and PM₁₀ and are:

- NO_x: 25 micrograms/cubic meter (annual average),
 - SO₂: 20 micrograms/cubic meter (annual average),
 - SO₂: 91 micrograms/cubic meter (24 hour average),
 - SO₂: 512 micrograms/cubic meter (3 hour average),
 - PM₁₀: 17 micrograms/cubic meter (annual average),
 - PM₁₀: 30 micrograms/cubic meter (24 hour average)"
- (Ref. 3.2-27)

Comment: The DEIS does not include the background ambient air quality conditions for any county in Minnesota to which the Class II PSD increments would be applied to determine compliance with the NAAQS, nor does the DEIS provide the projected pollutant-specific incremental increases in ambient air quality concentrations attributable to the Project from which a determination can be made with regard to compliance with the Class II PSD increments shown above.

Comment: The DEIS does not allow for the determination of PSD increment consumption in Minnesota for pollutants that exceed permit thresholds (e.g., NO_x) from which to measure compliance with Class II PSD increment limitations, to determine the human health impacts associated with the incremental increase in ambient concentrations of pollutants, and to determine the remaining allowable increments required for economic growth in the affected areas.

DEIS: "The emission rates for Tier 1 (built in years 2002-2004) line haul locomotives..." [were used in this evaluation.] (Ref. Appendix E.1.4)

Comment: This use of Tier 1 locomotive emission rates is misleading unless the STB clearly requires DM&E to use only Tier 1 locomotives during operations. If this use of Tier 1 locomotives will not be required then an evaluation of emission factors from Tier 0 locomotives is necessary to adequately evaluate the air quality impacts.

Comment: The model or method used to calculate the idling vehicle emissions component underestimates the emission levels of the Project.

DEIS: "The emission estimates for NO_x will be split into NO and NO₂ assuming 90% of the NO_x emission are associated with NO while the remaining 10% are associated with NO₂ emissions." (Ref. Appendix E, Draft Technical Support Document, p. 3-5)

Comment: The DEIS provides no reference for the assumption that only 10% of the NO_x

emissions are NO₂. The relationship between NO_x, NO and NO₂ is a non-linear relationship. Current research suggests that the NO_x:NO₂ relationship is on the order of 5:2 rather than 10:1 as assumed in the DEIS. (Ref. National Environment Technology Centre, on behalf of the UK Department of the Environment) In that case, the DEIS would have underestimated the impact of NO_x emissions by a factor of 4. As stated previously, air dispersion modeling was not included for any location in Minnesota thus there can be no evaluation regarding the impact on NO_x emissions in Minnesota, nor any means with which to measure compliance with applicable Class II PSD increment limitations.

Comment: The DEIS is deficient given the absence of evaluation of health impacts from NO_x and its contribution to increased levels of ground-level ozone. Ground-level ozone, the main harmful ingredient in smog, is produced in complex chemical reactions when its precursors, VOC and NO_x, react in the presence of sunlight. The chemical reactions that create ozone take place while the pollutants are being blown through the air by the wind, which means that ozone can be more severe many miles away from the source of emissions than it is at the source.

At ground level, ozone can cause a variety of ill effects to human health, crops and trees. Specifically, ground-level ozone induces the following health effects:

- Decreased lung function, primarily in children active outdoors
- Increased respiratory symptoms, particularly in highly sensitive individuals
- Hospital admissions and emergency room visits for respiratory causes, among children and adults with pre-existing respiratory disease such as asthma
- Inflammation of the lung
- Possible long-term damage to the lungs.

(Ref. U.S. EPA, "Nitrogen Oxides: Impacts on Public Health and the Environment," EPA-452/R-97-002, August 1997)

Comment: The DEIS is also seriously deficient given the absence of evaluation of health impacts from diesel exhaust, which is a complex mixture of hundreds of constituents in either a gas or particle phase. Among the gaseous components of diesel exhaust that have a toxicologic significance are the aldehydes (e.g., formaldehyde, acetaldehyde, acrolein), benzene, 1,3-butadiene, and polycyclic aromatic hydrocarbons (PAHs) and nitro-PAHs. The particles present in diesel exhaust are composed of elemental carbon, adsorbed organic compounds, and small amounts of sulfate, nitrate, metals, and other trace elements. These particles are highly respirable and are excellent carriers for adsorbed inorganic and organic compounds. The most toxicologically significant compounds that are adsorbed onto the particles include PAHs, nitro-PAHs, and oxidized PAH derivatives. Many of the organic compounds present on the particles and in the gases are known to have mutagenic and carcinogenic properties. (Ref. EPA Health Assessment Document for Diesel Exhaust, EPA/600/8-90/057E, July 2000, SAB Review Draft)

Comment: In response to increasing concerns with regard to NO_x emissions, the USEPA has promulgated emission standards and associated regulatory requirements for the control of emissions from locomotives and locomotive engines as required by the Clean Air Act section 213(a)(5). The primary focus of this rule is the reduction of emissions of oxides of nitrogen (NO_x). The standards took effect in 2000.

Comment: Earlier comments in this document emphasized the absence of HAPs analyses with regard to emission threshold screening and conformance to Minnesota's SIP. The continued absence of discussion with regard to HAPs and its control from mobile sources further illustrates the failure of the DEIS to adequately characterize the emissions and their related health effects.

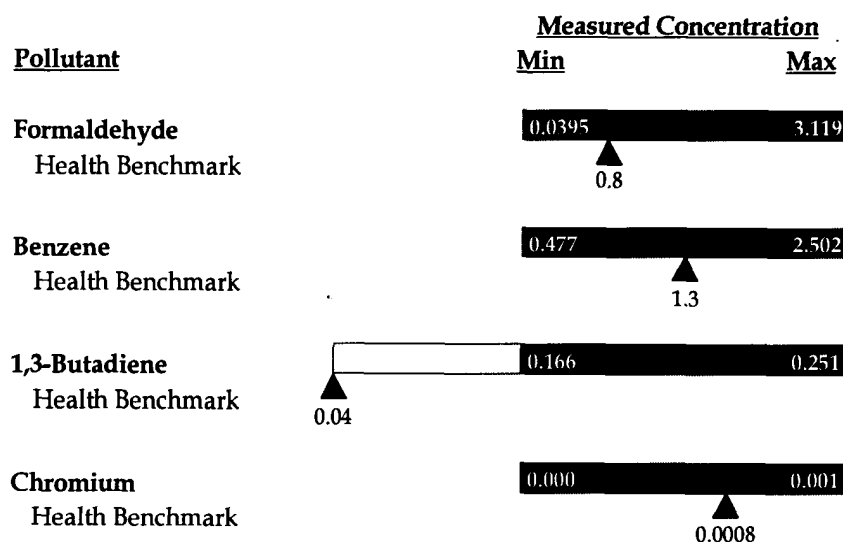
Comment: NO_x is a precursor to the formation of ground-level ozone, which causes health problems such as damage to lung tissue, reduction of lung function, and sensitization of lungs to other irritants, as well as damage to terrestrial and aquatic ecosystems. (Ref. 40 CFR §85, §89, and §92)

Comment: On December 20, 2000 the USEPA Administrator signed the Final Rule to Control Emissions of Hazardous Air Pollutants from Mobile Sources. This federal rule regulates Hazardous Air Pollutants (HAPs) from locomotives as well as numerous other mobile sources. These regulations apply to both new and existing mobile sources. This document was noticed in the Federal Register on August 4, 2000. This document is not referenced in the DEIS.

Comment: The Minnesota Pollution Control Agency (MPCA), in March 2000, published Air Toxics Guidance Documents in support of their authority to require an Air Toxics Review (ATR). The MPCA may require that a project proposer conduct an ATR. The MPCA has discretion to require that a project proposer conduct an ATR if, in addition to other circumstances, an air emission source (whether stationary, area or mobile) is the cause of significant number of complaints, or is suspected of being an emitter of toxic substances that potentially represents a significant public health risk or environmental risk. This document is not referenced in the DEIS. The following table illustrates that the existing background concentration of pollutants of concern has already exceeded acceptable health benchmarks prior to the contribution of HAPs by DM&E.

Figure AQ-2

**Measured Concentration vs. Health Benchmarks
in Rochester (ug/m3)**



Source: USEPA Cumulative Exposure Project

Comment: Further, in July 2000, the USEPA issued a peer-reviewed draft of its Health Assessment Document for Diesel Exhaust. This revised draft assessment of the possible health hazards from human exposure to diesel exhaust emissions updates three earlier drafts (1999, 1998 and 1994) that were reviewed by the Clean Air Scientific Advisory Committee (CASAC) of the Agency's Science Advisory Board (SAB). The current draft assessment characterizes the possible human health hazards and related exposure-response aspects of those hazards related to environmental exposure to diesel exhaust. This document is not referenced in the DEIS.

Comment: Mercury emission reduction is a high priority in Minnesota. The DEIS does not quantify expected mercury emissions from this Project and this omission must be rectified.

Comment: The DM&E expansion project as planned would reconstruct the existing railroad line through Rochester and pass in close proximity to persons in such high population density facilities as Charter House, Federal Medical Center, Olmsted Community Hospital, Rochester Methodist Hospital, Mayo Clinic, Park Towers, Fontaine Towers, and St. Mary's Hospital in which a higher than normal population exists whose immune and/or respiratory systems have been otherwise compromised due to other factors. Additionally, several schools are within the vicinity of the Project that would be adversely impacted. Given that NO_x, as well as a high proportion of the MPCA-regulated air toxics compounds of concern are known to cause health problems such as damage to lung tissue, reduction of lung function, and sensitization of lungs to other irritants, an Air Toxics Review program must be conducted and included as part of the Final EIS (FEIS) to adequately assess these health risks.

Source data for the Air Toxics review must be derived from air dispersion modeling conducted specifically for Minnesota conditions and affected populations. All of these data must be integrated into a comprehensive Health Risk Assessment that identifies reasonable and worst case scenarios. This Health Risk Assessment must be consistent with state and federal health risk assessment guidelines, and be included in the Final EIS in order for the STB to make an informed decision.

Comment: Following is a summary Table AQ-3 listing NO_x emissions, by Minnesota County, attributable to the DM&E project, as published in the DEIS. The table also contains a listing of selected Olmsted County facilities that emit NO_x, and a listing of selected Minnesota facilities that emit NO_x, as a means of relevant comparison to the emissions predicted for the DM&E. The DEIS predicts that 659 tons/year of NO_x will be emitted in Olmsted County. Statewide, DM&E's estimated emissions of NO_x - 5,693 tons/year - would be 33% greater than the total NO_x emissions from Koch Refinery at Pine Bend.

CHAPTER 5 – CUMULATIVE IMPACTS

5.3 – Summary of Cumulative Impacts

DEIS: “The only environmental resource in Minnesota that SEA has determined would experience Significant Long-term Adverse impacts would be noise sensitive and vibration receptors.” (Ref. 5-13)

Comment: Given the above comments regarding air quality impacts in Minnesota, the above statement from the SEA constitutes a prejudicial abuse of discretion.

CHAPTER 7 – SEA’S PROPOSED ENVIRONMENTAL MITIGATION

7.0 – Introduction

DEIS: “The potential environmental effects SEA identified, both beneficial and adverse, could be substantial.” “...the dramatic increase in the number of trains operating on the existing system (from approximately 3 trains a day to 37) – and the impact caused by construction and operation of a lengthy new rail line through generally pristine areas – would have significant environmental consequences, some of which, such as noise, would be difficult to mitigate.” (Ref. 7-1)

Comment: There would exist significant environmental consequences as a result of the predicted continued violation of NAAQS in nonattainment areas of Minnesota in addition to significant environmental consequences as a result of exceedances of both Federal and State Permit Thresholds for criteria pollutants including HAPs. No mitigation measures for these consequences are included in the DEIS.

Table AQ-3
Comparison of Existing NO_x Emissions in Minnesota
to Anticipated DM&E NO_x Emissions

<u>Minnesota County</u>	<u>Projected NO_x Increase,</u> <u>DM&E (100 MNT)</u>
Winona	591 tons/year
Olmsted	659 tons/year
Dodge	386 tons/year
Steele	395 tons/year
Waseca	469 tons/year
Blue Earth	806 tons/year
Brown	865 tons/year
Redwood	519 tons/year
Lyon	541 tons/year
Lincoln	462 tons/year
Total NO _x increase by DM&E in MN	5,693 tons/year
<i>Source: PRBE Project DEIS, Table 3.2-4</i>	

<u>Olmsted County</u>	<u>NO_x Emission Level,</u> <u>1998 (tons/year)</u>	<u>DM&E vs. Selected</u> <u>Olmsted County</u> <u>Facility NO_x Emissions</u>
IBM – Rochester	38 tons/year	1722%
St. Mary's Hospital	54 tons/year	1213%
Olmsted Waste-To-Energy Facility	110 tons/year	597%
Franklin Heating Station	199 tons/year	332%
DM&E Railroad	659* tons/year	–
Rochester Public Utilities - Silver Lake	938 tons/year	70%
<i>* Predicted by DEIS</i>		
<i>Source: MPCA</i>		

<u>State of Minnesota</u>	<u>NO_x Emission Level,</u> <u>1998 (tons/year)</u>	<u>DM&E vs. Selected</u> <u>Minnesota Facility NO_x</u> <u>Emissions</u>
Northshore Mining Co. – Silver Bay	2,976 tons/year	191%
National Steel Pellet Co.	3,637 tons/year	157%
EVTAC Mining Plant	4,055 tons/year	140%
Koch Petroleum Group – Pine Bend	4,275 tons/year	133%
DM&E Railroad	5,693* tons/year	–
NSP – High Bridge	6,157 tons/year	92%
NSP – Black Dog	7,396 tons/year	77%
Hibbing Taconite	8,204 tons/year	69%
Minnesota Power – Boswell Energy	13,283 tons/year	43%
NSP – Riverside	15,461 tons/year	37%
<i>* Predicted by DEIS</i>		
<i>Source: MPCA</i>		

7.8.6 – Air Quality

Comment: This mitigation section contains no mention of, or mitigation measures related to, compliance with NAAQS nor any mention of, or mitigation measures related to, achieving compliance with anticipated exceedances of both Federal and State Permit Thresholds for criteria pollutants and for HAPs.

SUMMARY

The comments and requests for additional information, study, evaluation and impact analyses are justified given the environmental standards already in place in Minnesota, to which other industries must adhere. It is a reasonable request that the health impacts associated with this Project be thoroughly evaluated and communicated to the affected public prior to approval by the STB.

Section 3.2.8, pages 3.2-19-29 – Air Quality

Comment: Is the standard set out in this Section regarding Class attainable with this proposal in Olmsted County & Rochester in particular? The STB should mandate all new locomotives meet the newest EPA emission requirements along with mandating these locomotives use as much renewable fuel as possible (Soy Diesel) to reduce emissions, in an attempt to attain the Class 1 air shed.

Section 3.2.8, pages 3.2-19-21 – Air Quality

Comment: "Some coal dust losses would be expected during the drier part of the summer months. [1] Coal dust does not represent a significant environmental hazard. [2] Potentially causing inconvenience... requiring periodic washing of buildings, vehicles, and other outside surfaces" Does this mean the STB suggests periodic wash all buildings?

This lightly treats the consequences of coal dust. "SEA identified no detailed studies that provided information on the amount of coal dust lost from rail transportation or the potential problems it could create.... "it does acknowledge that some fugitive coal dust may be noticed along the rail line, potentially causing inconvenience to adjacent residents and businesses by requiring periodic washing of buildings, vehicles and other outside surfaces."

The SEA conclusion is not adequately supported by the documentation provided in the DEIS. The assessment of coal dust impacts should not be based on anecdotal evidence and a lack of complaints. There will be a measurable human exposure and an assessment of potential health impacts assessment should be included in the FEIS. This position is supported by the medical literature (see attached articles regarding coal dust and human health).

The DEIS concludes that coal dust has no impact on human health. This is in direct contradiction to overwhelming evidence in the medical literature regarding the effects of coal dust on human health. Articles published with the last year documenting the effect include (**Appendix C**):

- 1) Kelleher, P, Pacheco, K, Newman, LS, Inorganic dust pneumonias: The metal-related parenchymal disorders. ENVIRONMENTAL HEALTH PERSPECTIVES 2000,108;685-696,

- 2) Pless-Mullooli, T, Howel, D, King, A, Stone, I, Merefield, J, Bessell, J, Darnell, R Living near opencast coal mining sites and children's respiratory health OCCUPATIONAL AND ENVIRONMENTAL MEDICINE 2000,57;145-151.
- 3) Lighty, JS, Veranth, JM, Sarofim, AF Combustion aerosols: Factors governing their size and composition and implications to human health JOURNAL OF THE AIR & WASTE MANAGEMENT ASSOCIATION 2000,50;1565-1618,
- 4) Kennedy, SM, Demers, PA Occupational airways disease from chronic low level exposure to mineral dusts, organic dusts, and mixed exposures: Occupational chronic obstructive pulmonary disease SEMINARS IN RESPIRATORY AND CRITICAL CARE MEDICINE 2000,20;541-549, and
- 5) Yang, HM, Barger, MW, Castranova, V, Ma, JKH, Yang, JJ, Ma, JYC Effects of diesel exhaust particles (DEP), carbon black, and silica on macrophage responses to lipopolysaccharide: Evidence of DEP suppression of macrophage activity. JOURNAL OF TOXICOLOGY AND ENVIRONMENTAL HEALTH-PART A 1999,58;261-278.

6. Noise (and Vibration)

Surface Transportation Board DEIS Requirements – Noise and Vibration

- A. Describe existing noise receptors and conditions in the project area for new rail line construction, along the existing rail line to be rebuilt, and the portions of the UP and CP rail lines within Goodview and Winona, Minnesota.**
- B. Describe the potential noise impacts during new and existing rail line construction and rebuilding.**
- C. Describe potential noise impacts of new and rebuilt existing rail line operation for those areas that exceed the Board's environmental threshold of eight or more trains per day as a result of the proposed project along the proposed new construction, the existing rail line to be rebuilt, and along the portions of the UP and CP rail lines within Goodview and Winona, Minnesota.**
- D. Describe the potential impacts of the new and rebuilt existing rail line operation due to vibration, both noise and ground-borne along the proposed new construction, the existing rail line to be rebuilt, and along the portions of the UP and CP rail lines within Goodview and Winona, Minnesota.**
- E. Propose mitigative measures to minimize or eliminate potential adverse project impacts to noise and vibration receptors, as appropriate.**

Comments: The following are two issues related to the inadequacy of the noise impact analysis in the DEIS. Both of these errors in noise impact analysis understate noise impacts significantly. The first is the failure to adequately account for the close proximity of at-grade crossing in Rochester, the resulting share of time that horn noise will be created, and the improper modeling of the resulting nearly continuous horn noise. The second relates to the planned variable maintenance period and the resulting variability in the share of train traffic occurring in night time hours. The third relates to the inaccurate count of structures and dwellings likely to be affected by noise.

A. Calculation of Horn Noise SEL

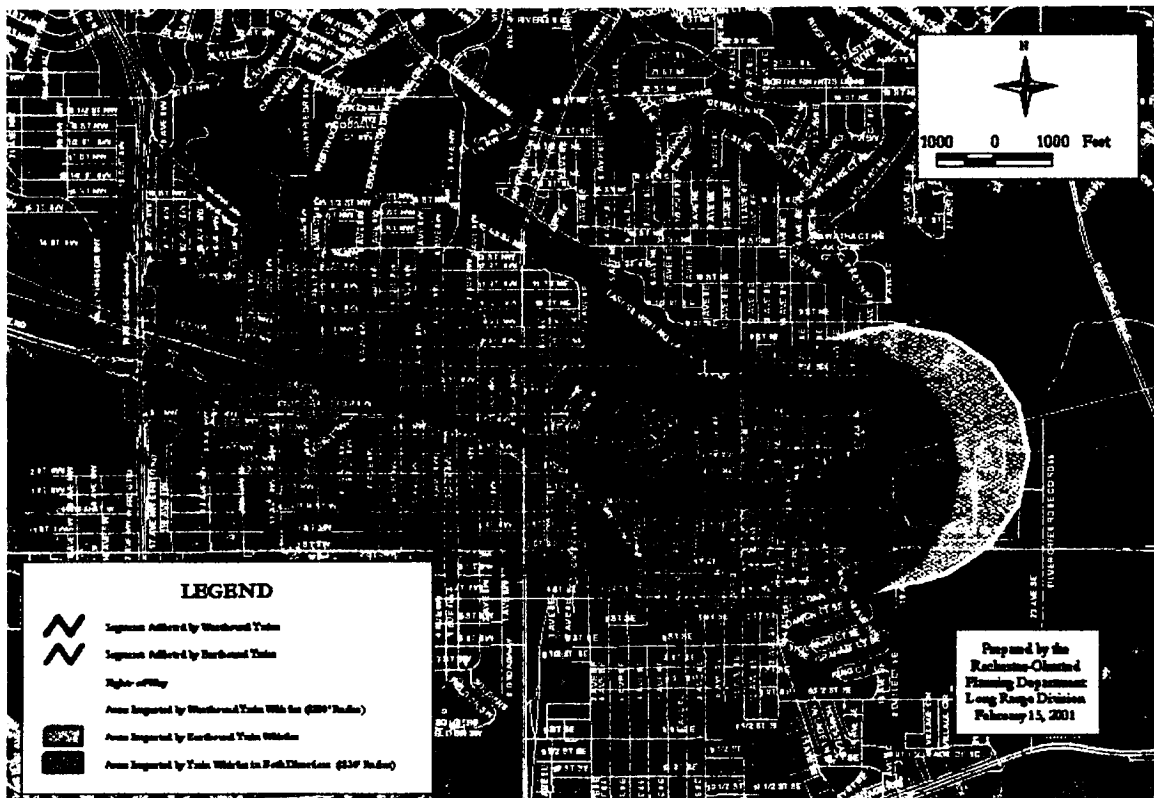
According to page F-2, train horns are "... assumed to start ¼ mile before all grade crossings and continue until the locomotive is through the grade crossing." A west-bound train would sound its horn 1,320 feet east of 15th Avenue NE, 11th Avenue NE, 9th Avenue NE, 7th Avenue NE, 2nd Avenue NE, Broadway, 1st Avenue NW, 4th Avenue NW, 6th Avenue NW, and 11th Avenue NW. The distances between these crossings, shown in the table below, is such that the horn would be sounding virtually continuously.

Table N-1. Distances between at-grade rail crossings in Rochester.

Crossing	Distance to Next Crossing (Westbound)	Distance to Next Crossing (Eastbound)
15 th Avenue NE	1,330 feet	5,320 feet
11 th Avenue NE	570 feet	1,330 feet
9 th Avenue NE	760 feet	570 feet
7 th Avenue NE	1,660 feet	760 feet
2 nd Avenue NE	760 feet	1,660 feet
North Broadway	380 feet	760 feet
1 st Avenue NW	950 feet	380 feet
4 th Avenue NW	740 feet	950 feet
6 th Avenue NW	2,090 feet	740 feet
11 th Avenue NW	6,400 feet	2,090 feet

Figure N-1. Areas impacted by train whistles blown 20 seconds prior to approaching at-grade intersections.

AREAS IMPACTED BY TRAIN WHISTLES BLOWN 20 SECONDS PRIOR TO APPROACHING AT-GRADE INTERSECTIONS



The horn would sound for more than two minutes, and would be silent for less than half a minute. Except for short breaks after 7th Avenue NE and 6th Avenue NW, the west bound train horn would sound almost continuously (for 9,440 feet over a distance of approximately 11,000 feet) traversed in a time of about two and a half minutes (if the train actually maintains a speed of 49 mph, as the DEIS alleges). The horn would not be sounding for about 500 to 1,000 feet during this stretch. The east bound train would start sounding its horn 1,320 feet west of 11th Avenue West and would have a slightly higher proportion of horn-sounding with a slightly longer traverse time (2.8 minutes at 45 mph versus 2.6 minutes at 49 mph).

Horn sounding periods, with the impact area mapped as any area within 2,230 feet of a point at which a horn is being sounded (based on Table F-6, assuming 37 trains per day), are shown in **Figure N-1**.

The DEIS horn noise calculations, based on measurements in a rural location in South Dakota, reflect passing events of 13 seconds and 20 seconds duration (Table F-2, page F-6). Because these are short duration events, the DEIS evidently relies on a single-pole model for horn noise, in contrast to the locomotive and car noise models, which account for velocity. These are in the range for the train speeds that the DEIS relies on. Thus, a train sounding its horn for ¼ miles makes a horn noise for 18.36 seconds at 49 mph and for 20 seconds at 45 mph.

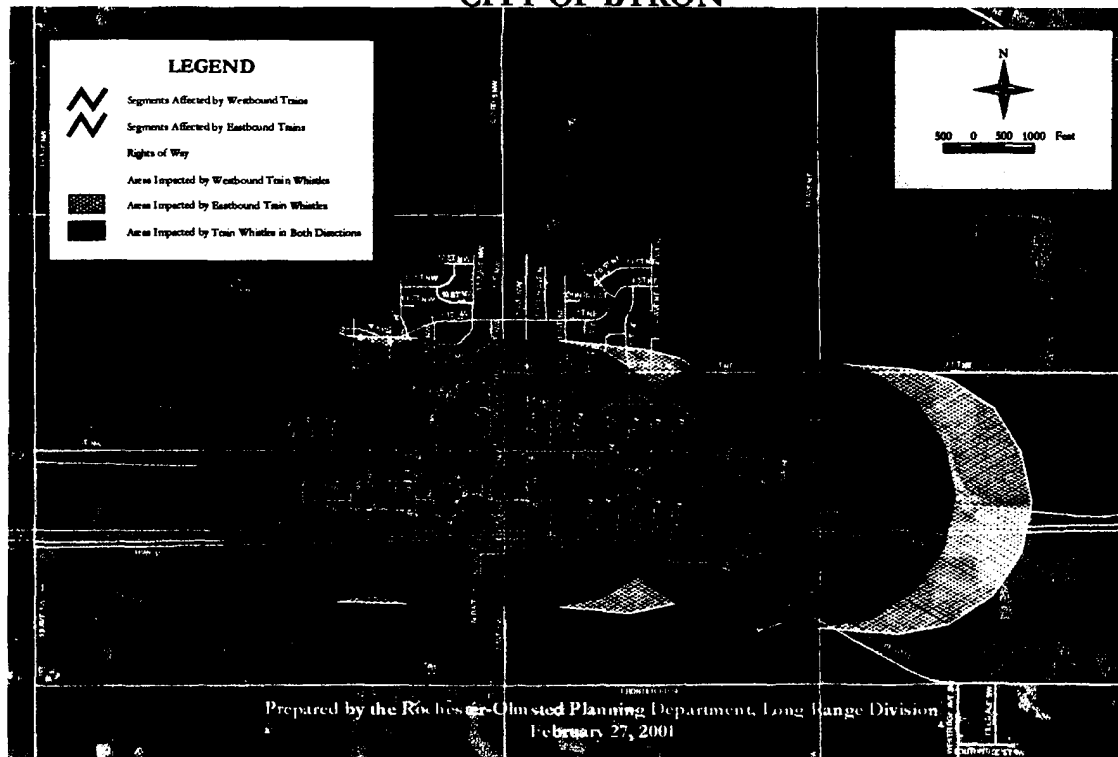
Since the close spacing of crossings in Rochester dramatically increases the length of continuous horn-sounding events, it is probable that the noise impact of train horns will also increase. If the distance of impact calculated in the DEIS validly applies in rural locations affected by only one crossing, it seems likely that closely spaced crossings with longer periods of horn noise will have a more severe impact. The SEA may need to consider using a different model to represent horn noise over a two-minute time frame.

A similar though less intense situation will occur in the City of Byron. As discussed on page 3.1-39, Byron has four at-grade crossings in the space of 7,800 feet. A west-bound train would sound its horn one quarter mile east of 10th Avenue NE, again 3,480 feet west (one quarter mile east of Byron Avenue North), then continuously for a distance of over 2,200 feet until through the crossing 900 feet away at 2nd Avenue NW, and finally 2,230 feet away (one quarter mile east of 9th Avenue NW). Instead of a 20 second horn blast, Byron residents will be subjected to a 30-second horn blast westbound and a 34-second horn blast eastbound. Again, if longer duration whistle events create more significant noise events, as appears to be the assumption underlying the discussion in the Federal Railroad Administration Notice of Proposed Rulemaking, the duration of these noise events should be reflected properly in the DEIS. A map of Byron's crossing noise contours mapped under DEIS assumptions (Table F-6, page F-16) is provided below (**Figure N-2**).

The FEIS should be revised to reflect the impact on horn noise of crossings in close proximity. It is likely that this will significantly alter the findings on the number of sensitive noise receptors affected by horn noise in Rochester and possibly in other cities along the current DME route.

Figure N-2. Areas impacted by train whistles blown 20 seconds prior to approaching at-grade intersections in the City of Byron.

**AREAS IMPACTED BY TRAIN WHISTLES BLOWN 20
SECONDS PRIOR TO APPROACHING AT-GRADE INTERSECTIONS
CITY OF BYRON**



B. Variable Maintenance Periods

The DEIS fails adequately to account for the impact of the DME's proposed variable window of maintenance time. The correct version of Equation 7 on page F-8 is as follows:

$$L_{dn} (100 \text{ feet}) = SEL_{mean} (100 \text{ ft}) + 10 \log[N_d + 10N_n] - 49.4$$

Where

SEL_{mean} is obtained from Equation 3 if the horn is sounded at the location of interest or from Equations 2, 4, 5, and 6 if the horn is not sounded.

N_d is the number of daytime operations, and

N_n is the number of night time operations.

If night-time operations were always proportional to the number of night-time hours in the 24 – hour day, then the approach used on pages F-11 through F-13 for rail yards and evidently used as reflected in Tables FA-1 through FA-7 would consistently represent real as opposed to average conditions. However, because of the moving window of maintenance operations (Operating Plan at

<http://www.dmerail.com/exd.htm> – paragraph 24 and elsewhere), some hours are unavailable for train traffic. As a result, some nights receive a higher proportion of train traffic than the average of all nights. When more than usual train traffic occurs at night, the multiplier applied to night-time train traffic magnifies the noise impact.

1. Wayside Noise Averages and Modes: On average, for 37 trains of 7,400 feet in length traveling at a speed of 49 miles per hour, the wayside noise (without horns) is calculated as follows:

$$\text{Equation 6: } T = .68 (X/V) = .68 * 7400 / 49 = 102.694$$

$$\text{Equation 5: } SEL_{\text{cars}} (100 \text{ ft})$$

$$= 48.5 + 18.2 \text{ LOG } V + 10 \text{ LOG } T = 48.5 + 30.76 + 20.12 \\ = 99.38.$$

$$\text{Equation 4: } SEL_{\text{loc}} = 98.3$$

$$\text{Equation 2: } SEL_{\text{total}} = 10 \log \{ 10^{SEL_{\text{loc}}/10} + 10^{SEL_{\text{cars}}/10} \} \\ = 101.88.$$

$$\text{Equation 7: } L_{\text{dn}} (100 \text{ feet}) = SEL_{\text{mean}} (100 \text{ ft}) + 10 \log [N_d + 10N_n] - 49.4 \\ = 101.88 + 10 \log ((37*15/24) + 10*(37*9/24)) - 49.4 \\ = 101.88 + 10 \log (23.125 + 138.75) - 49.4 \\ = 74.6.$$

From Equation 9, the distance to the 65Ldn contour is calculated as

$$D = 100 * [10^{(L_{\text{dn}}(100\text{ft})-65)/15}] \\ = 100 * [10^{(74.6-65)/15}] = 435.$$

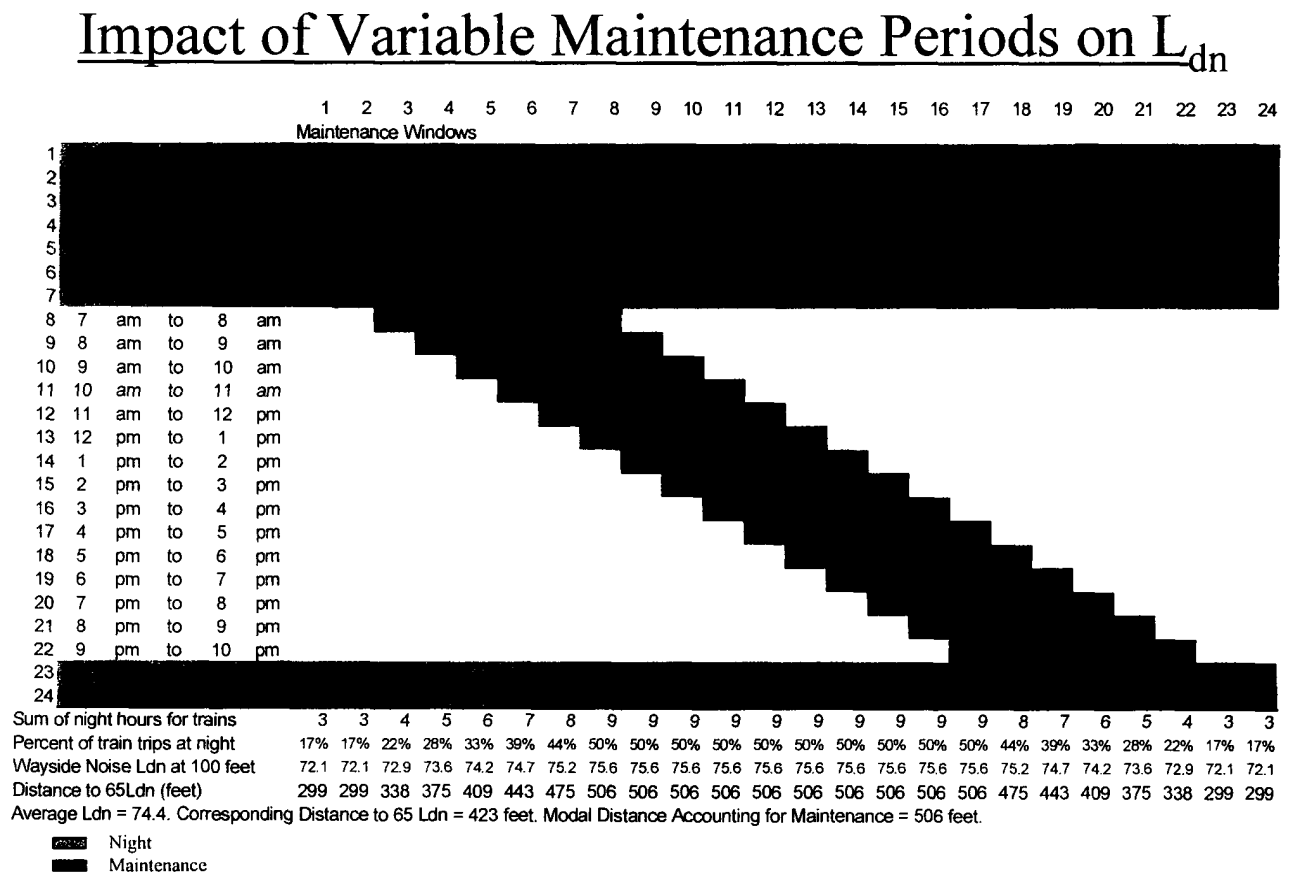
This is the value reflected in Table FA-7 for 37 trains operating at 49 miles per hour between Owatonna and Lewiston. The DEIS may use 420 feet (see Table F-6, page F-16) because when maintenance takes place at night, a higher proportion of the train traffic occurs during daytime hours. The average of the L_{dn} calculations accounting for the variable proportion of daytime traffic is in fact 74.3, which results in a distance to the 65Ldn contour of 420 feet.

What this averaging approach fails to reflect, however, is that of 24 possible maintenance time distributions, 14 result in higher than average night-time traffic. During that 58% of the time, L_{dn} 's reach 75.6 on 10 of the distributions, with a distance to the 65Ldn contour of 506 feet. That extra distance (86 feet), on both sides of the tracks (and therefore totaling 172 feet), is sufficient in older neighborhoods to result in a substantially higher population affected by severe noise levels. The DEIS therefore inappropriately uses a formula that understates noise impact 58% of the time.

The range of all possible distributions of maintenance periods over a 24 hour period is illustrated in Figure 2 (assuming a six-hour maintenance window). It can be seen from **Figure N-3** that 14 of 24 possible maintenance period distributions result in night-time train traffic exceeding 37.5% of daily traffic, and (because of the weighting of night time train traffic by a factor of ten times) result in higher than "average" Ldn levels.

2. Wayside Noise Levels in Excess of 70 L_{dn}. It is possible using the formulas presented in Appendix F to identify the contours for noise levels in excess of the 70 L_{dn} levels reported in Table F-6 (page F-16). For train traffic levels pertaining to Rochester, Minnesota, the noise contours for wayside noise without horns (which have not been but should be adjusted for ambient noise levels representative of urban settings) are shown below.

Figure N-3. Impact of Variable Maintenance Periods on L_{dn}.



Average L_{dn} = 74.4; corresponding distance to 65 L_{dn} = 423; averages are exceeded 58% of time.

Table N-2: Wayside Noise Accounting for Maintenance Variability.

Train Traffic	Distance to 65Ldn (feet)	Distance to 70Ldn (feet)	Distance to 75Ldn (feet)
3 Trains			
DEIS Value (F-6)	Not provided	Not provided	Not provided
Mean	81	37	17
Median	86	40	19
Mode	95	44	20
11 Trains			
DEIS Value (F-6)	200	95	Not provided
Mean	192	89	41
Median	205	95	44
Mode	226	105	49
21 Trains			
DEIS Value (F-6)	300	145	Not provided
Mean	295	137	64
Median	315	146	68
Mode	347	161	75
37 Trains			
DEIS Value (F-6)	420	210	Not provided
Mean	429	199	92
Median	459	213	99
Mode	506	235	109

In all of these cases, the value for the mode occurs 42% of the time, the median is exceeded 50% of the time (by definition), and the mean value is exceeded 58% of the time. To reflect impacts appropriately, the FEIS should use the value for the mode, after adjusting appropriately for ambient noise levels.

3. Horn Noise Adjusting for Maintenance Periods

The same rationale reflected above applies to horn noise. Assuming single-point horn noise sources (as is evidently the case in the DEIS), horn noise exposure experience is reflected in the following table, calculated using Equation 9, page F-8.

Table N-3: Horn Noise Accounting for Maintenance Variability.

Train Traffic	Distance to 65Ldn (feet)	Distance to 70Ldn (feet)	Distance to 75Ldn (feet)
3 Trains			
DEIS Value (F-6)	417 (interpolated)	210 (interpolated)	Not provided
Mean	412	191	89
Median	439	204	95
Mode	484	225	104
11 Trains			
DEIS Value (F-6)	1,000	500	Not provided
Mean	980	455	211
Median	1,044	485	225
Mode	1,151	534	248
21 Trains			
DEIS Value (F-6)	1,600	770	Not provided
Mean	1,508	700	325
Median	1,606	746	346
Mode	1,772	822	382
37 Trains			
DEIS Value (F-6)	2,230	1,120	Not provided
Mean	2,199	1,021	474
Median	2,343	1,088	505
Mode	2,584	1,200	557

In all of these cases, the value for the mode occurs 42% of the time, the median is exceeded 50% of the time (by definition), and the mean value is exceeded 58% of the time. The FEIS should reflect the modal condition in its crossing contour tables. The value of 2,230 feet (at 37 trains per day, for example) is exceeded 58% of the time after adjusting for maintenance periods, and not adjusting for ambient noise conditions.

4. Residences and Other Noise-Sensitive Receptors Exposed to Both Crossing and Wayside Noise

Appendix F, page F-7, states that the "horn noise, when present, dominates the passing event" and accordingly uses the SEL_{mean} for horn noise (112.5) when calculating noise impact. In fact, using Equation 2, page F-7, and factoring in horn noise with locomotive and car noise, results in an SEL_{total} of 112.86, instead of 112.5. This apparently small increase has the effect of increasing the modal distance to the 65 L_{dn} contour for 37 trains from 2,584 feet to 2,732 feet.

The table below (**Table N-4**) shows the noise contours that result, calculated using Equation 9, page F-8.

Table N-4: Horn and Wayside Noise Accounting for Maintenance Variability and Equation 2.

Train Traffic	Distance to 65Ldn (feet)	Distance to 70Ldn (feet)	Distance to 75Ldn (feet)	Distance to 80Ldn (feet)	Distance to 85Ldn (feet)
3 Trains					
DEIS Value (F-6)	417 (interpolated)	210 (interpolated)	Not provided	Not provided	Not provided
Mean	434	201	93	43	20
Median	464	215	100	46	22
Mode	512	238	110	51	24
11 Trains					
DEIS Value (F-6)	1,000	500	Not provided	Not provided	Not provided
Mean	1,031	479	222	103	48
Median	1,103	512	238	110	51
Mode	1,217	565	262	122	56
21 Trains					
DEIS Value (F-6)	1,600	770	Not provided	Not provided	Not provided
Mean	1,587	737	342	159	74
Median	1,698	788	366	170	79
Mode	1,873	869	403	187	87
37 Trains					
DEIS Value (F-6)	2,230	1,120	Not provided	Not provided	Not provided
Mean	2,315	1,075	499	232	107
Median	2,477	1,150	534	248	115
Mode	2,732	1,268	589	273	127

It is apparent from the table that households with the misfortune of living within the areas affected by both horn noise and wayside noise will suffer from truly intolerable noise impacts. The magnitude of these impacts has been insufficiently addressed in the DEIS.

C. The Number of Structures and Residences Likely to be Affected by Noise

The tables below present local information for the City of Rochester verified from property records of the Olmsted County Assessor and the Rochester Olmsted Planning Department Geographic Information Division. The values pertaining to parcel data reflect all parcels any parts of which are within the specified distance. The values for structures are derived from digital aerial orthophotographs linked to parcel data through the Geographic information System of the Rochester Olmsted Planning Department. A structure is included in the distance indicated if the perpendicular distance from the center of the structure to the center of the track is less than or equal to the indicated distance. Because the center of the structure is the point of measurement, it is certain that parts of large structures extend significantly closer to the tracks than the indicated distances.

Table N5: Wayside Noise (Compare with tables 3.3-13 and 3.3-14, page 3.3-66 and Table 5.1-10).

# Of Trains	Distance In Feet	Parcels		All Structures		Residential Structures		Residential Structures		Dwelling Units		Dwelling Units	
		Partly Within Distance	On Parcels Distance	Partly Within Distance	Completely Within Distance	Partly Within Distance	On Parcels Distance	Partly Within Distance	Completely Within Distance	Partly Within Distance	On Parcels Distance	Partly Within Distance	Completely Within Distance
< 3 (existing)	65 (interpolated from Table F-6, page F-16)	NA	NA	NA	3	NA	NA	0	NA	NA	NA	0	0
	100	214	128		22	56		5	64			8	8
11	226 (mode distance Table 2, above)	NA	NA		146	NA		98	NA			146	146
	200	357	226		121	117		77	146			119	119
21	347 mode distance Table 2, above	NA	NA		274	NA		191	NA			308	308
	400	670	477		370	316		269	744			390	390
37	420 DEIS value from Table F-6, page F-16	NA	NA		396	NA		290	NA			411	411
	506 mode distance Table 2, above	NA	NA		504	NA		374	NA			510	510

Even with this conservative approach, however, it is clear from the table that the number of dwelling units significantly exceeds the numbers of sensitive receptors identified on page 3.3-66, Table 3.3-13 and 14 and in Table 5.1-10. At 37 trains per day using the 65L_{dn} level for wayside noise, for example, the number of residences alone (not counting other sensitive receptors) is not 14 as in Table 3.3-14 but 411 (at the 420 foot distance cited in Table F-6, page F-16).

The number of dwelling units is not a complete count of sensitive receptors, since there are a number of other uses within noise impact areas that are also sensitive. Among these in the City of Rochester are the Federal Medical Center, with an inmate population some of whom are residents due to illness; a nursing home complex, Town Hall Estates, with a capacity for 60 residents; Holmes Elementary School; 320 acres of community parkland in Rochester, and the 40 acre Oakwood Cemetery in Rochester; hotels and hospitals; and several other noise sensitive uses. Smaller cities in Olmsted County have churches, schools, parks, and other sensitive uses in areas affected by horn noise.

Table N-6: Horn Noise (Compare with tables 3.3-13 and 3.3-14, page 3.3-66 and Table 5.1-10).

# Of Trains	Distance In Feet	All Structures Completely Within Distance	Residential Structures Completely Within Distance	Dwelling Units Completely Within Distance
< 3 (existing)	417 (interpolated from Table F-6, page F-16)	393	289	410
11	1,217 (mode distance, Table 4, above)	1,650	1,387	2,293
11	1,151 (mode distance Table 3, above)	1,537	1,292	2,024
11	1,000 (Table F-6, page F-16)	1,279	1,063	1,691
21	1,873 (mode distance, Table 4, above)	2,870	2,501	4,141
21	1,772 (mode distance Table 3, above)	2,643	2,285	3,878
21	1,600 (Table F-6, page F-16)	2,306	1,976	3,296
37	2,732 (mode distance, Table 4, above)	5,129	4,597	8,174
37	2,584 (mode distance Table 3, above)	4,703	4,211	7,762
37	2,230 (Table F-6, page F-16)	3,784	3,357	5,933

It is clear that the values in Tables 3.3-13, 3.3-14, and 5.1-10 significantly understate the number of sensitive receptors impacted by train noise. The values in both Table 3.1-10 and Table 3.3-13 (which are slightly different from each other, although they both purport to reflect existing conditions) appear to reflect the mistaken notion that Rochester has an existing train traffic level of 12 trains per day, and thus overstate current 3-train-per-day conditions. At future projected levels of train traffic, the errors become increasingly large. The figure of 5,933 dwellings affected by horn noise from 37 trains, at the 65 L_{dn} noise distance of 2,230 feet (from Table F-6, page F-16) is 2.5 times as high as the total number of sensitive receptors identified by the DEIS in Table 3.3-14. The number of residential structures alone is 44% higher

than the DEIS figure for all sensitive receptors. Within this distance there are also six public school structures, eight private school structures, three post-secondary education structures, ten churches, two cemeteries, six hospital structures (excluding the Federal Medical Center, which is of course also affected), and 28 charitable institutions. (This is by no means a complete count of sensitive receptors within 2,230 feet of the current track.)

It is not clear how SEA arrived at the number of sensitive receptors presented in Tables 3.3-14 and 5.1-10, but clearly the method is flawed. According to the discussion on page F-3, "... 65dBA L_{dn} contours were drawn on aerial photographs and USGS 7.5 minute maps. Approximate counts were made of the number of sensitive noise receptors, including residences, schools, and churches within the 65dBA L_{dn} contour for both the pre- and post- construction train volumes using maps and aerial photographs. The final result of this analysis is an estimate of the total number of sensitive receptors likely to be affected by noise exposure above the 65dBA L_{dn} levels due to proposed DM&E operation." This methodology resulted in huge errors in Rochester, and there is no reason to assume that it did not also result in errors of similar magnitude in other developed parts of the project area.

Finally, it should be clear that the errors in calculating the distances affected by train noise, although they do not account for the errors in the tables, add significantly to the impact. The 100 additional dwelling units affected by wayside noise at 506 feet versus 411 feet (see table 5, above) amount to almost a 25% increase in affected dwellings. Similarly, the number of dwellings at 2,732 feet versus 2,230 feet amounts to a 38% increase in affected residences. While the magnitude of these errors is small compared to the errors resulting from the reliance on aerial photographs to identify sensitive receptors, the Final EIS should make both types of corrections.

Section 3.2 and Table 3.2-21– Noise and Vibration

Comment: The DEIS uses only anecdotal evidence to establish the fact that vibrations are of no consequence to residences along the track. There is not adequate documentation in the DEIS to support that conclusion.

Table 3.2-21 shows 615 buildings in Olmsted County are within 400 feet of the railroad that would experience "significant impacts from increases in vibration" (page 3.2-65). This issue is further discussed on page 3.3-68. No MITIGATION plan was identified to relieve this burden imposed upon existing activities due directly and solely to the Project.

Pages 3.2-64 through 3.2-70 are replete with erroneous table references. For example, paragraph 3.3.2.7.1 refers to Table 3.3-15, when in fact the pertinent data are in Table 3.3-14. I was able to identify at least 9 erroneous table references in these pages. This will lead to ERRORS in communication as responses refer to incorrect tables, depending on whether the reference is to a paragraph description or a table description.

Section 3.2.9 pages 3.2-31– Noise and Vibration

Comment: Average daily noise level (L_{dn}) is a contrived number and doesn't necessary relate to reality.

SEA Calculated the distance/ contour at which the average daily noise level would be equal to 65

decibels (DB) on a A-weighted scale or would experience an increase of 3 dBA Ldn...
The maximum sustained average over the period of time of the passage of the train would be much high, in fact the peak may well be above 130 dB (which is classified as pain).

Footnote5: A-weighted scale considers only those frequencies of noise that are audible to the human ear. The FEIS should also assess the noise impacts to animals – both pets and wildlife. ?

Section 3.2.9.2 pages 3.2-62– Noise and Vibration

Comment: SEA conservatively determined that ground vibration could be sufficient to cause structural damage to buildings located within 100 feet of the rail line.(Appendix F).

Increased length, weight, and speed of unit coal trains would likely result in increases of both the frequency and severity of ground vibration. Between 101 and 200 feet, ground vibration could be of sufficient magnitude to cause concern that structural damage would occur (Table 3.2.-21) 86 bldg involved. Who will be responsible for damage to the 86 buildings noted in the table?

The FEIS should assess the impact to buildings 201ft to 400ft.(an additional 168 structures), as well as the impact from vibrations at low frequencies which may be felt at 1,000 to 5,000 feet.

The FEIS should include a methodology to assess the source of structural cracks.

Section 3.3.2.4.2 pages 3.3-52-70– Noise and Vibration

Comment: The figure of 7 houses within 500' of proposed Project is not correct. What are impacts of noise and vibration to domestic animals if a bypass is built? Who would pay for mitigating them?

Bypass: Who pays for any noise & vibration mitigation that is necessary in the rural areas that currently do not have any rail traffic today.

Section 3.3.2.7.2 pages 3.3-68 and Table 3.3-18– Noise and Vibration

Comment: “The number of structures that occur within 400 feet of the existing rail line and could therefore be potentially affected by rail line vibration from the operation of Alternative R-2 would be the same as those presented for Alternative R-1”

Table 3.3-18 depicts “Grade Crossing Level of Service” not the number of structures likely to be damaged. INCORRECT REFERENCE < *the correct table reference should be 3.3-17*

.Section 7.8.5-10 pages 7-22-26– Noise and Vibration

Comment: “affected communities” must include the Minnesota Department of Resources, so that “noise disturbances” will be avoided or minimized during the seasons, days, and times most adversely impacting hunting and recreational experiences nearby.

NOTE that AESTHETICS are nowhere addressed in this proposed environmental mitigation.

7. Energy Resources

Surface Transportation Board DEIS Requirements – Energy Resources

- A. Describe the transport of energy resources and recyclable commodities on the existing DM&E system.**
- B. Describe the potential environmental impact of the new rail line and rebuilt existing rail line on the transportation of energy resources and recyclable commodities.**
- C. Describe the environmental impacts of operation of the new rail line and rebuilt existing rail line on utilization of the nation's energy resources.**
- D. Propose mitigative measures to minimize or eliminate potential adverse project impacts to the transportation of energy resources and recyclable commodities, as appropriate.**

8. Socioeconomics

Surface Transportation Board DEIS Requirements – Socioeconomics

- A. Describe the socioeconomic conditions within the area of new construction alternatives and along the existing line to be rebuilt.**
- B. Address socioeconomic issues shown to be related to changes in the physical environment as a result of the proposed action, including quality of life issues such as division of communities, isolation of residences, access to destinations and similar concerns.**
- C. Propose mitigative measures to minimize or eliminate potential adverse project impacts to socioeconomics, as appropriate.**

Comments: Categories of study for the DEIS Do Not Include Economics

According to the Final Scope of Study for the EIS decision, served by the STB Mar 10, 1999, "The NEPA environmental review process is intended to assist the agencies and the public to identify and assess the potential environmental consequences of a proposed action before a decision on the proposed action is made....NEPA does not require discussion of an alternative that is not reasonably related to the purpose of the proposal.." However, in the document, the STB "determined that the reasonable and feasible alternatives that will be discussed in the EIS.." include the "no-action alternative" which obviously does not achieve the applicant's purpose of delivering coal from Wyoming to Winona. The STB also decided that the EIS for both the rebuild as well as the new construction would look at: land use, biological resources, water resources, geology and soils, air quality, noise, energy resources, safety, hazardous materials, transportation systems, cultural and historic resources, recreation, environmental justice, and cumulative effects. Also listed as a topic was "socioeconomics" describing current conditions and mitigative measures. The EIS will, "address socioeconomic issues shown to be related to changes in the physical environment as a result of the proposed action, including quality of life issues such as division of communities, isolation of residences, access to destinations and similar concerns."

Broad use of "Socioeconomics" in the DEIS Minnesota Volume Includes Economic arguments, data, and assumptions

Comment: The following portions of the DEIS Minnesota volume contain information and/or assumptions touching on economic benefits, and in some case costs, of the project. Perhaps the DEIS preparer had a broader view of Socieconomics than was described in the March 1999 scoping order:

- 3.1.14.1 population and demographic of communities in MN from the 1990 census
- 3.1.14.2 employment and income by MN county from 1981,89,94 and 96
- 3.1.14.3 public services and fiscal condition with chart data from '88-'98on assessed value for property taxes, numbers of farms, changes in poverty level
- 3.2.1 No-action Alternative with its argument of economic catastrophe should this alternative be pursued

- 3.2.6.2 and 3 technically under “land-use” are residential and business. However several economic arguments are put forward (ie the influx of workers on home values or effect of traffic on hotel patrons, or the attracting of new business to the rail corridor) which are anecdotal but appear to be economic arguments

In the Minnesota volume, Socioeconomics is formally presented in 3.2.16:

Comment: 3.2.16.1-2 population and demographics/employment and income which postulates the impact of 500 2 year construction jobs on the MN economy (most counties would see about 50 jobs) and their multiplier affect. Unemployment figures used to show the impact were from 1994, a particularly bad year for Olmsted County at least. Assumptions made by the DEIS that the construction project would generate 14,000 jobs (direct and indirect) over the 2 year period across MN; and that since the number is higher than the 1994 unemployment rate, all those unemployed could fill these new temporary jobs (implausible at best). Table 3.2-27 outlines the estimated earnings from railroad construction/county. No cite is listed for these numbers

3.2.16.3 Public services and fiscal condition show about a 10 time increase in property taxes when the project reaches 100M tons of coal/year. Also shown are projected sales and use tax/county from the project, none of which flow to local government (except City of Rochester for previous specific projects), as well as property taxes which must be shared within counties with school districts (between 40-50%), cities and townships.

Need for More Thorough Economic Analysis

Comment: Much of what is discussed in the above sections in the Minnesota volume appears to be far beyond the definition of “socioeconomic”. Since the authors are obviously interested in economic data and assumptions, the DEIS ought to discuss these topics as they do other disciplines such as water or biological resources:

- 1) Outline what currently exists in the total regional economy.
- 2) Develop models to portray the impacts, both costs and benefits to the entire regional economy as well as important segments and individuals, caused by this project. What is the relative size of the benefit/cost, both in dollar amount per benefiting/or injured party and in size of the benefiting/injured economic segment compared to the entire economy.
- 3) Describe and cost out mitigative measures for individuals and segments of the economy which are injured by this project. In a perfect capitalist world, economic beneficiaries would pay ALL costs associated with the benefit, rather than pass these off to parties outside the transaction. But in the real world, this does not always happen. The DEIS, using its governmental authority, should suggest ways for these costs to be born by the applicant or other beneficiaries.

Comments on economic analysis in 3.2.1 “No-action alternative”

Comment: In the Draft EIS, economics is addressed in a piecemeal way using anecdotal evidence and/or reaching conclusions based on partial or old data. In the No-action alternative section (less than 2 pages set aside for this discussion), 9 reconstruction impacts are listed as well

as 4 operational impacts. The DEIS notes that none of these mostly negative impacts will occur under the no-action alternative. At this point, the DEIS begins to develop a host of unexamined economic assumptions. Alternative assumptions/facts will be posed.

DEIS: "Service and reliability concerns of existing shippers...would continue, reducing competitiveness of shippers in their respective markets"

Comment: How would the coal train solution solve current shipper problems? Just because an upgraded rail runs beside your business doesn't mean you have access, or access at a competitive price. Anecdotal evidence abounds from former shippers along both UP/SP as well as BNSF that the price of access for shippers who couldn't provide sizable shipments, often approaching an entire unit train, was non-competitive or not even offered. It is far more likely that a company with 92% of their product being coal unit trains (compared to 40% across all other rail companies) will accommodate the needs of coal customers even if they conflict with the needs of other shippers.

Comment: Can a Class 1 railroad dominated by unit coaltrain traffic provide regional shipping service for smaller users on the same single track line? In an interview (8-10-98), Denver Tolliver of the Upper Great Plains Transportation Institute said that it's possible as long as there is adequate capacity. The railroad would gather local freight at way-freight areas and then when an opening in scheduling and a locomotive and crew became available move these cars down the line to the next way freight until a unit train was formed. Capacity, he said, is a function of: amount of side track, switch yards, type of traffic control, number of locomotives and crew available, and of course the amount of shipping to be scheduled. Even if there seems to be track capacity, there is still no guarantee of access. He said the DM&E's business plan needs to be scrutinized for these variables of capacity and DM&E's intent. Those studying this, he said, need to pose hypothetical shipping movements to DM&E to ascertain capacity for small/medium freight users. For instance, "describe in detail the movement of wheat from Huron, SD to Winona, MN including pick-up, time in cars, time in yards." An admitted time of 14 days would indicate a very real capacity problem, he said. Also ask about very small shippers like Walnut Grove's Bokken Grain (4 car siding) or medium shippers like Dakota Ag. Coop in Highmore, SD (25 car siding). None of these questions are asked or answered in the DEIS.

Comment: How Serious is this shipper reliability problem, depends on how important these shippers are to the total regional or state economy. Who are current shippers and what % of the regional economy do they represent? 100 years ago, even 50 years ago, much of what Minnesota produced needed to be shipped by rail: iron ore, forest products, and grain. While we still produce these things, today we have a high tech/service economy, and those 3 products represent a diminishing factor of the entire economy. Cecil Sellness of MNDOT-rail division said in an "Intermodal Terminal Briefing" (1/19/99), that cost sensitive products, but not time-sensitive products, use rail rather than truck. He also noted that in most situations, where a truck can carry the product at all, the railroad is not competitive if the final destination is less than 250-300 miles (nearly the entire distance of DM&E across Minnesota). The last statement was corroborated by Denver Tolliver in UGPTI Publication #77 (November 1989); the 1st statement by a local survey of manufacturers who seldom use rail and probably would not with the upgrade because: "they don't come from my supplier and they don't go to my buyers", and "they cannot be as time-precise as trucks in delivery. We do not warehouse anymore; we use "just-in-time manufacturing."

In Olmsted County, according to a Dec, 2000 telephone survey by Rochester City Administration, the following companies shipped the given amount of carloads with DM&E in the last year:

- Rochester Public Utilities = 834 cars of coal. Their entire supply would take 1450, but the rest came by truck because of price variations. RPU cannot use WY coal. Its coal comes from IL by barge and then either truck or DM&E to Rochester.
- Tamarac=260 cars of sheet rock
- Rochester Iron & Metal=400 car estimate of recycled materials.
- General Warehouse = 100-150 cars, mostly for Lakeside Canning; but spur line has been broken since last fall.
- Seneca Foods = 500 cars of canned goods.
- IBM/ UBC = 1 car every 3-5 years.
- Greenway Elevator in Byron = 25-500 cars; depends on pricing. Often in spring when weight restrictions are on many roads.
- Left off the survey was the LP gas distributor in Eyota with some usage.

Comment: Total current usage for Olmsted County approximates 16 unit trains/year.

Comment: Conspicuous by their absence as rail shippers are dominant forces in the local economy: IBM, PEMSTAR and any other high tech manufacturers (Milken Institute identified Rochester as having the highest concentration of high tech businesses among all 315 US metro areas); Mayo Clinic and the hospitality industry (2 largest employers in the county: Mayo with 27,000 employees and \$1.6B generated in health care dollars and another \$180M in non-medical revenue to businesses in region; and hotels with \$140M in revenues 4500 employees); Food processing companies like AMPI, Marigold, Pace, Jerome, the rest of Seneca's & Lakeside's production; and the largest elevators in the region which are in Stewartville and Plainview (inaccessible to rail)

DEIS: "Lack of competitiveness and rail service reliability would likely result in a greater reliance of shippers on trucks for transportation, resulting in hundreds of trucks being added to local roadways. Increased truck numbers would increase wear and tear on area roads and reduce vehicle safety."

Comment: The assumption the DEIS makes with this statement is that without intervention, such as the coal project, more shippers will turn to truck usage and clog and wear down our highways. Just how many trucks would it take to carry current shipper's products to market? First we must note that in Minnesota at least there are several rail lines that intersect DM&E, 2 of which are Class 1 carriers. Thus if a shipper really wanted or needed to use rail, there are options short of trucking all the way to Winona. According to DM&E's original application and Association of Minnesota Railroads, "Information about Minnesota's Railroads 1999", the DM&E moved 58,000 cars in both 1997 and 1998 half of which were grain or grain products. The other products appear to come mostly from South Dakota, and one would assume would not continue by truck rather than nearby rail, somewhere in western Minnesota. MNDOT personnel told me 6-98 that approximately 12000 DM&E cars of grain offloaded in Winona. If all of this

came by truck (48,000), there would be an additional 130 trucks/day heading for Winona on either I-90 or Hwy 14. Even on the smaller Hwy 14 which currently carries 11-15,000 vehicles/day on either side of Rochester, this amounts to about a 2% increase in traffic. That size increase happens annually anyway due to other economic/residential growth in the area and would not be as noticeable as the DEIS presumes.

Comment: Will a new class 1 railroad decrease or add to truck usage on area roads? Denver Tolliver of the Upper Great Plains Transportation Institute at ND State University in, "The Impacts of Grain Subterminals on Rural Highways (1989)", found in his study in ND, that there was more wear and tear on roads from trucks once grain terminals became centralized to take advantage of the price structure of class 1 unit trains. (I.E. the domino affect from new-improved-bigger-more cost effective unit trains was MORE, not less, wear and tear on secondary roads in the region.) Small grain elevators that used to feed directly into trains began trucking their product to a central grain terminal, or going out of business. Now there were 2 truck movements to reach the rail instead of 1; or there was 1 over a greater distance. Would not the same happen in Minnesota with 1 central location becoming the main or only grain terminal in the state for DM&E? One site would be home to a large capital investment of a giant grain terminal, while the rest of the state would pay for the extra upkeep on local roads used to reach the facility.

DEIS: "Additional jobs and tax revenues generated by increased railroad activity and improved railroad facilities would not be provided".

Comment: According to, Association of American Railroads, "Information about Minnesota's Railroads-1999", the DM&E has 95 employees in Minnesota. DEIS estimates that if the project reaches full operation, there will be 365-450 DM&E employees located out of the 3 rail yards in :Lewiston, Waseca, and either Mankato or New Ulm. This employment, and the economic boost generated by these people (up to 345 more, or if the DM&E disappears up to 450 difference) would be lost.

Comment: But how significant is the number of new railroad jobs promised to this state? One employer in Rochester, PEMSTAR, with 700 employees in town, declared in Nov 16, 2000 testimony before the STB, that it would be forced to relocate should the project proceed as planned due to vibration. Mayo Foundation, 3rd largest employer in Minnesota at 27,000 employees has stated that its patients and thus its bottom line will suffer. The Federal Medical Facility with many hundred employees will face a costly switch in security if they wish to remain in their current site. The economic engine for SE Minnesota is in the City of Rochester where over 80,000 work and which had over \$1B worth of new building permits in the last 3 years. This city has invested in an image of quality of life: Ranking as "Best Place to Live in Money Magazine's ratings several times in the 1990s. Rochester's annual growth in personal income, according the RAEDI statistics exceeds the state and nation. The Minnesota Commissioner of Economic Security reported in the St. Paul Legal Ledger 12-26-00 that, "Average pay in Minneapolis-St. Paul metro area ranked 22nd out of 312 metro areas at \$37,248 in 1999. The Rochester MSA also ranked high at 29th, with an average of \$35,025." Rochester is facing a major negative economic impact from this project as proposed (Rochester Area Economic Development Inc, "Proposed Expansion of DM&E Railroad: Cost Comparison of Utilizing City Route vs. Bypass", 2/16/2001). The accompanying press conference noted that over a 10 year period, the economic cost of this project to Rochester would be nearly \$850M(assuming a mere

1% decline in patient revenues at Mayo Clinic); the cost to areas by the bypass would be over \$225M. Undermining the positive economic engine of this region should not be taken lightly, since its beneficiaries include ¼ M medical patients/year from all over the world. Rochester/Olmsted County, and its economy, appear to be facing more costs than all benefits combined to the rest of the state of Minnesota. This should be researched and analyzed in the DEIS.

Comment: But tax revenues will rise with this project. That is true; but not enough to cover the economic slide due to the costs; and not enough to provide mitigation to prevent those costs. On June 27, 1997, the Director for Property Tax Division, Minnesota Department of Revenue declared the total value of DM&E property in Olmsted County to be \$1,968,900. Pay 98 property tax for DM&E to all political subdivisions in the county was \$99,452. According to the Olmsted County assessor, there was up to a 12% decrease granted by pay 99. Between 40-50% of this was paid to the various school districts and the rest was split between the many townships and cities in the county as well as the county. At 100MM tons, \$1,240,000 will be paid by DM&E to subdivisions within Olmsted County, an increase of 10 times (Economic Policy and Analysis, Golden Valley and others, "Economic Impacts in Minnesota, South Dakota, and Wyoming: of the DM&E Railroads Corp. Powder River Basin Project", Oct. 15, 1998). But even if the City of Rochester increases taxes from \$9,000 pay 98 to \$90,000, and even if Byron increases taxes from \$600 pay 98 to \$6,000, how will they handle mitigation; how will they make up for economic losses, and property tax decreases in other sectors caused by this project?

Comment: Note that sales and income taxes paid by railroad workers or construction workers will not accrue to any local government to be used for mitigation. These are state taxes. The City of Rochester has permission to collect a .5% sales tax; but it must be used for previously stated projects and it sunsets when they are completed. These taxes go to the general fund where they could be used to pay annual bond costs for legislatively approved projects statewide, but are not for road/highway use.

DEIS: "...The existing condition of the rail line will continue to deteriorate, significantly impacting rail service efficiency, reliability, safety."

Comment: Why would the DEIS assume that this rail will continue to deteriorate as the sole result of the no-action alternative?

Comment: There have been answers to meet the problem of deteriorating railroads, especially regional ones, in the public sector across the US. Texas just bought a line connecting to Mexico to preserve service, as Wisconsin did many years earlier. North Carolina owns the most used trackage in the state and leases it for operation. The State of Minnesota MS398A allows the creation of regional railroads to save threatened service: St. Louis County, MN has used the statute. MS222.46, the Rail Service Improvement Act of 1976, provides a framework (and funding...\$5M in 2000) for addressing the needs of shippers and their regional railroads in Minnesota. South Dakota offers property tax credit, which has been used by the DM&E. South Dakota also has provided \$20M in revenue bonds (in one of several instances) for DM&E repair, and appears to have overlooked non-attainment of financial ratio covenants according to a letter to the STB dated June 10, 1998 from the Governor of South Dakota. And in a July 24, 2000 news release, US Transportation Secretary Slater announced \$3.5B Railroad Rehabilitation and

Improvement Program of which at least \$1B is earmarked for shortline and regional railroads. The FRA said that Mr. Schieffer of the DM&E had already made inquiry about \$100,000,000 of this funding.

Comment: Of course there are answers in the private sector also. Your organization has supervised mergers undertaken in the name of improving service along deteriorating railroads. The DM&E itself was formed in 1986 as its predecessor filed for bankruptcy. If you believe that competition will lead to improved service, as you must or you wouldn't be countenancing a 3rd railroad for Wyoming coal given all the environmental degradation you have enumerated elsewhere in the DEIS, then you must assume that the competition that the DM&E is facing for its current shippers from both trucks and other railroads should help the DM&E improve its service, or rightly go out of business. After all, 70,000 miles of rail were built in the 1880s, and 40, 000 of them went bankrupt in the 1890s.

DEIS: "The Board, in its December 10, 1998 decision (transportation aspects), indicated the no-action alternative could result in DM&E ceasing to be a viable railroad."

Comment: The STB also said that the Project "May be financially feasible." If it were not, the duty of the STB on Dec 10, 1998 would have been to deny the application due to the transportation merits. If failure to approve this application leads to "DM&E ceasing to be a viable railroad", how will such a precarious firm: get financing; oversee the largest rail building project since the 1800s; or operate a complicated class 1 railroad as both a coal pipeline and a regional rail serving small agricultural customers? Only the STB knows the answer, because the financial records which could explain this phenomenon have been kept from the public by both the STB and the DM&E. Part of the reason for the formation of the ICC, precursor to the STB, was to limit construction projects which could over-extend an otherwise functional railroad and thus lead to bankruptcy and an end of service for existing shippers. The question to be asked may well be not, "will the DM&E fold if the project is denied?"; but will the DM&E fold if the project is approved?"

DEIS: "should this (ceasing to be a viable railroad) occur, it appears unlikely that another rail carrier would acquire the DM&E system given its deteriorated condition and limited revenue base. Therefore, rail service along the existing system would cease"

Comment: See response to #4, both public and private solutions. While no one wants to see a railroad fail and its shippers scramble for other service, if the DEIS brings up this argument, it ought to research just how severe the impact would be to the entire economy. How far are shippers from other railroads? A glance at a rail map shows that most farms in southern Minnesota are within 50 miles of a grain hauling railroad, even without the DM&E. How adequate is the road system in Southern Minnesota? How much of the region's agricultural harvest depends on this rail line? See partial response-ag impact- in #9.

DEIS: Thus..."A significant number of additional trucks would be added to local roads."

Comment: See response #2. Remember, we are not talking about 17 unit trains/day of coal being transferred to market by truck; but rather 1 ½ trains of mostly agricultural products. Similar products, in far greater number, are already being transported by truck to barge, rail or processor.

DEIS: "Other shippers would be unable to competitively convert to truck transport and would be required to relocate...or cease to operate."

Comments: Which shippers would be unable to convert to trucks and which would relocate if the DM&E continued to deteriorate or actually failed? The DEIS does not investigate this question, and it should if it holds it out as an assumed reason to drop the "no-action alternative". Instead of study, we have "positions"...ie 90% of shipper back the project according to DM&E. As mentioned earlier in the study of Economic Costs to the City of Rochester prepared by Rochester Area Economic Development Inc, the costs of building this proposal can be modeled for an area, and they are huge for economies built on information age technology, health services, and quality of life. You should model the costs of current shippers to deal with a deteriorating railroad to see if it equals the costs born by the economy of just 1 city along the route of the new project.

DEIS: "loss of rail service and shippers would require local farmers to transport grain and other products greater distances for shipment, increasing operating costs for an already stressed agricultural economy."

Comment: How important is the DM&E to the total agricultural economy? Although the DM&E has a higher % of its total shipping listed as farm products (50% as opposed to 28%) according to the Association of American Railroads in "Information about Minnesota's Railroads 1999", in 1997 and 1998 this meant less than 30,000 cars/YEAR with only 12,000 of those being grain cars offloaded at Winona. Meanwhile, during the last half of 1995, 29,000 grain cars/WEEK and during the difficult year of 1997 22,800/week were carried by major railroads in the US (grainnet.com 4-25-98). DM&E has a small percentage given the 2 state agricultural region traversed by the railroad.

Comment: How important is the DM&E to the soybean and corn growers in the 10 Minnesota Counties that DM&E traverses? While corn and soybean producers' associations support the project, how much of their product uses the DM&E- or could use it in the future? Look at DM&E's current numbers as well as their projected capacity for agricultural products- it is not very high. Like Utilities and other businesses, these shippers would always prefer competition for their business. They assume that more competition will lead to lower prices for them. However, when a provider is a natural monopoly, as may be the case for railroads, regulation rather than competition is a more effective tool to keep prices down. Competition in a natural monopoly leads to a squandering of resources. This perspective ought to be analyzed in the DEIS. And can be found in a work prepared for the Federal Railroad Administration (Grant # DTFR53-99-H-00025) by John Bitzan, Ph.D., Upper Great Plains Transportation Institute at North Dakota State University, "Railroad Cost Conditions- Implications for Policy".

Comment: In the DM&E's original application to the STB (1150.4b) it lists the number of cars carrying corn at 7298 in 1997 and 8750 2-3 years after project completion at the highest amount listed. It lists the number of soybean cars at 2472, and 3600 in the future. Other grains come in at 3156 and 3400; and wheat at 8001 up to 10,800. Projected increases in all areas except coal = 9,864 cars or .2 of a 135 car unit train/day (current shipping if slotted into 135 car trains would equal 1.2 unit trains/day. Compare this with 34 unit coal trains/day projected in the application.) According to MN Ag. Statistics Service, in "Minnesota Agricultural Statistics 2000, the 10 counties traversed by the DM&E harvested the listed amount of bushels of corn and soybeans in 1998 and had the listed amount of crop receipts in 1997:

Table SE-1. Corn and soybean harvests and crop receipts for ten Minnesota counties traversed by DM&E.

County	Corn (million bu)	Soybeans (million bu)	Crop Receipts (million)
Lincoln	12.2	4.3	\$22
Lyon	26.3	7.7	\$55
Redwood	34.2	9.9	\$94
Brown	21.3	5.9	\$61
BlueEarth	29.4	8.6	\$79
Waseca	19.5	4.8	\$57
Steele	18	4.3	\$51
Dodge	17.8	4.3	\$51
Olmsted	17	3.3	\$47
Winona	12	1	\$22
TOTAL	207.7	54.1	\$539

How many grain cars would it take to transport this harvest? Using assumptions from Paul Bourgeois, a 5461 cu ft rail car should hold up to 4388 bushels. Thus these 10 counties could have generated 47,333.64 cars of corn and 12,329 cars of soybeans. Even if NO corn or soybeans originate in South Dakota, the DM&E currently carries, at most, 1/5th of this harvest, and plans to increase this by a fairly small amount. While every little bit helps, over 4/5 of the harvest of these important crops in the closest counties in Minnesota to the DM&E are reaching market some other way, perhaps truck or other rail.

Comment: Michael Dunn, under Secretary for Marketing and Regulatory Programs at the US Department of Agriculture in, "Before the Surface Transportation Board; STB Finance Docket 33407: Dakota, Minnesota & Eastern Railroad Corporation Construction into the Powder River Basin; Comments of the US Department of Agriculture," November 30, 1998, wrote, "...the basis price for agriculture producers should rise: some estimates suggest increases as high as \$.20 per bushel for both corn and wheat. If prices for wheat, corn, and soybeans increased just \$.10 per bushel, then farm income in the DM&E service region could increase by more than \$90million in a typical crop year." What a wonderful hope; but will this \$.10/bushel actually reach farmers?

Comment: According to Minnesota economists, How much will improved transportation help depressed farmers?/or how much will the loss hurt them? Dr. Richard Levins, professor of applied economics at the University of Minnesota and senior fellow with the Institute for Agriculture and Trade Policy, in a Star-Tribune editorial (7-16-2000) wrote, "Will lower transportation costs for grain companies improve farmer profits? Not Likely....In short, the story of 'transportation costs will go down, so farm income will go up' is too simple for a global agricultural economy that farmers share with powerful corporations and nonfarm landlords...Why should the trickle-down buck stop with the farmers? By using a computer

simulation model, the Agriculture and Trade Policy Institute study found that higher farm costs would quickly keep the benefits trickling down past the farmers and into the pockets of landlords and other farm input suppliers....In 1998, the average farm had a net income of only \$8,600 after receiving \$30,000 from the government. If farmers are not able to keep all the money that the government pays directly to them, how can we ever expect a public subsidy to grain shippers to help farmers at all?"

Comment: Professor Jerry Fruin, also of the University of Minnesota in interviews with both Rep. Gutknecht's office and Karla Johnson in summer, 1999, stated that the abandonment of the DM&E railroad would cost the farmers along the line from 0-\$.20/bushel. He estimated that the cost in SE Minnesota, because of proximity to Winona would be \$0, rising to \$.10/bushel at the MN/SD border and continuing to rise to \$.20/bushel on the western border of SD. According to an interview with DM&E's Lynn Anderson by Karla Johnson in the summer of 1999, the DM&E ships 30 M bushels of grain that originate in SW Minnesota. Should these figures and economic model be accurate, loss of the DM&E would cost SW Minnesota farmers about \$3M/year. Of course this cost could be multiplied if one does not accept that rail is a natural monopoly and instead views competition in this sector as leading to lower prices among competitors as well.

Comment: The DEIS should consult agricultural economists as well as rely on farm organizations and shippers before it builds its case against the no-action alternative

DEIS: "Losses would be experienced, including the loss of several hundred jobs in Minnesota associated with railroad operation and maintenance, jobs provided by shippers forced to relocate, and revenues generated to the counties through taxes and employee spending."

Comment: See response above to DEIS comment: "Additional jobs and tax revenues generated by increased railroad activity and improved railroad facilities would not be provided".

Comment: The DEIS should have said "there would be no further shifting of direct or indirect costs from beneficiary to bystander in DM&E shipping transactions"

- Property values would not rise for the DM&E, but they would not fall for other businesses or residents near the line.
- Time for transport will not fall for DM&E shippers, but they would not rise for the individuals and businesses using roads which cross the DM&E right-of-way.
- Safety will not increase for the DM&E or the products it ships, but it will not decrease for those residing near or crossing the line or for those needing the services of emergency vehicles or hospitals.
- More Income will not accrue to the owners of the DM&E, but income will not be lost by businesses incompatible with this coal train proposal.
- Action by the Federal Government will not unilaterally increase the value of one private enterprise without all associated costs, but local and state governments will not have to respond to these added costs by taxing those already injured for public improvements for partial mitigation

SUMMARY

Omission of impact/costs on the non-shipper economy and the local governments, which may be called to respond, is a significant error in the section on the "No-action" alternative. The needs and SIZE of the shipper economy need to be put in perspective as the supposed benefits to this group are compared to the costs to be born by the far larger non-shipper economy.

- The 28 pages of mitigation found in volume 7 do not attempt to measure these costs, let alone develop realistic (from the point of view of the injured) mitigation. No one is held accountable for even the meager mitigation described, should the no-action alternative be discarded.
- research should be conducted on ACTUAL benefits to current shippers and the agricultural community of this project. Then compare these benefits (numerically) to the ACTUAL costs suffered by other sectors of the community due to the coal train project. (See the RAEDI study). Just to get a little perspective on the economic impact to our region of Mayo Clinic with \$1.6B health care income/year. Compare that with All crop receipts to farmers in 1997 in the 10 counties in Minnesota crossed by the DM&E of \$539M or about 1/3.
- If the STB believes that the DM&E cannot survive with the no-action alternative, yet continues to believe that there are severe economic impacts, many of which cannot be mitigated, it ought to be the duty of the STB to look at other financial alternatives besides the coaltrain project to save the DM&E
- Untried assumptions should not be a part of the EIS. If you make economic assumptions as part of the "no-action alternative", you ought to study them the same way you would water, air or biological resources.

Section 3.2, pages 3.2-1-8 and Table 3.2-27 and -29– Socioeconomics

Comment: This Section notes a benefit from reconstruction is increased economic activity from construction workers. The Section also notes that reconstruction will proceed at a rate of 1 mile per day, highlighting that impacts will be short term "(only a few days or weeks)". Since the rail line in Olmsted County is only 23.3 miles long (or 34.1 miles if Alternate R-3 or R-4 are selected), the likelihood of construction workers relocating here is highly unlikely. The economic benefit to the County from transient workers will be minimal. There is no basis for the conclusion that the County will derive economic benefit from construction of the Project.

Comment: Table 3.2-29 shows that 1997 Olmsted County property taxes were \$104,123,674. This is incorrect. According to Olmsted County, "Property Tax Levies and Collections Last Ten Fiscal Years: All Overlapping Governments", 1997's total was \$105,459,537, a difference of \$1,335,863 from SEA's data.

Comment: Table 3.2-27 shows Olmsted County enjoying increased earnings of \$9,311,000 as a result of construction workers. The basis of these earnings estimates are not evident and may be unrealistic.

Comment: Unemployment in Olmsted County is currently at a very low rate, unprecedented anywhere else in the State or Nation. As a result, the railroad rebuild is likely to

draw workers away from existing business, thus harming the existing business community. Furthermore, influx of workers from elsewhere, should that occur, will further stress an already tight housing market, causing harm (not benefit) to existing local business during the construction phase.

Using 1992 through 1994 data, the Olmsted County unemployment rate is stated to be 3.5%. In 2000, the unemployment rate in Olmsted County was 1.9% as a result of significant business growth. (Source: Minnesota Department of Jobs & Training Report, as reported by RAEDI) The incorrect unemployment rate cited in the report has lead the STB to conclude that the County would enjoy benefit from employment due to an influx of railroad workers (See Pages: 3.2-1, 3.2-112, and 3.3-85). The STB has come to a MISLEADING conclusion by using obsolete information

The DEIS states that "any increase in county population should easily be accommodated by the increased revenues generated by the project." This conclusion is not supported by foundation data. For example, SEA must also include Olmsted County's mitigation costs, which may include bridges, fences, home sound insulation and other similarly costly propositions. When these costs are factored in, additional project revenues may not be sufficient to "easily"--or even with difficulty--cover the costs of an increased demand for services.

SEA claims that "[lodging] shortages, particularly during the summer tourist months, could occur, potentially resulting in increases in construction of hotels and other lodging facilities" (*italics added*). It is unlikely that hotels and other "lodging facilities" would recoup investment costs during the non-permanent, two year (3.2-119) reconstruction period that, SEA alleges, will provide only 89 new jobs to Olmsted County (Table 3.2-26, p. 3.2-110). Moreover, although SEA makes no projections, the operational period will offer even fewer jobs. It is therefore unlikely that new lodging construction would occur.

Section 3.2.15.2-- Socioeconomics

Comment: According to the Rochester Post-Bulletin, Rochester, "has an apartment vacancy rate that fluctuates between 0.5 percent and 1.5 percent" (*Rental Units in Rochester Scarce*, January 31, 2001). As a result, Rochester endures a "scarcity of affordable housing for low- and moderate-income renters..." The situation is little better elsewhere in Minnesota; indeed, "It may be more difficult to find rental housing in Minnesota than in nearly any other state in the nation." (Minneapolis Star-Tribune, *Affordable Housing in a Big Pinch*, January 30, 2001. See also The Minnesota Office of the Legislative Auditor, *Affordable Housing, Report #01-03*). Much of DM&E's workforce will seek rental units during the construction phase. However, given the local shortage of rental units, DM&E's additional demand will displace local residents seeking rental units. Moreover, DM&E's additional demand will drive up rental prices. Neither result is favorable to Olmsted County residents.

Section 3.2.16.2-- Socioeconomics

Comment: Considered on a yearly average, Rochester hotel/motel vacancy rates are about 40 percent. This rate is primarily dependent on the time of year, the number of Mayo Clinic patients,

and conventions. In general, summer means a vacancy rate of about 20 percent, a rate that will be even lower in the presence of conventions. Reconstruction will generally occur in spring, summer, and fall, which means workers may require hotels or motel rooms during those seasons in Rochester. That may mean local shortages and subsequent room price increases. In real terms: May Clinic patients may be displaced, or they may pay more per room, because of the influx of DM&E reconstruction labor.

According to the Rochester Post-Bulletin, 2000's "building boom in Rochester carried over into 2001, with monthly record home starts and just short of record dollars spent for citywide construction during January." (*Building Boom Continues*, Monday, February 5, 2001). The rapid rise of median home prices constitutes further evidence of an extremely high demand for new and existing homes. If SEA is correct (3.2-114), some of DM&E's workforce will seek permanent residence in Olmsted County during and after the construction phase. As demand increases, so do housing costs—and an influx of DM&E workers will increase this cost trend. The result: Olmsted County residents will pay more for housing.

SEA claims that the "potential project impacts to employment and income are expected to be beneficial and potentially significant, particularly during reconstruction." In the face of very low unemployment rates, DM&E's new employees would therefore either shift from existing jobs or arrive from areas outside of Olmsted County. In either case--Olmsted County's unemployment rate will not be significantly and positively affected.

Section 3.3– Socioeconomics

Comment: If the rail's construction and operation's "potential project impacts to employment and income are expected to be beneficial and potentially significant, particularly during reconstruction." (3.2-113), then it is logical to assume that a bypass would increase those benefits. A bypass, after all, would add 10.8 miles of construction and rail travel, thus elevating claimed economic benefits to the region. However, SEA writes incorrectly that "socioeconomic impacts would be basically the same for Alternative R-3" or R-2--routes that would require less construction and less spending by DM&E. SEA cannot have it both ways.

Section 5, Table 5.1-10– Socioeconomics

Comment: This Table states that "Operation would increase tax revenue. High paying railroad jobs and decrease in unemployment. Potential increase in population. Public services could be improved."

These statements are not supported by the information provided in the DEIS. There is a high likelihood that public services such as the response time of ambulances and fire trucks will decrease. Additionally, considering the current economy in Olmsted County (see comments above), there is no basis for these statements. The findings are misleading and possibly false. It is more likely that the Project will have an overall negative impact on the local business community.

Section 9.3 ES, page ES-54– Socioeconomics

Comment: The Section of Environmental Assessment (SEA) claimed that “a circuitous route that bypass numerous communities could add so many additional miles that it would be unlikely to allow Applicant to achieve its goal of providing efficient rail transportation.” (DEIS, ES-54)

Evaluating this claim with respect to Rochester and the proposed bypass, and evaluating this claim with respect to transit time alone, the total additional time required by a Rochester bypass is 14.4 minutes.

$$\begin{aligned}\text{Time} &= \text{Distance/Rate} \\ &= (10.8 \text{ miles})/(45 \text{ miles/hour}) * 60 \text{ minutes/1 hour} = 14.4 \text{ minutes},\end{aligned}$$

where 10.8 (ES-58) is the length of the bypass minus the length of the current track through Rochester, and 45 miles/hour is the projected average train speed (DEIS 3.2-86, Table 3.2-23).

Assuming a total route length of 1000 miles (DEIS 7-1), and assuming an average train speed of 45 mph, the total route time required for the trip, without the bypass, is:

$$\begin{aligned}\text{Time} &= \text{Distance/Rate} \\ &= 1000 \text{ miles}/(45 \text{ miles/hour}) * 60 \text{ minutes/1 hour} = 1333 \text{ minutes}.\end{aligned}$$

With the bypass, the total trip time is:

$$\begin{aligned}\text{Time} &= \text{Distance/Rate} \\ &= (1000 \text{ miles} + 10.8 \text{ miles})/(45 \text{ miles/hour}) * 60 \text{ minutes/1 hour} = 1348 \text{ min}.\end{aligned}$$

Hence, the 14.4 minute bypass represents a 1.1 percent time increase $(1333/1348 * 100 = 1.1\%)$. Therefore, the Rochester bypass, in terms of time requirements, is probably not sufficient to destroy DM&E's goal of “efficient rail transportation.” (ES-54)

9. Safety

Surface Transportation Board DEIS Requirements – Safety

- A. Describe rail/highway grade crossing safety factors at new grade crossings, as appropriate.
- B. Describe rail/highway grade crossing safety factors at existing grade crossings along the portion of DM&E's system to be rebuilt and those portions of the UP and CP systems within Goodview and Winona, Minnesota.
- C. Describe the potential for increased probability of train accidents, derailments, and train/vehicular accidents at new and existing grade crossings, as appropriate.
- D. Describe the potential for disruption and delays to the movement of emergency vehicles across the new rail line, existing rail line to be rebuilt, and those portions of the UP and CP systems within Goodview and Winona, Minnesota due to new rail line construction and operation.
- E. Describe the changes at existing grade crossings implemented to increase safety at existing grade crossings due to increased rail operations on the DM&E system. Such changes would include signalization upgrades and conversion of grade crossings to grade separated crossings.
- F. Propose mitigative measures to minimize or eliminate potential adverse project impacts to safety, as appropriate.

Section 3.2.11, pages 83-85– Safety

Comment: SEA maintains that “emergency incidents are random and unpredictable”. Individual incidents are indeed random. However, in aggregate, emergency events are not unpredictable; we can, for instance, draw statistical conclusions regarding emergency vehicle response times and distances, the characteristics of injured people who use ambulance services, and so forth. As a result, we can therefore legitimately, in full view of statistical precepts, discuss matters of causality, correlation, and probability. We *can* draw conclusions regarding the probable impact of train related delays of emergency victims.

SEA writes that train passings are random (3.2-85) events due to variations in customer demand and due to the inherent difficulty in traversing a 1000 mile track over a 22 hour period.

SEA, however, relies on the word “schedule”, however provisionally. A schedule inherently does not leave departure and arrival times to chance and accident. Schedules, by definition, contain patterns and internal order.

In other words, train passings are not statistically random events. Randomness, according to the dictionary, demands that “a number [or train departure time] selected from a known set of numbers in such a way that each number in the set has the same probability of occurrence.” In the extreme, truly random train departures might mean that one train would leave immediately after another--with no provision for safe following distances.

DM&E *will* use a schedule, though that schedule may change from time to time. Under normal

circumstances, therefore, we will be able to reasonably predict that, for example, the 3:10 train will pass at about 3:10 at a certain intersection, although it may have passed at 3:20 the prior month.

An emergency dispatcher may well know when a train is expected--if DM&E takes care to communicate daily, or weekly, or monthly schedules. Furthermore, the dispatcher's knowledge may be made even more certain with a real-time train location monitoring system (p. 7-12)--*if DM&E installs a monitor system.*

Average traffic count of 5000 ADT was not used for crossing analysis. This removes most roads affected by the upgrade, but still puts at risk hundreds of thousands of motorists that cross these tracks daily, without the benefit of considering their safety. All crossings need to be evaluated to insure that the general public has the most stringent safety measures in place. To do otherwise is a breach of faith with the motoring public. No grade separations are discussed in this section. No mention of county and township roads of either grade separations, closing or signage.

Section 3.2.12, pages 90-103-- Safety

Comment: Assuming along with SEA that DM&E's safety record improves as it becomes a Class I rail road, DM&E will likely achieve an accident rate of about one incident in 3.45 per million train miles, the typical accident rate for a Class I railroad (STB data). SEA does not calculate how that rate might apply to Olmsted County, but the math is simple:

$$(23.3 \text{ miles}) * (37 \text{ trains/day}) = (862.1 \text{ rail miles/day}) * (365 \text{ days/year}) = 314667 \text{ rail miles/year within Rochester.}$$

$$\text{At a ratio of: } 1/3,45,000 = x/314667 \Rightarrow x = 0.109 \text{ accidents per year}$$

Therefore, if we use statistics in SEA's manner, we can predict that there will be one accident every ten years in Olmsted County.

DEIS: Category A "accident frequency rate of one accident every eight years"

Comment: It is not clear as to the number of trains, size and speed used in generating this number or these statistics.

Section 7.6, pages 7-9-- Safety

Comment: There is no mention of Minnesota Department of Transportation's plans and recommendations.

Section 7.8.1.3, pages 7-14-- Safety

Comment: Conspicuity or reflective tape now used on all truck trailers should be mandated for all locomotives and train cars to improve safety when approaching a train from the side.

STB should also consider requiring all trains be lit much like current semi tractor combinations.

Section 7.8.2, pages 7-16– Safety

Comment: During reconstruction, a “temporary access road” within the right of way or established public roads will be required. The DEIS fails to discuss the environmental impacts of these access roads--which will, after all, require a major portion of the right of way.

10. Hazardous Materials

Surface Transportation Board DEIS Requirements – Hazardous Materials

- A. Describe any known hazardous materials sites along the preferred and alternative construction alignments and the existing rail line to be rebuilt.**
- B. Describe the transport of any hazardous materials over the existing DM&E system and those portions of the UP and CP rail systems within Goodview and Winona, Minnesota.**
- C. Describe the potential impacts to hazardous materials sites along the preferred and alternative alignments.**
- D. Describe the potential impacts to the transport of any hazardous materials over the existing DM&E system, new rail line proposed for construction, and those portions of the UP and CP rail systems within Goodview and Winona, Minnesota.**
- E. Propose mitigative measures to minimize or eliminate potential adverse project impacts to hazardous materials and the transport of any hazardous materials, as appropriate.**

Section 3.1, page 18 and Section 3.2, page 102– Hazardous Materials

Comment: The document states “The rebuild of the existing DM&E rail line in Minnesota should not result in significant impacts to groundwater aquifers or wells in the region”. The original DM&E line was built 125 years ago. Hazardous materials represent a small fraction of the current freight (page 3.1-96 notes that DM&E only hauls 200-250 carloads of hazardous material (mostly fertilizer) per year, page 3.1-102 notes the total annual DM&E volume is 60,000 carloads, thus hazardous material represents <0.4% of DM&E current freight). In the event the line is upgraded, the DM&E has stated it may haul any type of freight, including hazardous materials. These appear to be conflicting statements.

Section 3.3, page 3.3-57– Hazardous Materials

Comment: Olmsted County has significant regions of karst geology that makes the region extremely susceptible to groundwater contamination in the event of a hazardous material spill (see Olmsted County Geologic Atlas). Improvement of the line may reduce the likelihood of derailment, but the increased opportunity to haul hazardous materials as a result of the upgrade will ultimately increase the likelihood of a hazardous material spill. Page 3.3-57 notes “Accidental introduction of toxic chemical into surface waters could cause severe and potentially long term impacts”. It is important to note the DEIS report does not highlight similar concerns relating to groundwater; this is a serious OMISSION. It is therefore an error and omission to state that the rebuild of the existing DM&E rail line in Minnesota should not result in significant impacts to groundwater aquifers or wells in the region. A single hazardous material spill in karst geology areas of Olmsted County could result in contamination of the aquifer for decades and cost millions to cleanup. Significant MITIGATION is required regarding rail line crossing karst geology to ensure that no rail distortion occurs as a result of ground shift that is a known occurrence in karst areas. MITIGATION must include adequate resolution to the real possibility of a derailment containing hazardous materials.

The DEIS states "Neither the construction or operation of any of the proposed alternatives would result in increased types or amounts of hazardous materials being transported by DM&E". Currently the DM&E operates on obsolete track. The existing rail line in Olmsted County crosses karst geology which makes it susceptible to derailment (see Table 3.1-19); DM&E derailments in Olmsted County occur regularly, and they occur at points which threaten area aquifers and water supplies. If the line is upgraded, the DM&E has stated that it will haul all forms of freight, including hazardous materials. Therefore, the statement in the DEIS that the Project will result in no additional hazard must be an ERROR.

Section 3.3.2.4.5, page 3.3-54– Hazardous Materials

Comment: Emergency spills & accidents. Does DM&E have an emergency response team mandated by the STB? How quickly will the team be required to respond?

Section 5 and Tables 5.1-6 and 5.1-10– Hazardous Materials

Comment: Considering the likelihood that hazardous material shipping activity will increase (per DM& business plan), it is imperative that the DEIS assess the pollution sensitivity of karst geology in Olmsted County in this section of the Table. Significant mitigation to avoid this possibility is required.

Section 7– Hazardous Materials

Comment: As stated in the DEIS, the STB has not designated any environmental impact mitigation specific to proposed bypass routes. Such mitigation will be determined after final review of bypass options following the comment period. There are issues identified in the Impact Chapter (Chapter 5) relating to groundwater, hazardous materials, land use, safety, socioeconomic, and vibration that will affect Olmsted County irrespective of consideration of the bypass option. There is no mention of mitigation for these impacts in the DEIS. This is a serious OMISSION.

Section 7.8.4, page 7-22– Hazardous Materials

Comment: The DEIS stipulates that herbicides used in the right of way must be EPA approved, and shall "not be applied within 150 feet of perennial streams and wetlands...". SEA fails to account for crops, livestock, and even humans—all of which may be affected by herbicides independent of the ingestion of contaminated water.

11. Transportation Systems

Surface Transportation Board DEIS Requirements – Transportation Systems

A. Describe the potential effects of new rail line construction and operation on the existing transportation network in the project area including:

- (1) Impact to the existing DM&E system operations**
- (2) Impacts to other rail carriers' operations**
- (3) Vehicular delays at new grade crossings for those crossings having average daily vehicle traffic of 5,000 or more and**
- (4) Vehicular delays at existing grade crossings that are part of the portion of the existing system proposed to be rebuilt for those crossings having average daily vehicle traffic of 5,000 or more.**
- (5) Vehicular delays at existing grade crossings along those portions of the UP and CP rail systems within Goodview and Winona, Minnesota for those crossings having average daily vehicle traffic of 5,000 or more.**
- (6) Vehicular delays at existing and new grade crossings having average daily traffic of less than 5,000 vehicles but have unique circumstances that make such evaluation appropriate.**

B. Propose mitigative measures to minimize or eliminate potential adverse project impacts to transportation systems, as appropriate.

Comment: The following material summarizes the errors, omissions and flaws that have been identified related to transportation and safety which exist in the Draft Environmental Impact Statement for the DM&E Powder River Basin Expansion Project. Note as a general comment that the DEIS as written comes to the conclusion that this project will cause little or no harm or impact to the transportation system in Olmsted County or any of the cities in the County, and that safety will not be degraded to a "significant" degree by the project. Further note that the biggest reason for that conclusion is related not to any data errors or omissions, but to the criteria that the STB established for measuring harm/impact. As will become obvious in the paragraphs below, if you have criteria set low or narrowly, you are unlikely to find any great harm or impact.

As per the direction that was established for the County review of the DEIS, I have attempted to:

- Identify the use of inaccurate data in the DEIS (the "bad data" test);
- Assess the criteria which have been chosen for analysis purposes (the "bad standards" test);
- Assess the methodologies used in the DEIS (the "bad methodology" test);
- Assess the manner in which identified problems were assigned resolution (the "wrong authority" test);
- Identify areas where the DEIS failed to address a specific issue or type of impact (the "absence of analysis" test).

INACCURATE DATA

A number of instances were found in the DEIS where erroneous or out-of-date data were used, affecting analysis results and the conclusions drawn. In addition, we found instances where data that one would expect to be consistent (such as the volume of vehicular traffic at highway-rail crossings) was found to be different in different analysis. The use of flawed datasets affects analysis in a number of ways, such as overstating existing conditions relative to future conditions, or understating future conditions and thus minimizing the magnitude of change expected as a result of the project. The use of erroneous or flawed data was found throughout the safety and transportation systems analysis in the DEIS.

Case #1: Vehicular Traffic Assumptions at Highway-Rail Crossings

In my initial review of the accident prediction and traffic delay analysis it was apparent that the vehicular traffic volumes utilized did not reflect current traffic volumes observed at various highway crossings of the DM&E corridor. There appeared to be multiple errors, including traffic counts that were out of data as well as traffic counts at certain low volume crossing that were much higher than expected. An effort was undertaken to verify the year of the counts used in the accident prediction and traffic delay analysis using readily available datasets, including the Minnesota Department of Transportation (MNDOT) State Aid Count Maps and the Federal Railroad Administration (FRA) Grade Crossing Inventory Database. From this assessment it appears that the vehicular traffic counts that were used range from 6 to 12 years old, with the 1994 State Aid Count Map being the source for many of crossing counts used in the analysis.

The use of out-of-date data affects the assessment of accident levels, since use of old traffic levels will understate predicted accidents. Using lower traffic volumes also affects the traffic delay analysis in terms of under-estimating potential queuing impacts and the number of vehicles impacted by train delay.

More up-to-date traffic counts are readily available that could have been used to complete various traffic related analysis. MNDOT's State Aid Count program is conducted on a four year cycle, meaning 1998 data would have been available from MNDOT for every crossing. In fact, The Southern Minnesota Rail Corridor Safety Plan³ identified traffic counts at every highway-rail crossing in the State of Minnesota using data available through 1998. Another source of current data that could have been utilized were count estimates prepared by the Rochester-Olmsted Council of Governments⁴ for all crossings on the existing DM&E corridor as well as the proposed bypass corridor and submitted as part of the scoping phase of the project. In fact it appears these count estimates were utilized when no other source of data was available, yet older data was used on other crossings.

Case #2: Train Traffic Assumptions

The DEIS overstates existing train traffic levels, identifying 12 trains per day as the existing level of traffic on the corridor between the cities of Lewiston and Waseca in Southeastern Minnesota. Throughout the scoping process and early discussions of the project there seemed to be general

³ Southern Minnesota Rail Corridor Safety Plan, February 15, 2000, prepared by Short, Elliot, Hendrickson, Inc for the Minnesota Department of Transportation.

⁴ Rochester-Olmsted Council of Governments (ROCOG) is the federally designated planning agency for carrying out mandated transportation planning activities under Federal Statutes applicable to transportation.

agreement on the fact that existing rain traffic was 3 trains per day. The use of 12 trains as the baseline affects the accident prediction analysis and the traffic delay analysis by inflating the level of existing accidents and traffic delay and thus minimizing the change that would be created by the project.

I would also note in Appendix G, Traffic and Transportation, the DEIS goes through great detail identifying the amount of traffic delay that would occur at each individual grade crossing under six different scenarios, taking into account three different levels of annual coal traffic (20, 50 and 100 million tons) and two different train lengths (6400' and 7400'). The analysis assumes, however, that the number of trains per day would be the same under both train lengths. In fact, using 6400' trains will increase the number of trains needed to ship 50MT of coal from 18 to 20 trains per day, and to ship 100MT of coal from 34 to 40 trains per day. If alternative train lengths are to be evaluated, the DEIS should use train numbers that reflect the capacity needed to ship stated levels of product.

The difference in the number of trains will affect the outcome of the accident prediction analysis that was completed as part of the safety assessment and will have a minor affect on the traffic delay assessment that was completed as part of the transportation system assessment.

Case #3: Grade Crossing Protection assumptions used in Bypass Alternatives R-3/R-4

Appendix H of the DEIS looked at existing and predicted rail crossing accident levels to determine where a significant increase in accidents could be expected. The analysis relies on the methodology developed by the Federal Railroad Administration (FRA), which takes into account many factors affecting grade crossing safety, including factors such as the number of tracks, the number of roadway lanes, the type of roadway surface and historic accident levels.

Tables 3-MN-H191 to H195 in Appendix H list the results of the accident analysis for alternatives R-3 and R-4 (the Bypass Alternatives). This table identifies the assumptions that were used to predict future accident levels. For the purposes of this study, the analysis assumed that passive grade crossing protection (ie Crossbucks and Stop Signs) would be utilized at every crossing and that all of the roadway corridors were paved (this is found in the column entitled "Hwy Paved, Yes=1, No=2).

It is my assessment that the assumption that all crossings would be protected with passive devices in the R-3/R-4 alternative is flawed. The applicant has proposed in the various community plans they have presented to local jurisdictions a set of criteria that identifies what type of grade crossing protection would be used at crossings with various levels of vehicular traffic. MNDOT also has criteria that they utilize to determine the appropriate level of grade crossing protection, which are published in the Chapter 8830 of the Administrative Rules of the State of Minnesota. The assumptions for Alternatives R-3/R-4 should have reflected these baseline criteria that were used by MNDOT and the applicant throughout the project area.

The use of incorrect crossing protection assumptions and pavement surface type affects the outcome of the accident prediction analysis and will result in an overstatement of the number of accidents that can be expected in Alternatives R-3/R-4 when compared to Alternative R-2 (the existing corridor).

Case #4: Other errors in Accident Analysis Input Data

The accident analysis input data in Appendix H of the DEIS also contains other errors that will effect the outcome of the analysis, though not in a significant way. These include the use of incorrect data regarding the number of highway lanes and the number of tracks at certain crossings, and the characterization of tracks as either mainline or local service tracks. Also in error is the breakdown that was used consistently throughout the accident analysis regarding the number of day and night trains. The FRA Handbook on the Grade Crossing Inventory file indicates that equal 12 hour periods are used to define the daytime and nighttime hours of operations, with day hours extending from 6 AM to 6 PM and night hours beginning at 6 PM through to 6 AM. If the proposed traffic is occurring equally throughout the day, the number of daytime trains should be 50% of the total daily trains. Throughout Appendix H in all the tables one can see that the assumption used is that 2/3 of the train traffic would be daytime traffic and only 1/3 would be nighttime traffic. This error will affect the outcome of the accident prediction analysis since assumptions in the accident prediction methodology regarding vehicular traffic distribution and historic accident adjustment factors are affected by the distribution of day/night train traffic.

INAPPROPRIATE CRITERIA OR STANDARDS

Case #1 – The criteria for assessing the significance of expected increases in highway-rail crossing accidents treats communities in Minnesota much differently than communities in South Dakota and Wyoming, to the detriment of Minnesota communities.

The system the DEIS establishes for assessing accident-related safety risk does not equitably measure the risk of accident to drivers across the three state area and therefore will understate the significance of impact to residents of Minnesota. It would seem that all areas in the 3-state area affected by the project should be treated equally; one set of criteria should apply uniformly across the project area.

For the Safety / Accident Analysis conducted as part of the DEIS, an accident rate threshold was established as a baseline for the purpose of categorizing crossings into one of two groups. For intersections with higher existing accident rates, referred to as "Group A" crossings, a smaller increase in future accidents due to the project is considered to be significant than for crossings in "Group B". The minimum accident rate needed to qualify as a Group A crossing in each state is as follows:

Minnesota – Frequency of 1 accident every 8 years, or 12.5 every 100 years

South Dakota – Frequency of 1 accident every 20 years, or 5 every 100 years

Wyoming – Frequency of 1 accident every 40 years, or 2.5 every 100 years

The significance of the classification into Group A or B is that in Group A a predicted increase of 1 additional accident every 100 years due to the project is considered to be significant, while in Group B an increase of 5 additional accidents every 100 years is needed before it is considered significant.

It appears on its face that this system places residents of Minnesota at a much higher risk for accident without consideration of the need for a higher level of grade crossing protection than it does residents of either South Dakota or Wyoming. A crossing in Wyoming with an existing accident rate of 2.6 accidents every 100 years, if predicted to experience an increase of 1 additional accident, will be considered significantly impacted. Conversely, in Minnesota, a crossing with an existing accident rate of 12 accidents every 100 years would not be considered to be significantly impacted unless the predicted accident rate after construction equaled or exceeded 17 accidents every 100 years. Thus, the grade crossing accident rate in Minnesota before a potentially significant impact is identified needs to be over four and one-half times higher than the rate in Wyoming.

The criteria established for Minnesota and applied within Olmsted County to Alternative R-2 (existing corridor upgrade) suggest only one crossing, US Trunk Highway 63 (Broadway Ave) would be significantly impacted by the projected increase in accidents due to the project. Stated another way, the DEIS suggests that except for the crossing at TH 63 the existing grade crossing protection currently in place at all other crossings throughout the City of Rochester and Olmsted County is adequate to address the safety impact of the project.

Alternatively, if the South Dakota criteria were applied to Alternative R-2, the number of significantly impacted crossings identified in Olmsted County would increase to 15, and with the Wyoming standards the number of impacted crossings would be 25 out of a total of 34 crossings in Olmsted County.

It appears what the DEIS method is in fact doing is a de-facto prioritization scheme and not an impact assessment, based on the concept that only highway-rail grade crossings that have an existing accident rate in the top 50 of a given state are worthy of the higher scrutiny allotted to crossings placed in Group A. The thresholds established for each state were checked against the FRA database and were found to equal the 50th highest accident rate in the each state. By using the 50th highest accident rate, the methodology significantly narrows the window of impacted grade crossings that are placed in Group A in a state such as Minnesota, with a high number of crossings statewide (5147), versus a state such as Wyoming, with only 516 crossings statewide. In Minnesota, only 1% of all crossings in the state, and only one on the entire DM&E system, are classified as Group A crossings. Comparatively, in Wyoming over 10% of all crossings in the state fall into Group A with the much lower threshold of only 2.5 accidents every 100 years.

The use of the 50th highest highway-rail crossing accident rate in a state as a threshold seems to be derived from the prioritization process used by a number of states to allocate highway-rail crossing safety funds. It is not a measure of impact but a relative measure of comparative priority that would typically be used in allocating scarce program dollars. In my judgment a single rate reflective of the average or 80th percentile accident rate based on national or regional accident experience would have been a more defensible criteria in order to provide a consistent measure of accident rate impact across the project area.

Case #2: Traffic Delay Analysis – the use of criteria that assesses relative impact

Appendix G of the DEIS describes the methodology and criteria used for assessing the traffic delay impact that would result from the project. It is key to understand that, as noted on page G-5

of Appendix G, that "LOS (Level of Service) criteria presented in the Highway Capacity Manual (HCM) for two-way stopped control (TWSC) intersections may not be completely representative of the conditions at highway/rail intersections. However, the thresholds can be beneficial if used as a measurement for ranking the crossings in terms of delay severity." The DEIS acknowledges with this statement that the traffic delay data presented is relevant primarily for comparing on a relative basis the various highway-rail crossings and not as a measure of impact.

I would go further and suggest the criteria utilized for assessing whether traffic delay is significant are so meaningless that they really do not tell us anything about the impact to the transportation system, which was the goal established in the Scoping Document for the DEIS. The DEIS uses two criteria to assess impact, one that looks at the possible increase in driver delay due caused by a single train and one which looks at the amount of daily delay created by trains averaged over all the drivers using a crossing, using Level of Service (LOS) standards developed for Two-way Stopped Control Intersections (TWSC).

The first criteria establishes that the amount of delay experienced by a motorists needs to increase by 30 seconds on average over what exists today for there to be a significant impact. As one can intuitively conclude, if the trains are going faster and are not much longer that is not going happen. In fact, given the average length of trains today on the corridor and the projected future lengths of trains, an increase in speed of 2 MPH will insure that the 30 second threshold will not be met. If trains travel at 11 MPH today and will travel at least 13 MPH in the future, there is no impact according to this criteria.

The Level of Service (LOS) criteria states that the amount of delay on a daily basis averaged over all motorists needs to exceed 20 seconds per motorist before consideration of grade separation is warranted. By looking at the formula used to make this determination one can see that it is dependent only on the number of trains and the speed of trains. By working the equations backward one can figure that the DEIS would not identify grade separation as a consideration until 73 trains were present. Perhaps more surprisingly, this same conclusion would be reached whether there were 500 or 50,000 cars a day using a crossing, since the analysis does not take into account vehicle traffic in making the determination. And even at this level, grade separation would not be a requirement, only a consideration.

Case #3: The application of Level of Service (LOS) criteria is flawed:

The manner in which LOS analysis is utilized in the DEIS raises a number of methodological concerns from my perspective as a transportation planner:

First, LOS as established for use in highway analysis is a qualitative measure based on empirical observation of conditions at street intersections. The necessary empirical observation needed to develop relevant LOS criteria for highway-rail crossings has not completed by the research community.

Second, the assumption that motorist judgment at highway-rail crossings is similar to the judgment that a motorist needs to exercise at TWSC intersection seems to mischaracterize what

happens at a highway-rail crossing. Operations at a TWSC intersection rely on motorist judgment regarding the adequacy of gaps in the through traffic flow of the crossing street, while at a highway-rail crossing the judgment exercised by a motorist is limited to only that period of time when a train is approaching a crossing with non-gated control.

The judgment that is required of motorists at a highway-rail crossing seems more similar to that exercised at a signalized intersection, where decisions during the yellow phase of the signal cycle require motorists to judge whether to proceed or stop. Common transportation references typically draw the analogy between signalized intersections and highway-rail crossings.

Third, the use of LOS in the DEIS takes a procedure that is designed for peak hour analysis and applies it to a 24 hour period. The standard application of LOS uses the peak hour as the critical time of the day during which to measure traffic impact. The methodology used in the DEIS will effectively mask critical conditions observed during the higher volume hours of the day by averaging out traffic and thus average delay over 24 hours.

Traffic can vary widely across the 24 hours of a day, yet the analysis utilized in the DEIS would suggest that the impact is the same in the middle of the night as during the afternoon rush hour

Fourth, the results that are presented in the DEIS do not identify transportation "system" impact but simply report on the impact of a single train on an individual motorist. The DEIS fails to consider or analyze the system impact in any of the urban areas bisected by the DM&E rail corridor. Reviewing the results in the DEIS for any "homogenous" section of the corridor (ie, a section where train traffic and train speed are constant, such as the Lewiston to Owatonna corridor in which Rochester is located), one can see that the average delay per motorist is exactly the same at every crossing no matter the traffic volume or number of highway lanes on the crossing street. In looking at every crossing in this section of the corridor, one can see that for volumes ranging from a traffic volume low of 39 ADT at milepost 2300 in Winona County to a high of 19,200 ADT on TH 63 in Rochester, the average delay per vehicle is reported to be exactly the same for every crossing, at 9.8 seconds. In other words, the DEIS reports that the traffic delay impact is the same at every single crossing between Lewiston and Owatonna.

THE USE OF METHODOLOGY THAT DOES NOT ADDRESS THE SCOPING ISSUE

Case #1: Transportation System Impacts are not measured

The Final Scoping Document identified that for "Transportation Systems" the EIS would "describe the potential effects of the new rail line construction and operation on the existing transportation network in the project area", and would "propose mitigative measures to minimize or eliminate potential adverse project impacts to transportation systems, as appropriate". As discussed in the previous section the criteria and analysis that was used does not really tell us much about the impact of the project on the transportation system in the communities along the corridor.

The analysis should have looked at a number of factors including different scales of time and geography to adequately analyze how the project affects the transportation system. While the analysis identified the 10% increase in average delay that would occur to a single motorist, it

missed the over 700% increase in the number of motorists who would be stopped by a train on a daily basis and the \$1.1 million dollars in indirect cost due to traffic delay that would be created in Olmsted County along on an annual basis. It also missed the 140% increase in accidents that we project will occur and the associated \$1 million dollars in costs associated with those accidents on an annual basis. The DEIS focuses simply on effects at the level of the individual driver and not on the system impacts.

If the DEIS analysis had been more thorough and considered the benefits and costs of different types of improvements it would have found, for example, that construction of grade separation at East Circle Drive (CSAH 22) makes economic sense from a societal standpoint, as the direct and indirect benefits of this type of improvement outweigh the costs of the project. However, with no effort put into the process except to assess the length of delay caused by the train traffic associated with the project, it misses most of the important factors that would lead to consideration of this alternative.

An adequate analysis to fully assess the impact to the transportation system would have considered impacts at the crossing, corridor and system levels. It would have included a mix of analysis and screening steps, focusing more effort on locations of critical concern rather than treating all crossings to one simple level of analysis. And it would have taken into account the indirect economic costs of introducing 12 times more trains into the area than currently exist. The analysis in the DEIS does not really provide any useful information except to inform us that each individual train will create less delay as it passes by a grade crossing.

Case #2: The use of simplified equations that understate impact:

The DEIS makes a number of simplifying assumptions in the equations utilized for estimating traffic delay in order to simplify the analysis process. I have tested the results of these equations against the more rigorous original equations found in technical references and found that the DEIS equations understate the actual traffic delay on higher volume roadways, in some cases quite substantially. The deviation starts to occur once roadway volumes exceed 560 vehicles in the peak hour or about 10,000 cars a day. The importance of this is that the results are being understated on those corridors where delay and its impact is most significant, such as TH 63, East Circle Drive, or 11th Ave East or West. On 11th Ave NE, for example, the equations in the DEIS understate the expected delay by 30-35% and on Broadway by 20%.

Case # 3: The Use of only Historic Traffic Data in analysis

The DEIS analysis is flawed in that it fails to take into account reasonably expected future conditions, in conflict with 40 CFR 1508.7, as referenced below:

Sec. 1508.7 Cumulative impact.

"Cumulative impact" is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

The traffic and safety analysis in the DEIS assumes a static level of ADT at each crossing and that only train traffic will increase. The use of static traffic levels understates the significance associated with future accident rate increases at highway-rail crossings and future traffic delay increases at crossings. As a result, the DEIS does not accurately assess conditions that will exist in the community in the future and thus could miss identifying the need for mitigation to address impacts that the project is contributing to. As an illustrative example, assume the following conditions at an at-grade crossing:

Current train traffic – 3 trains per day
Current vehicular traffic – 10,000 ADT

Projected train traffic – 37 trains per day
Projected vehicular traffic – 15,000 ADT

Using exposure (train traffic x ADT) as an illustrative measure to assist in making the point that static traffic assumptions can lead to preparers missing potential future impacts, let's assume for a moment that an exposure threshold of 500,000 is a key measure of impact. Let's now look at how the numbers would work in this case:

Current exposure
3 trains x 10,000 vehicles = 30,000 exposures

Future exposure using DEIS method of holding everything static except train traffic-
37 trains x 10,000 vehicles = 370,000 exposures

Future exposure using expected condition of both train traffic and vehicular traffic growth
37 trains x 15,000 vehicles = 555,000 exposures

If 500,000 is the key threshold, an evaluation prepared using the DEIS assumption of static traffic conditions would suggest no critical impact is expected, even though the real expected impact of 555,000 exposures suggests that indeed mitigation needs to be considered in response to future conditions. The point of this analogy is to indicate that the DEIS approach of using no community change can miss potentially significant conditions that the increase in train traffic will contribute to in a major way.

If the decision to forego the use of projected traffic is based on the assumption that it is difficult to develop adequate projected traffic data, this assumption is based on flawed reasoning. Resources exist at the state level to provide a general, consistent assessment of future traffic growth in cities and counties. MNDOT and most other state agencies as part of their system performance monitoring activities establish projection factors for all functionally classified roadways within their jurisdiction that provide an excellent baseline for establishing future traffic levels. In larger communities such additional resources in the form of local community planning agencies exist which can also provide community growth and traffic projections.

The DEIS identifies the wrong authority for resolving or implementing impact issues

Case #1 – Negotiating Community Agreements

The STB places great reliance on the applicant and local jurisdictions negotiating terms and agreements to address issues of significance to the community. The STB states that they will embrace such agreements as part of the approval process and will enforce the conditions of such agreements. One item that needs to be clarified is that the applicant may be negotiating with community fathers for improvements to

infrastructure that is not under the control of the community. This appears to be happening in the agreements with the small towns and villages along the corridor, where the railroad is negotiating grade crossing improvements on county roadways without presenting the improvements to the applicable county government for approval. The STB needs to recognize need to be made with the appropriate road authority.

Case #2 – Disagreement in Standards

In the case of grade crossing safety improvements, the DEIS is woefully inadequate in terms of its analysis and its support for existing state standards for grade crossing protection. Figure 1 at the end of this memo illustrates the differences in standards that would be applied to the project by the applicant and by the Minnesota Department of Transportation. MnDOT identifies that 50% more of the existing grade crossings should be outfitted with lights and gates than the DM&E proposes in Olmsted County according to the criteria included in the draft community agreements we have seen. The DEIS states only that the applicant “shall develop adequate grade crossing safety plans ... and submit these plans to the appropriate state and local transportation agencies for their review and approval.” As the agency with the ultimate authority in this matter, the STB needs to step forward and show support for the existing standards of grade crossing protection that has been established by the state.

Shortcomings / Areas the DEIS does not Address

Case #1 – The lack of cumulative impact analysis

At every highway–rail crossing affected by the project there are multiple traffic and transportation-related effects that occur. These include traffic delay, highway-rail accidents, emergency response delay, and potential pedestrian and bicyclist concerns. The approach utilized in the DEIS is to look at each issue individually, with no effort made to look at the combined effect of multiple impacts at a single location to determine if the cumulative result is potentially significant at a given location. The lack of cumulative impact analysis is inconsistent with the guidance provided in 40 CFR 1508.

The DEIS is also required to assess the cumulative impact of the proposed project and any other federal actions that may be occurring within the project area, such as other federally funded highway projects. The assessment contained in the DEIS is woefully inadequate, missing such major projects as the TH 52 Reconstruction, which would be underway the same time the rail reconstruction would be happening. Only a limited number of projects were identified and these are almost exclusively rural projects with no urban area projects identified.

Case #2: The lack of any discussion regarding crossing closure

The DEIS contains no recommendations on the need to consider the closure of crossings and the fact that this project would be a good opportunity to consider such actions. The Federal Government has established a policy goal of closing 25% of all highway-rail crossings nationwide, a goal which they less than halfway towards achieving. It would seem an appropriate time to advocate for closure of limited use crossings, particularly those at or below 100 ADT with relatively nearby alternative crossings available.

Case #3: No discussion of Queuing Problems

The DEIS assessed the length of queues that would be created as a result of the project but provides no comment or recommendation as to any potential impacts relative to this matter. My assessment of this oversight is that the DEIS assumes that since queues will be shorter due to the faster train speeds, any existing problems will actually be improved. What the DEIS fails to acknowledge is that disruptions may still occur even with shorter queues and may happen much more frequently as a result of the project.

A good example of this impact is on CR 104 west of the city. Whereas today we can expect traffic spillback into the TH 14 intersection occurring twice a day when trains pass, in the future I estimate that this impact would occur 15-16 times out of the 37 train events at that crossing. While the total amount of congestion at the intersection will be less, it nonetheless will be a much more frequent occurrence than currently experienced.

Case #4: The use of the "Consultation" clause

Many of the DEIS recommendations use the word "consult" as the operand in their recommendations as opposed to "shall". The use of the word "consult" is essentially meaningless as it implies no responsibility to actually implement any suggested action where consultation is suggested.

Case #5: Fencing

The DEIS contains no recommendations as to what if any trespass restraint should be provided, such as chain link fencing in urban areas to minimize access to the tracks. National statistics show that more trespassers are killed or seriously injured on railroads annually than motorists involved in rail crossing accidents. Particularly for urbanized areas the DEIS should provide some guidance as to expected level of corridor protection.

Case #6: Evaluating only one side of the Derailment issue

The DEIS discusses train accident rates (ie, derailments) for the DM&E corridor and nationwide rates for Class I and II railroads. The DEIS emphasizes as a major benefit of the project the great reduction in the train accident rate that is likely to be observed if the project moves forward. What the DEIS fails to mention is that in absolute terms, the actual number of derailments is likely to increase slightly because the drop in the rate is more than offset by the projected growth in traffic. Using the 1998 accident rate comparison in the DEIS, the actual number of train derailments would be projected to increase by 77% at 37 trains over today's rate. In terms of numbers, this would represent a change from one projected derailment every 19.5 months to one every 11 months in Olmsted County.

Case #7: The DEIS should discuss all the key economic impacts of the project including the major indirect costs that will be borne by communities

The DEIS fails to assess the balance between the economic costs and benefits of the project. There are significant "indirect" costs associated with the project which have not been addressed, including the costs associated with the value of the time people will be delayed by trains, societal costs incurred by a higher number of accidents, the costs of increased levels of air pollution, and the loss of property value due to noise and vibration.

While the report emphasizes the need to be reasonable and feasible, the fact is that decisions regarding reasonableness and feasibility that ignore noise, vibration, safety and travel delay do not make those issues go away or the costs disappear; they simply shift the costs from the applicant to property owners, taxpayers, motorists, residents and businesses who must adapt (often at a cost) or incrementally pay for the impact in terms of lost time, income, property value, accidents or increased taxes. To make a decision on the financial impact of the project without looking at all the costs is inconsistent with a 1994 presidential order calling for an assessment of costs and benefits on projects authorized by federal agencies . Financial feasibility that has accounted only for the direct construction, operation and financing costs of the project is inadequate.

Case #8: The lack of any analysis of Emergency Response Impact

The DEIS emphasizes that due to the random and unpredictable nature of emergencies that the level of possible impact cannot be predicted. While this is certainly the case for individual events, when looked at over a period of time patterns do emerge and lend themselves to similar analysis as that done from traffic delay. For example, we found that Gold Cross Ambulance was required to cross the tracks 2500 times in 1998 either responding to an emergency or transporting a patient to the ER with sirens and lights on. Using the hourly distribution of calls and the amount of traffic delay that would be created due to the trains, we can estimate that ambulances would have been delayed once every 32 hours. Obviously there is no standard of what is significant, and it is a qualitative judgment as to whether mitigation measures need to be taken, but the notion that emergency response cannot be evaluated is in error.

The DEIS addresses one possible enhancement for emergency service responders, the installation of a real-time train detection and monitoring system, with its "consultation" clause, ie, the applicant shall consult with the communities of Rochester, Mankato, etc on the possible installation of such systems. While these systems are obviously of benefit primarily to the community, there is a need to insure that the applicant will participate in the development of such systems and not just in financial terms. When the community of Fargo-Moorhead attempted to develop monitoring capabilities the railroad (BNSF in that case) would not grant them access to their property to place detection equipment. This forced the cities to make alternative arrangement in terms of the type of equipment and location of installation outside of the corridor in order to implement the system. To facilitate the implementation of such systems the STB should order the DM&E to provide access for the installation of such systems if the community decides to go forward with this improvement.

Case #9: School Bus Safety Issues

The DEIS includes no discussion as to the special hazards faced by school bus drivers. A study done by the National Transportation Safety Board identified the fact that interior noise levels in buses, particularly with windows closed and fans running, are such that drivers run the risk of not hearing train horns. Minnesota has been one of the leaders in looking at ways of addressing this issue with the use of In-Vehicle Warning Systems, which were tested by the school bus service in the City of Glencoe. (ref also NTSB report p 80) It would seem an appropriate time to direct consultation and participation of the implementation of such systems if local school districts decide to invest in such safety devices. Again, as with the real-time train monitoring system, the railroads need to provide access to their property in order to permit installation of necessary infrastructure.

Case #10: No evaluation of alternative Siding Plans

The DEIS describes the use of sidings and lays out three alternative plans for siding locations in Olmsted County as illustrated in Figures 2 through 4. The DEIS contains no analysis of the impact these would cause, particularly when located in or near the edge of a city, which happens in both Alternative B (Figure 2) and Alternative D (Figure 4). The concern with the proposed siding plans is that the DEIS fails in any manner to address the potential impacts that could be created by siding locations. Impacts that can be expected in areas near sidings include:

Increased noise generated by the simultaneous passage of trains

Localized areas of increased vibration due to the presence of traffic across switches

Traffic delay if in fact train speed cannot be maintained, which is highly likely on the shorter siding lengths proposed in the eastern part of the state and operational questions regarding how switching will be managed without the use of power switches.

Given the lack of information regarding the operation of sidings, I would suggest that the county ask for further clarification in the FEIS as to the criteria for siding locations and suggest that consideration be given to the establishment of no-build zones in areas where the operation of sidings could have detrimental environmental impacts on communities. As described in the DEIS the theory was to have sidings 3 to 7 miles in length equally spaced at 12 to 25 miles. However, we do not see evidence of these criteria being used in the establishment of siding placement, particularly east of Owatonna. From analyzing the information in Tables 2-6 through 2-8, it appears that many of the sidings in the eastern 100 miles of the corridor are significantly shorter than 3 miles in length, and are located at very divergent spacings.

The use of each individual siding, based on relatively even traffic flow throughout the system, would average out to be approximately 7-8 passing movements per siding per day. To minimize the probability of detrimental impacts, locational parameters that should be considered include:

To minimize noise and vibration impact no sidings should be established within 1260 feet of any existing residential area;

Siding locations should be located so as not to impact any crossing with over 150 ADT;

Sidings located to the east of communities should be located far enough from major streets to allow westbound trains that must stop or slow to under 10 MPH in a siding enough distance to regain adequate speed (above 35 MPH) before reaching a community in order to minimize traffic delay. Generally this will require about 1.5 miles of distance for empty westbound trains (loaded trains, by comparison, would need about 4 miles to achieve speed)

If a siding must be located in proximity to a community efforts should be made for it to be located west of community to avoid problems with slow moving trains in the cities. Even in this case, however, the entrance to a siding should be far enough outside the city to insure that decelerating trains do not create major delay impact on streets within cities.

Section 2.2.6, page 2-59– Transportation Systems

Comment: DM&E's goal is to create an efficient route to transport coal. This goal of efficiency is compromised later by increasing train speed, weight.

Section 3.1, page 88– Transportation Systems

Comment: The discussion regarding airports makes reference to the Rochester Municipal Airport. The correct term is Rochester International Airport. The name is correctly identified in Chapter 5, page 7.

Section 3.1.12, pages 3.1.101-102– Transportation Systems

Comment: The DEIS states "Occasionally and irregularly, fuel oil may be transported. However, less than 10 carloads annually would 'typically' be moved." This appears to understate the current usage.

SEA contrasts the relative efficiency of rail against truck transport, and errs in its calculations. SEA claims that "rail achieved from 1.4 to 9 times more ton-miles per gallon than competing truckload service." (3.1-102) Assuming the veracity of SEA's underlying data, the actual range is 2.3 to 7.1.

Low end calculation: $(196 \text{ ton-miles/gallon}) / (84 \text{ ton-miles/gallon}) = 2.3$

High end calculation: $(1179 \text{ ton-miles/gallon}) / (167 \text{ ton-miles/gallon}) = 7.1$

Therefore, while rail transport's efficiency surpasses its competitor, SEA exaggerates the magnitude at the upper limit.

SEA assumes it is a "rail vs. truck" question in Section 3.1.12 (p. 3.1-101). However, it also makes sense to view it as a "rail vs. rail and truck" question. That is: How much more, or less, efficient is it to employ DM&E's proposed route vs. existing routes, which employ both rail and truck? Therefore, SEA's assumption is mistaken.

Section 3.2– Transportation Systems

Comment: Not mentioned was near track fuel storage in the Rochester area: St. Mary's Hospital fuel storage located South of 7th St NW, West of US-52 and North of US-14. Rochester Natural Gas Storage located North of 7th St NW, West of US-52

These represent additional risk in the event of a train accident of secondary explosions, and subsequent impact to the city.

Section 3.2.8, pages 3.2-78– Transportation Systems

Comment: The DEIS cites an average post construction delay time per vehicle is approximately 1.5 second per vehicle. Section 3.2.11 indicates an average for 115 car-train to be 2.4 minutes. This is a major discrepancy.

Section 3.2.11, pages 3.2-78– Transportation Systems

Comment: Average traffic count of 5000 ADT was not used for crossing analysis. This removes most roads affected by the upgrade, but still puts at risk hundreds of thousands of motorists that cross these tracks daily, without the benefit of considering their safety. All crossings need to be evaluated to insure that the general public has the most stringent safety measures in place. To do otherwise is a breach of faith with the motoring public.

Table 3.3-19– Transportation Systems

Comment: Rochester Bypass Alternative: No mention of existing State Highways 30, 63 & 14. No mention of County Roads 3, 15, 8, 1 & 10. No mention of 31 township roads that are crossed.

Table 5.2.1– Transportation Systems

Comment: This table fails to include Rochester's Highway 52 rebuild, which is scheduled to begin an intensive 5 year construction phase in 2003 or 2004. This project will entail construction resource competition (including labor and material) with DM&E's work; it will also require coordination in build schedules; and it will add to instant and cumulative environmental impacts. **Source: Rochester Post-Bulletin, 1/9/2001, "City picks 5-year plan for U.S. 52"**

12. Cultural and Historic Resources

Surface Transportation Board DEIS Requirements – Safety

- A. Describe the potential impacts to historic structures or districts previously recorded and determined potentially eligible, eligible, or listed on the National Register of Historic Places within or immediately adjacent to the right-of-way for the preferred and alternative construction alignments and the existing rail line to be rebuilt.**
- B. Describe the potential impacts to archaeological sites previously recorded and either listed as unevaluated or determined potentially eligible, eligible, or listed on the National Register of Historic Places within the right-of-way for the preferred and alternative construction alignments and the existing rail line to be rebuilt.**
- C. Describe the potential impacts to historic structures or districts identified by ground survey and determined potentially eligible or eligible for listing on the National Register of Historic Places within or immediately adjacent to the existing rail line to be rebuilt.**
- D. Describe the potential impacts to traditional cultural properties and religious use areas, sacred sites, cultural landscapes, and collection areas for religious and ceremonial plants.**
- E. Propose mitigative measures to minimize or eliminate potential adverse project impacts to cultural and historic resources, as appropriate.**

Section 3.1.13, pages 3.1-106 Footnote– Cultural and Historic Resources

DEIS: “Adverse effects may include reasonable foreseeable effects caused by the uncertainty that may occur later in time; be farther removed in distance or be cumulative.”

Comment: It isn't clear what this actually means.

13. Recreation

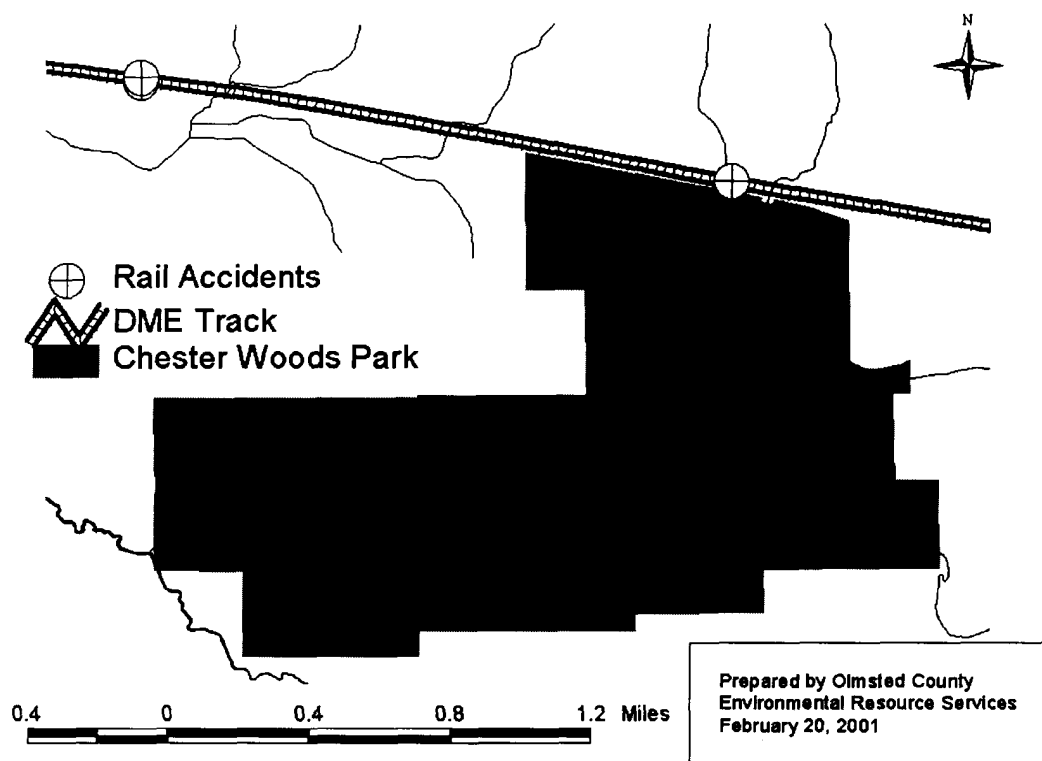
Surface Transportation Board DEIS Requirements – Recreation

- A. Describe the existing recreational opportunities and activities present and undertaken in the project area for the new construction and along the existing rail line to be rebuilt.
- B. Describe the potential impacts of the proposed new rail line construction and operation on the recreational opportunities and activities in the project area for the new construction and along the existing rail line to be rebuilt.
- C. Propose mitigative measures to minimize or eliminate potential adverse project impacts to recreation, as appropriate.

Section 3.1.16, pages 3.1-123– Recreation

Comment: Two major seasonal recreation activities in this area, deer hunting (September through December) and wild turkey hunting (April – May and September – October), are entirely omitted from this description of existing conditions. Participation rates and activity data are available from the Minnesota DNR, and should be included here, since they will be impacted, disrupted and made less aesthetically satisfying by increased train traffic and construction, in addition to direct loss of game animals to train impacts (mentioned at 3.2-117-119) and restricted access to hunting areas.

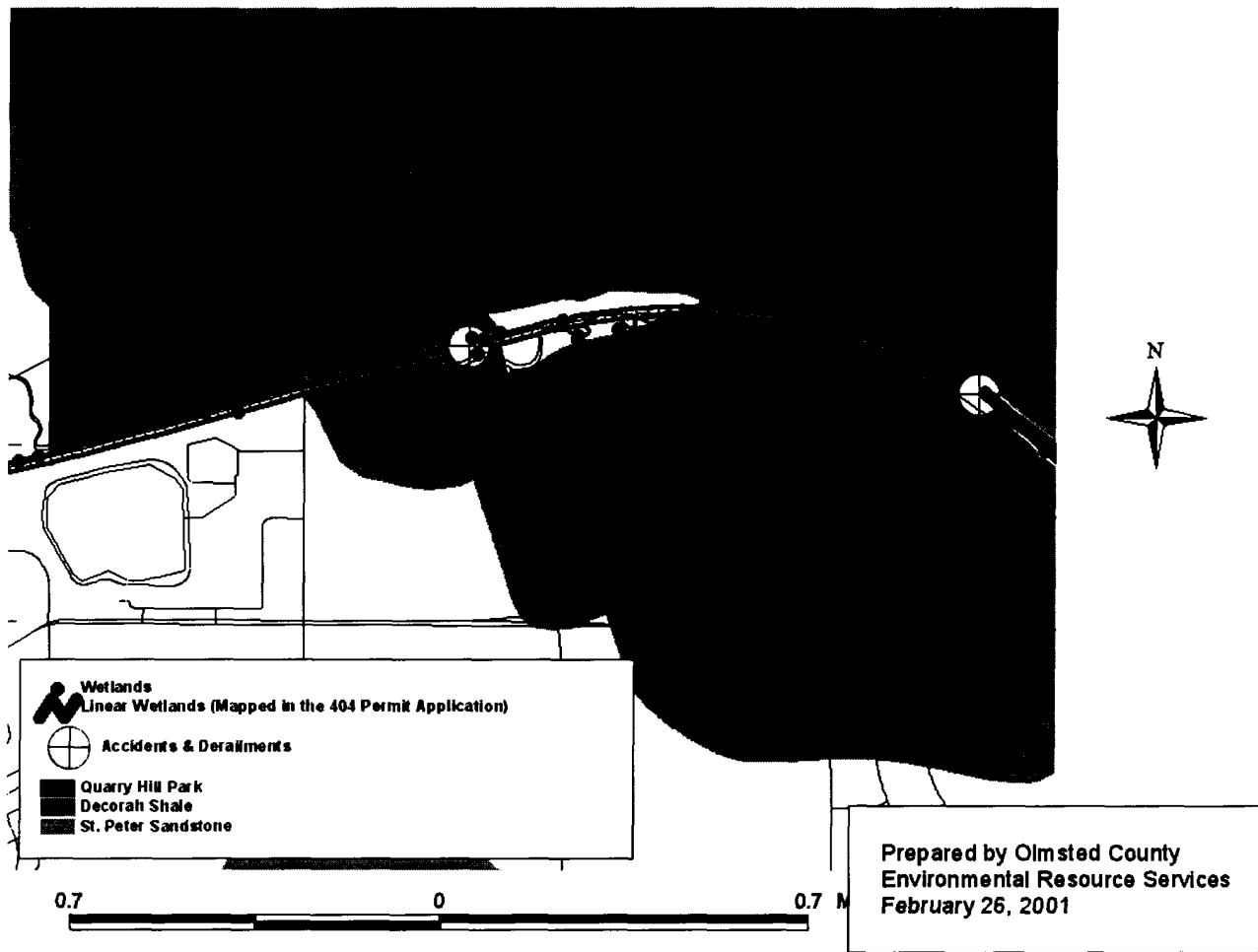
Figure R-1. Derailments in the Vicinity of the Chester Woods Park in Olmsted County.



Section 7.8.5, Page 7-22 – Recreation

Comment: Chester Woods County Park is a 1300 acre park operated by Olmsted County. There are seven rail crossings on streams that drain into the park (**Figure R-1**). These crossings occur in the Decorah Edge hydrogeologic setting – a setting previously noted as predisposed to rail accidents and derailments. The Federal Railroad Administration identifies three accidents in the vicinity of Chester Woods Park. One of these is in an area that drains to the Chester Woods Park reservoir (Figure R1). Should an accident or derailment occur in the vicinity of the above noted stream crossings, pollutant discharges might be expected to reach the park's reservoir. The reservoir provides full-body contact recreation for thousands of park users. The FEIS should outline specific mitigation measures for accidents and derailments in this area.

Figure R-2. Derailments in the Vicinity of the Quarry Hill Park and Nature Center in Olmsted County



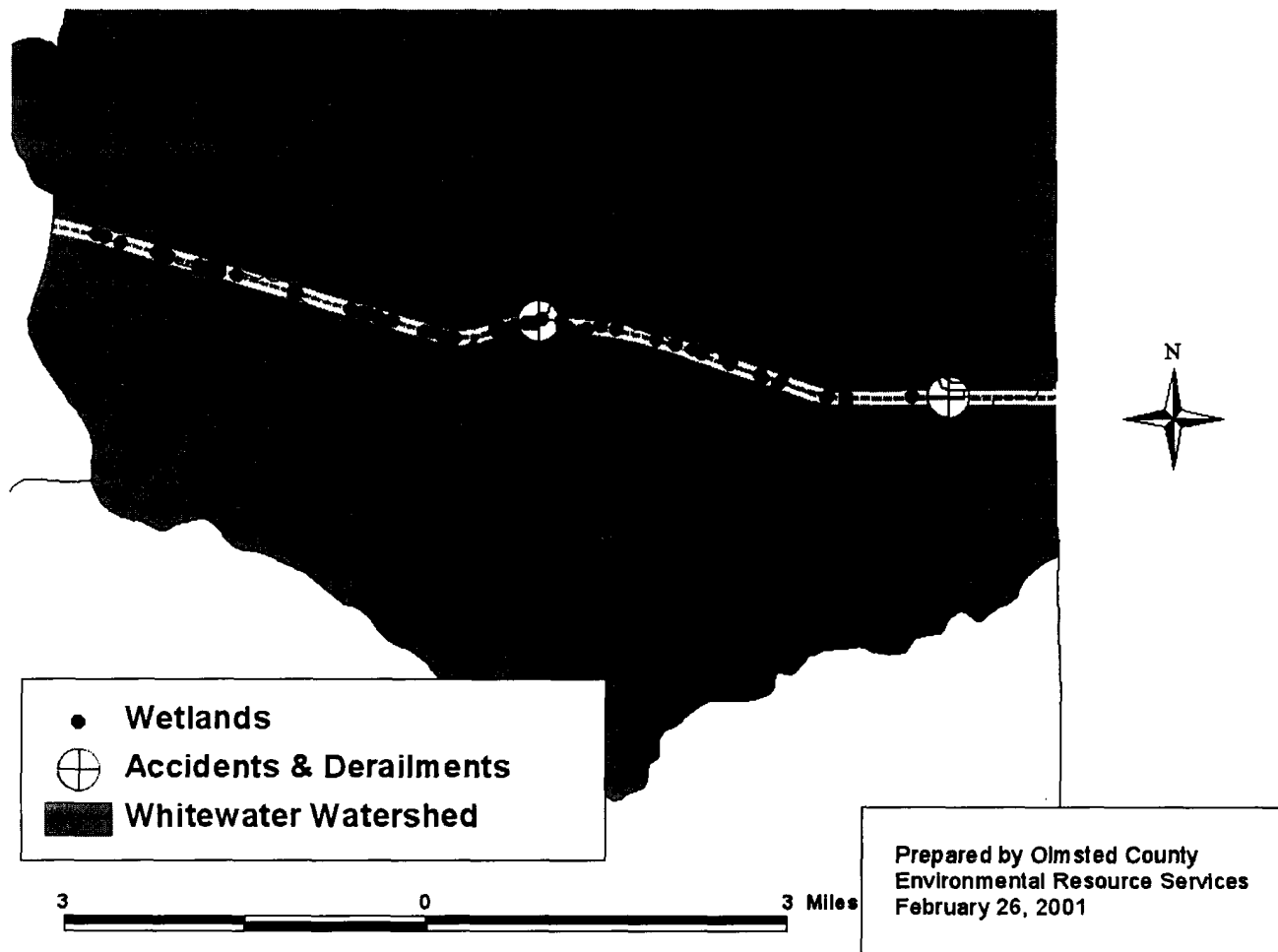
Source: Geology adapted from Geologic Atlas of Olmsted County, Minnesota, County Atlas Series Atlas C-3, Plate 2 of 9, Bedrock Geology, Minnesota Geological Survey, (Balaban, 1988).

Comment: Quarry Hill Park and Nature Center is located immediately north of the existing rail line on the east side of Rochester (**Figure R-2**). The park and nature center serve approximately 65,000 people each year. Existing train noise precludes hearing natural sounds as well as disrupts outdoor environmental education classes.

The park is located in the Decorah Edge hydrogeologic setting and as such is in a setting predisposed to train accidents and derailments. Consequently, the FEIS must identify this environmental impact as well as mitigation.

Comment: The Whitewater River is one of the Midwest's premier trout streams. The DEIS did not adequately identify the risks to the fisheries posed by the transport of hazardous materials along those sections of track that traverse the watershed. **Figure R-3** illustrates the large number of wetlands and stream crossings that occur along the line as a result of the track paralleling the South Branch of the Whitewater between Eyota and St. Charles. This is also an area dominated by the Decorah Edge hydrogeologic setting. The FEIS must identify the unique geologic conditions as well as the resulting heightened risk posed to the fisheries.

Figure R-3. Wetlands, Accidents and Derailments in the Headwaters Area of the Whitewater Watershed in Olmsted County.



14. Aesthetics

Surface Transportation Board DEIS Requirements – Aesthetics

- A. Describe any areas identified or determined to be of high visual quality (components of which may include the wide open nature of the area, the perception of isolation, and feeling of vastness), wilderness areas, or waterways designated as wild and scenic within the project area for the new construction and along the existing rail line to be rebuilt.**
- B. Describe the potential impacts of the proposed new rail line construction and existing rail line rebuild on any areas identified or determined to be of high visual quality.**
- C. Describe the potential impacts of the proposed new rail line construction and existing rail line rebuild on any designated wilderness areas.**
- D. Describe the potential impacts of the proposed new rail line construction and existing rail line rebuild on any waterways considered for or designated as wild and scenic.**
- E. Propose mitigative measures to minimize or eliminate potential adverse project impacts to aesthetics, as appropriate.**

Section 3.1.17.1, pages 3.1-124– Aesthetics

Comment: “Visual Resources” include far more than the “established scenic overlooks or vantage points” mentioned here. Existing vegetation proposed to be removed contributes to the perception of depth (fore-, mid-, and back-ground) and variety in the landscape. “Understanding the concepts of place in ecosystem management may allow land managers to more actively inventory and understand the meanings that people attach to lands and resources..”, and the insights in Place Assessment: How People Define Ecosystems (S.J. Galliano and G.M. Loeffler, 1999; GTR-PNW-462) should be applied to this description and analysis. Similarly, the methodology of Landscape aesthetics, a handbook for scenery management (USDA Agriculture Handbook 701, 1995) should be applied in the FEIS, to accurately/systematically assess existing and potential future aesthetic conditions and impacts.

Comment: The Aesthetics section does not reference Noise/Sound, although these are major detractors of aesthetic “beauty” or desirability.

In a landscape where sound carries for miles, and for activities based on “Solitude” (hiking, biking, cross-country skiing, or simple nature appreciation) or “Quiet” (such as hearing and identifying birds, part of the second largest outdoor recreational hobby practiced by Americans, and Minnesotans in particular), these must be addressed as potentially major, severe impacts.

Section 3.2, pages 118-120– Aesthetics

Comment: If DM&E fulfills its intent to “develop a tourism passenger excursion train”, and if that train travels through or in Olmsted County, the maximum number of trains increases from 37 to 38 trains per day.

Comment: SEA refers to Nightlights (Section 3.2.19.3 and Table 5.1-6) solely in the context of reconstruction, in passing trains' head lights, and (rail road?) facility lighting. However, this category must also include crossing warning lights, vehicles (including emergency vehicles) waiting at crossings during hours of darkness, and street and intersection area safety lights.

Section 7.8.3.1, page 7-17– Aesthetics

Comment: SEA raises the possibility of “train free periods to facility movement of equipment or livestock from one side of the rail to the other” to accommodate the needs of farmers and ranchers. This concept would also be beneficial for Rochester during, for example, rush hour or during street parades, fairs, demonstrations, or other public events that would occur at or near rail crossings.

Section 7.8.7, page 7-23– Aesthetics

Comment: Mitigation for “loss of trees, shrubs, and other woody vegetation” must also be developed, designed and implemented “in consultation with” the Minnesota Department of Natural Resources, and perhaps the Natural Resources Conservation Service.

15. Environmental Justice

Surface Transportation Board DEIS Requirements – Environmental Justice

- A. Describe the demographics in the project area and the immediate vicinity of the proposed new construction and along the existing rail line to be rebuilt, as appropriate, including communities potentially impacted by the construction and operation of the proposed new rail line and existing rail line to be rebuilt.**
- B. Evaluate whether new rail line and existing rail line construction, rebuild, or operation activities would have a disproportionately high adverse impact on any minority or low-income groups.**
- C. Propose mitigative measures to minimize or eliminate potential adverse project impacts to minority or low-income groups, as appropriate.**

Comment: The Draft Environmental Impact Statement (DEIS) analysis of environmental justice (EJ) issues has several serious flaws. The analysis inadequately identifies EJ populations and minimizes the impacts that EJ populations will be subjected to. All of the analysis flaws tend to minimize the extent of EJ concerns.

The analysis of EJ populations and their relative exposure to adverse impacts is inadequate for several reasons:

1. The scale of analysis is too large, and therefore distorts the analysis both by diluting the EJ population and by reducing the average level of impact.
2. Even were it to be determined that the 1990 Census data is the best data source available (despite the availability of neighborhood school enrollment data and real estate tax data), Census data is not used as fully as it should be. Block group level relationships could have been used to derive income attributes from block level data for smaller areas. Block level race data is provided by the 1990 Census and could have identified smaller neighborhoods more accurately reflecting EJ communities.
3. The 1990 Census data is out of date, especially in a County that has experienced a tenfold increase in Black student enrollment, a tripling of total non-white student enrollment, and almost a doubling of students enrolled in the free and reduced price lunch program (FARPL). Eligibility for the FARPL program is determined by family income. Children qualify for free or reduced price lunch when their family income falls below 135 percent or 180 percent, respectively, of the poverty level.
4. The DEIS pays inadequate attention to adverse property value impacts on EJ populations, thereby understates cumulative impacts, and unjustifiably asserts a beneficial effect from increased housing demand generated by the railroad project.
5. By inflating the base condition with regard to train traffic and resultant noise, vibration, and traffic disruption impacts, the DEIS underestimates the extent to which the project worsens these existing conditions.
6. There are serious shortcomings in the approach taken to comparing impacts on EJ neighborhoods with impacts on the balance of the community.
7. The potential for EJ populations being affected by bypass alternatives is ignored.

1. Scale Of Analysis:

The geographic scale of analysis is too large, and therefore distorts the analysis both by diluting the EJ population and by reducing the average level of impact. At Appendix D.2.1, page D-5, it is stated that "... SEA considered communities to be those assemblages of persons living within individual subdivisions, neighborhoods, or similar types of areas ..." and that the use of U.S. Census block groups to represent communities is appropriate because they are "small." In fact, Census block groups are relatively large compared to "individual neighborhoods" and "subdivisions." Especially on the fringes of Rochester and in rural parts of Olmsted County, the use of block groups as the unit of analysis obscures impacts on low income and minority communities by grouping neighborhoods with significantly different characteristics. For example, Census Tract 7 block group 1 (CT7 BG1) includes both a lower income neighborhood immediately abutting the DM&E tracks and a number of very high value, newer single family homes and townhouses along Viola Road more than a mile away from the DM&E tracks. CT7 BG1 is roughly eight square miles in area. Census block group data from 1990 for CT7 BG1 reports a median value for owner occupied housing of \$72,000, only \$100 less than the County median value of \$72,100. However, based on 1990 Census block data, mean values for owner occupied homes in blocks within CT7 BG1 range from \$49,000 (32% below the County average) to \$171,000 (139% above the County average). The block group data reports that only 6.6% of households are renters, compared to 27.5% for the County. Based on block data from 1990, the percentage of renters by block ranges from 0% to 66.7%. The median cash rent from block group data is \$408 (\$410 is the median for the County), while the mean monthly cash rent paid by renter households from block data ranges from \$50 to \$625. These extreme ranges in property-related values are clearly not characteristic of what is conventionally meant by the term "neighborhood." As a result of the scale of analysis, no part of CT7 is identified as an EJ community on Tables D-1 or D-4.

Analysis of 1990 Census block group and public use micro sample (PUMS) data (see below) shows that differences in housing value are strongly correlated with differences in median income. In general, the use of 1990 block group level data obscures the discrepancy in housing value between houses in blocks adjacent to the DM&E tracks and blocks further away. Because housing value is related to income, the use of block group data thus obscures differences in income among blocks within large block groups as well. For all Census tracts in the urbanized area of Rochester, the difference between Census - reported median housing value for block groups *partly* within the 2,230 foot area of impact (page D-5) and the median for the urbanized area is only around 15%. The difference for the mean value of owner occupied housing in the blocks that are *entirely* within the 2,230 foot boundary, compared to the mean for the urbanized area, was over 27% in 1990.

CT7 BG1 is only one example of how the use of block group data has the effect of excluding neighborhoods with EJ characteristics from the analysis. This also occurs in other parts of the City of Rochester. The approach used in the DEIS thus appears to have seriously distorted the analysis of neighborhoods in the City of Rochester.

The reliance on block group data in the DEIS also excludes any rural villages and any neighborhoods in smaller cities from being considered as environmental justice communities. In the village of Chester (part of CT9 BG8, roughly 7.5 square miles in area) and in the cities of Dover (part of CT20 BG3, roughly 48.25 square miles in area) and Eyota (part of CT20 BG4, roughly 5.75 square miles in area), there are neighborhoods abutting the railroad tracks whose housing values and housing styles differ from the balance of the block group and indicate the probable presence of environmental justice communities. Immediately adjacent to the tracks in the City of Eyota are two apartment buildings constructed with

Farmers' Home Administration funding for elderly low income tenants. Further to the north of the tracks is a subdivision of manufactured homes and stick built housing of low value. Exclusive reliance on block group data has the effect of eliminating these neighborhoods from consideration as EJ communities.

2. Improper Or Incomplete Application Of 1990 Census Data:

Census data is not used as fully as it should be. In addition to the scale problems described above, the following are problems with the way the 1990 Census data were applied:

Median Income: The DEIS should have relied on comparisons of median household income to aid in identifying environmental justice populations. This approach has been used in other studies conducted by the Surface Transportation Board⁵. The approach clearly applies in Olmsted County as well. Using this approach would have revealed that 11 of the 25 block groups along the railroad have median household incomes more than 30% lower than the median income for Olmsted County. It is not clear from the environmental reviews conducted by SEA whether there is a consistent standard applying to median income that SEA uses to distinguish EJ communities. However, a disparity in median income of 30% or more should be considered significant.

Minority Populations: The DEIS also identifies minority populations en masse. Olmsted County had small populations of Native American, Black, and Hispanic persons in 1990. Our largest non-white ethnic group were Southeast Asians, classified in the Census as Asian - Pacific Islanders. This group averaged 3% of the County's population but 16.5% of Holmes Elementary School enrollment in 1990. Holmes Elementary is located within one block of the current DM&E line. (Holmes had 25% Asian enrollment in 1999). Several block groups along the railroad tracks had significant Southeast Asian communities, as high as 18% of block group population in 1990. By lumping non-white populations in the single category "minority," the DEIS reduced the number of block groups identified as EJ populations. In addition, since block data includes population by race category, there is no reason to rely on block group level data to identify potential EJ communities based on race. Block level data indicates that 25 individual blocks along the current DM&E route had Asian - Pacific Islander population percentages exceeding 13% (ten percent more than the average for the community), with several blocks having Asian- Pacific Islander proportions exceeding 25% of population.

Linguistic Isolation: Given the large number of recent immigrants in Olmsted County's population, Census data on linguistically isolated households should have been relied on to identify areas of poverty and EJ communities. Block group data shows a very strong correlation between linguistic isolation and rate of poverty, which is confirmed by PUMS data applying to Olmsted County as well as to other areas in Minnesota.

Relationship Between Housing and Income Data: Analysis of the 1990 Census data at the block group level and from the PUMS data for Olmsted County shows a strong correlation between housing characteristics such as tenure and housing value and the percentage of persons with incomes below poverty. The table below presents bivariate correlation coefficients and their significance levels for variables at the block group level for all block groups in Olmsted County under 5,500 in population. (Census Tract 17, which had only one block group in 1990, is excluded from the analysis reflected in the

⁵ See, for example, Docket Numbers FD 33388 1 ID 28329, FD 33388 2 ID 28330, FD 33388 3 ID 28331, FD 33388 4 ID 28332, FD 33388 5 ID 28333, FD 33388 6 ID 28334 (in which, evidently, Census block data was used to compare poverty rates and median income), and FD 33388 7 ID 28335 (in which, again, Census block data was used to compare poverty rates and median income).

table because including it unreliably inflates the correlation coefficients.) All of the relationships are significant at better than a .01 level. Many of the relationships are quite strong and provide a basis for estimating median income and poverty levels at the level of Census blocks or groups of blocks more representative of neighborhoods than Census block groups.

Table EJ-1. 1990 Census Block Group Data Correlations Among Housing Value, Tenure, Race And Income Variables.

		Percent persons under 2 times poverty level	Ratio to county median household income	Percent of persons with incomes below poverty
Ratio of median owner housing value to County median	Pearson Correlation	-.575	.844	-.410
Ratio of median owner housing value to County median	Sig. (2-tailed)	.000	.000	.000
Percent Nonwhite	Pearson Correlation	.358	-.210	.485
Percent Nonwhite	Sig. (2-tailed)	.000	.000	.000
Percent Renters	Pearson Correlation	.632	-.567	.728
Percent Renters	Sig. (2-tailed)	.000	.000	.000
Median Rent	Pearson Correlation	-.460	.438	-.296
Median Rent	Sig. (2-tailed)	.000	.000	.000

These relationships could have been used to identify clusters of blocks with similar attributes and to estimate their median income and levels of poverty. The accuracy of such estimates can be determined based on the strength of relationship with the independent variables contributing to the estimate. A multiple regression equation developed by the Rochester Olmsted Planning Department accounts for over 60% of the variance in the percentage of persons with incomes below poverty at the block group level, relying only on housing, race, and tenure characteristics available at the block level. Another equation with the number (instead of the percentage) of persons below poverty as the independent variable and with race, housing, and tenure characteristics as the dependent variables accounts for 75% of the variance in block group numbers of impoverished persons. Possibly, other better equations could be developed. Using these estimates at the block level results in a higher level of accuracy by avoiding the aggregation errors identified above.

Data from the 1990 PUMS confirm the relationships between income and such housing variables as housing type, tenure, and housing value. Renter households had an average household income in 1989 of \$29,937, as compared to \$55,536 for owner households. For 3,725 owner household records, there is a bivariate correlation coefficient of .606 between housing value and household income. The relationships between tenure, housing type, and housing value (all of which are available at the block level) and income

attributes provide a sound basis for identifying clusters of blocks with similar income attributes with better accuracy and fewer aggregation problems than simple reliance on block group data.

3. Reliance On Data That Is Out Of Date:

The 1990 Census data is out of date. Olmsted County and the City of Rochester have changed considerably since 1990 in terms of racial makeup and the incidence of low income. School enrollment data for the Rochester School District shows a tripling of nonwhite enrollment and almost double the enrollment in the Free and Reduced Price Lunch program (FARPL). Children qualify for free or reduced price lunch when their family income falls below 135 percent or 180 percent, respectively, of the poverty level. 1990 Census block group data for Olmsted County indicates (as would be expected) a very strong correlation between the number of people with incomes below poverty and the number with incomes below twice poverty. The FARPL program therefore should provide a sound basis for more up to date income data. Such data at the level of individual schools is available for all Minnesota school districts at an Internet web site maintained by the Minnesota Department of Children, Families, and Learning (Data Management Team, Office of Information Technologies, Minnesota Department of Children, Families & Learning).

The elementary school serving the neighborhood closest to the current alignment is Holmes Elementary, which itself is located one block from the DM&E tracks. Holmes Elementary School's Fall 1999 enrollment had 71% of students eligible for free and reduced price lunch, compared to a community average for all students of 21% and for elementary students of 27.5%.

Data on changes in minority enrollment are also available for all school districts within Minnesota from the same web site. For the Rochester School District, Black student enrollment has grown the most rapidly of any racial group, growing by almost ten times from an enrollment of 107 in 1989-90 to 1,040 in 1999-2000. The elementary school serving the neighborhood closest to the current alignment, Holmes Elementary, has an enrollment that is 44% minority as of Fall, 1999.

Similar data provides a basis for estimating the number and location of populations of households with limited English proficiency. Census data from 1990 and current information from across Minnesota demonstrate a strong relationship between linguistic isolation and poverty.⁶ As the result of a recent court case in Minnesota, the Minnesota Department of Human Services is required to use enrollment data as the basis for identifying such populations.

School district records provide another source of updated income data. Examining only the population of students living within 400 feet of the railroad tracks across the City of Rochester, 55% are eligible for free and reduced price lunch, or almost three times the average for the Rochester school district.⁷ Of students within 400 feet of the current line, 36% are racial minorities, more than twice the average for the school district.

Assessor's tax records provide another more up-to-date data source for indicators of income derived from housing value and tenure. Our analysis of 1999 property values for single family and 2 to 3 - unit residences in the City of Rochester shows that the average residential building value within 400 feet of

⁶ "Report on Census and Statistical Estimates of Persons Who Do Not Speak English in Minnesota," Dr. Will Craig, University of Minnesota Center for Urban Affairs, September 6, 2000.

⁷ The distance of 400 feet was chosen to match the DEIS distance to the 65 L_{dn} noise contour (Table F-6, page F-16) for 37 trains reflecting wayside noise. The distance is also a close approximation of the 65L_{dn} contour (417 feet) at crossings for three trains, the current level of train traffic, based on the relationship between train numbers and contour distances summarized in Table F-6.

the railroad corridor is \$59,763, 30% lower than the average of values in the balance of Olmsted County. Based on homestead classification and multifamily housing characteristics, 53% of the housing units are rental units. Given the strong association between tenure and housing value data and the presence of low-income populations, it is very likely that the population immediately adjacent to the railroad tracks is part of an environmental justice community.

Outside the City of Rochester, the Village of Chester includes a subdivision with an average value of \$45,867 located immediately uphill from the tracks. The average 1999 building value of single family and duplex homes in Dover is \$61,711 and in Eyota is \$61,283. By contrast, the County's average 1999 home building value is \$85,898.

Local records on rental units, especially subsidized apartments, and on structures such as rooming houses and other group quarters units would also provide better information on where persons of low income reside. In fact, in 1990 there were (and still are) 616 housing units in low income apartment complexes located within 2,230 feet of the railroad tracks. Data on locations and characteristics of subsidized housing is available from the U.S. Department of Housing and Urban Development.

4. Adverse Impacts On Property Values:

The DEIS pays inadequate attention to adverse property value impacts on EJ populations, thereby understating cumulative impacts. It also makes the groundless assertion of a beneficial effect from increased housing demand generated by the railroad project. The DEIS should have examined historical data from comparable situations representing a significant increase in traffic along an existing little-used rail corridor to determine what impact on property values could be reasonably anticipated. It is likely based on experience in other communities that the proposed dramatic increase in rail traffic will devalue properties adjacent to the tracks.

The DEIS acknowledges that "... real estate values may be affected by the increased number of trains resulting in residences adjacent to the rail line becoming less desirable to potential buyers (page 3.2-8)." However, it also asserts (page 3.2-8) that "... some of these impacts could be off-set [sic] by the potential increases in population resulting from ... construction workers ... and the long term increase in the number of railroad related jobs (approximately 210 at 100MNT level of operation)."⁸ Olmsted County's employment has increased by 14,000 jobs over the past five years. It is highly unlikely that 210 jobs spread over all of Minnesota and over all of the years between startup and attainment of 100MNT will create increased residential property values.

Elsewhere, the DEIS asserts that "it is not likely that real estate values [for property adjacent to the line] will permanently decline as a result of the expansion of railroad traffic" (Appendix M, page 12). This assertion is based on the sales experience of seven properties in Brookings, South Dakota, which sold in the year since the DM&E's public announcement of the project "... at a price above both the seller's purchase price and the property's taxable value (ibid.)." If sales data is to be used to substantiate this assertion, appraisal practice and customary standards of statistics require that a larger and more representative sample be used. Determining the impact on property values across the corridor based on seven sales in one community taking place before the project's inception is absurd. In recent years, due to low interest rates and rapid employment growth, real estate values in Olmsted County have been growing

⁸ This is estimated for all of Minnesota. DEIS Appendix M, pages 24 and 25, provide estimates of direct employment increases ranging from 45 to 720. In either case, the estimated employment growth spread over the time period involved in increasing to the 100MNT level of operation and spread over all of the corridor in Minnesota would amount to a trivial share of employment growth in Olmsted County alone.

rapidly. Assessed values generally have not kept pace with sales values, and properties have sometimes sold at higher than their list prices. To determine if such a project has an impact on residential property values will require study of an adequate sample of residential properties in communities that have experienced dramatic increases in rail traffic, involving both properties affected and not affected by expanded rail traffic.

It might be asserted that the rail project will result in increased opportunities to convert residential uses to industrial uses along the corridor. However, Olmsted County does not have the locational attributes and labor force characteristics associated with industries that rely on rail transportation. None of the available employment forecasts prepared by state or federal agencies or private forecasting firms has projected significant growth in durable goods manufacturing employment except in electronics manufacturing, which does not rely significantly on rail for shipment.

Even were it to be the case that the demand for commercial and industrial property would increase as a result of rail improvements, it is unlikely that residential property values would appreciate. Most of the property along the DM&E tracks that is now residential has little potential for industrial use due to street access conditions (which are likely to get worse with the railroad project) and due to the limited demand for industrial land in constrained neighborhood settings. All of the industrial development that has taken place in the past two decades has been on undeveloped land on the fringe of the community. Given the ample supply of this land, it is very unlikely that residential land along the rail corridor will see an increase in value related to demand to convert land uses to industrial use.

The DEIS should have included a more thorough analysis of the project's impact on property values and the potential for a disproportionate impact on households of lower income. Considering the high share of income spent on housing by low-income owner households (available for the study area from 1990 PUMS data), it should be clear that the home owners among the EJ populations along the corridor are particularly vulnerable to losses in property value. Because they lack sufficient wealth to invest in other ways than in housing, the loss of property value represents a substantial if not complete loss of wealth for this group. Property value impacts are potentially very important for this reason, and deserve much more careful study than they have received in the DEIS.

5. Noise And Other Impacts:

The DEIS underestimates the increase in noise levels and other impacts that will result from the increase in rail traffic in several ways. One of the significant flaws in several analyses is reliance on mistaken information on current train traffic levels. There are three through train trips per day in Olmsted County (as stated on page 3.3-62, and elsewhere), not twelve (as stated on page F-15 and elsewhere). Adding the train trips resulting from hauling 20 million tons of coal per day will increase noise levels, not reduce them as projected in Tables FA-1, FA-2, and FA-3. Using the relationships derived from Table F-6, three trains per day generate 65 L_{dn} noise levels at a distance of 65 to 70 feet for wayside noise.⁹ Even if whistle-free operation mitigates crossing noise, the residences within 400 feet of the current line will be adversely affected by increased noise resulting from increased train traffic. A high proportion of this population are members of EJ communities.

In general, any analysis which understates impacts along the line or in the core area of Rochester also understates the level of impact on EJ communities, because it is in these areas that EJ communities reside. All of the analyses that rely on mistaken base conditions of train traffic (traffic congestion, air quality, and so on) therefore understate impacts on EJ communities.

⁹ The values in Table F-6 do not appear to take account of obstacles along the line which may affect noise levels.

6. Identifying Disproportionate Impact:

The DEIS errs in its identification of environmental justice populations by relying on outdated data, by using that data incompletely, and by diluting the environmental justice population within large geographic analysis areas. It compounds these analysis errors by comparing the environmental justice population experience NOT to the experience of the non-EJ community, but to the whole community, including the low income/minority community. Finally, it compares the environmental justice populations along the route NOT to the community as a whole and NOT to the populations along alternative routes, but to the average of the population along the route. Under this approach, if all of the population along the route were members of environmental justice populations, then they would not be more at risk than the population along the route in general, and there would not be an environmental justice concern. This conclusion does not appear to be consistent with the intent of the National Environmental Policy Act.

7. Bypass Alternatives:

The potential for EJ populations being affected by bypass alternatives is ignored. Given the reliance on Census block groups and the fact that bypass alternative R-4 passes through rural areas, the scale of analysis is such that SEA's methods would undoubtedly fail to identify EJ populations along the bypass route. To understand the relative impact on EJ populations that may be present along the route of alternative R-4, the DEIS should rely on a smaller scale of analysis. Serious consideration of the bypass route should entail a thorough examination of potential EJ populations along the bypass route as well as an improved analysis of EJ concerns along the current route.

Conclusion

The Section on Environmental Analysis should conduct a more serious investigation of environmental justice in the Final Environmental Impact Analysis, including

1. Relying on more up to date data that is more focussed on the areas of impact;
2. Developing more accurate estimates of current conditions with regard to noise, vibration, air quality, property value, access, safety, and so on;
3. Developing careful, well-researched estimates of future conditions with regard to these same impacts;
4. Making more effective efforts to involve EJ communities in evaluating mitigation alternatives; and
5. Recommending thorough, effective mitigation for those impacts that cannot be avoided.

Section 3.3.2.16, pages 3.3-87-91 and Table 3.3-20– Environmental Justice

Comment: Approval of bypass: A smaller block group along the bypass would indicate a EJ group that is lower in income than a comparable Olmsted County sample.

Comment: Table 3.3-20 indicates Maximum Noise Receptors as 65/70dBA L , I am not sure how they actually determined that value since some structures could occupy random, variable occupants (Schools, churches, stores, gyms, etc)

16. Cumulative Effects

Surface Transportation Board DEIS Requirements – Environmental Justice

The EIS will discuss cumulative effects of the construction and operation of the new rail line and DM&E's existing system.

Section 2.8, pages D-13– Cumulative Effects

Comment: There is no mention of township officials when describing elected officials in this section. Since township officials represent the majority of the road systems thru which the DM&E will operate, this is an oversight that needs to be corrected.

Section 5.2, pages 5-4– Cumulative Effects

Comment: SEA writes that the “proposed PRB Expansion Project would extend approximately 900 miles.” However, elsewhere SEA states that “the project involves approximately 1000 miles of rail line...” (7-1). This 10 percent difference is significant.

Section 6, page 41– Cumulative Effects

Comment: The STB states that since "the sole reason why some communities have proposed a bypass is to move the railroad away from population centers thus benefit the community to the detriment of the railroad communities should contribute to the cost of relocating the railroad". This is MISLEADING. The current level of DM&E activity represents a benefit to the communities by providing service to those communities. Increased activity associated with the Project will not benefit communities simply because the increased traffic would pass through each community. The proposed Project would significantly increase the activity of the railroad through the community resulting in detriment to safety, environment, noise, vibration, and socioeconomic impact but provide no added benefit to the community. Why should the community be held responsible for increased cost associated with the Project when no value is added to the community by the railroad? Why should the community subsidize the railroad?

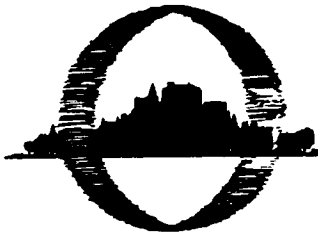
Section 6.5.1– Cumulative Effects

Comment: Mitigation of the cumulative effects of any alternative needs to be very seriously addressed by the STB, the DM&E, the city of Rochester and Olmsted County.

Section 7, page ES-53– Cumulative Effects

Comment: The trackage rights agreement between DM&E and UP allows DM&E unlimited access to this portion of UP's Rail line, However, it prohibits DM&E from interchanging rail traffic along this portion of line. What are the implications of this to the communities served by the DM&E? How does ownership impact DM&E's ability to perform.

.....**END OF COMMENTS**.....



COUNTY OF
Olmsted

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Commissioner Karen Studders
Minnesota Pollution Control Agency
520 Lafayette Rd.
St. Paul, MN 55155

February 28, 2001

Dear Commissioner Studders:

On February 27, 2001, the Olmsted County Board approved the enclosed Resolution #01-17, requesting an Air Toxics Review conducted or required by your department in conjunction with the DM&E Railroad's proposal across southern Minnesota. That proposal, STB Finance Docket No. 33407, is now in the Draft Environmental Impact Statement (DEIS) phase before the Surface Transportation Board (STB) in Washington, DC. The need for the Air Toxics Review was brought to the county board's attention by its Environmental Commission which has conducted an exhaustive study of the errors and omissions found in the DEIS prepared by the Section of Environmental Analysis of the STB. To be meaningful, an Air Toxics Review would need to be completed in time for inclusion in the Final Environmental Impact Statement (FEIS).

Please acknowledge receipt of this request, and keep our county board informed as to your progress on this matter. We will be happy to provide you with any background information that you may require.

Sincerely,

Jean Michaels
Chair, Olmsted County Board

Cc: Lisa Thorvig, MPCA Deputy Commissioner; Beth Lockwood, MPCA Regional Enforcement; Kevin Molloy, MPCA; Larry Landherr, Rochester Office of MPCA; Dean Barkley, Commissioner of Minnesota Office of Strategic & Long Range Planning; Deborah Pile, Minnesota Office of Strategic & Long Range Planning; Senator Sheila Kiscaden; Senator Kenric Scheevel; Senator Dick Day; Representative Dave Bishop; Representative Fran Bradley; Representative Bill Kuisle; Representative Greg Davids; Representative Steve Sviggum



AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER

BOARD OF COMMISSIONERS

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SIXTH DISTRICT
JEAN R. MICHAELS

SEVENTH DISTRICT
JEFFREY THOMPSON

RESOLUTION #01 -17

WHEREAS, the Surface Transportation Board (STB) has prepared a Draft Environmental Impact Statement (DEIS) for the extension and upgrade of the Dakota, Minnesota, and Eastern Railroad (DM&E) into the Powder River Basin for the high speed transportation of coal (Project); and

WHEREAS, the STB DEIS failed to appropriately determine whether or not the Project would result in long-term adverse air quality impacts due to its failure to complete Minnesota-specific air dispersion modeling; and

WHEREAS, the STB DEIS contains errors and omissions in the presentation of air quality data and the application of methodology to evaluate the impact of that data as outlined in the "Air Quality Comments" document prepared by the Olmsted County Environmental Commission (February, 2001); and

WHEREAS, the Project will result in air quality degradation that has been incompletely and inaccurately assessed in the DEIS; and

WHEREAS, further degradation of air quality as it relates to sulfur dioxide emissions in a non-attainment area will inhibit the development of other industries that are more likely to provide a direct socioeconomic benefit to the community.

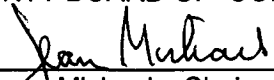
NOW, THEREFORE BE IT RESOLVED, that the Olmsted County Board of Commissioners formally requests the Minnesota Pollution Control Agency to utilize their discretionary authority to require or conduct the completion of an Air Toxics Review of the Project as it relates to:

- the establishment of baseline ambient air quality;
- a toxicological assessment of the impacts from criteria pollutants, hazardous air pollutants, fugitive coal dust, diesel particulate matter, mercury, and other diesel fuel emissions constituents of concern; and
- a health risk assessment performed using State and Federal guidelines to evaluate reasonable and worst case future scenarios representative of Minnesota conditions and affected populations.

BE IT FURTHER RESOLVED, that the Air Toxics Review be completed in a timely manner and submitted to the STB so that the information may be included in the final Environmental Impact Statement to allow informed decision-making regarding acceptance/rejection/modification of the Project and identification of reasonable and feasible mitigation measures.

Adopted by the Olmsted County Board of Commissioners this 27th day of February, 2001.

OLMSTED COUNTY BOARD OF COMMISSIONERS

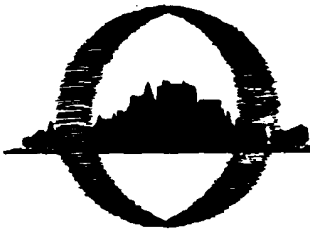


Jean Michaels, Chair

ATTEST:



Richard G. Devlin
Clerk-Administrator



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28 February 2001

Office of the Secretary
Case Control Unit
Finance Docket No. 33407
Surface Transportation Board
1925 K Street NW
Washington DC 20423-0001

Comments to the Draft Environmental Impact Statement, Finance Docket No 33407 – Dakota, Minnesota and Eastern Railroad

The sheer volume and complexity of this Draft Environmental Impact Statement inhibits input and intelligent evaluation however, certain issues are so obvious that they can be generally commented upon.

Scoping Process

From the initial scoping meetings there seems to be a willingness to disregard the spirit, if not the letter, of this process. For example, the notice of the scoping meetings was not published in accordance with procedures. As is noted in the General Counsel Scoping Guidance, dated April 30, 1981 "Remember that issuing press releases to newspapers, and radio and TV stations is not enough, because they may not be used by the media..." (II, B, 4) This is what was done in the Rochester area and probably elsewhere, this contributed to a general lack of awareness concerning the impact of this project early in the process. The later attendance at, and participation in other meetings and comments directed to the STB has not made up for the late start that many areas had in the process. This is demonstrated by the increasing number of communities, particularly major population centers who are voicing concerns.

DEIS Issuance

The issuance of the DEIS has also been managed in a way as to inhibit public comment, specifically, the electronic version of the printed volumes, which could have been released in a format easily managed on the average personal computer instead was done with indexing and other features of the software used locked out. This means that a commentator searching for all references to a particular I issue does not have the ability to search in all portions of the DEIS.

- The absence of guidance also contributed to and facilitated the process by the DM&E of negotiating so called community agreements without full knowledge of the actual impact of the project. As has been noted in many comments the railroad adopted a "take my offer or the STB will give you less"



negotiating strategy. Many communities, confronted with this ultimatum and not having experience in this process signed such agreements, and the DEIS now intends to recognize these. Efforts to prevent coordinated activity along the line have been made in these agreements by clauses that attempt to limit public disclosure and to preclude affected communities from commenting on the project for fear of the RR exercising their ability, as noted in the agreement, to withdraw the offer. This process had been supported by the STB and continues to be encouraged in the DEIS. This does not appear to fulfil the requirement the DEIS process be fair to all parties.

- In paragraph 7.4 & 7.5 the Section of Environmental Analysis (SEA) specifically makes the statement the local agreements may result in more far reaching mitigation than the Board could unilaterally impose. There is no support given for this statement and none is found in caselaw. It requires a conclusion that the no-build alternative is not viable. That is, if an affected community is required to negotiate an agreement with the RR for mitigation of the impact on it, then it logically can no longer argue for the no build alternative. Since the STB must consider all alternatives, including no build, this recommendation by the SEA is fatally flawed.
- In paragraph 7.1.4 the SEA notes that its' recommendations are preliminary and invites comments, but demands that such comments be specific, both as to the issue and to the rationale for desired mitigation. However the SEA then in paragraph 7.6 states that DM&E has to submit grade crossing plans to applicable authorities for approval, however, it does not suggest a process to be followed in the event that such plans are not agreeable to the authorities, nor does it establish any parameters for evaluating the plans. For example, one mitigation would be to eliminate all at grade crossings with the applicant paying for such construction. Admittedly, such a requirement would be cost prohibitive and not agreeable to the RR, however, what happens if that were the response of a community? Since these plans were not in place at the time of the issuance of the DEIS commentators do not have the ability to address these issues, this open ended negotiating strategy is not supported by the EIS process. That process requires that the DEIS address specifically issues raised during the scoping stage, the logic for this is clear, the public cannot comment on what it is not informed about; the current construct of much of the DEIS is simply a continuation of the scoping process and is not adequate.
- This writer is concerned that the SEA demand that comments be specific and address specific mitigation will not be satisfied by commentators and thus disregarded, however, of the 104 mitigations listed in Chapter 7 many of them are of the negotiate with or coordinate with, or other ill defined variety. It is simply impossible to make comments without seeing what comes of such negotiations or coordination. The assumption seems to be that others beyond those most directly involved in a particular environmental action will have no interest or standing to comment thereon. For example, if a community agrees to mitigation of a stream crossing others upstream or downstream may be impacted and have the right to comment. This process would not allow for such.

Alternatives to the Project

The DEIS at ES.4 Page ES-14 refers to the consideration of the no build alternative particularly in regard to the need for the improvement of existing trackage. "It is unlikely that DM&E would upgrade its existing rail line because, according to the DM&E, the no action alternative would not provide it with the financial resources needed to reconstruct its existing system." This apparently is accepted at face value despite the lack of any supporting information. However, recent developments tend to show this to be incorrect. The DM&E has had preliminary discussions with the Federal Railroad Administration about accessing the Railroad Rehabilitation and Improvement Fund for \$100 million. This funding is apparently intended to pay for the improvement of the DM&E to allow continued service as a class three railroad. Since the DEIS has demonstrated that the mitigation to allow the extension and upgrade is significant and perhaps cannot be accomplished it must be balanced against the possibility that the existing line can be improved through the RRIS process.

Competition

The fundamental rationale for the project has been to provide competition in the provision of services to the coal fields of the powder river basin. Certainly the concept of improved competition is in most cases a goal to be furthered in decisions by the STB. However, in this circumstance it appears to run contrary to the findings of a study commissioned by the Department of Transportation. In "Rail Cost Conditions – Implications for Policy" dated 10 May, 2000 the author, Dr. John Blitzen, Ph.D. of the Upper Great Plains Transportation Institute, North Dakota State University, concluded that class one railroads are a natural monopoly in serving a single market. His evaluation focused on the merger issues presented by reducing service to a market when two lines merge, however, allowing the creation of a new line serving a market already served by TWO class one carriers would seem to present the same issues. Dr. Blitzen's study suggests that the best public policy is to provide for any deficiencies in service by appropriate regulation of the existing carriers. Comments by the STB in the Transportation Merits Review suggested that issues relating to the ability of the DM&E to manage a project of this magnitude and other primarily economic issues were best addressed by the markets, that is if the investors do not have confidence in the project they will not risk their funds. However, there is also a public interest in preventing detrimental effects on existing carriers. In this instance the study means that potentially this third line would result in a decline in overall efficiency, much of the profit of these carriers is derived from the coal hauling, a loss of this revenue could result in decreased service to other markets.

The DEIS Contains Insufficient Information On Volume of Train Traffic and Routes

The DM&E seeks approval from the Board for the construction of a new line through a portion of South Dakota and into Wyoming and the reconstruction of DM&E's existing line through southern Minnesota. According to the DEIS prepared by the Board, the reconstruction will eventually lead to an increase in rail traffic through Olmsted County from approximately twelve (12) trains per day to approximately thirty-

seven (37) trains per day.¹ Despite what is expressed as a relatively certain level of new traffic through Olmsted County in the DEIS, however, media reports postdating the issuance of the DEIS demonstrate that there is a significant level of uncertainty associated with the actual routes that will be taken through southeastern Minnesota and the actual level of traffic that will effect individual communities.

Indeed, the Board has known for almost two years that the DM&E claims that it really has no idea how many trains will be transporting coal on its line, no does it know the intended final destination of that coal. According to comments submitted by the DM&E in the spring of 1999, "It is impossible to predict with certainty either (a) what the total traffic coming onto the DM&E system as a result of this Project will be, or (b) how that traffic will disperse after it leaves our system. The marketplace will determine that when the traffic begins flowing." DM&E Comments dated April 9, 1999 submitted in response to the Board's Request for Comment dated March 10, 1999.

Today, media reports indicate that the DM&E still has no idea how much traffic will pass through Olmsted County or other areas in southeastern Minnesota. As recently as February 15, 2001, the DM&E has indicated to the press that it cannot predict what route the coal trains may follow and incredibly, that the DM&E does not control where the traffic goes. Davis, Don, "No One Knows Coal Trains' Final Routes," Rochester Post-Bulletin, Thursday, February 15, 2001. Southeastern Minnesota communities that are not even mentioned in the DEIS, most notably Austin, Minnesota, are suddenly learning that they may be affected by the Project. As a result of the DM&E's hide-the-ball approach to this question (moving trains from location to location to suit its audience at that particular moment), there has been absolutely no analysis of the effects that will be suffered by some of the communities that will be affected in some way by the DM&E proposal.

There is also no information on how the coal that reaches the eastern end of the DM&E's line in Winona will get to its final destinations. In its Notice of Availability of Final Scope of Study for the Environmental Impact Statement ("EIS"), Decision No. 30090, March 9, 1999, the Board indicated that it would address "downline impacts" only upon those portions of the UP and CP lines located within the cities of Goodview and Winona, Minnesota. Final Scope at 10. Additionally, the Board rejected a proposal to study increases in barge traffic because the likelihood of increased barge traffic was too "speculative" to include in the EIS. Id.

DM&E'S claim that it cannot predict the final destinations of the coal that it plans to transport is suspect for a number of reasons. First, DM&E claims that there will be no construction of a barge facility in Winona, Minnesota, because its potential customers are on the rail lines, not the river. Second, this project has enjoyed significant support from the utility industry, as demonstrated by the early and aggressive participation in the development of the DEIS by industry group Edison Electric Institute and the testimony provided by numerous utilities at the Rochester hearings on the DEIS. Certainly, the DM&E has some idea about what companies might purchase coal shipped on its lines, even if no specific contracts have been

¹The DEIS's claim that twelve (12) trains per day currently run through Olmsted County is contested by the County, as well as by the City of Rochester and the Mayo Clinic.

negotiated or finalized. This information is relevant not only to the question of the Project's environmental effects, but also to the question of whether the Project is sound from the perspectives of economics and transportation. Moreover, information on the final destination for the coal that the DM&E wishes to ship is essential to verify DM&E's claims that its route is the shortest route to upper Midwest utilities and therefore the most environmentally-preferable.

In any event, even if the precise identities of DM&E's customers or prospective customers cannot be ascertained at this time, there is no question that the coal shipped by the DM&E will be shipped by rail, truck or barge from the DM&E's line to some other destination. Aside from the analysis of the UP and CP lines within the cities of Goodview and Winona, The DEIS completely fails to address the environmental affects associated with shipping coal moved out of Wyoming on the DM&E line to its final destination at unnamed upper midwestern utilities, whether by rail, truck, or barge. As discussed below, because the DEIS ignores these indirect effects, the DEIS does not comply with NEPA.

The DEIS Must Address The Effects Associated With Shipping Coal Beyond the DM&E's Line

Because it is certain that the coal must be shipped from Winona by some means (or must leave the DM&E line before Winona), the DEIS must address the effects of such shipping. The Board cannot end its inquiry into the environmental effects of this proposal at Goodview and Winona.

Whether this shipping results in an increase in rail traffic, an increase in over-the-road truck traffic, or an increase in barge traffic on the Mississippi, the effects of such increased shipping are, at a minimum, "indirect effects." Under NEPA, an agency conducting environmental review of a project is mandated to consider not just the direct effects of the project, but also the indirect effects:

Effects include: . . . (b) Indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. 40 C.F.R. § 1508.8. See also 49 C.F.R. § 1502.16 (requiring analysis of indirect effects in an environmental impact statement). Here, because it is obvious that the coal shipped from Wyoming to Winona or some other part of southeastern Minnesota must be transported to its final destination by some means, such other shipping is "reasonably foreseeable" and therefore must be considered by the Board in its environmental analysis. The possibility that the increases in shipping may not be felt immediately and the possibility that the increases will occur on rail lines other than that owned by DM&E or on the highway or navigable waters of the United States does not allow the Board to ignore these effects. Where, as here, the effects can be traced to the DM&E project, they must be considered along with the direct effects resulting from the project.²

² Such effects may also be considered "cumulative impacts," which must also be considered in an environmental review conducted pursuant to NEPA: "Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such

If the Board was to consider any expansion of rail service or increase in shipping on any other line resulting from the DM&E project to be and could also, depending on facts unknown at this time, be associated with one or more "connected actions." NEPA requires that Environmental Impact Statements be scoped as to include "connected actions."

Connected actions, which means that they are closely related and therefore should be discussed in the same impact statement. Actions are connected if they: (i) Automatically trigger other actions which may require environmental impact statements. (ii) Cannot or will not proceed unless other actions are taken previously or simultaneously. (iii) Are interdependent parts of a larger action and depend on the larger action for their justification.⁴⁰ C.F.R. § 1508.25. Here, the DEIS was improperly scoped, as it does not include connected actions which "cannot or will not proceed unless other actions are taken previously or simultaneously" and are "interdependent parts of a larger action and depend on the larger action for their justification." Although it is not clear whether these other actions will trigger environmental impact statements on their own, it is likely that at least an environmental assessment will be required under the Board's regulations which provide that an environmental report is required for actions that lead to an operational change resulting in an increase in rail traffic of 100% or at least eight trains per day. ⁴⁹ C.F.R. § 1105.7(e)(5)(A).

The DM&E's frequent claim that the information necessary to evaluate these effects is not known and cannot be known does not justify an approval of this proposal without the analysis of these indirect effects and/or connected actions. If, as it has indicated, the Board cannot effectively evaluate the environmental effects of shipping the coal from DM&E's line to its utility customers, the Project cannot be approved because an idea or plan only rises to the level of a "proposal" that is sufficiently detailed for consideration under NEPA after it is sufficiently detailed that "the effects can be meaningfully evaluated." See 40 C.F.R. § 1508.23. If the DM&E cannot, or will not, provide information sufficient for a meaningful evaluation of the effects of the project, this environmental review should be stayed until such time as the project is more fully developed.

Additionally, NEPA regulations outline the specific means for handling information shortfalls:

When an agency is evaluating reasonably foreseeable significant adverse effects on the human environment in an environmental impact statement and there is incomplete or unavailable information, the agency shall always make clear that such information is lacking.

If the incomplete information relevant to reasonably foreseeable significant adverse impacts is essential to a reasoned choice among alternatives and the overall costs of

other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." 40 C.F.R. § 1508.7.

obtaining it are not exorbitant, the agency shall include the information in the environmental impact statement.

If 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 shall include within 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. 40 C.F.R. § 1502.22. This section also provides that, where the agency undertaking the analysis is forced to go forward with incomplete information, it should consider a "worst case scenario" in undertaking its analysis: "For the purposes of this section, 'reasonably foreseeable' includes impacts which have catastrophic consequences, even if their probability of occurrence is low, provided that the analysis of the impacts is supported by credible scientific evidence, is not based on pure conjecture, and is within the rule of reason." *Id.*

The Board has taken none of the actions required by section 1508.22. The DM&E has stated that there are so many possible options for how this freight could move after it leaves the DM&E's line that there is no way to analyze all of the possibilities. The Board, however, in carrying out its obligations under NEPA, is not entitled to rely on these conclusory claims but must undertake to meet its requirements under section 1502.22. This requires, at the very minimum, that the Board indicate in the EIS that the information is unavailable. The Board must also determine how important the missing information is to its analysis. Here, there is little question that the information as to where the coal will actually go and how it will be transported to those locations is essential to choosing between the various alternatives (including the No-action alternative), given the regulatory requirement that the Board analyze indirect as well as direct effects. The Board must also provide some determination as to the cost of obtaining the missing information. The Board has not attempted to quantify this cost, instead apparently relying on DM&E's assertion that there is no way to gather this information.³ Even if the Board arrives at the decision that the cost of acquiring this information is exorbitant, it is still required to engage in the analysis described in 40 C.F.R. § 1508.22(b) by identifying the missing information, stating its relevance, summarizing existing

³ DM&E's position here is somewhat suspect. There are a limited number of coal-fired power plants in the Upper Midwest, and presumably a limited number of rail lines that serve those plants. DM&E's concern over providing this information may have less to do with the information's unavailability than with DM&E's fear that providing the information will weaken its claim that its proposed line will provide the shortest route for PRB coal to the Upper Midwest.

credible scientific information on the possible impacts, and stating the Board's evaluation based on a worst-case scenario.

Preemption

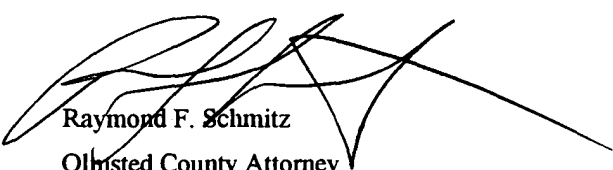
The STB has released its' decision in Borough of Riverdale (STB Finance Docket No. 33466) dated 2/27/01. This decision does not contain any information that was not contained in the preliminary decision released earlier. The STB is then left in the position of attempting to address many of the environmental issues raised in the DEIS without the ability to clearly advise state and local agencies of their authority to regulate some or all of what has been suggested should be managed by discussions with these local agencies. For example, if Minnesota has a regulatory scheme for determining the crossing protection that is dependent on measurable variables, and the DM&E either disagrees with or simply refuses to abide by the state determination, will the STB enforce the state decision? As is noted below this is made more complex by the U.S Supreme Court Decision on the authority of the U.S. Army Corp of Engineers ability to regulate isolated wetlands. (Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers ET AL No. 9901178 (January 2001)) Again, assume that Minnesota has a regulatory scheme that gives it authority to control the impact on these wetlands , but it is dependent upon a permitting process, and the Riverdale opinion holds that a state cannot enforce a permit process, because that process implies the power to reject the permit and stop the RR action, then how does the state authority exercise its control.

Wetlands

The recent decision of the U. S. Supreme court limiting the ability of the Corps of Engineers to regulate isolated wetlands has the potential of impacting the DEIS. In both the DEIS and the Corps 404 process. In both of these documents there will be significant voids if in fact there are a number of these wetlands. Clearly at a minimum both documents need to be evaluated to measure the impact of the decision, and a supplementary DEIS and 404 application needs to be submitted dealing with the change in circumstances.

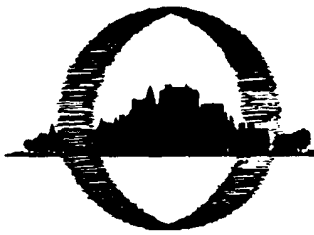
Supplemental DEIS

Supplemental DEIS's are required by the regulations of the Council On environmental Quality when (ii) there are significant new circumstances of information relevant to environmental concerns and bearing on the proposed action or its impacts. (40 CFR Sect 1502.9(c)(1) Clearly the materials submitted by Olmsted County and by other interested parties demonstrates that a supplemental DEIS is required.



Raymond F. Schmitz

Olmsted County Attorney



COUNTY OF
Olmsted

SHERIFF'S OFFICE
101 4TH STREET SE
ROCHESTER MN 55904-3718

SHERIFF STEVEN C. BORCHARDT

February 23, 2001

ADMINISTRATION 507/285-8308
CIVIL DIVISION 507/285-8319
FAX 507/287-1384

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

Attn: Victoria Rutson

Dear Ms Rutson:

As the Sheriff of Olmsted County I have several concerns regarding the impact on public safety of the proposed DM&E upgrade project and the Draft Environmental Impact Statement as follows:

➤ **DRIVEWAY, ROAD, LOCAL STREET AND HIGHWAY CROSSINGS:**

Problem Statement:

Road crossing safety measures are of extreme concern; however, traffic planners are addressing those aspects of the DEIS so I limit my comment to the fact I am disappointed that the DEIS did not clearly require the DM&E to comply with State of Minnesota Department of Transportation standards. There need not be debate and negotiation on this point.

Suggested Solution:

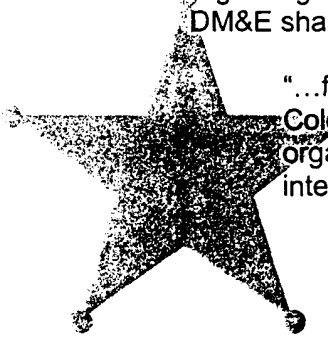
The applicant should have to comply to statewide standards, period.

➤ **HAZARDOUS MATERIALS SPILL MITIGATION:**

Problem Statement:

If the DM&E continues to ship freight other than coal, particularly agricultural products, as they have insisted they will, the DEIS is inadequate regarding hazardous materials spill mitigation. The DEIS specifies the hazardous materials plans be developed regarding spills during the upgrade construction process. It also specifies that the DM&E shall fund training for community responders as follows:

"...fund participation in a training session at the national training center in Pueblo, Colorado, for a maximum of four representatives of the emergency response organization or coordinating body for affected communities that express an interest in activities associated with the project."



AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER



This is inadequate. Although we currently face risks associated with trucks carrying hazardous materials on our highways, we are equipped and trained to respond to, and mitigate the impact of, spills of the **quantities carried by semi-trailers**. However, **rail cars carry much greater quantities than semi-trailers and, therefore a spill has a greater probability of impacting a much broader geographic area**. Also, I recognize the fact that the DM&E currently ships hazardous materials. However, with the track upgrade it is stated that the speed of the trains is expected to increase from a current 10 – 15 mph to 45 – 50 mph. It is logical that the increased speed will create an increased risk in the event of a derailment or tank car malfunction.

Suggested Solution:

I propose that the DM&E be required to provide spill mitigation equipment and training to the fire departments of every community on the line sufficient to create the capacity to adequately respond to a spill the magnitude of which could be reasonably expected from the quantities of material being shipped. In the alternative, at the very least the DM&E should be directed to provide regional HAZMAT response teams equipped, staffed and trained to support local fire responders. These teams must be located geographically to allow for deployment within a two hour response time to anywhere on the line.

➤ **PROXIMITY OF HOMES TO THE TRACK:**

Problem Statement:

In my view, this is the most significant issue that is not addressed by the DEIS. The DEIS fails to address the public safety hazards that will result from the close proximity of homes to the track. History throughout this nation has well proved that derailments will occur even on new tracks with new rail cars. Certainly people and their homes should be considered to be a part of the environment and, thereby, protected from immediate danger resulting from the proposed project. The DEIS exhausts hundreds of pages discussing formulas for computing traffic flow, crossing hazards, traffic clearance rates, sound levels, vibration issues, accident rates, etc., etc.. But nowhere did I find any mention whatsoever of the danger that will be brought to residential neighborhoods in small town Minnesota.

This track corridor was nearly abandoned for more that thirty years prior to the purchase by the DM&E. Since the DM&E purchased the corridor the train traffic has been limited to three to six trains daily traveling at a maximum speed of fifteen to twenty miles per hour. As a result, the train has not been viewed as a significant hazard for residential neighborhoods.

During the last forty years of greatly diminished track use, the Olmsted County area has enjoyed significant economic prosperity and population growth. Towns like Byron, Eyota and St. Charles, Minnesota have grown significantly. **Due to the low level of hazard represented by the low train traffic volume homes were built very close to the right of way.** Backyards are literally within thirty feet of the track. Homes are literally within fifty to eighty feet of the track. Swing sets and sand boxes are literally within the length of a of box-car from the track. Worse yet, the track is currently elevated from the yards and homes. It is downhill run from the track to the houses.

Currently, at the speeds traveled by the DM&E trains, in a derailment minimal momentum prevents the cars from traveling any distance. Rail cars simply tip over and damage is largely confined to the DM&E property. Given the predicted train speeds for the upgraded track, in the event of a derailment in these neighborhoods, momentum **WILL** cause those cars to travel far enough off the track to hit houses. **Make no mistake, coal cars WILL be in living rooms and children's bedrooms.**

The DM&E, and proponents of the project, will argue: 1) that the track preceded the homes by many decades. 2) Also, they will argue that the DM&E owns the right-of-way and should be able to do with it what they please. 3) Finally, they will argue that upgraded track and rail beds and new equipment will reduce the probability of derailments to an acceptable risk level.

To the third argument I respond that the history of the railroad industry around the world proves that derailments will occur. It is simply a matter of where and when. Reasonable precautions should be required at the very least near homes and schools. The other two arguments ignore the fact that this track was all but abandoned for nearly fifty years. Even early in the century during railroad's heyday it was never utilized nearly as heavily as is predicted following this upgrade project. Railroad corridors throughout southeastern Minnesota have been abandoned, torn up and turned into nature trails for the last thirty years. Until the DM&E purchased this corridor there was no reason to believe it would be any different with this track. Under the circumstances it was reasonable for homes to be built close to the corridor. **This upgrade project is analogous to "upgrading" a lazy little, tree shaded, small town lane to Interstate highway traffic volumes and speeds without requiring any precautions to protect adjacent property.**

The DEIS fails to require that the applicant increase setbacks or take any measure whatsoever to protect adjacent property. When one drives through these neighborhoods and considers the hazard to homes that will be created by thirty trains per day traveling at fifty miles per hour **it is absolutely nuts that this project is even being seriously considered without demanding some level of prevention by the applicant.** As the Sheriff of Olmsted County, elected by its citizens to provide emergency response and disaster mitigation, I am appalled at this omission.

Suggested Solution:

In residential areas the DM&E should be required to acquire the property necessary to widen the rail corridor sufficiently to reasonably prevent rail cars from hitting homes in the event of a derailment. In addition, the EIS should require the DM&E to erect and beautify barriers sufficient to protect adjacent residential property from being hit by rail cars.

Thank you for consideration of my concerns.

Yours Truly,



Steven C. Borchardt
Olmsted County Sheriff

Olmsted Community Action Program

1421 SE 3rd Avenue • Rochester, Minnesota 55904-7947 • (507) 285-8785 • FAX (507) 529-4132



February 16, 2001

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

Dear Ms. Rutson:

Community Action Agencies began as the spearhead of President Lyndon Johnson's "War On Poverty" in the mid-1960s. Community Action Agencies continue to be funded under the Federal Economic Opportunity Act and serve low income families in our local communities.

Local Community Action Agencies:

- Invest in people and build communities by responding to people's immediate and long-term needs, with the explicit goal of helping them move toward economic independence, growth, well-being and opportunity.
- Provide a mechanism for community members, private and public sector organizations to invest in their community.
- Have the best experience, expertise, resources, and history of success to help people move toward self-sufficiency.
- Invest community resources with the expectation that consumers and funders will receive a return on their investment.
- Build community; are flexible and ready to respond to change.
- Provide result-based delivery of services that is effective and efficient.
- Collaborate with community partners to make maximum use of scarce resources.
- Have a history of and will continue to strive toward a comprehensive delivery system to maximize customer convenience.
- Advocate for community and statewide system changes which help develop opportunities for self sufficiency.
- Provide resources and opportunities that low-income individuals, families, and communities need to become more self-sufficient.
- Ensure that the issues of the poor are effectively heard and addressed

Community action agencies do not by themselves lift people out of poverty. They help create conditions by which low-income people and even entire communities can do that for themselves.

Our local Community Action Program participates in several programs assisting low-income individuals ensuring that their issues are heard and addressed. Our local Community Action Program (CAP) works directly with individuals facing problems meeting their basic needs and achieving self-sufficiency. CAP provides assistance, case management and referrals to other available resources in the community. CAP is in the forefront of seeing the needs of this group of people in the community and works toward meeting their needs. CAP assists this population to articulate their needs and aspirations. CAP is an agency that speaks and acts on behalf of their low-income constituencies at the local, state and national level. CAP represents voices that by themselves, may not be heard.

The families that Community Action Program works with are often struggling to meet their basic needs and may find it a challenge to respond the Surface Transportation Board's 5000 page document for a variety of reasons. They may find it difficult and time consuming to carefully analyze the proposal, set clear goals, work toward positive outcomes and ensure the resources necessary for safe, decent housing. Priorities such as working overtime, juggling childcare, tight budgeting, cooking meals, taking laundry to the laundromat, and accessing community resources are far more likely to occupy a family at the low end of the income scale. These activities often require families to work significantly longer hours than higher income families.

Higher income families often have jobs that offer Paid Time Off, they are able afford to pay for additional daycare in the evenings, or have a spouse that works part-time hours. These factors make it easier for higher income families to participate in community issues. The meetings, letter writing, organizing, and research it takes to participate in the DM&E issue is often too expensive and time consuming for low income families to participate in, especially with the competing demands of providing for the families basic needs.

In addition, low-income families are more likely to be concerned with locating affordable housing in this community as opposed to concerns about the noise, safety and pollution created along the rail line due to affordability of housing. A majority of the properties along the rail lines in Rochester appear to be the homes of low-income families. Since it is anticipated that the value of such properties will be negatively impacted by the DM&E expansion, the vulnerability of these families living in sub-standard housing will greatly increase.

Homeowners have expressed concerns related to additional home maintenance expenses that may result from the increasing traffic and pollution from the rail lines. A high percentage of low-income families' finances are spent on their housing. Therefore, the burden of additional home maintenance cost may directly impact the quality of life for these families. If a property is a rental unit, the occupants may also experience an increase of expenses due to a trickle down effect resulting from the increased maintenance costs.

Another area in which these families may be negatively impacted is related to safety issues from the increase in automobile and train traffic. This is of greatest concern before and after school hours when many children walk to their home from school. Low-income families often have few childcare options due to limited financial resources. Therefore, the children of these families are often "latch-key" kids and responsible for getting home independently. The DM&E expansion will increase the safety risks of these, and all children in the radius of the railroad tracks.

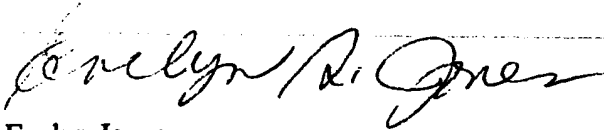
In working closely with low income families, the Community Action Program recognizes that even the smallest increase in expenses negatively impacts the ability of attaining self-reliance for low income families. The DM&E expansion will affect the cost and quality of housing, increase families' automobile (gas) expenses, and increase the safety risks related to traffic and an increase in trains going through their neighborhood. These families have expressed feelings of hopelessness in fighting against the DM&E expansion. Therefore, the Community Action Program has a responsibility to facilitate their voices in being heard and to continue to advocate for their right to a safe, quiet, and clean neighborhood.

CAP considers that the "environmental Justice" populations discussed in the Draft Environmental Impact Statement (DEIS) are the people we serve. We are concerned with the quality of communication between the Section on Environmental Analysis (SEA) and our agency. We acknowledge that we received a copy of the DEIS, but without a cover letter or other communication explaining how we were expected to fit into the review process, our staff had no idea of the role that SEA expected us to play. In addition, we concur with the conclusion of others in the community that the DEIS analysis of low income and minority populations and their relative exposure to adverse impacts is inadequate for several reasons. These include:

1. The scale of analysis is too large, and therefore distorts the analysis both by diluting the population and by reducing the average level of impact.
2. The 1990 Census data is out of date. Even were it to be determined that the 1990 Census data is the best data source available (despite the availability of neighborhood school enrollment data and real estate tax data), Census data is not used as fully as it should be. Block group level relationships could have been used to derive income attributes from block level data for smaller areas. Block level race data is provided by the 1990 Census and could have identified smaller neighborhoods more accurately reflecting low income and minority communities.
3. The 1990 Census data is especially out of date, in a County that has experienced a tenfold increase in Black student enrollment, a tripling of total non-white student enrollment, and almost a doubling of students enrolled in the free and reduced price lunch program (FARPL). Eligibility for the FARPL program is determined by family income. Children qualify for free or reduced price lunch when their family income falls below 135 percent or 180 percent, respectively, of the poverty level.
4. The DEIS pays inadequate attention to adverse property value impacts on low income populations, thereby understates cumulative impacts, and unjustifiably asserts a beneficial effect from increased housing demand generated by the railroad project.
5. By inflating the base condition with regard to train traffic and resultant noise, vibration, and traffic disruption impacts, the DEIS underestimates the extent to which the project worsens these existing conditions.
6. There are serious shortcomings in the approach taken to comparing impacts on low income and minority neighborhoods with impacts on the balance of the community.
7. The potential for low income and minority populations being affected by bypass alternatives is ignored.
8. The DEIS does not adequately provide for involving the low income and minority population in learning about and developing appropriate responses to the problems that will result from the railroad proposal.

9. The DEIS analyses of noise and air quality impacts, possibly among others, seriously underestimate the probable adverse impacts, especially impacts on people living in the downtown area and in areas adjacent to the tracks. Both of these locations have high proportions of low income and minority population. Every time the DEIS underestimates the severity of an impact, that error disproportionately underestimates impacts on low income people.

Sincerely,

A handwritten signature in cursive script, reading "Evelyn R. Jones". The signature is written in dark ink and is positioned above the printed name and title.

Evelyn Jones
Chairperson
Olmsted County Community Action Program
Board of Directors