

GUIDE TO VOLUME IV-B

Volume IV-B of the Proposed Powder River Basin Expansion Project Final EIS contains the following:

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APPENDIX C

Additional Correspondence

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Appendix C

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EPA Letter:
**Comparison of Wetland Impacts Using NWI Maps and Delineated
Wetlands**

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SURFACE TRANSPORTATION BOARD
Washington, DC 20423

Section of Environmental Analysis

September 14, 2001

Mr. Jim Berkley
U.S. Environmental Protection Agency
Region 8
999 18th Street
Suite 300
Denver, Colorado 80202-2466

Re: Finance Docket No. 33407, Powder River Basin Expansion Project; Comparison of Wetland Impacts Using NWI Maps and Delineated Wetlands

Dear Mr. Berkley,

I am writing to summarize our phone conversation and the conclusions reached concerning the U.S. Environmental Protection Agency's (EPA) comments on the Draft Environmental Impact Statement (EIS) regarding the comparison of wetland impacts for the various alternatives proposed for extending the existing DM&E system into the Powder River Basin of Wyoming (the Extension Alternatives). In response to EPA's comments, the Surface Transportation Board's Section of Environmental Analysis (SEA), through its third party contractor, Burns & McDonnell, has conducted further investigation into the discrepancies EPA noted between the acres of wetlands identified as potentially impacted by the proposed project using National Wetland Inventory maps (NWI) in the Draft EIS and the acres of wetlands delineated in DM&E's application to the U.S. Army Corps of Engineers (Corps). The results of SEA's additional investigation and its conclusions were discussed during a conference call on August 17, 2001 and the gist of these efforts and discussions are provided below.

Summary of EPA's Comments on the Draft EIS's Comparison of Potential Impacts to Wetlands

EPA noted in its comments on the Draft EIS that the amount of wetlands identified as potentially impacted by the Extension Alternatives, in particular Alternative C, was much less than the amount of wetlands actually delineated as being within the proposed right-of-way for Alternative C. EPA expressed concern with the validity of using NWI maps to determine and compare potential wetland impacts. In particular, EPA was concerned that NWI maps would make it difficult to determine which Extension Alternative was the least impacting alternative to wetlands, as required by the permitting process for Section 404 of the Clean Water Act. EPA believed that SEA would need to (1) use another means of estimating the amount of wetlands

potentially impacted by the Extension Alternatives (such as wetlands delineation for all alternatives), or (2) explain in a subsequent environmental document the reason for the discrepancy between the NWI maps and the wetlands delineation.

During a conference call to follow-up on EPA's comments, EPA, SEA, and the Omaha District Corps, who would be responsible for issuing the Section 404 permit for the Extension Alternatives, agreed that SEA, to respond to EPA's concerns, should first identify whether any differences in methodology or trends observed in the field exist that would explain the discrepancy between the NWI mapping data and the data obtained from the wetlands delineation. Any identified differences or trends would then be applied to the results reported in the Draft EIS in an attempt to resolve the disparity between number of wetland acres potentially affected. Should no obvious differences in methodology or other trends be identified that would explain the difference, the participants discussed the option of conducting field visits to ensure that the EIS uses comparable data to assess the amount of wetlands potentially affected by each Extension Alternative.

SEA's Additional Investigation

SEA contacted DM&E and requested that it provide information regarding the wetland delineation of Alternative C it conducted for its Section 404 permit applications to the Corps. In a memorandum to SEA dated July 15, 2001, DM&E described in detail how it conducted the wetland delineation for Alternative C and why it believed the delineation identified a greater amount of wetlands than the NWI maps relied on in the Draft EIS.

Subsequently, SEA learned several details about DM&E's wetland delineation that helped explain the discrepancies between the NWI mapping data and the delineation data. First, the wetland delineation for South Dakota was organized geographically, with wetland impacts reported for eastern South Dakota (the area from Pierre east) and western South Dakota (the area from Pierre west). The acres of wetland potentially impacted for western South Dakota, approximately 183 acres, included impacts to both wetlands along the existing rail line and along Alternative C. The subtraction of wetlands along the existing rail line resulted in approximately 79.95 acres of wetlands delineated along Alternative C.

Additionally, SEA determined that during the wetland delineations, a narrow band of wetlands was generally identified along intermittent streams. This band of wetlands ranged from approximately 10 to 20 feet in width. On NWI maps, intermittent streams are represented simply as a dashed line, with no outline of potential wetland boundaries. Therefore, while SEA tabulated the number of intermittent streams crossed by the various alternatives, we did not give them any spacial area. Thus, potential wetlands along intermittent streams were not identified or included in SEA's calculation of potential wetland impacts. When considering these wetlands, using an average right-of-way width consistent with that used in the Draft EIS (400 feet) and an average wetland width of 15 feet, SEA determined that an additional 31.7 acres of wetlands would be affected by Alternative C. This amount, combined with approximately 50.1 acres

identified in the Draft IS, results in an estimated amount of wetlands of approximately 81.8 acres. This total compares favorably with the amount of wetlands identified during actual delineations – 81.8 acres verses 79.95 acres.

Applying this same approach for Alternative B results in approximately 28.7 acres of wetlands along intermittent streams and 47.4 acres of other wetlands identified on NWI maps for a total of 76.1 acres of wetlands along Alternative B. SEA believes, based on the minimal difference in estimated impacts between NWI maps and wetland delineation using this technique, that this technique provides a valid means of estimating the potential wetland impacts of the Extension Alternatives, suitable for use in the EIS for comparing the impacts of the project alternatives.

Conclusions

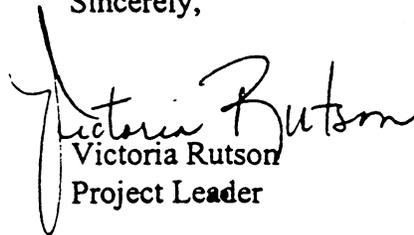
On August 17, 2001, SEA presented the results of its additional analysis to EPA, the Corps, and HDR, the contractor who assisted DM&E to prepare its Section 404 permit applications to the Corps. Based on SEA's findings, it was agreed that the methodology SEA employed, using wetlands outlined on NWI maps along with estimating wetlands associated with intermittent streams based on field observations from the wetland delineations, provided a reasonable means of estimating and comparing potential wetland impacts for the EIS process. EPA advised SEA that discussion of this further analysis should be presented and discussed in detail in the Final EIS.

In addition, the group discussed what information should be included in the Final EIS regarding the alternative with the least impacts to wetlands. Based on SEA's analysis, Alternative B would have less impacts to wetlands than Alternative C. However, because Alternative B potentially impacts other resource areas, SEA identified Alternative C in the Draft EIS as the least environmentally intrusive alternative. It was generally agreed that in the Final EIS SEA should identify the alternative estimated to have the least impact to aquatic resources (including wetlands), as required by the Clean Water Act, Section 404 process, but should also explain that Section 404 (b)(1) of the Clean Water Act allows selection of an alternative that is not the least impacting to aquatic resources, if this alternative would have significant impacts to non-aquatic environmental resources, which cannot be mitigated.

Based on our conversations, it is SEA's understanding that EPA agrees that the approach is reasonable and, that if this approach is applied and presented in the Final EIS, SEA's analysis should adequately address EPA's concerns on this matter. If this is not the case, or you have questions regarding this issue, please contact us within two weeks. If we do not hear from you within that time frame, we will assume that you concur with our approach.

I appreciate your assistance and willingness to work closely with us on this project. Please feel free to contact me at (202) 565-1545 or Steve Thornhill of Burns and McDonnell at (816) 822-3851 if you have any questions.

Sincerely,



Victoria Rutson
Victoria Rutson
Project Leader

cc: Rex Fletcher, EPA
Cooperating Agencies
Steve Thornhill, Burns & McDonnell
Kevin Schieffer, DM&E
John Morton, HDR

EPA Letter:
Analysis of Modified Alternative D

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SURFACE TRANSPORTATION BOARD
Washington, DC 20423

Section of Environmental Analysis

August 7, 2001

Mr. Jim Berkley
U.S. Environmental Protection Agency
Region 8
999 18th Street
Suite 300
Denver, CO 80202-2466

Re: Finance Docket No. 33407, Powder River Basin Expansion Project –
Analysis of Modified Alternative D

Dear Mr. Berkley,

I am writing to summarize the conclusions that we have reached in various recent discussions with you concerning the “Modified Alternative D” that the U.S. Environmental Protection Agency (EPA) suggested that the Section of Environmental Analysis (SEA) consider in its comments to the Draft EIS in this case. In response to EPA’s comments, SEA requested that DM&E develop a proposed “Modified Alternative D” (which would combine DM&E’s existing rail line from Wasta to Smithwick, South Dakota and incorporate a bypass of Rapid City, with Alternative C from Smithwick to the mines in the Powder River Basin). EPA also suggested that SEA set forth its analysis and conclusions on this alternative in a Draft Supplemental EIS.

As you know, DM&E subsequently developed a route aligned in accordance with EPA’s suggestions, and SEA has assessed DM&E’s materials. But as we have discussed, our analysis of the information shows that the “Modified Alternative D” would result in significant environmental impacts and therefore is not a reasonable and practicable alternative. Consequently, SEA does not believe that a Draft Supplemental EIS is necessary; rather, SEA believes it is now appropriate to prepare and issue a Final EIS. We would very much appreciate your review of the discussion of these issues below to ensure that you are in agreement with SEA’s intended approach.

Discussion of DM&E’s Existing Line From Rapid City South to Smithwick, SD in the Draft EIS

In the Draft EIS, SEA concluded that the existing DM&E rail line south from Rapid City to Smithwick (a portion of Alternative D already considered in the Draft EIS) unsuitable for operation of unit coal trains as presently configured. SEA concluded that this existing rail line

would be suitable for unit coal trains only with major construction efforts to straighten curves and level the grade. Even with this major construction, SEA indicated in the Draft EIS that it might not be possible to develop a suitable alignment for that portion of Alternative D because of the number of curves that would need to be straightened and the extensive cut and fill that would be required to make this alternative suitable for operating unit coal trains. As explained in the Draft EIS, Alternative D also is approximately 100 miles longer than the other alternatives, and therefore did not appear to meet DM&E's purpose and need to create a shorter rail route into the Powder River Basin. Based on the results of its analysis, SEA eliminated Alternative D as the preferred alternative in the Draft EIS.

EPA's Discussion of "Modified Alternative D" in its Comments on the Draft EIS

EPA stated in its comments that after reviewing the Draft EIS, it had identified a Modified Alternative D that may be practicable and less damaging for wetlands and aquatic resources than the other alternatives presented in the Draft EIS. EPA's proposed Modified Alternative D would bypass Rapid City to the south and then generally follow the existing DM&E right-of-way between Rapid City and Smithwick, South Dakota. In addition, the Modified Alternative D would be cut and filled to a one percent grade with one degree or less curvature, which would meet the grade and curvature requirements for heavy haul coal trains. From the Smithwick area, the Modified Alternative D would pick up the proposed Alternative C alignment. EPA suggested that SEA present its analysis of Modified Alternative D in a Draft Supplement EIS.

SEA's Assessment of Modified Alternative D

As noted above, in response to EPA's comments, SEA asked DM&E to develop an alignment and a grade for a Modified Alternative D. Despite DM&E's concerns about the feasibility of this alignment, the railroad provided SEA with a proposed alignment on USGS topographical maps showing the cuts and fills that would be necessary for the alignment and profile sheets showing the gradeline. Additionally, DM&E provided estimates of the quantity of cut and fill and construction costs associated with the various alternatives for comparison. SEA reviewed these materials and found them to represent a good-faith-effort on the part of DM&E to develop a rail alignment for Modified Alternative D.

As we have discussed with you, SEA's assessment of the information provided by DM&E convinces us that Modified Alternative D is not a reasonable and practicable alternative for this project. Modified Alternative D would require major new construction requiring approximately 133 million cubic yards of cut and fill, compared to approximately 11 and 17 million cubic yards for Alternatives B and C, respectively. To construct all of Modified Alternative D would require 176.5 million cubic yards, compared to 45.9 and 61.1 million cubic yards for Alternatives B and C, respectively. As a result of the nearly 300% increase in the amount of cut and fill, the construction costs associated with Modified Alternative D would be \$1.32 billion more than Alternative C (\$685 million) and \$1.57 billion more than Alternative B

(\$430 million). This would increase total project cost from approximately \$1.4 billion to nearly \$3 billion.

Moreover, Modified Alternative D, between Wall and Smithwick, South Dakota would be 111.6 miles long, while Alternative B and C would be 85.7 and 85.9 miles long, respectively. Because Modified Alternative D would be significantly longer, it would also result in greater operational costs, including fuel consumption, and the associated environmental impacts to air quality resulting from burning more fuel.

Our assessment of the information submitted by DM&E also indicates that the Modified Alternative D would result in substantial environmental impacts to the environment, beyond those that would result from the alternatives analyzed in the Draft EIS. In fact, our analysis indicates that the potential environmental impacts associated with the Modified D Alternative would be so severe as to make the alternative impracticable. Examples of some of these impacts are set forth below.

Construction of the Modified D Alternative would require two of the existing rail line crossings of the Cheyenne River to be raised over 40 feet, requiring substantial bridging and fill within the river flood plain at these locations. At numerous locations, the excavation for the Modified D Alternative would cross creeks that are crossed by the rail line. This would result in the rail line cut being lower than the creek bed, causing the creek to flow into the rail cut. In some instances, the creek flow would be conveyed in the cut for only a short distance before it could be returned to the existing creek channel. There are also instances, however, where the depth of cut would require longer distances (up to several miles) of confinement of creek flow in the rail cut before the water could be returned to the existing creek channel. In all of these areas, portions of the creeks would effectively be de-watered, impacting wetlands, water for wildlife and livestock, and making the water unavailable for irrigation.

In several areas, cuts of depths 50 feet or greater for over 4 miles would be required. This would essentially create a canyon along the rail line, with generally steep sideslopes. These cuts would alter adjacent drainage, causing runoff to be drained into the rail cut rather than existing streams and creeks. This would alter stream hydrologies, resulting in less water being available in some locations to support existing wetlands, wildlife and livestock, and irrigation. Areas below where water from the cut would be returned to the stream channel could experience increased flows and altered hydrologic characteristics such as sediment transport and deposition. Wildlife could easily be funneled into these areas, making them more susceptible to being struck by a passing train due to the steep slopes and length of the cuts providing no convenient escape route.

The amount of excavation (133 million cubic yards) would be approximately three times the amount of fill (33 million cubic yards) required. Because it is unlikely a local or regional need could be identified for such a large quantity of fill material and it is generally uneconomical to transport fill more than a few miles, large areas would be required along the rail alignment for

the disposal (dumping) of excess fill. Because of the distance between areas of cut and fill, even with all the excess excavated material, it would still be likely that borrow areas from outside the right-of-way would be required to meet the local need for fill. Potentially hundreds of additional acres outside the rail line right-of-way could be either covered with excess fill or excavated to obtain fill material.

In developing a suitable alignment and grade, realignment of the existing rail line would be necessary at Fairburn, South Dakota. The necessary realignment would move the rail line several hundred feet east, placing it through the middle of the town. Additionally, in order to provide a suitable grade in this area, the rail line would be located atop approximately 20-30 feet of fill, requiring a width-of-fill at the base of the rail bed of approximately 150 feet. The town of Fairburn would essentially be divided in half by a 25 foot wall and approximately 6.9 acres of a town of approximately 68.8 acres, or roughly 10 percent of the town, would be covered with fill and converted to rail line right-of-way.

Conclusions

As a result of SEA's assessment of the information on Modified Alternative D discussed above, SEA has concluded that Modified Alternative D is not a reasonable and practicable alternative for this project. Accordingly, SEA intends in the Final EIS to present the information on Modified Alternative D that has been compiled. However, the Final EIS would then explain why this alternative is not reasonable and practicable and therefore eliminate it from further consideration without comparing its potential environmental impacts to the remaining reasonable and feasible alternatives (Alternatives A, B, C, and D as originally proposed). As a result, SEA does not believe that a Draft Supplemental EIS is necessary; rather, SEA believes it is now appropriate to prepare and issue a Final EIS.

Based on our recent conversations with you, it is SEA's understanding that you concur both with our conclusion that Modified Alternative D is impracticable and that preparation of a Final EIS is appropriate at this point. If we do not hear from you in the next two weeks, we will assume that you concur with the approach outlined in this letter.

On behalf of SEA and our consultant team, we all appreciate your interest and willingness to work closely with us in this extraordinarily complex project. I would be happy to discuss any questions you may have. Please feel free to contact me at (202) 565-1545.

Sincerely,



Victoria Rutson

cc: Cooperating Agencies

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Letter from Perimeter:
Federal Medical Center Security Fence

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May 31st., 2001

Mr. Ed Bowers
Burns and McDonald
9400 Ward Parkway
Kansas City, Mo. 64114

Dear Mr. Bowers,

This letter is in response to your inquiry about the perimeter fence security system at the Federal Medical Center at Rochester, Mn. With respect to the question about having an active railroad right-of-way within 150 to 300 feet of the perimeter fence system, we respond with the following:

The frequencies our equipment operates in is between 80 and 3000 HZ, with most of the information being around 1000 HZ. Seismic vibration, as would be generated by a passing train, would be in the frequency range of 10 HZ and below...well out of the frequency range of our equipment.

A fast moving train, if very close to the perimeter fence, can displace air causing a strong gust of wind that could lead to nuisance alarms. When a fast moving train is 150 to 300 feet away, the air displacement effect is dissipated over the distance and becomes inconsequential. Our equipment has been installed in numerous railroad facilities across the United States, and has performed reliably in these environments. In these locations, the trains are relatively close to the fence protection system, but moving at very slow speeds.

The perimeter fence security system at FMC Rochester is our model FPS-3, installed with our "EDAPT" software. "EDAPT" stands of Environmentally Derived Adaptive Processing Techniques, and refers to the process of storing information gathered from the fence and using the stored information in the process of separating environmentally caused disturbances from actual alarm events. This technique allows the FPS-3 system to work in rain, hail, snow, high winds, and other harsh environments with a high probability of detection (P.D.) while maintaining a low nuisance alarm rate (N.A.R.) and low false alarm rate (F.A.R.).

As with most sophisticated electronic equipment, successful performance of the FPS-3 system requires that properly trained professionals install system and perform routine

E-Mail: mkt@perimeterproducts.com

maintenance. The necessary steps required to install, test and maintain the FPS-3 system is outlined in our installation manual, and must be followed to ensure proper function of the system.

Another critical factor in the function of the FPS-3 system is the condition of the fence it is mounted on. The fence needs to be mechanically sound, with no loose pieces or anything that would cause metal-to-metal contact during wind, rain, or vibration. The mechanical condition of the fence would be particularly important when a regular seismic disturbance (i.e.: passing train) could shake the fence. The frequency of the seismic vibration is not within the range detected by the FPS-3 Sensor Cable, but the metal-to-metal contact that would be caused would most definitely be detected by our system. Proper mechanical maintenance of the fence is necessary for the reliable function of any fence protection system.

Please contact me directly if you have any further questions.

Best Regards,

A handwritten signature in black ink, appearing to read 'Ed Burnell', with a long horizontal line extending to the right.

Ed Burnell
National Sales Manager