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Volume I
Chapter 1-3

FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

STB Finance Docket No. 30186 (Sub–No. 3)

Tongue River Railroad Company, Inc. – Construction and Operation – Western Alignment

Tongue River III-Rosebud and Big Horn Counties, Montana

Lead Agency:

Surface Transportation Board
Section of Environmental Analysis
1925 K Street, NW
Washington, DC 20423-0001

Cooperating Agencies:

U.S. Army Corps of Engineers
U.S. Bureau of Land Management
Montana Department of Natural Resources and Conservation (lead agency for Montana state agencies)

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SURFACE TRANSPORTATION BOARD
Washington, DC 20423

Office of Economics, Environmental Analysis and Administration

October 13, 2006

Dear Reader:

The Surface Transportation Board's Section of Environmental Analysis (SEA) is pleased to provide you with the enclosed Final Supplemental Environmental Impact Statement (Final SEIS) for the Tongue River Railroad Company's (TRRC) proposed 17.3 mile rail line construction in Rosebud and Big Horn Counties, Montana, known as Tongue River III, and also referred to as the proposed Western Alignment. TRRC previously submitted two related applications that were considered and approved by the Board and its predecessor agency, the Interstate Commerce Commission (ICC), in 1986 and 1996, respectively. The rail line proposed in these applications, known as Tongue River I and Tongue River II, would be located in Custer, Big Horn, Powder River, and Rosebud Counties. The proposed Western Alignment is an alternative routing for the southernmost portion of the 41-mile Ashland to Decker alignment approved in Tongue River II, known as the Four Mile Creek Alternative.

This Final SEIS was prepared by SEA in cooperation with the U.S. Department of the Interior, Bureau of Land Management (BLM), the U.S. Army Corps of Engineers (Corps), and the Montana Department of Natural Resources and Conservation (MT DNRC), acting as lead agency for other Montana state agencies. Under the requirements of the National Environmental Policy Act, the Board is the lead agency for preparing the Final SEIS, and BLM, Corps, and MT DNRC are cooperating agencies. These three agencies also have decision-making authority independent of the Board and are three principal agencies from which TRRC will obtain separate approvals or permits.

The Final SEIS reflects SEA's independent analysis of the potential environmental impacts that could result from the construction and operation of the proposed Western Alignment and considers the views of the public, as well as Federal, state, and local agencies. The Final SEIS responds to the comments received on the Draft SEIS, which was made available for comment on October 15, 2004, and presents SEA's final conclusions and recommendations for mitigating possible environmental effects.

Availability of the Final Supplemental Environmental Impact Statement

SEA has distributed the Final SEIS to all parties of record, including key governmental agencies and other appropriate entities. SEA has made the Final SEIS available for review in the Miles City Public Library (1 South 10th Street) in Miles City

and the St. Labre Indian School (1000 Tongue River Road) in Ashland. The entire document is also available on the Board's website at www.stb.dot.gov.

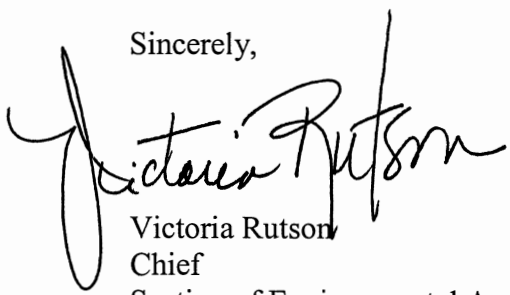
Next Steps

Issuance of this Final SEIS completes the Board's environmental review process. The Board now will now make a final decision on the proposed project. In accordance with Council on Environmental Quality regulations implementing NEPA, no agency decision on the proposed action may be made until 30 days after EPA publishes its Notice of Availability of the Final SEIS. Congress has not established a statutory time frame within which the Board must issue its final decision, and the Board has not announced a date for issuance of the final decision. However, in the interest of bringing this matter to closure, the Board will act as promptly as possible.

In making its final decision on the proposed project, the Board will consider the entire environmental record, including all public comments, the Draft SEIS, the Final SEIS, and SEA's final recommended environmental mitigation. No project-related construction may begin until the Board's final decision has been issued and has become effective. Parties who wish to file an administrative appeal of the Board's final decision may do so within 20 days of that decision, as provided in the Board's rules. The Board will consider any administrative appeals in a subsequent decision. The cooperating agencies will also issue decisions under their own governing statutes.

SEA appreciates the efforts of all interested parties who reviewed and commented on the Draft SEIS. Thank you for you interest and participation in the environmental review process.

Sincerely,



Victoria Rutson
Chief
Section of Environmental Analysis

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The subject of this Final Supplemental EIS (Final SEIS) is the application submitted by the Tongue River Railroad Company, Inc. (TRRC) to the Surface Transportation Board (Board) for authorization to construct and operate 17.3 miles of rail line known as the proposed Western Alignment (Proposed Action), and also referred to as Tongue River III.

The Surface Transportation Board's Section of Environmental Analysis (SEA), in cooperation with the U.S. Army Corps of Engineers (Corps); U.S. Department of the Interior, Bureau of Land Management (BLM); and the Montana Department of Natural Resources and Conservation (MT DNRC) has prepared this document in accordance with the requirements of the National Environmental Policy Act (NEPA), 42 U.S.C. 4321, Council on Environmental Quality (CEQ) regulations implementing NEPA, the Board's environmental rules (49 CFR Part 1105), and other applicable environmental statutes and regulations.

The Final SEIS includes the following:

Executive Summary, Chapters 1-8, and Appendices A-K

- **Executive Summary**. An overview of the Final SEIS that summarizes results of SEA's additional analysis that was completed in response to comments received on the Draft SEIS. It also presents SEA's final recommendations on the preferred alternative and mitigation for the project.

- **Chapter 1: Introduction**. This chapter provides information on the project background, its purpose and need, the scope of the environmental analysis, agency coordination, and public involvement conducted throughout the environmental review process, and next steps in the process after the environmental review is complete.

- **Chapter 2: Master Responses**. This chapter provides master responses that address key issues and concerns that were expressed in the comments received from agencies, organizations, and members of the public on the Draft SEIS.

- **Chapter 3**: **Responses to Comments**. All comment letters received on the Draft SEIS are in this chapter followed by SEA's response to each comment. Also included in this chapter are the transcripts from the public meetings held in Montana on November 16 and 17, 2004.

- **Chapter 4**: **Final Recommended Mitigation**. This Chapter presents SEA's final recommended mitigation measures and discusses modifications to the preliminary mitigation that was presented in the Draft SEIS. There are general, local, and site-specific mitigation measures. Measures are recommended for both the construction and operation of the rail line.

- **Chapter 5**: **Errata and Modification to the Draft SEIS**. This chapter identifies changes that have been made to the Draft SEIS as a result of comments.

- **Chapter 6: Distribution List**. A list of parties that received copies of the Final SEIS.

- **Chapter 7: List of Preparers**.

- **Chapter 8: Glossary**.

Appendices

- **Appendix A** is a set of aerial photos that show the entire alignment from Miles City to Decker. These exhibits include the location of the originally approved alignment, the location of the alignment due to the 1998 proposed refinements, public grade crossings, private grade crossings, proposed cattle pass locations, names of property owners, and perennial streams.

- **Appendix B** is a list and associated maps of potential fish and wildlife species occurrence by habitat along the entire rail line from Miles City to Decker that was completed in conjunction with the Biological Assessment for the project, but was not included in the Draft SEIS.

- **Appendix C** is the Final Programmatic Agreement (PA), which provides a framework for the protection of cultural resources during project construction.

- **Appendix D** contains the Biological Assessment (BA) and the Biological Opinion which was issued by the USFWS in July 2006. The BA has been revised since completion of the Draft SEIS on the basis of information provided by the USFWS and the State of Montana Department of Fish, Wildlife, and Parks.

- **Appendix E** is a soils survey report that was completed in 2005 by Kleinfelder, Inc. to identify the soil units within the study corridor and present relevant engineering and construction properties of the soil to assist in the permitting and engineering design process for the proposed railway.

- **Appendix F** is the "Revised Draft Section 404(b)(1) Showing" prepared for the USACE, dated May 2006.

- **Appendix G** is the Work Plan developed by TRRC in cooperation with the U.S. Fish and Wildlife Service to guide vibration monitoring, assessment, and if warranted, mitigation, at the Miles City Fish Hatchery.

- **Appendix H** is an Air Quality Analysis Update for Tongue River III completed on June 1, 2004. The purpose of the analysis is to update the 1998 air quality analysis for the proposed Western Alignment and the Four Mile Creek Alternative so that the most current information is reflected in emission approximation, regulatory requirements, and estimated impacts.

- **Appendix I** is three supplemental information letters.

  The first letter provides information related to the availability of water during the construction period, construction camps, the feasibility of a hybrid alignment that would consist of the upper portion of the proposed Western Alignment and the lower portion of the Four Mile Creek Alternative, confirmation of coal tonnage forecasts, and an assessment of capacity constraints on the existing BNSF rail network.

  The second letter provides additional information on the feasibility of using trestles in place of planned cuts and fills.

  The third letter explores the possibility of a rerouting of the alignment to avoid the Battle Butte Battlefield.

- **Appendix J** is a route analysis for TRRC Wyoming coal.

- **Appendix K** is a verified statement by Francis A. Roberts.

EXECUTIVE SUMMARY

This Final Supplement to the EIS (Final SEIS) addresses comments received during public review on the Draft SEIS. The Draft SEIS discussed the potential environmental impacts associated with the application submitted by the Tongue River Railroad Company, Inc. (TRRC) to the Surface Transportation Board (Board) for authorization to construct and operate 17.3 miles of rail line known as the proposed Western Alignment, and also referred to as Tongue River III. The proposed Western Alignment would be located in Rosebud and Big Horn counties, Montana. TRRC previously submitted two related applications, which were considered and approved by the Board and its predecessor agency, the Interstate Commerce Commission (ICC), in 1986 and 1996, respectively. These applications, known as Tongue River I and Tongue River II, involved the construction and operation of rail lines in Custer, Big Horn, Powder River, and Rosebud counties, and are described in detail in Chapter 1 of the Draft SEIS, "Overview of Applications." The proposed Western Alignment is an alternative routing for the southernmost portion of the 41-mile Ashland to Decker, Montana alignment approved in Tongue River II, known as the Four Mile Creek Alternative. The overall purpose of Tongue River I, Tongue River II, and Tongue River III is to provide for the transport of coal from mines in the Powder River Basin and Tongue River Valley to markets in the midwestern and northeastern states.

The Board's Section of Environmental Analysis (SEA) conducted a thorough and comprehensive analysis of all of the potential environmental impacts associated with construction and operation of the proposed Western Alignment, the results of which are contained in the Draft SEIS. As part of its analysis, SEA compared potential impacts of the proposed Western Alignment to potential impacts of the previously approved Four Mile Creek Alternative, and also analyzed TRRC's proposed refinements to the alignment previously approved in Tongue River I and Tongue River II. The Draft and Final SEISs have been prepared by SEA, in consultation with three cooperating agencies: the U.S. Army Corps of Engineers (Corps); the Department of the Interior, Bureau of Land Management (BLM); and the Montana Department of Natural Resources and Conservation (MT DNRC), acting as the lead agency for all Montana State agencies.

ES.1 Final Conclusions

SEA believes that both the proposed Western Alignment and the Four Mile Creek Alternative could be safely operated and would avoid the environmentally sensitive Tongue River Canyon. The environmental impacts of both routes are, with appropriate mitigation measures, generally comparable. However, SEA believes that the proposed Western Alignment is environmentally preferable for the following reasons: (1) the proposed Western Alignment would require fewer at-grade public road crossings (four versus seven for the Four Mile Creek Alternative), (2) the proposed Western Alignment would have a flatter grade,[1] and hence a lower estimated train

[1] The proposed Western Alignment would have a 0.93 percent maximum descending grade, while the Four Mile Creek Alternative would have a 2.31 percent maximum descending grade. Grades steeper than 1.0 percent require

derailment rate (0.32 per year versus 0.55 per year for the Four Mile Creek Alternative), (3) the operation of the proposed Western Alignment, with its flatter grade, would require only 65 percent of the fuel required by the Four Mile Creek Alternative, (4) the total acreage required for the proposed railroad right-of-way[2] and the number of property owners affected would be less with the proposed Western Alignment, (5) the proposed Western Alignment would affect substantially less wetlands (1.69 acres for the proposed Western Alignment versus 6.09 acres for the Four Mile Creek Alternative), and (6) the proposed Western Alignment would affect fewer noise sensitive receptors (residences) during operation (none for the proposed Western Alignment versus five for the Four Mile Creek Alternative).

The amount of earthwork (grading and cut and fill) is potentially significant under either route. However, the proposed Western Alignment would require more earthwork than the Four Mile Creek Alternative.[3] The proposed Western Alignment also has greater potential for increased impacts in the areas of soil erosion, sediment load to the Tongue River and its tributaries, dust during construction, and visual quality.

While the amount of earthwork associated with the proposed Western Alignment is greater than the Four Mile Creek Alternative, SEA believes that the mitigation measures being recommended in this Final SEIS would significantly reduce these potential impacts, making the proposed Western Alignment still environmentally preferable.

Table ES-1 illustrates the environmental comparisons by topic area between the approved Four Mile Creek Alternative and the proposed Western Alignment.

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additional engines to haul loaded trains against the grade, and also present an increased safety risk through loss of control during descent.

[2] The right-of-way (ROW) that would be required for construction and operation of either the proposed Western Alignment or the approved Four Mile Creek Alternative would extend 200 feet from each side of the proposed railroad's centerline.

[3] 17.3 million cubic yards versus 10.3 million cubic yards for the Four Mile Creek Alternative.

Table ES-1 – Comparison of Key Environmental Issues

Topic	Proposed Western Alignment	Approved Four Mile Creek Alternative
Land Use		
Number of homes displaced	0	2
Total acreage required for ROW	672	765
Land owners affected	13	15
Biological Resources		
Number of non-perennial stream crossings	42	40
Estimated acreage of wetlands disturbed	1.69	6.09
Number of endangered species potentially affected	3	3
Soils and Geology		
Volume of earth moved (million cubic yards)	17.3	10.3
Volume of potential erosion (tons/year) during construction	18,300 - 28,700	14,600 - 23,800
Hydrology and Water Quality		
Number of river bridge crossings	1	1
Potential increase in sediment load (tons/year) in Tongue River	6,770 - 10,600	3,650 - 6,000
Cultural and Paleontological Resources		
Estimated number of prehistoric and historic cultural resources in ROW (subject to change based on pre-construction surveys)	9	6
Transportation and Safety		
Number of at-grade public road crossings	4	7
Estimated annual derailments	0.32	0.55
Air Quality (tons/mile/year)		
Construction period dust emissions	13.3	10.06
Operational emissions-combined total for CO,NO_x,PM_{10},SO_2,VOC	42.8	47.5
Noise and Vibration		
Number of sensitive receptors adversely affected during construction	1	4
Number of sensitive receptors adversely affected during operation	0	5

Topic	Proposed Western Alignment	Approved Four Mile Creek Alternative
Socioeconomics		
Environmental justice	N/A[a]	N/A[a]
Net change in regional employment (jobs) during operation	-7	+4
Energy		
Fuel use per train (gallons)	1,826	2,798

Note: [a] The Draft SEIS did not identify any disproportionately adverse environmental justice impacts. Please refer to Chapter 4, Section 4.3.9.4 of the Draft SEIS, for a complete discussion of environmental justice.

SEA further concludes that, based on the analysis contained in the Draft SEIS, the refinements proposed by TRRC to the rail line approved in Tongue River I and Tongue River II located north of the proposed Western Alignment would not result in significant environmental impacts not previously considered in the EISs prepared in Tongue River I and Tongue River II. At the same time as explained in detail in Chapter 7 of the Draft SEIS and this Final SEIS (See section ES.6), SEA recommends that certain mitigation measures adopted in Tongue River I and Tongue River II be revised or otherwise updated where circumstances have changed significantly or to clarify and amplify some of the mitigation previously imposed.

In particular, SEA recommends several new mitigation measures to reduce impacts associated with construction and operation of the proposed Western Alignment, and believes that some of these measures should be made applicable to the entire line, thus including the rail line approved in Tongue River I and Tongue River II. Specifically, SEA is recommending new mitigation measures for the following reasons:

- To minimize impacts associated with the 100-year flood plain.
- To further minimize impacts on aquatic resources, wetland habitat, and plant and animal species of special concern.
- To minimize impacts on the Miles City Fish Hatchery.
- To provide more detail regarding mitigation relating to the revegetation of disturbed soils.
- To address the impacts of saline/sodic soils and soil slumping.
- To minimize the impacts of blasting on the Tongue River Reservoir Dam.
- To provide more specificity regarding conditions for bridge and culvert construction.
- To further ensure train operation safety.
- To clarify the means by which oversight of mitigation implementation will be undertaken during construction.
- To minimize impacts on paleontological resources.

Chapter 4 of this Final SEIS provides a comprehensive compilation of SEA's final recommended mitigation measures for construction and operation of the entire rail line from Miles City to Decker. Chapter 4 of this Final SEIS includes both the new mitigation measures recommended by SEA and mitigation measures from Tongue River I and Tongue River II that SEA is recommending be revised or otherwise updated to provide clarity or to reflect changed circumstances. As indicated below in Section ES.6, some of the mitigation in the Draft SEIS has been refined based on comments received during the public comment period, and a new mitigation measure to protect paleontological resources has been added at the request of BLM.

SEA recommends that its final comprehensive list of mitigation measures apply uniformly, unless otherwise specifically noted, to the entire rail line from Miles City to Decker via either the Four Mile Creek Alternative or the proposed Western Alignment.

ES.2 Agency Consultation

SEA consulted extensively with several resource agencies during preparation of the Draft and Final SEISs to discuss the project in greater detail, and obtain information on environmental resources that would be potentially affected. Resource agencies, including the three cooperating agencies, provided necessary technical expertise and guidance on appropriate mitigation measures.

During completion of the Draft and Final SEISs, meetings and consultations were held with the following agencies and organizations:

- Environmental Protection Agency
- U.S. Fish and Wildlife Service
- U.S. Army Corps of Engineers
- Montana State Historic Preservation Officer
- Montana Department of Natural Resources and Conservation
- Bureau of Land Management
- Advisory Council on Historic Preservation
- Northern Cheyenne Tribe

ES.3 Public Review of Draft SEIS

On October 15, 2004, SEA issued for public review and comment the Draft SEIS that identified SEA's preliminary conclusions regarding the potential environmental effects of Tongue River III and the conditions that SEA intended to recommend to the Board that would require TRRC to mitigate or alleviate potentially significant environmental impacts. SEA decided that the mitigation should apply to the entire rail line to ensure consistency of mitigation along the entire rail line from Miles City to Decker, Montana.

SEA provided a 45-day period for public review and comment on all aspects of the Draft SEIS. SEA received a total of 68 comment letters on the Draft SEIS: nine letters from Federal agencies, five letters from state agencies, five letters from regional agencies, five letters from local agencies and organizations, and 44 letters from individual members of the public. Of the 68 comment letters received, nine letters were in support of the project, while the remaining letters either expressed opposition to the project or raised questions or concerns related to the Draft SEIS.

In addition to accepting written comments on the Draft SEIS, SEA hosted public meetings -- in Miles City on November 16, 2004, and Ashland on November 17, 2004 -- during the 45-day public review period to provide another avenue for public comment. These meetings were attended by more than 100 people.

The regulations of the President's Council on Environmental Quality for implementing NEPA direct agencies to respond to substantive comments on the Draft EIS in the Final EIS (40 CFR 1503.4). In some cases, SEA's review of the comments indicated that the concern had already been adequately and appropriately addressed in the Draft SEIS, and no additional action on SEA's part was necessary. In other cases, it was determined that clarification or further information was necessary. Other comments indicated a need for further study and evaluation. As a result of reviewing these comments, SEA has completed additional study or refined some of its analysis using better information and improved procedures. All of the comments received on the Draft SEIS and SEA's individual responses to each of them are provided in Chapter 3 in this Final SEIS.

ES.4 Differences Between the Draft and Final SEIS

Based on the comments received during the public review period, several changes have been made to the analysis and recommended mitigation measures in this Final SEIS. These changes have not resulted in substantive changes to SEA's conclusions about the potential environmental impacts of the proposed action. Rather, this Final SEIS reflects additional coordination with technical consultants to investigate and more fully explain conclusions presented in the Draft SEIS, additional consultations and coordination with resource agencies, clarifications and factual corrections, and documentation of additional data collection to validate assumptions of the Draft SEIS and respond to comments.

This Final SEIS fully incorporates and adopts by reference the analysis contained in the Draft SEIS and the previous EISs prepared in Tongue River I and Tongue River II, as applicable. To avoid unnecessary repetition in this case, SEA has not restated its Draft SEIS analysis unless modifications or clarification was warranted to fully respond to the comments. However, SEA's additional analysis is discussed in detail in this Final SEIS. This Final SEIS, in conjunction with the Draft SEIS, provides complete documentation of SEA's environmental review process in Tongue River III.

ES.5 Additional Analysis and Coordination for Final SEIS

SEA's additional analysis and coordination conducted since completion of the Draft SEIS include:

- Coordination with USACOE (the Corps) on the Revised Draft Section 404 (b)(1) showing and proposed mitigation plan has continued since completion of the Draft SEIS. The Corps has provided comments on the mitigation plan and the Section 404 (b)(1) showing has been updated accordingly. The Revised Draft Section 404 (b) (1) showing is included in this Final SEIS as Appendix F.

- Coordination with USFWS on the Biological Assessment. SEA has coordinated with the USFWS and with TRRC to provide additional documentation related to potential vibration impacts to the pallid sturgeon breeding program. SEA provided a revised Biological Assessment to the USFWS and the service has issued a Biological Opinion. The revised Biological Assessment and the Biological Opinion are included in this Final SEIS as Appendix D.

- A review and update of the aerial photographs of the entire proposed ROW from Miles City to Decker. The aerial photos, included in Appendix A of this Final SEIS, show current property owner information, topographical features, preliminary locations of cattle passes, county road relocations, public and private grade crossings, streams and creeks, and the proposed refinements to Tongue River I and Tongue River II.

- Coordination with BLM on the current status of coal bed methane (CBM) development in the vicinity of Tongue River III. SEA reviewed a CBM project area map issued by BLM in April 2005 to identify permitted and planned CBM Plans of Development (PODs) that could result in cumulative effects in combination with Tongue River III. SEA updated its cumulative analysis accordingly. See Master Response 21 of this Final SEIS.

- Coordination with the Montana Department on Environmental Quality on the most current status of Total Maximum Daily Load (TMDL) criteria for the Tongue River. For additional discussion, please refer to Master Response 20 in Chapter 2 of this Final SEIS.

- Coordination with Montana Department of Fish, Wildlife, and Parks (MT FWP) to obtain the most current baseline information on the presence of bald eagles along the entire proposed ROW from Miles City to Decker. The Biological Assessment, included as Appendix D of this Final SEIS, has been updated to include relevant information related to bald eagle nesting activity and the potential for adverse effect.

A Biological Opinion, issued by the USFWS on July 12, 2006 is also included in Appendix D.

- Completion of a soil survey for the proposed Western Alignment, which summarizes information on soil units located within 300 meters of the centerline. The survey identifies soil units and presents relevant engineering and construction properties of the soil to assist in the permitting and engineering design process for the proposed railway. The soil survey is included in this Final SEIS as Appendix E.

- Additional consultation with TRRC and the MT FWP to address concerns related to the proposed crossing of the Miles City Fish Hatchery. Appendix G contains a work plan to guide vibration monitoring at the Miles City Fish Hatchery during construction and operation. TRRC has agreed to the scope and terms contained in the vibration monitoring plan.

- Additional consultation with signatory and concurring parties to finalize the Programmatic Agreement (PA). Since completion of the Draft SEIS, the PA has been fully executed by all signatory parties. A copy of this agreement is included in Appendix C of this Final SEIS.

- Analysis by Mission Engineering (TRRC's consultant in this proceeding) to examine the feasibility of re-routing the alignment for Tongue River II via a bypass that would avoid the Battle Butte battlefield site, and an analysis of the use of trestles versus cuts and fills. This analysis is summarized in Master Response 14.

- Additional analysis of the effects of the project on air quality in the mid-western states that would receive the bulk of the coal to be transported on the rail line. This analysis is summarized in Master Response 23.

ES.6 Changes in Mitigation Measures

Based on comments received on the Draft SEIS during the public review period, fourteen of the recommended mitigation measures from the Draft SEIS have been refined and three new mitigation measures have been developed. All of SEA's final recommended mitigation measures are included below and in Chapter 4 of this Final SEIS. The proposed changes are intended to improve the effectiveness of the measures, clarify the roles of the parties involved, or refine the timing of implementation.

Mitigation measures recommended in the Draft SEIS that have been refined include the following:

14 (Task Force), **17** (Reporting), **19** (Reclamation), **21** (Noxious Weed Control), **22** (Wetland Permit), **24** (Biological Opinion), **26** (Data Reconnaissance) **29** (Destruction of Habitat),

41(Sediment Delivery), **42** (Soil Survey), **49** (Culverts), **55** (Memorandum of Agreement), **62** (Spill Prevention), **84** (Protection of MCFH Water Supply Pipeline), and **87** (MCFH).

New mitigation measure **90** (Paleontological Resources) has been added at the request of BLM to protect paleontological resources discovered during surface disturbing activities related to construction along any part of the TRCC line. New mitigation measure **91** (Compensation Program) has been added at the request of the U.S. Fish and Wildlife Service to mitigate for lost wildlife habitat along the rail line prior to the beginning of construction. New mitigation measure **92** (Miles City Fish Hatchery) has been added to specify that TRRC has agreed to implement the Work Plan to mitigate impacts to the Miles City Fish Hatchery.

ES.7 Distribution and Availability of this Final SEIS

SEA has mailed this Final SEIS to key reviewing agencies and all those individuals who commented on the Draft SEIS. Additionally, SEA has distributed the Final SEIS to parties of record, the environmental distribution list, and other interested agencies and entities, Tribes and citizens. In accordance with CEQ regulations, SEA has submitted this Final SEIS to EPA for EPA's issuance of a formal public Notice of Availability. SEA also has placed a copy of the Final SEIS at the following locations:

Miles City Public Library
1 South 10th Street
Miles City, MT 59301

St. Labre Indian School
1000 Tongue River Road
Ashland, MT 59003

Furthermore, the entire document can be found on the Surface Transportation Board's website under "Decisions & Notices".

Issuance of this Final SEIS completes the Board's environmental review process. In accordance with CEQ regulations implementing NEPA at 40 CFR 1506.10(b), no agency decision on the proposed action may be made until 30 days after EPA publishes its Notice of Availability of this Final SEIS. Congress has not established a statutory time frame within which the Board must issue its final decision, and the Board has not announced a date for issuance of the final decision. However, in the interest of bringing this matter to closure, the Board will act as promptly as possible.

In its Final Decision, the Board will consider the entire SEIS, including the public comments. Then the Board will weigh the merits of the underlying proposal, to reflect those impacts and costs, and to impose appropriate additional environmental mitigation conditions if it decides to approve the project. No project-related construction may begin until the Board's final decision has been issued and has become effective. The cooperating agencies will also issue decisions under their own governing statues, based on the EIS, SEIS, and various applications submitted by Tongue River Railroad.

ES.8 SEA'S Final Recommended Mitigation

Land Use Mitigation Measures

Mitigation Measure 1 (Direct and Indirect Land Loss). TRRC shall negotiate compensation for direct and indirect loss of agricultural land on an individual basis with each landowner whose property will be affected as a result of the construction and operation of the line between Miles City and Decker. TRRC shall assist landowners in identifying and developing alternative agricultural uses for severed land, where appropriate. TRRC shall apply a combination of alternative land use assistance and compensation as necessary and agreed upon during right-of-way negotiations. *[TRRC II, Land Use Condition (1), modified by minor edits]*

Mitigation Measure 2 (ROW Fencing). TRRC shall construct fencing along the entire railroad right-of-way (ROW) Fence construction and type shall be used that allows movement of big game animals across the railroad ROW. The general fencing options to be used shall be developed by TRRC for approval by the Task Force in accordance with the process set forth in Mitigation Measure 14. In the event that a land owner does not agree with the Task Force's general determinations about fencing, the Task Force shall be consulted to determine mitigation on a case-by-case basis. *[TRRC I, Condition 10.1(5) and Land Use Condition (3), combined and modified to require the Task Force's involvement in the development of appropriate fencing types]*

Mitigation Measure 3 (Access Restrictions). TRRC shall install cattle passes (oval, corrugated metal structures, approximately 11 feet high and 12 feet wide at the base) along the railroad right-of-way to ensure passage of cattle under the rail line. TRRC shall work with landowners to identify appropriate locations for cattle passes and private grade crossings for equipment. *[TRRC II, Land Use Condition (4)]*

Mitigation Measure 4 (Displacement of Capital Improvements). Where capital improvements are displaced as a result of construction or operation of this rail line, TRRC shall relocate or replace these improvements or provide appropriate compensation based on the fair market value of the capital improvements being displaced. *[TRRC II, Land Use Condition (2), modified to provide additional clarity regarding fair market value compensation]*

Mitigation Measure 5 (Impacts During Construction). During final engineering, TRRC shall consult with individual landowners to minimize conflict between construction activities and ranching operations. *[TRRC II, Land Use Condition (5), modified by minor edits]*

Mitigation Measure 6 (Construction Areas). TRRC shall confine all construction activities to the railroad right-of-way and to the construction camps along the rail line, at locations to be negotiated between individual landowners and TRRC. *[TRRC II, Land Use Condition (6), modified by minor edits]*

Mitigation Measure 7 (Construction Camps). TRRC shall require its contractors to assure that its construction camps are orderly. Upon completion of construction, TRRC shall return the camps to their previously existing use. *[TRRC II, Land Use Condition (7)]*

Mitigation Measure 8 (Construction Liaison). TRRC shall appoint a representative, with direct access to management, to work with primary construction contractors, subcontractors, and affected landowners to address any problems that develop during construction. *[TRRC II, Land Use Condition (8)]*

Mitigation Measure 9 (Wildfire Suppression and Control Plan). Prior to construction of this rail line, TRRC shall develop a Wildfire Suppression and Control Plan for fires occurring on the right-of-way as a result of rail construction/operations or undetermined causes. TRRC shall observe the following measures in developing the plan:

(1) The plan shall be developed with the Montana Department of Natural Resources and Conservation's Eastern Land Office, as well as other appropriate governmental agencies and volunteer fire departments along the route.
(2) The plan shall be developed by TRRC after final engineering and overall operation plans are complete. This will afford planners the benefit of specific information regarding TRRC's operation, equipment, and personnel that might be of use in case a fire occurs.
(3) State-of-the-art techniques for fire prevention and suppression shall be evaluated and included in the plan, as appropriate.

[TRRC II, Safety Condition (4), modified to clarify that the above measures are those required for fire suppression]

Mitigation Measure 10 (Fire Prevention). To minimize the potential for railroad-caused fires, TRRC shall observe all general rail safety regulations promulgated by the Federal Railroad Administration regarding railroad operations. *[TRRC II, Safety Condition (4), modified to clarify that this measure is to help prevent fire]*

Mitigation Measure 11 (Fire Suppression). Prior to construction of this rail line, TRRC shall negotiate with local ranchers along the right-of-way the placement of fire suppression equipment so that it may be used to promptly extinguish fires during construction and operation of the line. *[TRRC II, Safety Condition (5), modified by minor edits]*

Mitigation Measure 12 (Fire Access Road). During construction and operation of the rail line, TRRC shall maintain a serviceable access road within, and access points along, the right-of-way at locations determined in consultation with the local fire officials, to permit entry to the railroad right-of-way of vehicles to aid in fire suppression. *[TRRC II, Safety Condition (6), modified by minor edit]*

Mitigation Measure 13 (Mobile Communications). Prior to beginning construction of the rail line, TRRC shall develop and install a mobile communications system between the local

volunteer fire fighting units, train crews, and ranchers with property adjacent to the right-of-way to ensure adequate communication in emergency situations during construction and operation of this line. *[TRRC II, Safety Condition (7), modified by minor edit]*

Biological Resource Mitigation

Mitigation Measure 14 (Task Force). TRRC shall participate as a member of a Multi-agency/Railroad Task Force. The purpose of the Task Force shall be to approve the implementation and monitoring of biological (i.e., terrestrial and aquatic) mitigation measures for the entire rail line (Tongue River I, Tongue River II, and Tongue River III), with the exception of such issues concerning the MCFH.

Unless otherwise indicated in the mitigation conditions, TRRC is responsible for compliance with all biological mitigation conditions set forth below. As specified in the mitigation conditions themselves, TRRC shall prepare various surveys, plans and documents for review and approval by the Task Force. It is the responsibility of the Board representative on the Task Force to convene the Task Force when an appropriate issue involving terrestrial and aquatic matters arises. The Task Force, in conducting its review of any survey, plan or document related to terrestrial and aquatic issues, shall attempt to reach agreement and approval through consensus within 15 working days of receipt by all Task Force members of each survey, plan or document. However, if a consensus cannot be reached by the Task Force members, a vote shall be taken on the 15th working day and approval shall be determined by a majority of the Task Force members present (at least one half of the members present plus one vote). If the Task Force is unable to reach a decision, either through consensus or by a majority vote, the Board representative on the Task Force shall bring a recommended resolution back to the Board within 10 working days of the vote, at which time the Board will make a final decision within 10 working days.

Task Force Members shall participate in the Task Force at their own discretion and expense and to the extent that their resources permit. Further, Task Force members may use additional resources available to them to accomplish mitigation. Other parties may be invited to consult on specific issues, as appropriate; however the actual membership of the Task is limited to the agencies specified in this condition.

Those agencies who have agreed to participate on the Task Force include the Board, Montana Department of Fish, Wildlife and Parks (MT DFWP), Montana Department of Natural Resources and Conservation (MT DNRC), United States Fish and Wildlife Service (USFWS), Bureau of Land Management (BLM), and United States Corps of Engineers (Corps). TRRC has also agreed to participate. The Board will act as the lead agency to coordinate the Task Force. Each participating agency, as well as TRRC, shall designate representative(s) to work with the Task Force. EPA shall be included on the mailing list for written reports and findings circulated by the Task Force to assure that EPA has the opportunity to raise any comments it might have. The Task Force shall inform EPA of critical issues related to its jurisdiction if the Task Force is unable to address such issues itself.

The Task Force will remain active until TRRC certifies to SEA that the rail line construction has been completed and that all construction mitigation measures have been implemented and for a period of two years of rail operations or any other period the Board may impose. *[TRRC II, Aquatic Condition A.9.1 General, modified to provide additional clarity, duration, and responsibilities to the Task Force]*

Mitigation Measure 15 (Material Changes). If there is a material change in the facts or circumstances upon which the Board relied in imposing specific environmental mitigation conditions, and upon petition by any party who demonstrates such material change, the Board may review the continuing applicability of its final mitigation, if warranted. *[TRRC III, new]*

Mitigation Measure 16 (Third-party Contractor). TRRC shall retain a third-party contractor to assist SEA in the monitoring and enforcement of mitigation measures on an as-needed basis until TRRC has completed project-related construction and for a period covering the first two years of railroad operations or for any oversight period the Board may impose. TRRC shall be consulted to determine if the matter can be resolved without the need for any action on the part of the contractor and if any action by the third-party contractor is deemed warranted by SEA following such consultation, the third-party contractor shall submit for TRRC's approval a budget for the requested work. *[TRRC III, new]*

Mitigation Measure 17 (Reporting). TRRC shall submit to SEA no less than every four months, beginning with the effective date of the Board's final decision in Tongue River III and continuing for the first two years of railroad operations, or for any other period that the Board may impose, reports documenting the status of implementation of the Board's final environmental mitigation conditions. *[TRRC III, new]*

Mitigation Measure 18 (Plant Species of Concern). TRRC shall conduct a field search of the alignment during final-phase engineering of this line to identify plant species of concern (Federal and state) and to implement appropriate mitigation measures during construction activities if such species are found. This field search shall be conducted during the appropriate time of year to identify any potential rare plant species. (The survey schedule shall be approved by the Task Force in accordance with the process set forth in Mitigation Measure 14.) TRRC shall prepare and implement a formal mitigation plan approved by the Task Force for minimizing impacts on species of concern. *[TRRC III, new]*

Mitigation Measure 19 (Reclamation). During construction of this line, TRRC shall implement reclamation and revegetation of the right-of-way (ROW) at the earliest possible time after clearing has been completed. Revegetation shall be implemented only in those ROW areas with adequate substrate and grade. Wherever possible, construction and attendant revegetation shall be expedited. The following generally accepted practices shall be employed in the reclamation process. *[TRRC II, Vegetation Condition A.9.3.2(1), modified to clarify where reclamation activities shall take place]*

(1) **Preconstruction Planning** – TRRC shall include the following elements in its reclamation planning:
   (a) Designation of sensitive areas.
   (b) Proposed time schedule of construction activities.
   (c) Right-of-way clearing and site preparation plans.
   (d) Preconstruction evaluation of soils to be disturbed. The soils' A horizon (the A horizon is the topmost soil layer that is commonly made up of unconsolidated organic matter (e.g., leaf litter) and is not saturated with water) shall be identified, removed, stored, and replaced prior to revegetation.
   (e) Erosion and sediment control plans.
   (f) Waste disposal plan.
   (g) Restoration, reclamation, and revegetation plan. *[TRRC I, Condition 10.3(1)(a); TRRC II, Vegetation Condition A.9.3.2.(1)(a), modified to include soils evaluation]*

(2) **Restoration/Reclamation Plan** – TRRC shall follow the following procedures in its restoration and reclamation plan:
   (a) Commencement of reclamation as soon as practicable after construction ends, with the goal of rapidly reestablishing ground cover on disturbed soils that could support vegetation, with all cut and fill slopes mulched and seeded as they are completed. Twine used to hold bales of mulch together shall be of biodegradable material.
   (b) Avoidance of reclamation when soil moisture is high or ground is frozen.
   (c) Use of straw mats in the revegetation process to reduce erosion and to add carbon back into the soil system to promote the accumulation of soil organic matter.
   (d) Ripping and disking of soils prior to revegetation to prevent compaction of soils and to increase the ability of plant roots and water to penetrate the soil.
   (e) Analysis of site soil requirements and seasonal precipitation patterns to identify planting dates for optimal revegetation success.
   (f) Use of rapidly establishing plant species for thorough and rapid ground surface protection.
   (g) Retention of a reclamation specialist to determine specific procedures for reclamation on steep slopes or locations near waterways.
   (h) Revegetation shall not be implemented uniformly along the entire rail line, but rather revegetation criteria shall be based on the circumstances present in specific construction areas to assure that habitat and functionality are maintained within each ecosystem. *[TRRC II, Vegetation Condition A.9.3.2(1)(b), modified to clarify where reclamation efforts would be successful and include additional measures]*

(3) **Revegetation Success Assurances** – To ensure revegetation success, TRRC shall implement the following measures:
   (a) Development of an inventory and documentation of pre-existing conditions.
   (b) The type and quantity of seed, fertilizer, and other soil amendments to be used shall be determined based on soil chemical and physical properties. TRRC shall use native

species for revegetation, where possible, unless alternatives are approved, in advance of application, by the Task Force in accordance with the process set forth in Mitigation Measure 14. On BLM tracts, all seeds shall be from native species. Species to be used for revegetation may include, but are not limited to:

- Western wheatgrass (*Pascopyrun smithii (Agropyron s.)*)
- Green needlegrass (*Nasella viridula (Stipa v.)*)
- Little bluestem (*Schizachyrium scoparium*)
- Slender Wheatgrass (*Elymus trachycaulus*)
- Blue flax (*Linum perenne*-forb)
- Purple prairie clover (*Dalea lasiathera*-forb)
- Bluebunch wheatgrass (*Pseudoroegneria spicata*)
- Thickspike wheatgrass may be substituted **only** when western wheatgrass is unavailable

(c) Segregation of topsoil from subsoil and topsoil stockpiled for later application on the reclaimed ROW.

(d) Use of only seed of registered quality and germination success that has been certified as weed-free.

(e) Use of appropriate seeding techniques, such as drill seeding on level terrain and broadcast seeding or hydroseeding on slopes, to ensure distribution of seed mixture on individual microenvironments.

(f) Use of mulch material that has been certified as weed free, such as straw and woodchips, as a temporary erosion measure and to minimize soil temperature fluctuations and soil moisture loss. Mulch shall be applied more heavily on slopes than on level terrain, and nitrogen levels shall be adjusted to reflect the increased demand during mulch decomposition.

(g) Cover and compaction of seeded area following seeding.

(h) Use of a minimum of 20 pounds per acre of pure live seed throughout the route, where applicable.

(i) For slopes and construction areas near waterways, employment of a variety of Best Management Practices, including the use of sediment traps/basins, berms, contour furrows, silt fencing, straw bale barriers, rock checkdams, slope drains, toe-slope ditches, diversion channels, sodding, and erosion control blankets and/or mulching.

(j) Monitoring of reclamation. Regrading shall be undertaken for revegetating areas not successfully reclaimed.

(k) Development of success criteria.

(l) Development of a timeline for completion of the revegetation plan as well as follow-up monitoring and enforcement of the revegetation plan and success criteria. *[TRRC I, Condition 10.3(1)(c); TRRC II, Vegetation Condition A.9.3.2(1)(c), modified to include examples of BMPs and Task Force approval]*

(4) **Provisions for Areas of Special Concern**

On all slopes less than 3:1 (a slope of 3:1 signifies 1 vertical unit for every 3 horizontal units), BMPs shall be utilized to effectively and efficiently revegetate the

surfaces. BMPs have been identified by the National Resource Conservation Service (NRCS) for Montana, and these BMPs will be the primary guidance for all revegetation on slopes less than 3:1. Each cut and fill slope shall be evaluated individually, and the practices shall be modified to meet the needs of each individual slope and conditions. In general, these BMPs will be utilized unless site-specific conditions warrant different management practices. Below is a list of general BMPs that could be utilized by TRRC for revegetation of slopes less than 3:1, depending on the site-specific conditions at each individual cut/fill slope.

1. Construction of furrows parallel to the slope contour to minimize erosion and stabilize seed beds by effectively reducing the length of the slope, which in turn will reduce the erosive properties of water by decreasing the water's kinetic energy.
2. Minimization of foot traffic and grazing of domesticated animals so that the emerging vegetation at the site will establish more quickly.
3. Weed control either by clipping or applying labeled herbicides so that decreased competition from invasive species will enable the intended species to maximize the use of limited soil, water, and nutrients.
4. Preparation of the site seed bed utilizing standard agricultural techniques (e.g., disking, ripping) to facilitate plant emergence. If the site has limited topsoil, additional salvaged soil shall be placed on the surface to facilitate the preparation of the seed bed and provide a minimum of 4 inches of soil for revegetation activities.
5. Practice of fertilization rates, species selection, and seeding rates on a site-specific basis by a range management specialist. All seeds utilized in the revegetation program shall comply with Montana State Seed Law and Regulations.
6. Use of varying seeding methods at the cut/fill sites, including broadcast seeding, hydroseeding, or traditional agricultural drilling methods. If the site is planted by broadcast or hydroseeding, the seeding rates shall be doubled to ensure adequate plant emergence.
7. Mulching on all slopes less than 3:1 to minimize erosion using mulches such as straw woven fabric or artificial mulches based on site-specific conditions.
8. Additional temporary measures to reduce run-on onto the revegetated site. On sites where run-on could be a significant contributor to erosion, temporary diversion devices may be warranted to route water around the revegetated area. These diversion devices shall be removed once the site has been successfully revegetated. Additionally, the diversion devices shall be constructed to minimize concentration of water that could cause excessive erosion on non-disturbed sites.
9. If the cut/fill slope material is primarily clinker or bedrock, the slope shall not be revegetated. *[TRRC II, Vegetation Condition A.9.3.2(1)(d)3, modified to include additional specifics regarding slopes] [TRRC II, Vegetation Condition A.9.3.2(1)(d)1; deleted here, inserted as modified as HYD-5]; [TRRC II,*

Vegetation Condition A.9.3.2(1)(d)2; deleted here, inserted as modified as SAF-10]

Mitigation Measure 20 (Task Force Oversight of Revegetation Plan). TRRC's revegetation plans shall be subject to review and approval by the Task Force in accordance with the process set forth in Mitigation Measure 14. If it becomes clear that the success criteria of the revegetation plans are not feasible, the Task Force shall approve appropriate alternate mitigation. Yearly monitoring schedules and funds shall be arranged prior to construction of each rail segment, and work plans shall be approved by the Task Force in accordance with the process set forth in Mitigation Measure 14 before final engineering is complete. *[TRRC III, new]*

Mitigation Measure 21 (Noxious Weed Control). TRRC shall construct the rail line in compliance with county weed control plans for Rosebud and Big Horn counties, Montana. Except for the portion of the right-of-way described in Mitigation Measure 87 in and near the MCFH, TRRC, in consultation with local ranchers, the county extension agents, and the Task Force, shall develop a reasonable written Noxious Weed Control Program, which will include a Noxious Weed Survey, prior to commencing any construction of the rail line. The program shall include requiring construction methods that minimize the introduction and spread of noxious weeds, including the use of sterile ballast, washing of construction equipment prior to use to remove weed seed sources, and the use of weed-free seed straw, mulching, and hydroseeding materials. TRRC shall also minimize digging in areas where the rhizomes of rhizomatous weed species such as leafy spurge might be cut and spread throughout the site.

(1) The noxious-weed-control program shall include a combination of mechanical and herbicide spray methods to control noxious weeds. TRRC shall focus on non-chemical treatments first and shall use mechanical removal of weeds near watercourses wherever feasible, depending upon time of year. Spray sequences shall be utilized to ensure that weed plants do not reach maturity.

(2) For riparian corridors, if the noxious-weed-control program proves unsuccessful in eradicating certain weed species, specific methods shall be identified by the Task Force to target individual noxious weed plants.

(3) TRRC shall keep and reference records of herbicide application dates to ensure that the noxious-weed-control program goals are fulfilled. TRRC shall submit a report of weed control activities to the Task Force annually during construction. In all cases, only trained, licensed personnel shall be involved in noxious-weed-control applications and shall apply herbicides according to the label specifications. The appropriate protective equipment shall be supplied to the personnel responsible for application. *[TRRC II, Vegetation Condition A.9.3.2(2), modified to provide additional clarity regarding the noxious weed control requirements]*

Mitigation Measure 22 (Wetland Permit). TRRC shall prepare a Detailed Habitat Mitigation Plan (a document prepared to determine the appropriate habitat mitigation). TRRC shall adhere to all mitigation measures suggested in the Detailed Habitat Mitigation Plan as well as any measures imposed by the U.S. Corps of Engineers in any Section 404 permit(s) issued by the Corps for construction of the line. The Detailed Habitat Mitigation Plan (the Plan) shall be prepared during the permitting process and shall assure that adequate replacement of lost wetland functions and values occurs. The plan, which shall be approved by the appropriate agencies before project implementation, shall contain a statement of goals, a monitoring plan, long-term management/protection objectives and a commitment to conduct additional work, if required, to meet the goals of the plan *[TRRC III, new]*.

Mitigation Measure 23 (Stream Survey). Prior to construction of each rail segment and once site access is granted, TRRC shall, in consultation with the Montana Department of Natural Resources, conduct surveys of ephemeral streams that would be crossed by the railroad to determine the potential impacts of erosion and sedimentation on state species of concern and consult with MT DNRC on appropriate mitigation. *[TRRC III, new]*

Mitigation Measure 24 (Biological Opinion). TRRC shall adhere to all terms and conditions set forth by the U.S. Fish and Wildlife Service in the Biological Opinion, issued on July 12th, 2006. *[TRRC III, new]*

Mitigation Measure 25 (Aerial Survey). TRRC shall conduct an updated biological aerial survey during the winter before construction of each segment of the rail line begins. This aerial survey shall attempt to identify specific locations for ground surveys and any new winter ranges of species of concern. It shall also attempt to locate potentially active raptor nests especially in deciduous tree areas, while leaves are down. In addition, the aerial survey shall attempt to locate new prairie dog colonies along the route. Using the results of the surveys, TRRC will develop appropriate mitigation measures to minimize harm to species of concern, as needed, for approval by the Task Force in accordance with the process set forth in Mitigation Measure 14. *[TRRC II, Wildlife Condition A.9.3.1(1), modified to clarify that aerial surveys shall be required for species of concern and involvement of Task Force in developing any needed new conditions]*

Mitigation Measure 26 (Data Reconnaissance). Prior to the beginning of construction of each segment and once full access to the site of the railroad right-of-way is obtained, TRRC shall conduct aerial and ground-level surveys, as appropriate. Black-tailed prairie dog surveys shall be conducted to determine if construction of the line will traverse any additional prairie dog colonies. The surveys shall also determine the existence of black-footed ferrets. If black-footed ferrets are discovered, the Montana Department of Fish, Wildlife, and Parks shall be notified. Based on the surveys, TRRC shall develop appropriate means to mitigate the effects of construction and operation of the line on the black-tailed prairie dog and the black-footed ferrets for approval by the Task Force in accordance with the process set forth in Mitigation Measure 14. Regardless of the timing of construction, once full access to the site of the railroad right-of-way is obtained, TRRC shall survey the three black-tailed prairie dog colonies which will be

traversed by the proposed railroad but are located on private properties and were not accessible due to landowner issues at the time the BA was prepared, for black-footed ferret occupancy. If a black-footed ferret or its sign is found during this survey, Section 7 Consultation shall be re-initiated with USFWS.

The surveys shall also locate habitat areas and nesting sites for the following species on the entire rail line. The surveys shall be conducted during the following time periods:

Big game (winter range)	December 1 to February 28
Sage/Sharp-tailed Grouse	March 15 to June 15
Raptors/Migratory Birds	May 15 to June 15
Bats	July 1 to July 31
Breeding Birds	May 15 to June 15
Reptiles/Amphibians	July 1 to August 31

TRRC shall identify big game winter range and active nests of sage grouse, sharp-tailed grouse leks (mating grounds) and raptors, particularly golden eagles and prairie falcons prior to the construction of any rail segments, on a map as part of the aerial and ground surveys. In each subsequent year of construction, additional surveys shall be conducted annually for the section (distance) of line that is to be built in that year. Due to the potential for nest initiation in the years after the initial survey, surveys shall be conducted according to standard survey procedures during summer to determine the presence of nests or of reptile and amphibian species. Pedestrian surveys shall be done to locate habitat areas as well as indicate recent activity. Using the results of the surveys, TRRC shall develop appropriate mitigation measures, as needed, for approval by the Task Force in accordance with the process set forth in Mitigation Measure 14. *[TRRC II, Wildlife Condition A.9.3.1(2), modified to better explain reason for distance-specific annual surveys and involvement of Task Force if new conditions are needed]*

(1) The purpose of the reconnaissance shall be to locate (a) big game winter range based on evidence, such as animal remains, hair, pellet groups, etc.; (b) sage grouse and sharp-tailed grouse leks; and (c) raptor nests, particularly golden eagles and prairie falcons. Any evidence of state or Federal threatened, endangered, or sensitive species shall also be documented during the reconnaissance. *[TRRC II, Wildlife Condition A.9.3.1(2)(a), modified to include Federally threatened, endangered or sensitive species]*

(2) Any specific-use sites that are identified during the reconnaissance shall be mapped, described in field notes, photographed and evaluated for significance. Nesting species of concern shall not be disturbed during reconnaissance. Nests shall be described as active or inactive. Results of the ground reconnaissance shall be presented and used by TRRC for developing mitigation measures to minimize impacts to sensitive wildlife and wildlife-use areas for approval by the Task Force in accordance with the process set forth in Mitigation Measure 14. This could include, but would not be limited to, restricting construction activities near nests during the nesting period; employing nest site monitors

to gauge the level of disturbance and halt construction if disturbance is great; and requiring off-site habitat enhancement or replacement for unavoidable losses of sensitive wildlife resources. *[TRRC II, Wildlife Condition A.9.3.1(2)(b), modified to provide additional clarity and involvement of the Task Force and include other possible mitigation measures]*

(3) Surveys for sage and sharp-tailed grouse leks shall be conducted following the Montana Sage Grouse Conservation Plan of the Montana Sage Grouse Work Group. If a possible lek site is identified, observations shall be made between March 15 and June 15 to verify activity at each site. Surveys shall be conducted at dawn to listen for male activity at each lek and shall be completed at least five days apart.

The extent of each lek shall be mapped. Vegetative cover suitable for nesting and brooding habitat adjacent to each active lek shall also be mapped within a one-mile radius of the lek. Active leks shall not be destroyed by construction of the railroad. If impacts to active leks as a result of construction activities are unavoidable, TRRC shall seek approval from the Task Force in accordance with the process set forth in Mitigation Measure 14 as to whether avoidance of the lek site during the mating season (March and April), is adequate mitigation. If the Task Force determines that the permanent loss of the lek would be a significant and unavoidable impact, TRRC shall develop appropriate replacement compensation for potential loss of grouse habitat for approval by the Task Force in accordance with the process set forth in Mitigation Measure 14. If the success of lek site mitigation, as determined by the Task Force in accordance with the process set forth in Mitigation Measure 14, has not been resolved during the construction period, TRRC shall continue monitoring into the operational period and shall advise SEA of its progress, in accordance with the reporting requirements of Mitigation Measure 17. *[TRRC II, Wildlife Condition A.9.3.1(2)(c), modified to clarify possible mitigation options]*

(4) To reduce impacts of the Tongue River Railroad on prairie dog colonies, prior to construction, TRRC shall develop appropriate means to mitigate the effects of construction and operation of the Tongue River Railroad on the black-tailed prairie dog for approval by the Task Force in accordance with the process set forth in Mitigation Measure 14. *[TRRC II, Wildlife Condition A.9.3.1(2)(d, e and f), modified to clarify]*

Mitigation Measure 27 (Night Survey). TRRC shall conduct nighttime surveys in conjunction with the ground reconnaissance required by Mitigation Measure 26 between July 1 to July 31, prior to construction of each segment of the rail line, for the purpose of identifying the location of any bat species of concern. *[TRRC III, new]*

Mitigation Measure 28 (Construction Surveys). TRRC shall utilize monitors during construction to identify and clearly mark areas containing sensitive biological resources for avoidance and to educate construction contractors and the employees that will be involved in rail

construction activities about sensitive resources and the areas to be avoided during the rail construction activities. *[TRRC III, new]*

Mitigation Measure 29 (Destruction of Habitat). Active habitats for state species of concern such as nests, brooding locations, and migratory corridors, etc., shall not be destroyed during construction of the railroad. If impacts to these areas (short of destroying them) are unavoidable, TRRC seek approval from the Task Force in accordance with the process set forth in Mitigation Measure 14 as to whether avoidance during a species' active season would be adequate mitigation. If the Task Force determines that the permanent loss of habitat is a significant and unavoidable impact, TRRC shall develop appropriate replacement compensation for this potential loss of habitat in accordance with the process set forth in Mitigation Measure 91. In addition, if the Task Force determines that there has been significant habitat alteration after construction, TRRC shall develop appropriate habitat compensation for alteration of habitat in accordance with the process set forth in Mitigation Measure 91. *[TRRC III, new]*

Mitigation Measure 30 (Construction Activity Coordination). Rail construction activities shall be coordinated and timed to protect wildlife to the maximum extent possible. As part of these efforts, all reasonable attempts shall be made to minimize construction at big game wintering sites from December through March. *[TRRC II, Wildlife Condition A.9.3.1.1(1) clarified]*

Mitigation Measure 31 (Compensation Program). TRRC shall include the following mitigation measures as part of final right-of-way negotiations with private landowners along the ROW:

(1) If the landowner agrees and where practicable, TRRC shall construct ponds adjacent to the railroad grade, or use the railroad grade as a dam where practicable. These ponds could include "dugout" type ponds and "bypass" ponds designed to be filled during high flows where appropriate. *[TRRC II, Terrestrial Condition A.9.3(2)]*. For the construction of ponds, the railroad embankment (berm) shall form one (high) side of a depression. In its development of options for wildlife passage across the railroad right-of-way, TRRC shall consider ponds as a possible obstruction passage. Ponds shall also include erosion control features where appropriate. *[TRRC III, new]*

(2) If adjacent landowners agree, TRRC shall provide public access, in appropriate locations, if any, along the rail line right-of-way. *[TRRC II, Terrestrial Condition A.9.3(3), modified to clarify that access would only be provided if the adjacent landowners agreed]*

(3) TRRC shall grant conservation easements along the rail line where appropriate. *[TRRC I, Condition 10.1(4); TRRC II, Terrestrial Condition A.9.3(4), modified by minor edits]*

Mitigation Measure 32 (Pronghorn Antelope). TRRC shall prepare surveys that identify locations of pronghorn concentration, distributions, and movement for approval by the Task Force in accordance with the process set forth in Mitigation Measure 14. This survey program shall be conducted prior to the beginning of construction of each segment of the rail line. TRRC shall present the results of the study to the Task Force for its review and shall consider conducting a radio telemetry study (funded by TRRC) if preliminary surveys indicate heavy pronghorn use within the project area.

Once potential impacts have been fully determined following the above mentioned studies, TRRC shall work with the Task Force to develop appropriate measures, as needed, to minimize impacts from the railroad. The following measures shall be considered and implemented, as appropriate:

(1) establishment and enforcement of fencing standards along the railroad right-of-way that will allow movement of pronghorn while excluding livestock, as needed;

(2) identification of optimal passage-site locations for pronghorn movement across the railroad;

(3) use of grillwork as needed to exclude livestock while allowing movement of pronghorn across railroad at optimal locations;

(4) follow-up monitoring on an annual basis to evaluate effectiveness of passage.

Monitoring shall continue through the oversight and reporting period previously identified in Mitigation Measure 17. In the unlikely event that this follow-up monitoring shows that the above mentioned mitigation measures are inadequate and the Task Force concludes that impacts to the wildlife's ability to migrate are resulting in a decline in species population, TRRC shall develop additional mitigation options for approval by the Task Force in accordance with the process set forth in Mitigation Measure 14. *[TRRC II, Wildlife Conditions (1) and (2), modified to provide additional clarity regarding survey requirements and specify potential mitigation measures that are appropriate for species]*

Mitigation Measure 33 (Speed Limits). Prior to construction of each rail segment, TRRC shall post and strictly enforce speed limits on all construction access roads to minimize roadkills of wildlife due to increased traffic from construction workers temporarily living in the area. TRRC shall also advise all rail construction personnel that the purpose of these speed limits is to protect wildlife. *[TRRC III, new]*

Mitigation Measure 34 (Aquatic Resource Sampling). Prior to beginning construction activities in locations where the railroad would cross the Tongue River, or where extensive riprapping would occur, TRRC shall conduct a three-part study plan to identify aquatic resources. The results of this study shall be utilized in the development of mitigation plans for

the river crossing and riprap areas for approval by the Task Force in accordance with the process set forth in Mitigation Measure 14. This study shall include (1) a stream habitat survey to identify existing habitat features and values; (2) benthic macroinvertebrate sampling to identify community composition and numbers; and (3) a fish spawning survey to determine the importance of the area to spawning of fish. TRRC shall undertake the three-part study methods outlined below. *[TRRC I, Condition 9.1(1); TRRC II, Aquatic Condition A.9.2(1), modified to provide clarity regarding the timing and location of the study]*

(1) **Stream Habitat Survey.** The stream habitat survey shall utilize methods described in Methods for Evaluating Stream, Riparian, and Biotic Conditions by William S. Platts, Walter F. Megahan, and G. Wayne Minshall. Stream transects shall be established and impact zones shall be identified in appropriate locations to evaluate existing conditions and to monitor changes during construction. Along each transect, the following variables shall be measured:

(a) Stream width.
(b) Stream shore depth.
(c) Steam average depth.
(d) Pool quality and forming feature (in feet).
(e) Riffle (a ripple in a stream or current of water (in feet).
(f) Run (in feet).
(g) Substrate (mineral or organic material that forms the bed of a stream).
(h) Stream bank soil alteration rating.
(i) Stream vegetative stability rating.
(j) Stream bank undercut and angle.
(k) Vegetation overhang.
(l) Embeddedness *[TRRC II, Aquatic Condition A.9.2(1)(a), modified to include identification of impact zones]*

(2) **Benthic Macroinvertebrates**. TRRC shall collect quantitative samples of benthic macroinvertebrates immediately upstream and downstream of each proposed location of disturbance during rail construction activities. The collected specimens shall then be counted and identified following the Montana Department of Environmental Quality's Rapid Bioassessment Protocols for Sampling and Sample Analysis Standard Operating Procedures. *[TRRC I, Condition 9.1(1)(b); TRRC II, Aquatic Condition A.9.2(1)(b), modified to clarify the most useful techniques for sampling benthic macroinvertebrates]*

(3) **Fish Survey**. Prior to construction of each rail segment, TRRC shall conduct a fish survey and fish habitat survey. The fish survey shall be conducted to estimate population and to monitor potential mortality or emigration due to construction impacts. Mark-recapture methods shall be incorporated in each survey.

TRRC's fish habitat survey shall be conducted to determine habitat value, quantity, and utilization. In general, methods shall follow the methods used in recent work on the Tongue River for comparative purposes. Methods used in the comparative analysis may include those from Community Structure and Habitat Associations of Fishes in the Lower Tongue and Powder Rivers (R. Trenka 2000). Sampling shall occur before and after construction in impacted areas to allow quantification of effects, if any. The establishment of reference sites in areas outside of immediate impact zones, identified in the Stream Habitat Survey described above in Section 1, shall be used as a control to which impacted area surveys may be compared. All major habitat types shall be represented, and the total number of sites shall depend upon how many habitat types are identified by the Stream Habitat Survey. For each major habitat type at each bridge location, at least three affected sites and one reference site shall be surveyed. Sampling gear shall be adapted to each habitat type and standardized for both before and after construction surveys to allow for meaningful data comparisons. At each fish habitat survey site, the following shall be recorded:

(a) Habitat type.
(b) Sampling gear used (hoop net, fyke net, electrofishing, seines, etc.).
(c) Species present (number, age class, length, and weight).
(d) Relative abundance by species.
(e) Catch per unit effort (before and after construction).

If determined to be necessary by the Task Force, a spawning habitat potential survey shall be conducted at each proposed bridge location as well as in areas of proposed riprapping and other perennial, intermittent, and ephemeral draws that the railroad crosses. Sampling periods for the spawning survey shall be early spring after ice breakup, after peak runoff, and in the fall. *[TRRC II, Aquatic Condition A.9.2(1)(c), modified to broaden the purpose of the surveys]*

Mitigation Measure 35 (Aquatic Mitigation Techniques). With the exception of construction of the portion of the rail line described in Mitigation Measure 88 (MCFH), prior to construction of each rail segment and once aquatic resource sampling is completed and detailed data on the aquatic resources to be affected has been obtained, TRRC shall develop appropriate mitigation measures for approval by the Task Force in accordance with the process set forth in Mitigation Measure 14. These mitigation measures may include the following, as appropriate:

(1) Preparation of a construction schedule which, if possible and practical, provides for instream work at those times that are (a) least critical to the specific fishery or aquatic resource occurring at a site, and (b) least conducive to sediment transport. These periods may differ by stream and species affected.

(2) Development of special procedures for the handling of displaced materials and petroleum products during construction in order to prevent introduction of such materials into the aquatic system.

(3) Filtering of silty water, which would result from dewatering for footing construction, through settling pond systems.

(4) Assuring that riprap is washed and essentially silt free.

(5) Double-shifting of work crews at river crossing sites to minimize the duration of construction activities in or near river or stream banks. *[TRRC II, Aquatic Condition A.9.2(2), modified by minor edits]*

Soils and Geology Mitigation Measures

Mitigation Measure 36 (Stormwater Pollution Prevention Plan). TRRC shall prepare a Stormwater Pollution Prevention Plan (SWPPP) and an Erosion Control Plan using Montana Department of Environmental Quality Guidelines Best Management Practices (BMPs) and shall obtain coverage under the Montana Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction Activity. Prior to construction of each rail segment, TRRC shall determine which BMPs shall be employed at different locations in the project area.

The SWPPP shall identify areas that have a high potential for soil erosion due to topography, slope characteristics, facility activities, and/or other factors. (Generally, areas with little or no vegetative cover, 0-25 percent on slopes greater than or equal to 15 percent, have a high potential for soil erosion.) To determine areas of high erosion potential, TRRC shall consult with the County Natural Resource Conservation Service, research, as appropriate, published soil survey reports, and/or conduct soil/geologic studies.

The SWPPP may include the use of sediment basins, berms, filter strips, covers, diversion structures, sediment control fences, straw bale dikes, seeding, sodding, and/or other control structures or BMPs. The SWPPP shall identify and locate the BMPs to be used during and after construction to control sediment discharges to surface waters. The SWPPP shall include a description of storm water BMPs appropriate for the rail line, which TRRC shall implement. The SWPPP shall also include a schedule for implementation and address the following:

(1) Individual(s) responsible for preventing pollution and for implementing storm water management BMPs.
(2) Risk identification and assessment/material inventory.
(3) Spill prevention and response procedures.
(4) Storm water management.
(5) Sediment and erosion prevention.

(6) Visual inspections.
(7) Record keeping and internal reporting.
(8) Non-storm water discharges. *[TRRC III, new]*

Mitigation Measure 37 (Saline and Sodic Soils). TRRC shall, to the maximum extent feasible, avoid saline and sodic soils in its construction of the rail line. Where possible, saline or sodic soils shall be buried, and topsoil more conducive for revegetation left on the finished surface to aid in revegetation efforts and reduce erosion. *[TRRC III, new]*

Mitigation Measure 38 (Geotechnical Investigations). Prior to beginning construction of this line, TRRC shall conduct geotechnical investigations to identify soils/bedrock in cut areas with the potential for slumping to occur following construction. In areas with a potential for slumping, TRRC shall include, as appropriate, engineering controls such as flattened slopes, adequate drainage, retaining structures, geotechnically designed stabilization techniques, terracing and surface water-runoff control. *[TRRC III, new]*

Mitigation Measure 39 (Slumping). If slumping occurs during construction of this line, TRRC shall institute remedial actions immediately following a slope failure. These actions shall include, as appropriate, implementation of emergency sediment control structures such as furrows, removal of slumped material to a location that will not allow erosion and transport of this material to any waterways, implementation of measures to promote revegetation, and a geotechnical evaluation, if feasible, to determine the best way to prevent additional slumping. Remedial action also may involve, as appropriate, the installation of drains or adding material to the toe of the slump to stabilize it. *[TRRC III, new]*

Mitigation Measure 40 (Erosion). Prior to beginning construction of this line, TRRC shall perform an analysis to determine the potential for erosion (wind and water) at proposed cut and fill locations. The analysis shall compare slope lengths and gradients to determine the optimum gradients and mitigation measures for minimizing erosion at each proposed cut and fill location. *[TRRC III, new]*

Mitigation Measure 41 (Sediment Delivery). Prior to beginning construction, TRRC shall assess the potential for construction and operation of the rail line to generate, transport and deliver sediments to a given body of water. Contributions of sediments shall be measured as "bedload," or material that is transported along the bed of a stream rather than in suspension. Woman pebble counts (woman pebble is a methodology for sampling and categorizing substrate) may be used for sediment data. TRRC shall also conduct a pre-construction assessment that includes an evaluation of the potential in-stream effects of sediment delivery to a given water body and conformance with pending or completed TMDLs and associated water quality restoration plans. *[TRRC III, new]*.

Mitigation Measure 42 (Soil Survey). Prior to any construction of this line, TRRC shall conduct a soil survey along the alignment, including a review of soil survey data from Big Horn and Rosebud counties and local conservation districts. As part of this survey, TRRC shall obtain, query, review, and interpret digital soil survey maps for the area within 300 meters of the rail alignment. Soils with similar characteristics along the route shall be grouped, and detailed descriptions of each grouping shall be prepared. The descriptions shall include information regarding the soil group's distribution, structure, permeability, and erodibility. After completing its survey, TRRC shall prepare a series of reports to be made available to SEA depicting the soils for the entire alignment. *[TRRC III, new]*

Hydrology and Water Quality Mitigation

Mitigation Measure 43 (Water Quantity and Quality). To assure that overall water quantity and quality are not unnecessarily altered or diminished by this project, TRRC shall submit detailed information about its plans and construction, for review and approval, to applicable agencies, including the U.S. Corps of Engineers, local conservation districts, and the Water Protection Bureau of the Montana Department of Environmental Quality prior to any construction of this line. *[TRRC II, Hydrology and Water Quality Condition (1), modified to reflect current state agency]*

Mitigation Measure 44 (Streambed Crossings). During design, TRRC shall consult with and meet the reasonable requests of Montana Department of Natural Resources and Conservation, Montana Department of Environmental Quality, the US Army Corps of Engineers, and the local conservation districts for bridge crossings over the streambed of the Tongue River. *[TRRC II, Hydrology and Water Quality Condition (2), modified to reflect current state agency]*

Mitigation Measure 45 (Permitting and Bank Stabilization). TRRC shall consult with the US Army Corps of Engineers (Corps) and the Environmental Protection Agency (EPA) to implement the Corps' permit requirements under Section 404 of the Clean Water Act and EPA's riverbank stabilization methods at bridge crossings and riprap areas in order to prevent or reduce the impacts of soil erosion and sedimentation loading to area streams and the Tongue River. Appropriate methods may include placing or planting logs, trees, and other vegetative plantings with rock riprap along bridge sites and stream-encroachment areas. To prevent unnecessary degradation of water quality due to erosion, revegetation efforts shall begin as soon as possible after construction is completed in a given area. *[TRRC II, Hydrology and Water Quality Condition (3), modified to provide additional clarity regarding riverbank stabilization methods]*

Mitigation Measure 46 (Streambed Crossing Construction). Rail construction activities involving stream crossings, including bridges and culverts and activities requiring stream-bank encroachments (riprap, for example), shall occur during periods of low or no flow in the streams affected. *[TRRC II, Hydrology and Water Quality Condition (6)]*

Mitigation Measure 47 (Bank Stabilization). In constructing this line, TRRC shall stabilize banks with naturally occurring trees, shrubs, and grass. Riprap or gabions shall be used only as a supplement where such methods would improve fish habitat, or in cases where engineering requirements so dictate, such as downstream from culverts. *[TRRC II, Vegetation Condition A.9.3.2(1)(d)1, modified for minor edit]*

Mitigation Measure 48 (Tongue River Crossing). TRRC shall design the crossing of the Tongue River so that it does not require a center abutment, and so that the side abutments are placed outside of the riparian zone. The side abutments shall be located to provide adequate passage for wildlife (10 feet above the ordinary high-water mark). *[TRRC III, new]*

Mitigation Measure 49 (Culverts). TRRC shall ensure that all culverts and other drainage structures installed at non-perennial stream crossings during construction of this line comply with the design criteria guidelines of the American Railway Engineering and Maintenance of Way Association, established in the year 2000. This means that at a minimum, culverts shall be designed to discharge a 25-year flood without static head at entrance and a 100-year flood using the available head at entrance, the head to two feet below base of rail, or the head depth of 1.5 times the culvert diameter/rise, whichever is less. Additionally, TRRC shall incorporate the culverts into the existing grade of the streambed to avoid, to the maximum extent possible, changing the character of the streambed and impacting migrating amphibians and reptiles. Open bottom culverts shall be used to the extent feasible. The final design of culvert sizing should be determined by the project engineer based on the best available on-site information. *[TRRC II, Hydrology and Water Quality Condition (4), modified to reflect current industry practice and include migrating species]*

Mitigation Measure 50 (Perennial Streams). Where possible, TRRC's final alignment shall be designed to avoid the floodplain of perennial streams. Where the railroad grade infringes upon the floodplain, TRRC shall install drainage structures to assure that the grade does not restrict or reroute the 25-year flood. *[TRRC II, Hydrology and Water Quality Condition (5), modified to reflect current Montana Floodplain and Floodway Protection Act (MCA 76-5-401 through 406) requirements]*

Mitigation Measure 51 (Bridge Design). Prior to beginning construction of this line, TRRC shall prepare an analysis for the Montana Department of Natural Resources and Conservation, documenting that the final design for any bridges constructed over rivers and perennial streams located in a designated 100-year floodplain shall not increase the upstream elevation of the 100-year flood by more than 0.5 feet or significantly increase flood velocities. If TRRC's analysis concludes that any bridge would increase the upstream elevation of the 100-year flood by more than 0.5 feet or significantly increase flood velocities, TRRC shall redesign the bridge to reduce these impacts to a less than 0.5 foot increase in the 100-year flood elevation. *[TRRC III, new]*

Cultural Resources Mitigation

Mitigation Measure 52 (Programmatic Agreement). To protect cultural and historic resources, TRRC shall comply with the provisions of the revised Programmatic Agreement for the entire line entered into for this project. *[TRRC II, Cultural Resources Condition (1), modified to reflect that SEA has prepared a revised Programmatic Agreement]*

Transportation and Safety Mitigation

Mitigation Measure 53 (Construction-worker Transportation). During construction, TRRC shall encourage its contractors to provide laborers with daily transportation to the work site from a central location. *[TRRC II, Transportation Condition (1)]*

Mitigation Measure 54 (Access Road). To the extent possible, TRRC shall confine all construction-related traffic to a temporary access road within the right-of-way (ROW). Where traffic cannot be confined to this access road, TRRC shall ensure that contractors make necessary arrangements with landowners or affected agencies to gain access from private or public roadways. The access road shall be used only during construction of the railroad grade, after which construction shall be confined to the ROW. *[TRRC II, Transportation Condition (2)]*

Mitigation Measure 55 (Memorandum of Agreement). As agreed to by TRRC and the Montana Department of Transportation (MDT), TRRC shall enter into a memorandum of agreement (MOA) with MDT evaluating project-related safety needs. The MOA shall establish duties and responsibilities of the parties relative to construction of the rail line, including sidings, and possible encroachment on interstate and non interstate facilities maintained by MDT. The MOA shall also include the evaluation of each crossing for safety needs and potential traffic problems during construction and operation, including passage of emergency vehicles. Based on these evaluations, the MOA will set forth specific safety measures, such as warning signal and devices, and appropriate measures to alleviate any traffic problems, such as grade separations. A construction traffic plan will also be prepared by TRRC for review and approval by MDT. *[TRRC I, Condition 4.3(2) and TRRC II, Transportation Conditions (3 and 5), combined and modified to reflect current state agency and MOA]*

Mitigation Measure 56 (Tongue River Reservoir Dam). During construction of the rail line, TRRC shall provide 24-hour-a-day access to the Montana Department of Natural Resources and Conservation for the maintenance of the Tongue River Reservoir Dam either via the construction of temporary roads and/or flagging devices or by other reasonable alternatives. *[TRRC II, Tongue River Dam Reconstruction Condition (1), modified to reflect completion of dam reconstruction]*

Mitigation Measure 57 (Speed Limits). All TRRC vehicles and equipment, and vehicles and equipment owned and operated by TRRC contractors working on the project, shall strictly adhere to speed limits and other applicable laws and regulations when operating such vehicles and equipment on public roadways. *[TRRC I, Condition 4.2 (3), modified by minor edits]*

Mitigation Measure 58 (Traffic Control Devices). TRRC shall comply with the Montana Department of Transportation's Manual of Uniform Traffic Control Devices for work zone safety. *[TRRC II, Transportation Condition (4), modified to reflect current agency requirement]*

Mitigation Measure 59 (Safety Meetings). TRRC shall adhere to applicable Federal and state construction safety regulations and Best Management Practices to minimize the potential for construction-related accidents. TRRC shall require its construction contractors to conduct safety meetings for their workers to ensure that each person understands safety measures and procedures. *[TRRC II, Safety Condition (1), modified to clarify that TRRC shall use Best Management Practices]*

Mitigation Measure 60 (Emergency Response Plan). Prior to beginning construction of this rail line, TRRC shall develop an internal Emergency Response Plan consistent with Montana State plans required under Title 10, Montana Code Annotated. This plan shall include a roster of agencies and specific persons to be contacted for specific types of emergencies during rail construction, operations and maintenance activities, procedures to be followed by particular rail employees, emergency routes for vehicles, and location of emergency equipment. *[TRRC II, Safety Condition (2), modified for minor edits]*

Mitigation Measure 61 (Emergency Response Coordination). TRRC shall establish cooperative relationships with the Federal, state, and local agencies with responsibility for disaster/emergency response in the area. TRRC shall provide operational plans and copies of the Emergency Response Plan identified above, when it is available in draft form, to all such agencies and incorporate their comments as appropriate in its final Emergency Response Plan. The agencies to be contacted shall include, at a minimum, Disaster and Emergency Services Division of the Department of Military Affairs, Helena; rural fire departments along the route of the entire line; local ambulance and emergency medical services and air evacuation services in Billings and Sheridan; the Montana Department of Environmental Quality, specifically including the Remediation Division; Montana Department of Fish, Wildlife and Parks; Montana Department of Natural Resources and Conservation; the Northern Cheyenne Tribe; the Bureau of Land Management; U.S. Fish and Wildlife Service; and other local agencies or other groups identified by these agencies and entities as key to disaster response. *[TRRC II, Safety Condition (3), modified to clarify that all such agencies shall receive a copy of the plan]*

Mitigation Measure 62 (Spill Prevention). TRRC shall develop, in cooperation with appropriate Federal, state, and local agencies, a plan to prevent spills of oil or other petroleum products (gasoline, diesel fuel, solvents), during construction, operation, and maintenance of this rail line.

TRRC's Spill Prevention Plan shall include measures pertaining to oil spills set forth in the mitigation plan in the Tongue River II DEIS. The plan developed by TRRC shall include conditions that shall be imposed on companies and contractors involved in construction of the Tongue River rail line. The plan shall provide emergency notification procedures, including a priority list of specific names and phone numbers of designated contacts (government and private) that are to be notified in case of events such as a fuel spill, range fire, or medical emergency during construction, operation and maintenance of the rail line. The following items shall be included in the plan:

(1) Procedures for reporting a spill.
(2) Definition of what constitutes a spill.
(3) Methods of containing, recovering, and cleaning up a spill.
(4) Preventive measures that will be employed to prevent ground water and surface water contamination.
(5) BMPs that would apply to areas in and around rail yards to reduce the potential of ground water and surface water contamination.
(6) A list of equipment needed to remediate a spill and its location.
(7) A list of all governmental agencies and management personnel to be contacted and coordinated with, including but not limited to the following:

    (a) Disaster and Emergency Services Division of the Department of Military Affairs, Helena. (This is the contact to develop a coordinated response.)
    (b) Rural fire departments along the route.
    (c) Local ambulance and emergency medical services, as well as air evacuation services in Billings and Sheridan.
    (d) Montana Department of Environmental Quality, especially the Remediation Division.
    (e) Montana Department of Fish, Wildlife, and Parks.
    (f) Montana Department of Natural Resources and Conservation.
    (g) Northern Cheyenne Tribe.
    (h) Bureau of Land Management (BLM) or U.S. Fish and Wildlife Service. BLM would have fire suppression responsibilities on public land for fires handled by Type I Interagency Management Teams and Type II Geographic Area Teams.
    (i) Other local agencies or groups that are identified by the agencies and entities above as key to disaster remediation.

(8) Assurances that techniques and procedures to be employed in cleanup are the best practicable technology currently available.

[TRRC II, Safety Condition (8), which incorporates by reference Sections A.7.3.(1) a, A.7.3(2) a-i, and A.7.3(4), modified (1) to incorporate language of sections referred to and to clarify that the above measures apply to the entire rail line, and (2) to clarify roles of BLM and USFS.]

Mitigation Measure 63 (Construction Sites). TRRC shall remove all litter, debris, and soils associated with petroleum spills prior to reclamation of construction sites. A state-approved landfill shall be used. *[TRRC II, Vegetation Condition, A.9.3.2(1)(d)2, modified by minor edit]*

Mitigation Measure 64 (Oil and Fuel). Prior to construction of this line, TRRC shall develop appropriate guidelines to be used by individual rail construction contractors, including (1) steps to use during refueling to guard against overflows, (2) storage of fuel in metal storage tanks surrounded by impervious dikes that are capable of containing greater than the capacity of the tank, (3) removal of waste oil to appropriate sites, and (4) maintenance of equipment in good running order during performance of construction and routine maintenance activities. *[TRRC II, Safety Condition (9), modified by minor edit]*

Mitigation Measure 65 (Herbicide Spills). If an herbicide spill occurs, TRRC shall respond by immediately containing the spill, notifying the appropriate Federal, state, and local agencies, and implementing appropriate clean-up procedures. *[TRRC II, Safety Condition (10), modified to provide additional clarity regarding TRRC's actions]*

Mitigation Measure 66 (Train Operations). TRRC shall adhere to all reasonable Federal, state, and local requirements regarding train operations, including requirements that relate to maximum durations of crossing blockage, speed limits within and outside of incorporated areas, and candlepower for train lighting. *[TRRC I, Condition 4.3(3), modified to clarify the intent and responsible parties]*

Mitigation Measure 67 (Descending Grades). If a train's speed reaches 5 mph more than the train's maximum authorized speed on descending grades of 2 percent or more, TRRC's trains shall come to a complete stop as quickly as possible, using an emergency application of the train's air brakes.

(1) After the train has stopped, the train shall be secured by applying additional hand brakes, and once secured, the train shall be inspected and no further train movement shall be made until authorized by a designated railroad employee.
(2) TRRC shall conduct an immediate investigation into the cause of any incident in which the train's speed reaches 5 mph more than the train's authorized maximum speed and shall initiate appropriate corrective action.
(3) Event recorder data shall be routinely inspected to ensure full compliance with these requirements. *[TRRC III, new]*

Mitigation Measure 68 (Hazardous Materials Transport). In the event that TRRC should transport hazardous materials, TRRC shall comply with the requirements of the Hazardous Materials Transportation Act (49 USC 1080 et seq.) and its governing regulations. TRRC shall

also comply with the Federal Railroad Administration (FRA) hazardous materials regulations for rail transport (including 49 CFR 174), along with FRA's general rail safety regulations (49 CFR 209 to 236). *[TRRC III, new]*

Air Quality Mitigation

Mitigation Measure 69 (Fugitive Dust). When vegetation is removed from the right-of-way, TRRC shall clear the smallest possible amount of cover to minimize impacts of wind erosion and fugitive dust. *[TRRC II, Air Quality Condition (2), modified to clarify the intent of the measure]*

Mitigation Measure 70 (Revegetation). Where devegetation has taken place, TRRC shall begin revegetation as soon as possible. Where immediate revegetation is not possible, TRRC shall implement alternative stabilization measures such as matting and mulching. *[TRRC II, Air Quality Condition (3)]*

Mitigation Measure 71 (Site Watering). TRRC shall suppress dust at all work areas by using water trucks, and shall make water available to local landowners, governmental agencies, or associations for the purposes of dust suppression. TRRC shall conduct dust suppression activities regularly and frequently during the dry periods. *[TRRC II, Air Quality Condition (4)]*

Mitigation Measure 72 (Open Burning). TRRC shall conduct any open burning in strict accordance with local or other applicable regulations, and shall obtain all necessary permits and observe all necessary safety precautions. *[TRRC II, Air Quality Condition (5)]*

Mitigation Measure 73 (Inspection and Maintenance). TRRC shall subject all heavy equipment and vehicles used in the construction, operation, and maintenance of the railroad to a regular inspection and maintenance schedule to ensure that operation complies with manufacturer's specifications and that equipment is running as cleanly and efficiently as possible. *[TRRC II, Air Quality Condition (1)]*

Noise and Vibration Mitigation

Mitigation Measure 74 (Construction Timing). To the extent practicable, TRRC shall schedule major noise-producing construction activities during the weekday and daylight hours to limit disturbances during more sensitive times of day. *[TRRC II, Noise Condition (1)]*

Mitigation Measure 75 (Construction Equipment). All equipment used for construction shall comply with all reasonable Federal, state, and local noise regulations and ordinances. *[TRRC I, Condition 6.1(3), modified to clarify that all equipment used in construction shall comply with reasonable noise regulations]*

Mitigation Measure 76 (Dam Vibration). Prior to construction of the Western Alignment, TRRC shall conduct a seismic analysis based on local geology and specific blasting plans to

quantify the risk of construction-related activities to the Tongue River Reservoir Dam. TRRC shall consult with Montana Department of Natural Resources and Conservation during the development of the geotechnical-drilling/blasting plans for construction of those portions of the Western Alignment located within two miles of the dam, to limit peak particle velocity and minimize vibration impacts that may occur. *[TRRC III, new]*

Mitigation Measure 77 (Speed Limits). During operation, TRRC shall minimize speed of trains in incorporated areas and in the unincorporated community of Ashland, to minimize noise. *[TRRC I, Condition 6.1(4), modified to provide additional clarity]*

Mitigation Measure 78 (Quiet Zone). TRRC shall consider establishing a community quiet zone for the proposed project corridor, if the Secretary of Transportation determines that the creation of a community quiet zone and the cessation of the use of train horns at rail crossings would not present a significant risk with respect to loss of life or serious personal injury. This measure shall be based upon the rules outlined in the Federal Register, Department of Transportation Federal Railroad Administration *Use of Locomotive Horns at Highway-RailGrade Crossings; Interim Final Rule* (December 18, 2003). *[TRRC III, new]*

Mitigation Measure 79 (Schools). In the case of schools in the Ashland area, including the St. Labre school, where activities during the normal school day could be interrupted by construction or maintenance noise, TRRC shall make every attempt to consult with school officials to schedule its construction and maintenance activities in a manner most acceptable to those who would be impacted. This could include scheduling weekend or evening rail construction or maintenance work in some cases. *[TRRC I, Condition 6.1(2), modified by minor edits]*

Mitigation Measure 80 (Recordation of Noise Contours). In order to prevent unintentional development within the 65 dBA contour, TRRC shall provide a copy of a map to each county and city planning department with jurisdiction along the proposed rail line, depicting the 65 dBA contour. The planning departments can make this information available to landowners so that they can make informed decisions about future development. *[TRRC III, new]*

Socioeconomic Mitigation

Mitigation Measure 81 (Community Issues). TRRC shall appoint a representative to consult with the affected county and local governments for the purpose of assisting impacted communities in addressing potential social and economic problems. To accomplish this, TRRC shall provide all practical assistance to the government planning agencies involved. *[TRRC I, Condition 3.1, modified to clarify TRRC as the party responsible for this measure]*

Mitigation Measure 82 (Northern Cheyenne Tribe). TRRC shall appoint a liaison between TRRC management and the Northern Cheyenne Tribe to ensure that tribal members receive an equal opportunity to apply for and secure temporary construction and full-time operational jobs with the railroad. *[TRRC II, Social and Economic Condition (2)]*

Mitigation Measure 83 (Mine Development). TRRC shall make available to local governments and to the Northern Cheyenne Tribe all public data and studies that it is aware of concerning the facilities and services that may be required as a result of mine development in the area. *[TRRC II, Social and Economic Condition (1)]*

Miles City Fish Hatchery Mitigation

Mitigation Measure 84 (Protection of MCFH Water Supply Pipelines). As agreed to by TRRC and the Montana Department of Fish, Wildlife and Parks, TRRC shall relocate, as necessary, portions of the water supply pipelines from the Yellowstone River and Tongue River so that each pipeline crosses the rail right-of-way at a right angle or perpendicular to the rail alignment. To ensure structural integrity of the water supply pipelines, the portion of each pipeline lying perpendicular beneath the rail alignment shall be encased in a reinforced concrete pipe (RCP). The RCP shall be of sufficient size to allow for inspection and maintenance of the water supply pipelines. Access to the pipelines beneath the rail alignment shall be provided by installation of reinforced concrete manholes, located on each side of the rail alignment. The RCP manholes shall meet or exceed the American Railway Engineering and Maintenance of Way Association's standard specifications for installation of utilities underneath railway embankments. The design plans for the relocated section of the water pipelines and all associated elements shall be prepared by TRRC and provided to Montana Department of Fish, Wildlife, and Parks for review and approval prior to being constructed. TRRC shall locate and protect (and replace if harmed) outgoing water pipelines that would impact operations if affected by construction or operation. *[TRRC III, new]*

Mitigation Measure 85 (Weed Control on MCFH). As agreed to by TRRC and Montana Department of Fish, Wildlife and Parks, TRRC shall use only mechanical means of weed control in its right-of-way adjacent to the MCFH between the points where the rail line crosses Interstate 94 to the connection with the Burlington Northern-Santa Fe Railroad Company main line. If it becomes necessary to utilize herbicides to control noxious weeds along the right-of-way in this area, herbicides will only be used with prior approval from the MT DFWP, as to the type of herbicide, application rate, means of application, wind speed and direction. *[TRRC III, new]*

Mitigation Measure 86 (MCFH Continuing Consultation). TRRC shall continue to make itself available to consult with Montana Department of Fish, Wildlife and Parks to reach consensus on any remaining issues concerning the environmental effects on MCFH from railroad construction and operations, for up to a period of six months after the effective date of the Board's final decision on TRRC's application in Tongue River III. TRRC shall use its best efforts to achieve resolution of any outstanding issues during that period. If no resolution is achieved during that period, the requirement for continued consultation shall cease unless both TRRC and MCFH agree that the period should be extended and so advise the Board in writing. At the end of the consultation period (whether extended by mutual agreement or not), TRRC shall advise the Board of its positions in writing. Montana Department of Fish, Wildlife and

Parks is invited to provide its position, and either TRRC or MT DFWP (or both) may request that the Board develop a condition designed to mitigate any remaining concerns of MT DFWP related to the environmental effects on MCFH that the Board determines warrant mitigation.. *[TRRC III, new]*

Mitigation Measure 87 (MCFH). TRRC shall adhere to the reasonable mitigation conditions imposed by the Montana Department of Fish, Wildlife and Parks in any easement granted by the State allowing TRRC to cross the MCFH. *[TRRC III, new]*

Fort Keogh Livestock and Range Research Station (LARRS) Mitigation

Mitigation Measure 88 (Department of Agriculture). TRRC shall adhere to the reasonable mitigation conditions imposed by the U.S. Department of Agriculture (USDA) in any easement granted by USDA allowing TRRC to cross the LARRS property line. *[TRRC III, new; the USDA is currently preparing new mitigation conditions that would apply to TRRC for crossing the LARRS property. To avoid any inconsistency between the USDA mitigation conditions, SEA is recommending TRRC I Condition 2.2.2 be superseded by this general condition.]*

Spotted Eagle Lake Mitigation

Mitigation Measure 89 (Tree Buffers). As agreed to by TRRC, TRRC shall provide a tree buffer between the Spotted Eagle Lake recreation area and the railroad right-of-way in order to reduce the impact of train noise upon those pursuing recreational activities and to moderate the visual impact to that area. *[TRRC I, Condition 6.1(6), modified to clarify the tree buffer requirement at the Spotted Eagle Lake recreation area.]*

SEA's Additional Mitigation Measures

Mitigation Measure 90 (Paleontological Resources). If significant paleontological resources are discovered during surface disturbing activities related to construction of any part of the TRRC line, all work that potentially would damage the resource shall cease, the area of concern shall be protected, and the Board notified as soon as possible. Appropriate mitigation measures shall be developed by SEA and implemented as soon as possible. These mitigation measures could include, as appropriate, collection and curation of scientifically significant fossils, additional sampling, and/or monitoring of excavation. *[TRRC III, New]*

Mitigation Measure 91 (Compensation Program). TRRC shall participate in the development of a reasonable compensation program for lost wildlife habitat along the rail line prior to beginning construction on any portion of the rail line. The goal of the compensation program shall be to ensure that there is no net decrease in wildlife-habitat values resulting from the project. Habitat values of acreage lost shall be assessed using the U.S. Fish and Wildlife Service's Habitat Evaluation Procedure. TRRC shall be responsible for acquiring land (through purchase, conservation easements or other measures) and enhancing the wildlife-habitat value on

that land to achieve the no-net-loss goal, and developing and implementing a monitoring plan to evaluate success of enhancement measures. Monitoring shall continue through the oversight and reporting period described in Mitigation Measure 17. The process of valuing habitat loss, acquiring and enhancing new lands, and implementing the monitoring plan shall be done by TRRC with prior approval of the Task Force in accordance with the process set forth in Mitigation Measure 14. The process of valuing habitat loss for individual species or habitat types shall include an as needed analysis of potential "habitat fragmentation", i.e., assessment of the direct loss of wildlife habitat, reduction in the size of existing habitat patches, creation of more edge-type habitat, and creation of barriers that block movement of wildlife between patches. An example of appropriate habitat compensation could include the purchase by TRRC of "cutoff" land parcels containing good wildlife habitat, and the donation of these lands to the Montana Department of Fish, Wildlife, and Parks for beneficial wildlife management. *[TRRC I, Condition 10.1(1); TRRC II, Terrestrial Condition A.9.3(1), modified to clarify the goal of the compensation program]*

Mitigation Measure 92 (Miles City Fish Hatchery). As agreed to by TRRC, TRRC shall implement the work plan entitled, "Revised Work Plan for High Resolution Vibration Monitoring, Evaluation of Potential Effects of Tongue River Railroad Construction and Operation, and Potential Mitigation at Miles City Fish Hatchery" prepared by Womack & Associates, Inc. dated April 13th, 2006. *[TRRC III, New]*

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Chapter 1-INTRODUCTION

1.1 BACKGROUND

The subject of this Final Supplemental EIS (Final SEIS) is the application submitted on April 27, 1998 by the Tongue River Railroad Company, Inc. (TRRC) to the Surface Transportation Board (Board) for authorization to construct and operate 17.3 miles of rail line known as the proposed Western Alignment (Proposed Action), and also referred to as Tongue River III. TRRC previously submitted two related applications (Tongue River I and Tongue River II), which were considered and approved by the Board and its predecessor agency, the Interstate Commerce Commission (ICC), in 1986 and 1996, respectively. Figure 1-1 provides a map of Tongue River I-Tongue River III.

This Final SEIS, which is organized according to CEQ regulations at 40 CFR 1500, is intended to be read in conjunction with the Draft SEIS, which provides more detailed information on the proposed action. The Draft SEIS describes the project's purpose and need, the proposed action, the existing environment, and the potential environmental impacts associated with the proposed action. The Final SEIS responds to public comments on the Draft SEIS; identifies corrections and changes to information presented in the Draft SEIS, as necessary; discusses SEA's conclusions about the environmental analysis; and includes SEA's final recommendations and the final list of SEA's recommended mitigation measures, which would apply to the entire line from Miles City to Decker (i.e. to Tongue River I, Tongue River II, and Tongue River III). Both the Draft SEIS and the Final SEIS are available on the Board's website at www.stb.dot.gov.

1.2 PURPOSE AND NEED

The purpose of TRRC's entire rail line from Miles City to Decker is to provide for the transport of coal from existing and future mines in the Powder River Basin and Tongue River Valley to markets in the midwestern and northeastern states. Existing and possible future mines are discussed in Sections 2.1 and 2.2 of the Draft SEIS. Table 2.2 in Section 2.2 forecasts the millions of tons of coal that would be annually transported on the Tongue River line from Wyoming and the Decker and Ashland areas in 2009, 2014, and 2019.

In proposing Tongue River III, TRRC seeks to reduce the environmental impacts, higher operating and maintenance costs, and safety concerns (i.e. steep grades and the increased potential for loss of train control) associated with the previously approved Four Mile Creek Alternative (Tongue River II). TRRC is proposing the Western Alignment as an alternative for a portion of the alignment approved in Tongue River II. In its application for the proposed Western Alignment, filed with the Board on April 27, 1998, TRRC submitted information to demonstrate that the proposed Western Alignment would have less of an overall environmental impact, and would be safer and more cost effective than the Four Mile Creek Alternative. TRRC submitted supplemental evidence in 2003 to update this information.

Figure 1-1 – The Entire Rail Line Divided into Tongue River I, Tongue River II, and Tongue River III

(INSERT FIGURE HERE)

1.3 SURFACE TRANSPORTATION BOARD

The Board is the lead agency in this proceeding, with exclusive and plenary[1] permitting authority under 49 U.S.C. 10901 regarding applications to construct and operate rail lines. The Board is an independent adjudicatory[2] body that is administratively housed within the U.S. Department of Transportation (USDOT). The Board is responsible for the economic regulation of interstate surface transportation—primarily railroad—within the United States.

The Board's mission is to ensure that competitive, efficient, and safe transportation services are provided to meet the needs of shippers, receivers, and consumers. In all of its decisions, the Board is committed to advancing the national transportation policy goals established by Congress under 49 U.S.C. 10101.

1.3.1 Independent Third-party Contractor

In conducting this environmental review, an independent third-party contractor (CirclePoint of San Francisco, CA) assisted SEA with environmental analysis and the preparation of environmental documents, including the Draft and Final SEISs. The Board's environmental rules and those of CEQ specifically permit the use of agency-approved, independent third-party contractors (49 CFR 1105.10[d] and 40 CFR 1506.5[c], respectively).

For this project, as in all Board proceedings where third-party contractors are retained, the independent third-party contractor's scope of work, approach, and activities are under SEA's sole supervision, direction, and control. The contractors, in effect, are an extension of SEA's staff. They work under SEA's direction to conduct independent environmental analysis, develop appropriate environmental methodologies, other technical support and documentation, and verify the environmental information provided by TRRC, consulting agencies, and all other interested parties.

1.4 PROPOSED ACTION – <u>TONGUE RIVER III</u> WESTERN ALIGNMENT

Finance Docket No. 30186 (Sub-No. 3)

On April 27, 1998, Tongue River Rail Company (TRRC) filed an application with the Surface Transportation Board (STB or Board) in Finance Docket No. 30186 (Sub-No. 3) seeking authority under United States Code, Chapter 49, Section 10901 (49 U.S.C. 10901) to construct and operate a 17.3-mile line of railroad in Rosebud and Big Horn counties, Montana (MT), known as the proposed Western Alignment (<u>Tongue River III</u>). <u>Tongue River III</u> is an alternative routing for the southernmost portion of the 41-mile Ashland-to-Decker, MT, rail line, known as the Four Mile Creek Alternative. The Four

[1] Plenary authority is absolute authority that is complete in every respect.

[2] An adjudicatory body is one that acts as a judge, and settles matters judicially.

Mile Creek Alternative was approved by the Board in a decision served on November 8, 1996 in Tongue River II. Figure 1-1 depicts Tongue River III in relation to the rail line between Miles City and Ashland previously approved in 1985 in Tongue River I and Tongue River II. Other than the southernmost portion of the line, the remaining portion of the line approved in Tongue River II would remain unchanged. The proposed Western Alignment would generally follow a route that geographically lies between the two alignment alternatives considered in Tongue River II, and would be located on lands above the Tongue River Canyon. Moving south along the approved route from Ashland, the proposed Western Alignment would begin at a point approximately nine miles downstream from the confluence of Four Mile Creek and the Tongue River. It would then cross the Tongue River approximately 3,000 feet downstream of the existing Tongue River Road river crossing. After crossing the river, the proposed Western Alignment would parallel the existing Tongue River Road for four miles before separating from the road and climbing away from the valley floor. At Four Mile Creek, the proposed Western Alignment would cross the county road with a 100-foot-long bridge and would run approximately 320 feet west of the Hosford Diamond Cross Ranch headquarters. From Four Mile Creek, the proposed Western Alignment would continue to climb away from the Tongue River Valley, and proceed to connect with the existing Spring Creek rail spur. The proposed Western Alignment would avoid the environmentally sensitive Tongue River Canyon and would incorporate, at its steepest, a grade of 0.93 percent for a length of 1.8 miles.[3]

Public Convenience and Necessity

The TRRC rail line project, as a whole, has been previously considered by the agency in two separate proceedings known as Tongue River I and Tongue River II. In Tongue River I, TRRC's original application filed in 1983, TRRC sought approval from the Interstate Commerce Commission (ICC), the Board's predecessor agency, to construct and operate 89 miles of rail line between Miles City and two termini located near Ashland. In a decision served May 9, 1986, the ICC approved Tongue River I. TRRC filed another application in 1991 for Tongue River II, seeking approval to extend the line from Ashland to Decker. Two build alternatives were considered in that case: TRRC's preferred route and the Four Mile Creek Alternative. The Board approved Tongue River II, authorizing construction of 41 miles of rail line via the Four Mile Creek Alternative, in a decision served on November 8, 1996. Tongue River II is pending judicial review in Northern Plains Resource Council, Inc. v. STB, Nos. 97-70037 et al. (9th Cir. filed Jan. 7, 1997). The court proceeding is being held in abeyance pending the completion of Tongue River III.

In approving Tongue River I, the ICC found that present and future public convenience and necessity required or permitted the construction and operation of TRRC's proposed rail line, in accordance with former 49 U.S.C. 10901. In Tongue River II, the Board found that the proposed rail line construction was non inconsistent with the public

[3] The Four Mile Creek Alternative would incorporate, at its steepest, a grade of 2.31 percent. Grade refers to the slope that trains would have to climb or descend.

convenience and necessity, in accordance with the more lenient licensing standards of 49 U.S.C. 10901, as revised by the ICC Termination Act of 1995 (ICCTA) Pub. L. No. 104-88, 109 Stat. 803 (1995).

ICCTA revised the Interstate Commerce Act, abolished the ICC, and, as pertinent here, transferred the ICC's regulatory functions to the Board and made the licensing standard of 49 U.S.C. 10901 more lenient. Under 49 U.S.C 10901, as revised in ICCTA, the Board continues to have exclusive licensing authority for the construction and operation of rail lines. However, the statute now provides that the Board shall authorize the construction and operation of a proposed new line "unless the Board finds that such activities are inconsistent with the public convenience and necessity." Under this permissive licensing standard, there is now a presumption that rail construction is to be approved. [4] Both Tongue River I and Tongue River II are administratively final. TRRC's proposed changes in Tongue River III to its previously approved construction authorization in Tongue River II necessitate that the Board determine whether Tongue River III meets the criteria of 49 U.S.C. 10901, as revised by ICCTA. Accordingly, the Board's Section of Environmental Analysis (SEA) is reviewing the associated potential environmental impacts of Tongue River III in the Draft and Final SEISs and, following the completion of its environmental review, the Board will issue a decision on whether the proposed Western Alignment satisfies the criteria of 49 U.S.C. 10901, considering both transportation and environmental issues in making that determination.

Chronology of Important Dates – Tongue River III

12/22/97	TRRC submits a Notice of Intent (NOI) to file a new application for the Western Alignment.
02/09/98	TRRC requests waiver of the pre-filing notice typically required by the Board six months prior to the submittal of a project application.
02/13/98	SEA grants a waiver of six-month pre-filing notice pursuant to 49 CFR 1105.10(c)(1) on the basis that SEA has adequate information and familiarity with the case to allow the waiver.
04/27/98	TRRC files application for Western Alignment.
07/10/98	SEA publishes in the *Federal Register* a NOI to prepare a Supplement to the Final EIS (SEIS) prepared in Tongue River II, and asks for comments on the extent to which environmental analysis in Tongue River I and Tongue River II should be revisited due to significantly changed circumstances. (The NOI was included in Appendix A of the Draft SEIS.)
10/28/98	TRRC files a petition with the Board to remove a condition imposed in Tongue River II, which required complete construction of the entire line between Miles City and Decker within three years of the service date of that decision, i.e., by November 8, 1999.
02/03/99	SEA publishes final scope of the SEIS in the *Federal Register*.
03/30/99	Board grants TRRC's petition to remove the three-year time limit for construction of the entire line between Miles City and Decker.
03/02/00	TRRC requests that SEA suspend its environmental work on the SEIS.

[4] Mid States Coalition for Progress v. STB, 345 F. 3rd 520, 552 (8th Cir. 2003).

12/19/02	TRRC informs the Board that it is now in a position to go forward with Tongue River III and requests SEA to recommence its environmental work.
01/17/03	TRRC files request with the Board to submit supplemental evidence to provide a limited update on the transportation aspects of the Tongue River III application.
03/11/03	Board specifies the updated evidence that will be required.
03/26/03	SEA serves an amended NOI to prepare a SEIS announcing that the environmental review of the Tongue River III application will go forward, requesting comments on the scope of the SEIS, and asking whether the public has any new information to include in the SEIS.
05/01/03	TRRC files its supplementary evidence on the transportation merits.
08/22/03	SEA publishes amended Final Scoping Notice in the *Federal Register*, addressing the comments received on the amended NOI.
10/15/04	SEA issues for public review and comment Draft SEIS and schedules public meetings.

The Board has issued various decisions in Tongue River III subsequent to August 2003 that address matters that are not pertinent to the Tongue River III environmental analysis.

1.5 BACKGROUND

1.5.1 Tongue River I – Miles City to Ashland

Finance Docket No. 30186 (Sub-No. 1)

In its original application filed in 1983 in Finance Docket No. 30186, and referred to as Tongue River I, TRRC sought approval from the ICC, the Board's predecessor agency, to construct and operate 89 miles of railroad between Miles City and two termini located near Ashland. Figure 1-1 depicts the alignment approved by the ICC in Tongue River I.

In July 1983, the ICC's Section of Energy and Environment (SEE, predecessor to SEA) issued a Draft EIS in Tongue River I for public review and comment. In the Draft EIS, SEE analyzed the potential environmental effects of the "no-build" alternative, TRRC's Proposed Alignment, and the three alternative alignments: the Tongue River Road Alternative, the Moon Creek Alternative, and the Colstrip Route Alternative. These four alternative alignments are depicted in Figure 1-2.

SEE conducted extensive analysis in preparation of the Draft EIS. The Draft EIS for Tongue River I concluded that both TRRC's Proposed Alignment and the Colstrip Alternative would be environmentally acceptable. In reaching this conclusion, the Draft EIS found that the Colstrip Alternative would have quantitatively fewer environmental impacts because of its shorter length—47 miles versus approximately 89 miles for the other three alternatives. The Draft EIS also noted that the overall environmental impact of construction and operation of the rail line would not vary greatly between TRRC's Proposed Alignment, the Moon Creek Alternative, or the Tongue River Road Alternative. However, from an engineering and marketing standpoint, TRRC's Proposed Alignment

Figure 1-2 – Alignment Alternatives Considered in Tongue River I
(INSERT FIGURE HERE)

would be preferred because it would require a grade against load[5] of only 0.2 percent versus 0.85 percent (Colstrip and Tongue River Road Alternatives), and 1 percent for the Moon Creek Alternative.

SEE also identified additional environmental factors that narrowed the range of acceptable environmental alternatives. The Moon Creek Alternative was rejected in part because of the need to construct a bridge over the Yellowstone River, which would result in impacts to aquatic life. The Tongue River Road Alternative was rejected in part because of its higher potential for grade crossing accidents and the loss of an estimated 17 acres of prime farmland that would occur with construction of this alternative.

Following the issuance of the Draft EIS, TRRC submitted plans for a revised location for its facility and maintenance yard at the northern terminus of the proposed rail line from Miles City to Ashland. Instead of connecting to an existing yard and tracks as originally proposed, TRRC proposed connecting to the existing BNSF tracks near a location known as Branum Lake and constructing a new yard at that location. Figure 1-3 depicts the original and revised locations for the facility and maintenance yard.

In response to TRRC's revised plans, SEE prepared a Supplement to the Draft EIS for Tongue River I and issued it for public review and comment in January 1984. The Supplement analyzed potential impacts related to the proposed new location of the facility and maintenance yard, finding that the revised location would not result in greater environmental impacts than the previously studied facility and yard location. The Final EIS, served in August 1985, included the revised Branum Lake location for the facility and yards, and concluded that both the Colstrip Alternative and TRRC's Proposed Alignment would be environmentally acceptable.

The ICC approved Tongue River I via TRRC's Preferred Alignment in a final decision served May 9, 1986, and imposed extensive environmental mitigation.

Public and Agency Involvement and Chronology of Important Dates

The environmental review of Tongue River I included many opportunities for public involvement. SEE served a "Notice of Intent (NOI) to Prepare an Environmental Impact Statement" to inform the public that an environmental document was being prepared. SEE also held public scoping meetings in Miles City on August 7, 1980, and in Ashland and Broadus on June 23, 1981. The public was given the opportunity to review and comment on the Draft EIS and the Supplement to the Draft EIS, and SEE held community meetings on the Supplement to the Draft EIS in January 1985 in Miles City.

Tongue River I also included opportunities for agency involvement. Seven agencies and one Indian tribe were granted cooperating agency status[6] in the environmental review

[5] Grade against load refers to the slope that loaded trains would have to climb.

[6] A cooperating agency is a Federal or state agency invited to participate in the preparation of the EIS in order to Streamline subsequent permitting procedures and enhance the effectiveness and value of the NEPA analysis.

Figure 1-3 – Alternative Locations for the Facility and Maintenance Yard
(INSERT FIGURE HERE)

process for Tongue River I: the U.S. Army Corps of Engineers (Corps); the U.S. Department of Agriculture (USDA), the U.S. Department of Transportation (USDOT), the Federal Railroad Administration (FRA), the Montana Department of State Lands (MT DSL), the Custer County Planning Board, the Powder River County Commissioners, and the Northern Cheyenne Tribe.

Chronology of Important Dates in Tongue River I

08/07/80	SEE holds public scoping meetings in Miles City.
08/16/80	SEE serves a "Notice of Intent (NOI) to Prepare an Environmental Impact Statement."
06/02/83	TRRC files an application seeking authority for construction and operation of a rail line between Miles City and Ashland.
07/15/83	SEE serves the Draft EIS for public review and comment.
01/19/84	SEE serves the Supplement to the Draft EIS for public review and comment.
08/23/85	SEE serves Final EIS.
09/04/85	Administrative Law Judge issues initial decision approving Tongue River I.
05/09/86	ICC issues final decision approving Tongue River I.

Tongue River I is administratively final, and no judicial review proceeding is pending. Judicial review was sought in the U.S. Court of Appeals for the Ninth Circuit, but the Ninth Circuit dismissed the appeal of Tongue River I [Northern Plains Resource Council v. ICC, 817 F.2d 758 (9th Cir.), cert denied., 484 U.S. 976 (1987)].

1.5.2 Tongue River II – Ashland to Decker

Finance Docket No. 30186 (Sub-No. 2)

In Tongue River II , TRRC sought ICC approval in 1989 to extend the rail line approved in Tongue River I 41 miles from Ashland to Decker to connect with the existing rail line serving the Decker coal mines. TRRC proposed two alternative alignments for consideration: a Preferred Alignment and the Four Mile Creek Alternative. Figure 1-4 depicts the two alternative alignments.

TRRC's Preferred Alignment generally paralleled the Tongue River and connected with BNSF at the southern terminus via the Spring Creek Railroad Spur. The portion of TRRC's Preferred Alignment located between the Tongue River Reservoir Dam and the confluence of Four Mile Creek would have required the construction of five bridges and one tunnel due to the narrowing of the Tongue River Valley and the meanders of the river itself. The Four Mile Creek Alternative would avoid this environmentally sensitive 10-mile section of the Tongue River, known as the Tongue River Canyon, by diverging from the Tongue River at the confluence of Four Mile Creek and extending southwest along Four Mile Creek before turning southeast and continuing to a juncture with the Spring Creek Railroad Spur. The Four Mile Creek Alternative would therefore eliminate the need for the construction of five bridges and a tunnel through the Tongue River Canyon,

Figure 1-4 – Alignment Alternatives Considered in Tongue River II
(INSERT FIGURE HERE)

and would also avoid the Tongue River Reservoir State Recreation Area and the adjacent residential subdivision known as Cormorant Estates.

SEE prepared a Draft EIS for Tongue River II analyzing TRRC's Preferred Alignment, the Four Mile Creek Alternative, and the "no-build" alternative (i.e., no construction, which would mean the continued use of the existing BNSF line to access the Decker area mines) and issued it for public review and comment on July 17, 1992. The Draft EIS concluded that, based upon the information and analyses conducted, the Four Mile Creek Alternative would be the environmentally preferable alignment, should the construction be approved.

SEE received numerous comments and information in response to the Draft EIS, including proposed changes to TRRC's Preferred Alignment to mitigate certain environmental concerns. In response, SEE conducted further analysis of the environmental concerns raised for both build alternatives. Based upon this additional analysis, SEE issued for public review and comment a Supplement to the Draft EIS for Tongue River II on March 17, 1994. In the Supplement, SEE preliminarily concluded that the potential environmental impacts of the Four Mile Creek Alternative could not be effectively mitigated, and that the Four Mile Creek Alternative would have more adverse environmental consequences than TRRC's Preferred Alignment.

In response to the Supplement, additional comments were received. In particular, comments from the U.S. Fish and Wildlife Service (USFWS), the Corps, and the Environmental Protection Agency (EPA), raised concerns that TRRC's Preferred Alignment would have adverse effects on the environmentally sensitive Tongue River Canyon. They noted the difficulty of mitigating potential environmental impacts in the Tongue River Canyon, the increased impacts to wetlands and waters of the United States[7] in the Canyon versus the Four Mile Creek Alternative, and the potential impacts to endangered species. In response, the Board's Section of Environmental Analysis (SEA)[8] conducted a Biological Assessment (BA) of TRRC's Preferred Alignment to address potential impacts to endangered species, and also consulted with the Corps and EPA

[7] The term "waters of the United States" means "All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; All interstate waters including interstate wetlands;
All other waters such as intrastate lakes, rivers streams (including intermittent streams), mudflats and sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters: Which are or could be used by interstate or foreign travelers for recreational or other purposes; or from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or Which are used or should be used for industrial purpose by industries in interstate commerce; All impoundments of waters otherwise defined as waters of the United States under the definition; Tributaries of waters identified in paragraphs (a) (1)-(4) of this section; The territorial seas; Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1)-(6) of this section. Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWQ (other than cooling ponds as defined in 40CFR 123.11(m) which also meet the criteria of this definition) are not waters of the United States." (U.S. Army Corps of Engineer Regulatory Program website: http://www.sac.usace.army.mil/permits/33cfr328.html)

[8] SEE has been renamed the Section of Environmental Analysis

regarding potential impacts to the Tongue River Canyon associated with TRRC's Preferred Alignment.

Following SEA's review and analysis in light of the comments to the Supplement, SEA issued a Final EIS on April 11, 1996. SEA concluded in the Final EIS that the Four Mile Creek Alternative would be the environmentally preferable construction option, stating that "Although TRRC's [Preferred Alignment] would be better from an engineering viewpoint because of the flatter grade, its advantages would be outweighed by the fact that TRRC's [Preferred Alignment] traverses the environmentally sensitive Tongue River Canyon and would require the construction of five bridges and a tunnel through the Canyon." (Tongue River II, FEIS, at page 11).

Following the issuance of the Final EIS, TRRC filed a petition on May 3, 1996, urging the Board to conclude that TRRC's Preferred Alignment (rather than the Four Mile Creek Alternative) would be the environmentally preferable construction choice. Nevertheless, based on the information contained in the Draft EIS, the Supplement, and the Final EIS, as well as the public comments on the EIS, consultations with appropriate agencies, and the materials provided by TRRC, the Board approved Tongue River II via the Four Mile Creek Alternative in a decision issued on November 8, 1996, and imposed the extensive environmental mitigation measures recommended in the Final EIS for that route. In deciding to approve the Four Mile Creek Alternative rather than TRRC's Preferred Alignment, the Board noted that the Four Mile Creek Alternative, unlike the Preferred Alignment, would avoid the environmentally sensitive Tongue River Canyon. Furthermore, the Board rejected the "no-build" alternative and determined that the economic and transportation efficiencies of allowing TRRC to construct the Four Mile Creek Alternative outweighed the potential effects of that alignment to the environment. Additionally, in its decision, the Board reopened Tongue River I for the limited purpose of requiring TRRC to complete construction of the entire line between Miles City and Decker within three years.

The Northern Plains Resource Council, Inc. (NPRC), Native Action, and United Transportation Union-General Committee on Adjustment (UTU) filed timely petitions for review of Tongue River II in the U.S. Court of Appeals for the Ninth Circuit.[9] These petitions are being held in abeyance pending the conclusion of Tongue River III.

On July 15, 1997, TRRC filed a petition with the Board to reopen Tongue River II for the purpose of considering the Western Alignment as an alternative routing for the southernmost portion of the Four Mile Creek Alternative. The Board denied the request to reopen without prejudice in a decision served December 1, 1997, but stated that TRRC could file a new application for authority to construct the proposed Western Alignment. TRRC filed the application on April 27, 1998, initiating the Tongue River III proceeding.

[9] NPRC Inc. et al. vs. STB, No. 97-70037 (filed Jan. 7, 1997).

Public and Agency Involvement and Chronology of Important Dates

The environmental review of Tongue River II included many opportunities for public involvement. SEE published a Notice of Intent (NOI) to prepare an environmental impact statement in the *Federal Register*, and held public scoping meetings in Montana on December 6 and 7, 1989. In addition to affording an opportunity for public review and the filing of written comments period for both the Draft EIS and the Supplement, the ICC held oral hearings in Montana and Wyoming between August 18-21, 1992, to receive comments on the merits of TRRC's application with the opportunity for the public to comment on environmental issues.

Agency involvement in Tongue River II was also extensive. SEE granted cooperating agency status to the BLM in the preparation of the EIS in Tongue River II. SEE also consulted regularly with other public agencies such as the Corps regarding the preparation of wetland delineations; USFWS regarding Federally-listed species; Montana Department of Natural Resources Conservation (MT DNRC) regarding issues of concern to the State of Montana; and ACHP, MT SHPO, and the Northern Cheyenne Tribe regarding cultural resources and the preparation of a Programmatic Agreement (PA).[10]

Chronology of Important Dates in Tongue River II

01/10/89	TRRC sends letter notifying ICC of its intent to file an application.
11/17/89	SEE publishes in *Federal Register* NOI to prepare EIS and to hold scoping meetings.
12/06-07/89	SEE holds EIS scoping meetings in Montana.
03/16/90	SEE publishes in *Federal Register* Final Scope of EIS.
06/28/91	TRRC files application.
07/17/92	SEE serves Draft EIS.
08/18-21/92	ICC holds oral hearings on merits of application in Montana and Wyoming with opportunity to comment on the Draft EIS.
12/06/93	SEE publishes in the *Federal Register* and serves on all parties a notice announcing intention to prepare a Supplement to the Draft EIS.
03/17/94	SEE serves the Supplement to the Draft EIS.
04/11/96	SEA serves the Final EIS.
11/08/96	The Board serves a final decision approving Tongue River II via the Four Mile Creek Alternative, and imposes a three-year deadline for completion of the entire line.
07/15/97	TRRC files petition to reopen presenting the Western Alignment instead of the southernmost portion of the Four Mile Creek Alternative.
12/01/97	The Board serves a decision denying TRRC's petition to reopen, but stating that TRRC could file a new application for the Western Alignment.
03/23/99	The Board removes previously imposed requirement that construction of the entire line be completed within three years.

[10] The Programmatic Agreement has been signed by all parties. The fully executed Programmatic Agreement is in included in this Final SEIS as Appendix C.

Actual construction of the lines approved in Tongue River I and Tongue River II has not yet begun. However, TRRC has conducted various preconstruction activities on both lines, including test borings to obtain more specific geotechnical information.

1.6 DECISION TO PREPARE A SUPPLEMENTAL EIS FOR TONGUE RIVER III

Pursuant to the Board's regulations implementing the National Environmental Policy Act (NEPA) and related environmental laws, SEA is responsible for conducting the environmental review of the proposed Western Alignment on behalf of the Board.

The Council on Environmental Quality's (CEQ's) rules implementing NEPA advise Federal agencies to prepare supplements to an EIS where new information that is relevant to environmental concerns is presented after a Final EIS has been prepared as is the case here because the proposed Western Alignment is an alternative routing for the southernmost portion of the Four Mile Creek Alternative assessed in the EIS prepared in Tongue River II. The CEQ regulations at 40 CFR Part 1502.9 (c) states that agencies:

(1) Shall prepare supplements to either draft or final EISs if:
   (i) The Agency makes substantial changes in the proposed action that are relevant to environmental concerns.
   (ii) There are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.
(2) May also prepare supplements when the Agency determines that the purpose of the Act will be furthered by doing so.
(3) Shall adopt procedures for introducing a supplement into its formal administrative record, if such a record exists.
(4) Shall prepare, circulate, and file a supplement to a statement in the same fashion (exclusive of scoping) as a draft and final statement unless alternative procedures are approved by CEQ.

Based on the CEQ rules at 40 CFR 1502.9, the Board's environmental regulations at 49 CFR Part 1105, and SEA's analysis of the information it had before it pertaining to the proposed Western Alignment, SEA determined that a Supplemental EIS (SEIS) to the EIS prepared for Tongue River II was the most appropriate means of conducting environmental review of TRRC's application for the proposed Western Alignment in Tongue River III.

1.7 SCOPE OF THE SUPPLEMENTAL EIS

The action proposed to be taken in Tongue River III is predicated on TRRC's proposed change to its previously approved construction authorized in Tongue River II. This necessitates SEA's review of potential environmental impacts associated with Tongue River III and a subsequent decision by the Board addressing environmental issues and whether the proposed Western Alignment satisfies the criteria of 49 U.S.C. 10901. NEPA does not require relevant environmental work that remains accurate to be redone,

therefore, where appropriate, SEA has relied on the thorough and comprehensive data in the EISs prepared for Tongue River I and Tongue River II and the extensive environmental mitigation imposed in these decisions, to avoid unnecessarily redoing analysis that continues to be accurate and complete. Additionally, the Tongue River region has been studied extensively by BLM and MT DNRC in the preparation of EISs for projects involving Powder River I, Montco Mine, CX Ranch, and the Tongue River Reservoir Dam reconstruction, as well as the analysis of coal-bed-methane-production wells.[11] Where appropriate in this SEIS, SEA has relied on these other environmental analyses. At the same time, SEA has undertaken a limited reexamination of the EISs in Tongue River I and Tongue River II, where appropriate due to changed circumstances or to accommodate the requests of the cooperating agencies, as discussed further below.

Although CEQ's rules implementing NEPA do not require public scoping for the preparation of supplements, SEA believed that it was appropriate in this case to request comments regarding the proper scope of the Draft SEIS and potential environmental concerns and issues that should be addressed.

On July 10, 1998, SEA published in the *Federal Register* and sent to all interested parties a NOI to prepare a Supplement to the Final EIS previously prepared in Tongue River II to consider the potential environmental impacts of the proposed Western Alignment in Tongue River III. The NOI sought public comments on the scope of the SEIS and specifically requested comments on whether the analysis of the SEIS should be limited to the proposed Western Alignment, and, if not, the extent to which refinement of the analysis conducted in Tongue River I and Tongue River II is warranted.

In response to the NOI, SEA received 34 comments from Federal, state, and local agencies, as well as TRRC, individual property owners, and community representatives, including the NPRC and Native Action.

On February 3, 1999, after careful consideration of the comments on the NOI, SEA published in the *Federal Register* a Final Scope of the SEIS. The Final Scope indicated that the SEIS would address potential environmental impacts associated with the proposed Western Alignment and also would contain a limited analysis of certain portions of the EISs prepared in Tongue River I and Tongue River II; a discussion of cumulative impacts associated with construction of the entire line from Miles City to Decker in conjunction with other past, present, and reasonably foreseeable future development; and specific additional analyses that were requested by the three cooperating agencies to assist them in their review processes.

[11] See Powder River I, Regional EIS, Economic, Social, and Cultural Supplement, prepared by U.S. Department of the Interior, Bureau of Land Management, Miles City Field Office, September 1988; Montco Mine, Final Environmental Impact Statement, Montana Department of State Lands, July 1984; CX Ranch, Final Environmental Impact Statement, Montana Department of State Lands, Office of Surface Mining, U.S. Bureau of Land Management, February 1986; Tongue River Basin Project, MT DNRC, Northern Cheyenne Tribe, and the Bureau of Reclamation, March 1996; Statewide Oil and Gas EIS and Amendment of the Powder River and Billings Resource Management Plans, United States Department of the Interior, State of Montana January 2002.

In addition, BLM and MT DNRC, two of the three cooperating agencies in Tongue River III (See Section 1.6.1 for further discussion of the cooperating agencies) held joint scoping meetings on February 17 and 18, 1999, in Miles City and Ashland, respectively, to solicit comments on the scope of the SEIS relating to potential environmental impacts to state and Federal lands. In response to these meetings, 56 comment letters were received by BLM and MT DNRC. Many of the same issues raised in response to the NOI were raised at these meetings and in the comment letters. Appendix B of the Draft SEIS contains further detail regarding comments received in these meetings. In the Final Scope, SEA stated that, to the extent possible, it would consider any new environmental issues raised at these meetings and would address these issues in the Draft SEIS.

On March 2, 2000, before SEA completed its Draft SEIS, TRRC requested that SEA suspend its environmental work. Almost three years later, on December 19, 2002, TRRC advised SEA that it was in a position to move forward and asked SEA to resume its environmental review of Tongue River III. On March 25, 2003, SEA served an amended NOI that announced that the environmental review of the Tongue River III application would go forward. The amended NOI again solicited comments from the public on the scope of the SEIS and asked whether the public had any new information to include in the SEIS. SEA received eight comments from Federal, state, and local agencies, individual property owners, and community representatives, including the NPRC. On August 22, 2003, SEA served an Amended Final Scope of the SEIS, which included additional analysis to address changes in regulations and/or circumstances that have occurred since March 2, 2000, when SEA suspended its environmental work, at TRRC's request.

1.7.1 Scope of Analysis for Tongue River III – Proposed Western Alignment

The Draft SEIS provided a detailed environmental analysis of the proposed 17.3-mile rail line known as the Western Alignment. Figure 1-5 depicts the proposed Western Alignment in relation to the approved Four Mile Creek Alternative. The Draft SEIS thoroughly assessed environmental impacts associated with construction and operation of the proposed Western Alignment and recommended preliminary environmental mitigation measures in the following areas: transportation and safety, terrestrial and aquatic biological resources, land use, cultural and paleontological resources, hydrology and water quality, socioeconomics, environmental justice, soils and geology, air quality, aesthetics, noise and vibration, recreation, energy, and cumulative and indirect effects. SEA's analysis also addressed impacts on Native Americans, including potential impacts to sites of religious or cultural importance.

The Draft SEIS also compared the effects of the proposed Western Alignment to the effects of the Four Mile Creek Alternative approved in Tongue River II. After careful consideration, SEA concluded that no other "build" alternatives, other than the Western Alignment and the Four Mile Creek Alternative needed to be studied in Tongue River III. The Board, in its decision in Tongue River II, had rejected TRRC's Preferred Alignment through the Tongue River Valley because it would result in significant, unavoidable

Figure 1-5 – Proposed Western Alignment and Four Mile Creek Alternative
(INSERT FIGURE HERE)

environmental impacts, and nothing in the new information made available to date suggested that that conclusion is no longer valid or that there are other build alternatives, not previously addressed, that should now be considered.

The original "no-build" alternative in Tongue River II consisted of no new construction, which would result in the continued use of the existing BNSF Powder River Basin (PRB) rail line to serve the Decker area mines. However, the Board, in its 1996 decision in Tongue River II, specifically rejected the "no-build" alternative and determined that the economic and transportation efficiencies of allowing TRRC to construct and operate the Four Mile Creek Alternative outweighed the potential effects to the environment.[12] Therefore, at this point there are two build alternatives being considered before the Board: the already approved Four Mile Creek Alternative (approved in Tongue River II) and the proposed Western Alignment (the alternative route for the southernmost portion of the Four Mile Creek Alternative, which is being considered in Tongue River III). Even if the Board denies Tongue River III (the proposed Western Alignment), TRRC has already received approval from the Board in Tongue River I and Tongue River II to construct and operate the entire rail line from Miles City to Decker via the Four Mile Creek Alternative.

As discussed above, in preparing the Draft SEIS, SEA, to the extent appropriate, relied on the environmental analyses in Tongue River I and Tongue River II. Additionally, the Tongue River region has been studied extensively by BLM and MT DNRC in the preparation of EISs for projects involving Powder River I, Montco Mine, CX Ranch, and the Tongue River Reservoir Dam reconstruction, as well as the analysis of coal-bed-methane-production wells. Where appropriate in this SEIS, SEA has relied on these other environmental analyses.

1.7.2 Alternatives Considered for Tongue River III

The CEQ regulations implementing NEPA require Federal permitting agencies to consider reasonable and feasible build-alternatives to the proposal as well as the "no-build" alternative. In this case, the Four Mile Creek Alternative represents both the "no action" alternative and a "build" alternative. It is the "no action" alternative in Tongue River III because it was already approved in Tongue River II. In addition, it provides a viable "build" alternative to the proposed Western Alignment.

Therefore, in Tongue River III, there are only two alternatives being considered by the Board: (1) the Four Mile Creek Alternative, TRRC's rail line previously approved in Tongue River II,[13] which is also the "no action" alternative in Tongue River III and (2) the proposed Western Alignment, TRRC's proposed 17.3 mile alternative rail line

[12] STB Finance Docket No. 30196 (Sub-No. 2), Tongue River Railroad Co. – Rail Construction and Operation - Ashland to Decker, Montana, (STB served November 8, 1996)(Tongue River II), page 23.

[13] The Board in Tongue River II rejected TRRC's Preferred Alignment through the Tongue River Valley because it would result in significant, unavoidable environmental impacts.

Figure 1-6 – Proposed Refinements to the Alignment in Tongue River I and Tongue River II
(INSERT FIGURE HERE)

alignment for the southernmost portion of the Four Mile Creek route previously approved in Tongue River II.

1.7.3 Scope of Analysis of Tongue River I and Tongue River II

Comments received in response to the NOI and Amended NOI referred to changes being proposed by TRRC to the alignments previously approved in Tongue River I and Tongue River II and argued that these changes warranted environmental re-analysis. TRRC submitted information in response to the 1998 NOI indicating that the alignment of Tongue River I and Tongue River II has been adjusted somewhat from that analyzed during the environmental review for these projects. After considering the information, SEA determined that the SEIS should include a new analysis of the material already considered in Tongue River I and Tongue River II in three circumstances:

1. Where environmental consequences[14] or requirements[15] have changed in a manner warranting the updating and augmenting of analysis for Tongue River I or Tongue River II.
2. Where TRRC has made adjustments to the alignment previously considered in the Tongue River I and Tongue River II EISs that require additional environmental analysis because they might result in significant environmental impacts not addressed in those previous EISs.
3. Where further environmental analysis is appropriate to assist the cooperating agencies in their environmental review and planning processes, as specifically requested by those agencies.

Figure 1-6 depicts the proposed refinements to the alignments previously approved in Tongue River I and Tongue River II. References to additional analyses conducted at the request of cooperating agencies are found throughout the Draft SEIS.

As previously discussed, ICCTA, which became effective in 1996, established the Board to assume certain regulatory activities that the ICC had previously administered. Under 49 U.S.C 10901, as revised in ICCTA, the Board continues to have exclusive licensing authority for the construction and operation of rail lines. However, the statute now provides that the Board shall authorize the construction and operation of a proposed new line "unless the Board finds that such activities are inconsistent with the public

[14] Changes in environmental consequences are defined as changes that have occurred in the physical character of the project area since the analyses for Tongue River I and Tongue River II were conducted. For example, there have been physical changes to the Miles City Fish Hatchery, which has expanded its operations since Tongue River I.

[15] Changes in environmental requirements are defined as changes in Federal, state, or local regulations and laws that pertain to environmental issues or resources. For example, there have been changes in the requirements related to Total Maximum Daily Load (TMDL) of sediments in the Tongue River and certain tributaries.

convenience and necessity." Under this permissive licensing standard, there is now a presumption that rail construction is to be approved.[16]

Since the early 20th century, it has been clear that the Interstate Commerce Act is among the most pervasive and comprehensive of Federal regulatory schemes,[17] and that state and local regulation of railroads has been largely preempted to protect interstate commerce.[18] The exclusivity of Federal authority over railroads has been confirmed and strengthened in recent years, and in ICCTA, Congress enacted preemption provisions that give the Board exclusive jurisdiction over "transportation provided by rail carriers, including carriers' facilities." (See 49 U.S.C. 10501(b)). The same section states that "the remedies provided under this part with respect to regulation of rail transportation are exclusive and preempt the remedies provided under Federal or State law."

The courts have found that section 10501(b)'s broad scope extends to all Federal, state and local regulations to the extent their application would unduly restrict a railroad's operations or unreasonably interfere with interstate commerce, and that state and local permitting or pre-clearance requirements (including environmental requirements) by their nature tend to interfere with interstate commerce because of the ability to deny or unduly delay the carrier's right to conduct its operations, and therefore are preempted.[19]

At the same time, the Board has also recognized that not all state and local regulations that affect railroads are preempted by ICCTA. In particular, the Board found that state and local regulations remain valid when they can be applied without interfering with the Federal law or the purposes of the Federal scheme, and that localities retain certain police powers to protect public health and safety. Moreover, state and local agencies play a significant role under many Federal environmental statutes and, in railroad construction cases, can raise their environmental concerns before the Board during the environmental review process. (See Auburn, 154 F. 3d at 1033.) Permits required by other Federal agencies pursuant to other Federal laws, including environmental laws, are also not typically preempted.

[16] Mid States Coalition for Progress v. STB, 345 F. 3rd 520, 552 (8th Cir. 2003).

[17] Chicago & North Western Transp. Co. v. Kalo Brick & Tile Co., 4506.S.311, 318 (1981) (Kalo Brick).

[18] City of Auburn v. STB, 154 F. 3d 1025, 1029 (9th Cir., 1998), 154 F. 3rd at 1029; Kalo Brick, 450 U.S. at 318-19; Transit Commission v. United States, 289 U.S. 121 (1933).

[19] E.g., City of Auburn v. STB, 154 F. 3d 1025 (9th Cir., 1998)(154 F 3dat1029, Green Mountain R.R. v State of Vermont, 404 F.3d638 (2d cir. 2005) ; Joint Petition for Dec. Order - Boston & Maine Corp. & Town of Ayer, Ma, STB Finance Docket No. 3397 (STB served May 1, 2001), 2001 STB LEXIS 435 (collecting cases); CSX Transportation, Inc.-Pet. For Dec Order, STB Finance Docket No. 34662 (STB Served) March 14, 2005 and May 3, 2005), Petitions for judicial review pending, District of Columbia et al v. STB, Nos. 05.1220 et al (D.C Cir. Filed June 20, 2005).

1.8 PARTICIPATING AGENCIES

1.8.1 Cooperating Agencies

The Draft and Final SEISs have been developed in consultation with the three agencies that requested cooperating agency status: (1) the Corps, (2) BLM, and (3) MT DNRC, acting as lead agency for other Montana state agencies. These three agencies also have decision-making authority independent of the Board and are the three principal agencies from which TRRC would have to obtain separate approvals or permits before the Western Alignment could be constructed. To help these agencies fulfill their regulatory responsibilities and functions, and to avoid duplicative environmental analysis, these Draft and Final SEISs include environmental review specifically requested by the cooperating agencies of certain issues that might not otherwise be considered by SEA. The inclusion of this information should facilitate and expedite the environmental review process. Based upon the information and analysis provided in the Draft and Final SEIS, the cooperating agencies should be able to issue any necessary permits without further proceedings. Furthermore, given the extremely broad preemption provisions of 49 U.S.C. 10501(b) of ICCTA, and precedents such as Auburn, the issuance of authority by the cooperating agencies presupposes that any conditions imposed by these agencies will not have the effect of interfering with the railroad operations authorized by the Board or interstate commerce.

1.8.1.1 U.S. Army Corps of Engineers

The Corps is located within the Department of Defense, under the Secretary of the Army. The Corps was established by the Rivers and Harbors Act of 1890 (superseded) and 1899, 33 U.S.C. 401, et seq. The Corps has authority over the navigable waters of the United States to insure and maintain the physical, biological, and chemical quality of our nation's water. It has permit requirements to prevent unauthorized obstruction or alteration of these waters, including construction, excavation, or deposition of materials in, over, or under such waters or any work that would affect the course, location, condition, or capacity of these waters.

Section 404 of the Clean Water Act (CWA), U.S.C. 1344, authorizes the Corps to regulate activity involving the discharge of dredged or fill material into jurisdictional wetlands or waters of the United States, as defined in 33 C.F.R. §328.3. The Corps has a role in TRRC's proposed rail line construction because the project would involve bridge construction across the Tongue River (one bridge would be constructed approximately 10 miles north of Ashland, and one would be constructed approximately seven miles south of Birney.) Both the bridge construction and rail line construction in drainages adjacent to the river would also result in fill in waters of the United States, and the latter construction would also cause disturbance of adjacent wetlands. TRRC would be required to obtain a permit from the Corps covering the entire rail line from Miles City to Decker before discharging material into wetlands or waters of the United States.

The Corps and EPA have jointly developed guidelines to evaluate impacts from discharges to wetlands and waters of the United States, as well as to determine compliance with Section 404 of the CWA. The guidelines require an analysis of alternatives to determine the "least environmentally damaging practicable alternative." Under the guidelines, "practicable" means available or capable of implementation, given considerations such as cost, existing technology, and logistics, in light of overall project purposes. Appendix D of the Draft SEIS contains information related to Section 404 analysis for the entire rail line from Miles City to Decker, including an initial analysis of waters of the United States, a draft Section 404(b)(1) "showing," and a Conceptual Habitat Mitigation Plan. A revised draft Section 404(b)(1) "showing" is included as Appendix F of this Final SEIS By its participation in these proceedings as a cooperating agency, SEA believes the Corps will be in a position to make a Section 404 determination with the information provided in this SEIS.

1.8.1.2 Bureau of Land Management

BLM is organizationally housed under the U.S. Department of the Interior. BLM originated with the Land Ordinance of 1785 and the Northwest Ordinance of 1787, although it was formally established in 1946 when the Grazing Service was merged with the General Land Office. BLM is responsible for managing 262-million acres of Federal land, about one-eighth of the land in the United States, and about 300-million additional acres of subsurface mineral resources. BLM is also responsible for wildfire management and suppression on 388-million acres.

Most of the lands BLM manages are located in the western United States, including Alaska, and are dominated by extensive grasslands, forests, high mountains, arctic tundra, and deserts. BLM manages a wide variety of resources and land uses, including energy and minerals, timber, forage, wild horse and burro populations, fish and wildlife habitat, wilderness areas, archeological, paleontological, and historical sites, and other natural heritage values.

Portions of TRRC's rail line from Miles City to Decker approved in Tongue River I and Tongue River II will cross BLM-owned or managed lands. Under the Federal Land Policy and Management Act, 43 U.S.C. 1701, BLM would be required to approve a right-of-way (ROW) grant to TRRC so that the rail line can cross these lands. Figure 1-7 shows the land owned or managed by BLM that the rail line will cross. To assist BLM, and at BLM's request, TRRC conducted, and SEA independently reviewed and verified, an analysis of alternatives to the use of BLM land. This analysis is contained in Appendix E of the Draft SEIS. SEA believes that as a result of the analysis done in the Draft SEIS pertaining to BLM's ROW grant, BLM will have the information it needs to issue the ROW grant without further proceedings.

1.8.1.3 Montana Department of Natural Resources and Conservation

MT DNRC was established on July 1, 1995, as the result of a legislative reorganization of Montana's natural resource and environmental agencies. MT DNRC is responsible for sustaining and improving the benefits derived from Montana's water, soil, forest, and rangeland. To accomplish these goals, MT DNRC manages the State's trust land

Figure 1-7 – Federal and State Ownership of Lands along the Right-of-Way in Tongue River I Through Tongue River III
(INSERT FIGURE HERE)

resources to produce revenues for the trust beneficiaries, protects Montana's natural resources from wildland fires through regulation and partnerships with Federal, state, and local agencies, and promotes conservation of oil and gas through regulation of exploration and production. MT DNRC also manages or assists in the management of several grant and loan programs, including the renewable resource, reclamation, and development program, the treasure state endowment, and the wastewater revolving fund programs.

For Tongue River III, MT DNRC is acting as lead agency for other Montana state agencies and to ensure the State's environmental concerns are addressed in a manner consistent with the Montana Environmental Policy Act (MEPA). Portions of the proposed rail line from Miles City to Decker would cross state lands, requiring that the State grant an easement to TRRC for the required ROW. Figure 1-7 shows the land owned by the State of Montana that the rail line will cross.

1.8.2 Other Agency Consultation

Other agencies that SEA consulted with in preparing the Draft and Final SEISs include the Environmental Protection Agency (EPA), US Fish and Wildlife Service (USFWS), Montana State Historic Preservation Office (SHPO), and the Advisory Council on Historic Preservation (ACHP).

1.8.3 Native American Consultation

The American Indian Religious Freedom Act (AIRFA), 42 U.S.C. 1996, requires Federal agencies to assess the impact of proposed projects on the right of Native Americans to exercise their traditional religions, including their access to sacred sites and to use and possession of sacred objects. Under AIRFA, Federal agencies are required to consider the policies embodied in that statute and seek to avoid unnecessary interference with Native American religious beliefs and practices. The Federal AIRFA policy operates separately from policies and procedures designed to evaluate historic Native American traditional sites pursuant to the National Historic Preservation Act (NHPA).

A portion of TRRC's approved rail line between Miles City and Decker is located in the vicinity of the Northern Cheyenne Reservation located in Rosebud and Big Horn counties. The Reservation is approximately 677 square miles in size with a population of approximately 5,600 individuals. As shown in Figure 1-8, the Tongue River generally forms the eastern boundary of the Reservation.

The proposed rail line from Miles City to Decker would not actually cross the Northern Cheyenne Reservation. Nevertheless, SEA conducted Native American consultation and evaluated potential impacts on the Native American communities in Tongue River I, Tongue River II, and again in Tongue River III, particularly involving the Northern Cheyenne. SEA's consultation and evaluation were designed to determine if the construction and operation of the entire rail line would result in any significant impacts on social, economic, or cultural resources, particularly traditional and sacred sites. SEA's

Figure 1-8 – Location of Native American Reservations Relative to the Proposed Rail Line
(INSERT FIGURE HERE)

outreach efforts included phone calls and letters directed to members of the Northern Cheyenne Tribe, as well as the Arapaho Business Council, Crow Tribal Council, Shoshone Business Council, Oglala Sioux Tribal Council, and Standing Rock Sioux Tribal Council.

The Northern Cheyenne Tribe participated in Tongue River I as a cooperating agency. In Tongue River II, SEE held a formal meeting with the Northern Cheyenne on February 5, 1990, and conducted separate communications with other Tribes (Crow, Arapaho, Miniconjou, and Oglala) in April 1990. The purpose of these consultations was to explain the project and to incorporate comments regarding the scope of the EIS.

SEA also consulted with Native American representatives in the development of the PA, included in Appendix C of the Final SEIS,[20] which addresses the protection of cultural resources that would be encountered during construction of the entire rail line between Miles City and Decker. The PA located in Appendix C of the Final SEIS supersedes the PAs prepared for Tongue River I and Tongue River II. The Northern Cheyenne and the Crow, as concurring parties[21] to the PA, will be invited by the Board to participate in the inventories (Class I and Class III) to help identify, document, and evaluate properties to which they attach traditional religious and cultural significance within the APE. The Northern Cheyenne and the Crow will also be consulted for assistance in site identification, evaluation of objects encountered during the construction process, and consultation in the curation of objects. Also, as part of the PA process, SEA sought the cooperation of the Northern Cheyenne and the Crow in the identification of sites of cultural significance to them along the proposed Western Alignment, if Tongue River III is approved and built, in order to ensure proper identification and treatment of cultural and paleontological resources during construction. (For further discussion of the PA, please refer to Chapter 4 of Draft SEIS, Section 4.2.5.2, "Affected Environment – Cultural and Paleontologic Resources, Laws and Regulations," and to Appendix C of this Final SEIS, which includes the executed PA.)

1.9 PUBLIC REVIEW PROCESS

SEA served the Draft SEIS, which included preliminary mitigation recommendations, on all those on its service list and on appropriate Federal, state, and local agencies. The service list has been updated to include all parties that submitted a comment on the Draft

[20] A PA is an agreement executed under 36 CFR 800.14 in which the lead agency (here, the Board), ACHP, MT SHPO, and other parties agree on a process for considering historic properties with respect to an entire project. The PA prescribes a review process tailored to a particular program or project and stands in place of the normal review process under Section 106 of the NHPA. In Tongue River II, SEA developed a PA. In Tongue River III, SEA has developed a new PA that would supersede the PA developed in Tongue River II and would apply to construction of the entire rail line (Tongue River I, Tongue River II, and Tongue River III) from Miles City to Decker, if Tongue River III is approved by the Board. The PA is included in Appendix C to this Final SEIS.

[21] A concurring party participates in the development of the PA and signs the document to indicate acceptance with the terms contained therein. Concurring parties are also involved in the implementation of the PA, but in an advisory role unless otherwise specified in the terms of the agreement.

SEIS. The service list is provided in Chapter 6 of this Final SEIS. All parties identified on this list will receive a copy of this Final SEIS. A notice of the Final SEIS will be published in the *Federal Register*.

In addition, the Draft SEIS and the Final SEIS will be available on the Board's website. (All associated environmental documents for Tongue River I and Tongue River II are also available on the Board's website.) The Draft SEIS was also available for review at the following locations:

Miles City Public Library
1 South 10th Street
Miles City, MT 59301

St. Labre Indian School
1000 Tongue River Road
Ashland, MT 59003

SEA conducted a 45-day comment period for the Draft SEIS, which ended on December 6, 2004. SEA invited agencies, elected officials, organizations, businesses, communities, farmers, ranchers, and other members of the public to provide their comments on all aspects of the document.

Public Meetings

In addition to soliciting written comments on the Draft SEIS, SEA held public meetings on the Draft SEIS at the locations, times, and dates listed below.

Miles City:
Tuesday, November 16, 2004
7 - 9 p.m.

Miles Community College
Room 106
2715 Dickenson
Miles City, MT 59301

Ashland:
Wednesday, November 17, 2004
7 - 9 p.m.

St. Labre Indian School
Auditorium
1000 Tongue River Road
Ashland, MT 59003

At each meeting, SEA gave a brief presentation and interested parties were invited to submit written comments or make oral comments. Both public meetings followed the same format and agenda. A transcriber was present at each meeting to ensure that oral comments were accurately captured. Oral comments were received from 27 individuals.

More than 800 written and oral comments were received on the Draft SEIS during the course of the 45-day public review period. Comments were received from federal, state, and local agencies and organizations, small businesses, and individual members of the public. The comments were related to a wide range of issues such as the extent of surveys completed for biological resources, enforcement of mitigation measures, the validity of information used in completing the Draft SEIS, and the scope of the cumulative impact analysis. Other main issues raised in the comments received on the Draft SEIS are identified in Chapter 2 of this Final SEIS, Master Responses, which summarizes the comments made in regards to each issue.

SEA has carefully considered all the comments received on the Draft SEIS, and as detailed in this Final SEIS, conducted further technical analysis as necessary. All comments received and SEA's responses to them are provided in Chapter 3 of this Final SEIS. Master responses addressing certain recurring issues are addressed in Chapter 2 of the Final SEIS. The Final SEIS includes SEA's final recommendation on the proposed Western Alignment versus the Four Mile Creek Alternative and appropriate environmental mitigation recommendations that would apply to the entire line from Miles City to Decker. Based on comments received on the Draft SEIS from agencies and members of the public, the recommended mitigation measures from the Draft SEIS have been refined and three new mitigation measures have been developed and included in this Final SEIS. The refinements to the mitigation measures are generally intended to improve their effectiveness, clarify the roles of the parties involved, and refine the timing of implementation. The new mitigation measures relate to the protection of paleontological resources during construction activities and the monitoring of vibration effects at the Miles City Fish Hatchery. A portion of mitigation measure 31 from the Draft SEIS has been pulled out and identified separately as mitigation measure (91). This text relates to a compensation program for loss of wildlife habitat. SEA's final recommended Mitigation Measures are included in Chapter 4.0 of this Final SEIS.

1.10 FINAL RECOMMENDATIONS

Based on all the information available to date regarding the proposed Western Alignment and the Four Mile Creek Alternative, SEA believes that both routes could be safely operated and would avoid the environmentally sensitive Tongue River Canyon. The environmental impacts of both routes with the mitigation measures recommended in this Final SEIS would be generally comparable.[22] However, SEA believes that the proposed Western Alignment would be environmentally preferable to the already-approved Four Mile Creek Alternative for the following reasons: (1) the proposed Western Alignment would require fewer at-grade public road crossings (four versus seven for the Four Mile Creek Alternative); (2) the proposed Western Alignment would have a flatter grade,[23] and hence a lower estimated train derailment rate (0.32 per year versus 0.55 per year for the Four Mile Creek Alternative); (3) the operation of the proposed Western Alignment, with its flatter grade, would require only 65 percent of the fuel required by the Four Mile Creek Alternative; (4) the total acreage required for the proposed railroad right-of-way[24]

[22] The Board's authority to impose conditions is not limitless. Any conditions imposed, including environmental mitigation, must be directly related to the transaction before the Board for approval, must be reasonable, and must be supported by the record before the Board. The Board does not have the authority to require mitigation of pre-existing environmental impacts, such as impacts resulting from existing railroad operations or land development.

[23] The proposed Western Alignment would have a 0.93 percent maximum descending grade, while the Four Mile Creek Alternative would have a 2.31 percent maximum descending grade. Grades steeper than 1.0 percent require additional engines to haul loaded trains against the grade and also present an increased safety risk through loss of control during descent.

[24] The right-of-way (ROW) that would be required for construction and operation of either the proposed Western Alignment or the approved Four Mile Creek Alternative would extend 200 feet from each side of the proposed railroad's centerline.

and the number of property owners affected would be less with the proposed Western Alignment; (5) the proposed Western Alignment would affect substantially less wetlands (1.69 acres for the proposed Western Alignment versus 6.09 acres for the Four Mile Creek Alternative); and (6) the proposed Western Alignment would affect fewer noise sensitive receptors (residences) during operation (one for the proposed Western Alignment versus six for the Four Mile Creek Alternative).

The amount of earthwork (grading and cut and fill) is a potentially significant effect under either route. However, the proposed Western Alignment would require more earthwork than the Four Mile Creek Alternative. As a result, the proposed Western Alignment has greater potential for impacts in the areas of soil erosion, sediment load to the Tongue River and its tributaries, dust during construction, and visual quality.

While the amount of earthwork associated with the proposed Western Alignment is greater than the Four Mile Creek Alternative, SEA believes that the recommended mitigation measures identified in Chapter 4 of this Final SIES would significantly reduce these potential impacts to the point where the proposed Western Alignment would be environmentally preferable.

1.11 NEXT STEPS

Issuance of this Final SEIS concludes the environmental review process. The Board will now decide whether to approve or deny TRRC's request to construct and operate Tongue River III, and identify what, if any, mitigation measures should be imposed if the proposal is approved. TRRC does not have the requisite authority to construct and operate the proposed Western Alignment until the Board makes a decision granting TRRC the authority to do so.

In reaching its decision, the Board will consider the Draft and Final SEISs completed for Tongue River III, the comments received on the Draft SEIS, and other available environmental information including the EISs prepared in Tongue River I and Tongue River II to the extent appropriate. The Board will consider transportation related issues, and will impose any conditions, including environmental conditions, it deems appropriate.

CEQ regulations (40 CFR 1506.10(b)) provide that an agency shall not make a decision on a proposed action less than 30 days from the publication of a notice of availability of a Final EIS in the *Federal Register* by EPA unless the agency's decision is subject to a formal administrative review process after publication of the Final EIS.

The Board has an established administrative review process. Under the Board's rules, parties who wish to file an administrative appeal of the Board's final decision, including any environmental conditions that the Board might impose, may do so within 20 days of the service date of the Board's final decision, or within any further period (not to exceed 20 days), as the Board may authorize (49 CFR 1115.3(e)).

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Chapter 2 –Master Responses

Master Response 1: Adequacy and Timing of Studies

Several commenters are concerned that aerial surveying is not a valid methodology for understanding the environmental conditions in the proposed rail corridor and assessing the potential impacts of the project. Commenters also express concern that certain studies are being deferred until the construction period. Examples of comments include:

- *The SEIS delays many environmental studies to the future, which does not meet the intent of NEPA. Commenters want all studies to be completed now to determine the full impact of project.*

- *Commenters question whether STB/TRRC attempted to negotiate access to private property to arrange for baseline studies. Some commenters say they were never approached to obtain right-of-entry, which would have allowed for more extensive baseline studies.*

- *Commenters say that the flyover approach (via plane) does not provide for adequate analysis.*

- *Commenters say that helicopter studies are not adequate to assess the biological resources of the Tongue River Valley, for example, the Golden Eagle and pelican populations.*

The proposed Western Alignment would cross an area in southeastern Montana that consists of rugged terrain. Most of the land that the rail line would cross is privately owned and includes few access roads.

The rugged terrain, limited access, and rural location of the proposed Western Alignment present a unique challenge to conducting detailed environmental studies. The ability to conduct on-the-ground surveys is constrained due to the nature of the terrain and limited roads accessing the area. In cases like these, environmental surveys typically utilize aerial surveys, aerial photography, and previous mapping and reviews conducted in the area (e.g. topographic maps, soils maps, wildlife surveys, etc.). This approach is consistent with past Board cases, (see Mid States Coalition for Progress v. STB, 345 F.3d 520, 538 (8th Cir. 2003,) finding use of aerial photographs in sizeable rail construction projects to be "sensible") and the methodology used by other Federal agencies when conducting NEPA analysis for linear transportation corridors in rural areas.

In conducting environmental studies of the proposed Western Alignment, and to verify information and analyses submitted by TRRC, SEA conducted aerial surveys using fixed-wing aircraft and helicopters. Fixed-wing aircraft surveys were conducted in 1985 for Tongue River I, in 1992 for Tongue River II and in 1997 for Tongue River III. As discussed below, helicopter surveys were conducted in Winter and Spring 2004 to obtain information on special status species.

SEA believes that the 1997 fixed-wing aerial surveys are adequate to provide information about the existing physical conditions (topography, habitat, hydrology, etc.) of the proposed Western Alignment and accurately update information previously collected for Tongue River I and Tongue River II because the physical environment of the area at issue here is substantially the same. The focused helicopter surveys that SEA has recently conducted provide thorough updated biological information about black-tailed prairie dog colonies (Spring 2004) and bald eagle wintering and nesting sites (Winter 2004). These surveys, which covered the entire alignment from Miles City to Decker, were conducted by qualified biologists with experience conducting aerial surveys. The environmental analysis utilized the associated aerial photographs of the proposed Western Alignment, the Four Mile Creek Alternative and the alignment authorized in Tongue River I.

In addition to the aerial surveys, SEA conducted a number of site visits of the project area and relied upon existing mapping and surveys obtained from various sources. For example, site visits were conducted by SEA in 1998, 1999, and 2003 to view the project areas for the proposed Western Alignment and Four Mile Creek Alternative and the remainder of the rail alignment north to Miles City. These site visits were conducted from local public roads and allowed SEA to examine and assess the potential rail line corridors and surrounding areas. The site visits were conducted at different times of the year to ensure a complete understanding of the physical environment.

In short, SEA did not rely exclusively on aerial surveys and aerial photography as a data source in completing the environmental review for this case. The data compiled by SEA through site visits, aerial surveys, photographs, biological resource studies, and technical studies are identified in Section 3.1 of the Draft SEIS. The data collected by SEA provided sufficient information for SEA to determine the potential for adverse effects to occur from the construction and operation of the proposed Western Alignment and update the analysis of the Four Mile Creek Alternative and alignment authorized in Tongue River I, where appropriate. For example, SEA used this information to quantify the distance of the proposed Western Alignment to bald eagle nests, the potential quantities of soil erosion based on engineering plans provided by the TRRC, and future noise levels at noise-sensitive land uses along the proposed rail corridor.

Based on the data collected and analysis conducted, SEA was then able to develop recommended mitigation measures, which are identified in Chapter 7 of the Draft SEIS, to reduce the potentially adverse effects. In many cases, the recommended mitigation measures establish performance standards. In some cases, additional surveys would be required as part of the mitigation measure being recommended. SEA's recommendation that the Board impose mitigation requiring future surveys is not an indication that SEA did not conduct sufficient analysis to determine potential adverse effects. Rather, the future surveys that SEA proposes be conducted are intended to provide supplemental data to allow mitigation measures to be refined to take actual construction conditions on the site of the final alignment into account as well as changes that may have occurred between the time of the data that has been collected to date and the time of actual construction. For example, Mitigation Measures 25 and 26 of this Final SEIS would require wildlife surveys to be conducted prior to each construction season. These mitigation measures are not being required because SEA has not been able to study the area. (To the contrary, SEA has conducted biological resource surveys several times over several years in the preparation of the SEIS and the prior EISs for Tongue River I and Tongue River II.) Rather, SEA is recommending these mitigation measures to take into account the wildlife habitation and migration patterns of the time of actual construction and the fact that final rail alignment may shift slightly within the 400-ft corridor once engineering is completed. In short, the intent of SEA's final recommended mitigation is that the Cooperating Agencies and the Task Force (required by recommended Mitigation Measure 14) would be able to use data collected from additional surveys conducted closer to the time of actual construction to refine mitigation measures and possibly further reduce potential adverse effects.

Master Response 2: Biological Resources – Conclusions and Mitigation

Several commenters questioned whether the Draft SEIS adequately evaluated the potential effects of the proposed rail line on biological resources, including plant and animal species, and their habitats.

As discussed in the Draft SEIS, SEA conducted extensive evaluation of the potential effects of construction and operation of the proposed rail line on biological resources

within the project area. SEA's analysis of this issue has been conducted over several years and is based on a wide range of studies, surveys and reports conducted by SEA and various state and federal agencies, including updated surveys and analysis of potential effects to the bald eagle (*Haliaeetus leucocephalus)*, black-footed ferret (*Mustela nigripes)*, and pallid sturgeon (*Scaphirhynchus albus)*. In preparing the biological analysis contained in the Draft SEIS for Tongue River III, SEA conducted its own evaluations and surveys of the project area (See Master Response 1) and consulted with state and Federal agencies with specific expertise and knowledge of the unique biological resources of the area. These agencies included the Montana Department of Natural Resources and Conservation, Bureau of Land Management's Miles City Field Office, and the US Army Corps of Engineers. These agencies were consulted during preparation for the Draft SEIS to obtain existing documentation, mapping, surveys and other information about the project area and potential environmental effects, and each agency participated as a cooperating agency[1] in preparing the Draft SEIS.

SEA also met with each cooperating agency during preparation of the Draft SEIS to facilitate their review and participation, and has continued to meet with the cooperating agencies as part of the preparation of this Final SEIS. This continued consultation has lead to SEA's analysis of biological resources and potential adverse effects is detailed and comprehensive. The analysis, which can be found in Sections 4.2.2, 4.3.2 and 5.3.2 of the Draft SEIS, evaluates potential adverse effects on: 1) vegetation, including both Federal and State listed threatened and endangered plant species; 2) waters of the U.S. and wetlands, which are protected under the Clean Water Act and regulated by the U.S. Army Corps of Engineers; 3) wildlife, including both Federal and State listed threatened and endangered species; 4) common wildlife species, such as deer, antelope and game birds, which are an important recreational hunting resource in southeastern Montana; and 5) fishery resources, primarily those related to the Tongue River.

In addition to the analysis of biological resources, SEA also included in Volume II of the Draft SEIS specific analyses and reports requested by the cooperating agencies that pertain to potential effects on biological resources. For example, Appendix D to the Draft SEIS contains supplemental information requested by the U.S. Army Corps of Engineers, including an analysis of waters of the U.S. along the proposed Tongue River Railroad alternatives, information on specific occurrences by habitat of fish and wildlife along the Tongue River, a conceptual habitat mitigation plan, and TRRC's 404(b)(1) Showing, which documents the various alignment alternatives previously considered by TRRC and the comparative impacts on wetlands and waters of the U.S. Appendix D of this Final SEIS contains an updated Biological Assessment (BA), prepared by SEA in consultation with the U.S. Fish and Wildlife Service (USFWS), which forms the basis for formal consultation with the USFWS regarding potential impacts and mitigation measures for federally-listed threatened and endangered plant and animal species. The

[1] Cooperating agencies are defined in the CEQ NEPA regs implementation at 40 CFR Section 1502.6 provides that upon request of the lead agency, any other Federal agency which has jurisdiction by law shall be a cooperating agency. In addition any other Federal agency which has special expertise with respect to any environmental issue, which should be addressed in the environmental impact statement, may be a cooperating agency upon request of the lead agency.

USFWS issued a Biological Opinion (BO) on July 12th, 2006. The BO is included in Appendix D of this Final SEIS. Issuance of a biological opinion indicates that the USFWS concurs with the analysis of the project's potential effects to federally-listed threatened and endangered species.

Based on the information collected and studies and surveys conducted, SEA was able to prepare a detailed analysis and comparison of the potential biological effects of the proposed Western Alignment and the Four Mile Creek alternative in the Draft SEIS. For example, SEA quantified the amount of each habitat type in acres (Table 4-18 of the Draft SEIS) and the amount of wetlands and waters of the U.S. (Table 4-19) that would be affected by each alignment. SEA's analysis also evaluates both direct and indirect effects on wildlife species, including three federally-listed species (black-footed ferret, bald eagle and pallid sturgeon) and 20 state-listed species that may occur within the project area. In response to the potential effects on biological resources, SEA developed a comprehensive set of mitigation measures specific to such resources. These 22 mitigation measures include mitigation previously identified in Tongue River I and Tongue River II as well as new mitigation measures identified in Tongue River III. SEA also reviewed and updated mitigation measures previously identified in Tongue River I and Tongue River II to reflect the most current scientific approaches, methodologies and Board practices. Thus, contrary to the claims of some commenters, biological resources, including plant and animal species and their habitats, have been appropriately assessed in this SEIS.

Master Response 3: The No-Action Alternative

Several commenters asked for clarification regarding what the No-Action Alternative would involve. Others expressed concern that the No-Action Alternative is not a true "no-action" alternative because it would still allow construction of the Four Mile Creek Alternative.

The Draft SEIS evaluates the potential environmental impacts of the application submitted by TRRC to construct and operate 17.3 miles of rail line known as the proposed Western Alignment. The proposed Western Alignment is an alternative routing for the southernmost portion of the 41-mile Ashland to Decker, Montana alignment previously approved by the Board in Tongue River II, which is known as the Four Mile Creek Alternative. Since the Board has previously approved the 41-mile Ashland to Decker, Montana rail line, the focus of the SEIS is to compare the environmental impacts of the proposed Western Alignment to the already approved Four Mile Creek Alternative. The "action" before the Board is either approval or denial of the proposed Western Alignment. In this context, the "no action" alternative would equate to the Board's denial of TRRC's current application. In this event, TRRC still has approval to construct the 41-mile Ashland to Decker alignment via the approved Four Mile Creek Alternative. That is why the Four Mile Creek Alternative is the no-action alternative in Tongue River III.

Master Response 4: Information Used in Preparing the EIS

Several Commenters stated that the information used to prepare the Draft SEIS is outdated and that new studies need to be conducted to obtain new data. Commenters also state that a substantial amount of material is used from documents that are not based on rail projects and is therefore not relevant to the analysis. Specific comments include the following:

- *Three of the documents used (by reference) analyze the impacts of leasing federal coal tracts and developing two proposed coal mines. The fourth document analyzes the impacts of the improvement and expansion of the Tongue River Reservoir dam. Several of these documents are over twenty years old. The fifth document is the Statewide Oil and Gas FEIS-a document that is the subject of pending litigation.*

In preparing the SEIS, SEA collected data from a wide range of sources including past studies, reports and surveys prepared by state and federal agencies (see Chapter 13 of the Draft SEIS). SEA's purpose in obtaining these documents was to gain as much knowledge about the existing environment and types of potential impacts that could occur from the construction and operation of the proposed rail line. SEA did not, however, rely solely on these past studies. As explained in Master Response 1, SEA conducted numerous site visits and conducted aerial surveys of the project area to collect up-to-date data and evaluate the potential for specific environmental effects of the proposed rail line construction and operation, and to update past environmental studies conducted for the entire rail line. Moreover, SEA's final recommended mitigation includes conditions that would require wildlife surveys to be conducted prior to each construction season to take into account wildlife habitation and migration patterns at the time of actual construction of the final rail alignment when final engineering is complete.

While some of the studies and reports collected by SEA were for projects that are not directly related to rail line construction, they still provide valuable information about existing environmental conditions in the vicinity of the proposed Tongue River rail line and potential cumulative environmental effects. The proposed approach used by SEA to collect historical environmental data is standard practice and necessary to obtain a comprehensive and thorough understanding of past, present and possible future environmental conditions in the project area. In many cases, the documents cited by the commenter were provided to SEA by one of the cooperating agencies for just these reasons – to provide SEA with a better understanding of existing environmental conditions and potential cumulative impacts.

Master Response 5: Location of Final Alignment

Several commenters questioned how the NEPA analysis can be conducted if a final alignment for the railroad has not yet been determined.

NEPA analyses are typically completed on the basis of preliminary or conceptual engineering data. According to the Council on Environmental Quality (CEQ) regulations for implementing NEPA, agencies shall integrate the NEPA process with other planning at the earliest possible time to ensure that planning and decisions reflect environmental values, to avoid delays later in the process, and to head off potential conflicts (Section 1501.2). SEA followed CEQ regulations by conducting its environmental analysis based on TRRC's preliminary engineering plans.

Once SEA completes the NEPA process, the Board will issue a decision addressing the proposed Western Alignment. Final engineering studies will then be conducted on the basis of the approved alignment (Western Alignment or Four Mile Creek) prior to the time construction begins. During final engineering, minor adjustments may be made to the approved alignment and the dimensions or locations of cut and fill may change slightly. SEA analyzed a 400-foot wide corridor in the Draft SEIS for both the Western Alignment and Four Mile Creek Alternative, which is wider than the area that will ultimately be required for construction and operation so as to present a worst-case conservative analysis and to provide TRRC with the flexibility to select the optimum location for the alignment that the Board authorizes during the final engineering phase.[2]

Should TRRC ultimately make adjustments that could potentially result in new significant effects to resources beyond the 400-foot wide ROW already analyzed for either the Western Alignment or Four Mile Creek Alternative, these changes would be reviewed on a case-by-case basis by SEA, as discussed in recommended Mitigation Measure 16, to determine if new significant effects would occur. If SEA determines prior to construction that new significant effects would occur and that existing mitigation measures would not be adequate to address those impacts, new mitigation would be developed in consultation with the Board. Monitoring and enforcement of any newly identified mitigation measures would occur under the framework identified below in Master Response 7.

[2] Based on preliminary engineering, all tracks, access and maintenance roads, and sidings would be located within the 400-foot ROW. The average, maximum footprint of the railroad would range from 150-200 feet within the 400-foot ROW, including cuts and fills. Thus, it is likely that most if not all of the final alignment will be within the 400 wide corridor that has been analyzed for the SEIS.

Master Response 6: Maps of the Adopted and Proposed Alignments

Several commenters expressed concern that the figures and maps of the proposed alignments in the Draft SEIS are inadequate in level of detail for analysis of impacts to property owners and that property owners cannot determine from these maps where the alignment would actually be located on their property.

The Draft SEIS contains many figures and maps presenting the general location of the proposed Western Alignment, Four Mile Creek Alternative and the alignment authorized in Tongue River I north to Miles City. To be as helpful as possible to the general public, the figures in the Draft SEIS include general landmarks (towns, rivers, county lines, roadways, etc) to aid the reviewer in identifying the general location of the rail line.

The analysis in the Draft SEIS was partially based on aerial photographs showing the proposed ROW for Tongue River I, Tongue River II, and Tongue River III. These photos were used in evaluating specific effects on land use, including the approximate ROW that would be needed on privately owned parcels. Due to the length of the entire rail line from Miles City to Decker, the compilation of aerial photos consists of 86 separate images and were not included in the Draft SEIS. However, based on comments received on the Draft SEIS, SEA has incorporated the set of aerial photos into the Final SEIS (see Appendix A). The aerial photos include property owner information, topographical features, proposed location of cattle passes, county road relocations, public and private grade crossings, streams and creeks, and the proposed refinements to Tongue River I and Tongue River II. Inclusion of these photos does not represent new information nor does it change the conclusions of the Draft SEIS.

Master Response 7: Enforcement of Mitigation Measures

Several commenters question whether there is a plan for enforcing and measuring the effectiveness of mitigation measures established in the Draft SEIS. Specific examples of comments include the following:

- *There is no information on efficacy and enforcement of mitigation measures.*
- *What is the plan for enforcing all of the mitigation measures?*
- *The document is silent on what the enforcement plan is for the mitigation measures. Measures should be enforceable "to the letter of the law."*
- *NEPA requires the government agency conducting the environmental review to fully evaluate and quantify the effects of mitigation measures. This analysis is absent from the document. Without this analysis, the public does not have the tools with which to evaluate the document.*

The monitoring and enforcement of mitigation measures is a critical component of NEPA and strongly encouraged by CEQ (CEQ Regulations - 40 CFR 1505.3). SEA also believes that providing for monitoring and enforcement of mitigation measures is critical in large complex projects like this one. To that end, SEA has included three separate mitigation measures in the SEIS specifically addressing the enforcement and monitoring of the mitigation measures to be imposed. The measures include:

- Mitigation Measure 14 stating: TRRC shall participate as a member of a Multi-agency/Railroad Task Force. The purpose of the Task Force shall be to approve the implementation and monitoring of biological (i.e., terrestrial and aquatic) mitigation measures for the entire rail line (Tongue River I, Tongue River II, and Tongue River III), with the exception of such issues concerning the Miles City Fish Hatchery.

  The Task Force will remain active until TRRC certifies to SEA that the rail line construction has been completed and that all construction mitigation measures have been implemented and for a period of two years of rail operations or any other period the Board may impose.

- Mitigation Measure 16 (Third-party Contractor) stating: TRRC shall retain a third-party contractor to assist SEA in the monitoring and enforcement of mitigation measures on an as-needed basis until TRRC has completed project-related construction and for a period covering the first two years of railroad operations or for any oversight period the Board may impose.

- Mitigation Measure 17 (Reporting) stating: TRRC shall submit to SEA no less than every four months, beginning with the effective date of the Board's final decision in Tongue River III and continuing for the first two years of railroad operations, or for any other period that the Board may impose, reports documenting the status of implementation of the Board's final environmental mitigation conditions.

These three mitigation measures together provide a comprehensive, thorough and adaptive approach to monitoring and enforcing the mitigation measures that the Board imposes on the project. The Task Force, whose focus would be biological mitigation measures, would provide a forum for effectively implementing and monitoring the success of the biological mitigation measures. Retention of a third-party contractor would ensure that SEA has the resources and expertise necessary to manage the Task Force and oversee the monitoring and enforcement of all of the mitigation measures that the Board might impose. Finally, by requiring TRRC to provide reports to the Board every four months during construction and for the first two years of operation, as SEA recommends in the Final SEIS, the Board would be kept up to date on how its final mitigation measures are being implemented as construction begins. The reporting required by Mitigation Measure 17 would include where feasible quantification of the effects and success of the applicable measures such as measurement of sedimentation in the Tongue River, loss of habitat, discovery of cultural resources during construction, etc.

Prior to construction, mitigation measures may be refined on the basis of where the final alignment would be located. Changes to the recommended mitigation measures would be examined and evaluated within the framework described above to ensure that all measures would continue to effectively address impacts. This adaptive approach to mitigation allows for refinement of mitigation under the direction of the Task Force to ensure that the effectiveness of the measures is optimized in light of existing conditions.

Master Response 8: Scope of the EIS is too Narrow

Several commenters state that the scope of the analysis is too narrowly focused on the proposed Western Alignment and therefore violated NEPA. Examples of comments included the following:

- *STB has circumvented NEPA by unlawfully narrowing the scope of the supplement to an examination of the environmental consequences of the 17.3-mile Western Alignment and a focused review of Tongue River I and Tongue River II.*
- *The proposed action in Tongue River III is a connected action to Tongue River I and Tongue River II and has no independent utility. Commenters state that, as a result, the projects are being segmented, which is a violation of NEPA.*
- *The scope of this document needs to be broadened to include Tongue River I and Tongue River II because these are connected actions to the proposed action.*
- *STB is using a piecemeal approach to the project. NEPA and the CEQ regulations prohibit using a piecemeal approach. According to Section 1502.4 of CEQ regulations, "Proposals or parts of proposals which are related to each other closely enough to be, in effect, a single course of action" must be evaluated in a single NEPA document.*

The scope of the Draft SEIS is best understood through the decisions that have been made by the Board and the ICC involving this line to date. Tongue River I was approved by the ICC/Board in 1986 [Finance Docket 30186 (Sub-No.1)] authorizing a rail line from Miles City to Ashland. SEA prepared an EIS specific to that project, and the decision in Tongue River I is administratively final.

Tongue River II was an application for a separate project to extend the rail line approved in Tongue River I to Decker. SEA prepared a separate EIS for Tongue River II, which was approved by the Board in 1996 authorizing construction and operation of the Four Mile Creek Alternative [Finance Docket 30186 (Sub-No.2)]. This decision is currently pending judicial review in the Ninth Circuit Court of Appeals. The court proceeding is being held in abeyance pending the Board's decision in Tongue River III.

In 1998, TRRC filed an application proposing an alternative 17.3-mile alignment for the southernmost portion of the line to Decker that had already been approved via the Four Mile Creek Alternative in Tongue River II because it was concerned that the Four Mile Creek Alternative did not offer certain operational efficiencies and concomitant

environmental benefits that could be realized under an alternate routing. This proposal for an alternate routing constitutes a separate project, which is Tongue River III.

Because Tongue River I, Tongue River II, and Tongue River III each represent separate project proposals by TRRC to the ICC/Board that were proposed at different times and for different reasons, it was appropriate to undertake a separate environmental review of each proposal. The rail line authorized in Tongue River I has utility as a rail line that is independent of the extension authorized more than 10 years later in Tongue River II. During the preparation of the EIS for Tongue River II no party suggested the Western Alignment as a potential alternative, so the only build alternatives studied were TRRC's preferred alignment and the Four Mile Creek Alternative. The proposals do not therefore represent a "single course of action," or connected actions, as suggested in the comment.

Since the portion of the Miles City to Decker line that is located north of the proposed Western Alignment would essentially be unchanged under Tongue River III, and the northern portion of the proposed alignment was fully addressed in the EIS that had recently been prepared in Tongue River II, SEA appropriately focused the scope of the Draft SEIS on the proposed Western Alignment and a comparison of the proposed Western Alignment and the Four Mile Creek Alternative, while taking into account and updating the earlier environmental work that had been done in these cases. NEPA does not require environmental work to be redone, and so in effect the Tongue River III document is being tiered onto the environmental work that was already done in Tongue River II. At the same time, given the time that had elapsed since approval of Tongue River I (1986) and Tongue River II (1996), SEA has updated these analyses in the SEIS where appropriate. As described in Master Response 16 below, SEA analyzed TRRC's proposed refinements to the alignment previously approved in Tongue River I and Tongue River II to determine if the refinements would result in any new significant environmental impacts other than those previously assessed in those proceedings and where they would, SEA performed additional analysis. SEA has also reviewed the mitigation measures previously imposed by the Board in Tongue River I and Tongue River II and has made refinements, as appropriate, to clarify intent, to include time frames, and to designate responsible parties for the preparation of required environmental studies. Most of SEA's final environmental mitigation applies to the construction and operation of Tongue River I, Tongue River II, and Tongue River III.

Last, SEA sought public and agency input on the appropriate scope of the SEIS given the somewhat unusual circumstances presented by these cases. Although CEQ's rules for implementing NEPA do not require public scoping for the preparation of supplements, SEA believed that it was appropriate in this case to request comments regarding the proper scope of the Draft SEIS and the potential environmental concerns and issues to be addressed. The actions taken by SEA to obtain comments are discussed in Section 1.5 of the Draft SEIS. During the scoping process, SEA fully explained the approach that it has undertaken in preparing the Draft SEIS. The final scope published by SEA in the *Federal Register* (February, 1999 and amended August, 2003) reflects the comments received from the public. SEA believes that its approach here is reasonable and has resulted in a full and comprehensive environmental review of all aspects of this project.

Master Response 9: Determination of Public Convenience and Necessity

Commenters raised concerns about the need for the proposed rail line between Miles City and Decker, indicating that there are existing rail lines that already serve coal mines in Wyoming. Commenters also make the case that there is little need for the rail line because the original rail line approved in Tongue River I from Miles City to Ashland has been permitted since 1986 but has not yet been constructed.

In Tongue River I, the ICC, following an appropriate environmental review, approved construction and operation of a new rail line from Miles City to Ashland pursuant to 49 U.S.C. 10901 under a statute providing that the ICC had to find that the public convenience and necessity "permitted" the construction of a proposed line. Then in Tongue River II, the Board approved construction and operation of a rail line from Ashland to Decker after completing another environmental review and finding that construction and operation of the Four Mile Creek rail line was not inconsistent with the present and future public convenience and necessity in accordance with 49 U.S.C. 10901, as amended in 1995 (which now establishes a presumption that rail construction applications are to be granted). Congress established a new permissive licensing policy for rail constructions in 1995. Railroads must still seek board authority to construct new lines and the public convenience and necessity criterion remains. But the burden of satisfying the statutory test has been made easier, with the result that rail construction proposals are now to be approved unless found not in the public interest.

As confirmed by many court cases, such as Mid States Coalition For Progress v. Surface Transportation Board, 345 F.3d 520 (8th Cir. 2003), Congress gave authority to the STB to make the decision on whether a construction project should be approved and does so by considering and weighing safety and environmental concerns against transportation concerns in evaluating the public interest.

TRRC's proposed changes to Tongue River II in this application (request to construct and operate the proposed Western Alignment instead of the Four Mile Creek Alternative) necessitates that the Board now take a hard look at the potential environmental impacts of that project and determine whether Tongue River III meets the criteria of 49 U.S.C. 10901, as amended in 1995. Although the Board considers and weighs environmental concerns in deciding whether to authorize a rail construction project, the Board conducts its evaluation of the transportation merits, including need for the line and financial viability, separate from SEA's NEPA analysis (see Mid States). Whether there is a need for the proposed line is not an issue before SEA in its environmental review. As discussed in Section 1.2, the Board will address the transportation merits and determine whether Tongue River III is consistent with the present and future public convenience and necessity, in accordance with 49 U.S.C. 10901, as amended in 1995, after the environmental review of Tongue River III is complete.

Master Response 10: Cost-Benefit Analysis

- *Commenters say that a more clear and comprehensive cost-benefit analysis is needed in the document to better understand the economic and operational benefit of the project.*
- *Commenters call for additional evaluation of the project's unquantified environmental impacts on values and amenities to allow for a better comparison with the economic and operational benefits.*

- *Commenters state that without this information, the public and decision-makers can't assess whether the economic and operational improvements outweigh impacts on values and amenities.*

In evaluating rail construction projects and other transportation projects, the Board considers several factors such as whether there is a public demand or need for proposed service, whether the applicant is financially able to undertake the construction and provide the service, and whether the proposal is in the public interest.[3] The Board considers safety and environmental concerns (addressed by SEA in the SEIS) when evaluating whether the proposal is in the public interest. In other words, ultimately the Board determines, based on the entire record (both merits and environmental) whether the benefits outweigh the environmental impacts or vice versa.

In keeping with the Board's consistent practice, SEA did not prepare a comprehensive cost-benefit analysis in the Draft SEIS. SEA's approach in the Draft SEIS is consistent with the CEQ guidelines on this subject, which provide:

> For purposes of complying with the National Environmental Policy Act, the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations. In any event, an environmental impact statement should at least indicate those considerations, including factors not related to environmental quality, which are likely to be relevant and important to a decision.

To properly inform the public about all aspects of this project, the Draft SEIS does discuss the purpose and need of the proposal and contains an appropriate analysis of anticipated economic and operational benefits, and project costs, as well as potential environmental effects, and presents this information in a comparative manner. Examples of this include the following:

- Table 1-1 on page -xxi-of the Draft SEIS provides a comparison of key environmental issues for the proposed Western Alignment and the Four Mile

[3] See testimony of Roger Nober, former Chairman of the Surface Transportation Board, Hearing on Transportation of Nuclear Waste to Yucca Mountain Repository, March 15, 2004, Website, http://www.house.gov/transportation/rail/0-3-05-04 /nober.html.

Creek Alternative. Topics covered in the table include, but are not limited to, effects on land use, soils and geology, transportation and safety, noise and vibration, socioeconomics, and energy (fuel) usage.

- Table 2-1 on page 2-3, of the Draft SEIS provides a comparison of construction and operation issues related to the two alternatives, including estimated project costs for the proposed Western Alignment and the Four Mile Creek Alternative.
- Section 2.2 of the Draft SEIS includes a discussion of the projected tax and employment benefits resulting from the project. For example, TRRC estimates that construction of the proposed rail line from Miles City to Decker would create a demand for 530 workers with an estimated direct payroll of $28.9 million for the proposed Western Alignment and $25.4 million for the Four Mile Creek Alternative during the peak year of construction.

Section 4.3.9 (Environmental Consequences-Socioeconomics) of the Draft SEIS provides additional detail. Examples of key data in this section include, but are not limited to, the following:

- Table 4-40 on page 4-162 of the Draft SEIS, which estimates the average labor (worker) requirements for the construction period;
- Table 4-41 on page 4-163 of the Draft SEIS, which estimates the labor demand by community (i.e. Miles City) during the construction period;
- Table 4-42 on page 4-164 of the Draft SEIS, which estimates the distribution of annual wages among communities;
- Tables 4-49, 4-50, and 4-51 on page 4-173 of the Draft SEIS, which estimate the fiscal revenues from property taxes on the Tongue River Railroad that would be generated in Rosebud, Big Horn, and Custer Counties under either the proposed Western Alignment or the Four Mile Creek Alternative.

Combined with the environmental effects analysis provided in the remainder of Section 4.3 of the Draft SEIS, reviewing parties are able to evaluate the costs, benefits and environmental effects of each of the two alternatives before the Board in relation to each other.

Concerns related to how to weigh the transportation benefits with the potential environmental effects of building a rail line in Tongue River Valley were repeatedly raised in the comments on the Draft SEIS. But the weighing process is for the Board, not SEA. In reaching its final decision on whether to approve Tongue River III, the Board will balance the concerns that have been raised, taking into account the foreseeable benefits, as well as the potential environmental effects identified during the course of the environmental review.

Master Response 11: Loss of Competitive Advantage Held by Montana Coal

Commenters state that the rail line would reduce the distance that Wyoming coal must travel to markets in the Midwest, which would allow for lower transportation costs for Wyoming coal. The rail line would therefore hurt the Montana coal economy and would result in the loss of jobs and revenues at existing Montana mines that would not benefit from the reduction in rail miles to market.

The purpose of an environmental analysis under NEPA is to assess physical impacts that a project would have on the environment. In such analyses, economic and social effects are discussed to the degree that they are interrelated to the physical effects on the environment. As stated in 40 C.F.R. 1508.14 of CEQ's NEPA regulations:

> Economic or social effects are not intended by themselves to require preparation of an environmental impact statement, however when an EIS is done and economic or social and natural or physical environmental effects are interrelated, then the environmental impact statement will discuss all these effects on the human environment.

In this case no one has claimed that there is an interrelationship between the project's physical effects on the environment and of the loss of any competitive advantage that Montana coal now has, including associated job losses in Montana. Thus, the discussion of socio-economic conditions of the project area and socioeconomic effects in Sections 4.2.9 and 4.3.9 of the Draft SEIS respectively, is entirely appropriate.

Transportation-related issues, including issues such as the potential economic effects of the project on a state's coal economy, are considered by the Board when it determines whether a proposed project is inconsistent with the present and future public convenience and necessity, as required by 49 U.S.C. 10901.

Master Response 12: Effects of the Project on Erosion and Sedimentation Rates

Many commenters suggest that erosion, sedimentation and the resulting water quality degradation will be more adverse than what is presented in the Draft SEIS.

The Draft SEIS thoroughly examines erosion, sedimentation and effects on water quality from the construction and operation of the proposed rail line. Using widely accepted modeling tools, as described below, the potential impacts of soil erosion were modeled and compared to the potential impacts of the Four Mile Creek. Where appropriate, a conservative approach was taken by overstating, rather than understating the impacts.

The Draft SEIS also includes recommended mitigation measures that would require the implementation of revegetation, erosion prevention, and other best practices designed to mitigate potentially adverse effects. Success rates for the best management practices (BMPs) included in the Draft SEIS have been established by the National Resource

Conservation Service and indicate the likelihood that use of practices such as sediment basins, berms, filter strips, covers, diversion structures, sediment control fences, straw bale dikes, and seeding measures will be effective in proecting against erosion, sedimentation, and resulting water quality degradation as a result of this project. Thus, SEA reaffirms the conclusion in section 4.3.3.2 of the Draft SEIS, that the implementation of BMPs during construction and subsequent revegetation of disturbed slopes would reduce potential soil loss due to erosion and sedimentation to near existing levels.

Revised Universal Soil Loss Equation (RUSLE)

SEA's analysis of erosion and sedimentation for the SEIS is based on the (RUSLE), which is included in Appendix I of the Draft SEIS. The RUSLE predicts the long-term average annual rate of erosion based on factors including rainfall, soil type, and topography. The equation was developed for use in selected cropping and management systems, but is also applicable to non-agricultural conditions.

RUSLE resulted from a 1985 workshop of government and university soil-erosion scientists. The workshop participants concluded that the original universal soil loss equation should be updated to incorporate the considerable amount of erosion information that had accumulated since the original publication of the equation in 1978.

The RUSLE rating of the Tongue River Project,[4] without mitigation, ranges from 26.9 to 56 tons/acre/year. As noted above, the rating would be lowered to near current levels (1

[4] As shown in Appendix I of the Draft SEIS, the RUSLE equation is as follows:

$$A = R \times K \times LS \times C \times P$$

"A" represents the potential long term average annual soil loss in tons per acre per year. Naturally occurring soil loss, as expressed by this equation, can range from less than 3 tons/acre/year to greater than 15 tons/acre/year.[4] This range is indicative of soil loss on undeveloped land. Sandy soils in a desert may have a RUSLE rating in the order of 10-15 tons/acre/year that would reflect high erodability. Clay soils located on level terrain may have a RUSLE rating of 3-5 tons/acre/year, which would reflect low erodability.

The factors used to represent the conditions in the Tongue River Valley are discussed below.

- The variable R in the soil loss equation represents rainfall. The R is calculated by the summation of the energy in the rainfall and the maximum half hour intensity for the rainstorm. The greater the intensity and duration of the rain storm, the higher the erosion potential. The R-value can range from a high of 700 in Louisiana to 10 for parts of New Mexico and the mountains in Washington State and Montana. The Tongue River Valley climatology is represented by an R-factor of 18-19.
- The variable K represents the erodibility of soil. The K-factor can range from 0.05 to 0.65 with fine sand being the most erodible. ("Policy Issues in Rural Land Use", Department of Agricultural Economics, Cornell Cooperative Extension, April 1998.), The soils in the Tongue River valley are a combination of deeper soils which consist of rock, and surface soils that are more erodible. A K-factor of 0.20-0.34 was used in this analysis in order to be conservative.
- The variable C represents a ratio between the rates of erosion of the current condition to the rate of erosion of a bare soil. The variable C is also dependent on rainfall timing. A C-factor of 1.0 represents bare soil and was used in the Tongue River calculation in order to represent a worst-case scenario.
- The variable LS represents the slope length (L) and steepness (S) factor. The combined LS-factor in RUSLE represents the ratio of soil loss on a given slope length and steepness to soil loss from a slope that has a length of

to 3 tons/acre/year) through implementing and monitoring the effectiveness of the BMPs identified in the analysis.

Based on the RUSLE analysis, SEA included the following mitigation measures in the Draft SEIS to address potential impacts related to soil erosion and sedimentation and confirms in this Final SEIS that it believes that the Board should impose the 8 conditions summarized below:

1. Mitigation Measure 19 would require revegetation of the right-of-way and the inclusion of erosion and sediment control plans in preconstruction planning. This measure addresses the potential effects related to erosion by wind and water.

2. Mitigation Measure 23 would require TRRC to conduct stream surveys to determine the potential impacts of erosion and sedimentation on state species of concern and then consult with the Montana DNRC on appropriate mitigation. Consultation with the Montana DNRC would identify methods to be used by TRRC to prevent substantial adverse effects on water quality

3. Mitigation Measure 36 would require TRRC to prepare a Stormwater Pollution Prevention Plan (SWPPP). The plan review and approval by the Montana Department of Environmental Quality and would identify the methods to be used by TRRC to prevent substantial adverse effects on water quality.

The SWPPP could, as appropriate, include the use of sediment basins, berms, filter strips, covers, diversion structures, sediment control fences, straw bale dikes, seeding, sodding, and/or other control structures or BMPs. The SWPPP would identify and locate the BMPs to be used during and after construction to control sediment discharges to surface waters. The SWPPP would include a description of storm water BMPs appropriate for the rail line, which TRRC would be required to implement.

4. Mitigation Measure 37 would require that TRRC avoid saline and sodic soils in its construction of the entire rail line, to the maximum extent feasible, and that TRRC use topsoil conducive for revegetation to reduce erosion.

5. Mitigation Measure 40 would require TRRC to determine the potential for erosion at proposed cut and fill locations. The analysis would compare slope lengths and gradients to determine the optimum gradients for minimizing erosion at each proposed cut and fill location.

72.6 ft and a steepness of 9%, where all other conditions are the same. The values of LS are not absolute values but are referenced to a value of 1.0 at a 72.6-ft slope length and 9% steepness. The estimated average slope lengths for each alignment and the average slope gradients were used to determine the baseline LS-factor range of 3.97 to 4.21 for the proposed Western Alignment and 2.73 to 2.76 for the approved Four Mile Creek Alternative.

- The variable P is the support practice factor, which takes into account the effect of surface conditions, such as contouring, and terracing. The P-value can range between 0, which represents no slope, and 1 which represents a slope steeper than 25 percent. For the proposed Western Alignment and approved Four Mile Creek Alternative a P-value of 1.0 was used.

6. Mitigation Measure 41 would require TRRC to assess the potential for construction and operation of the proposed Western Alignment to generate, transport and deliver sediments to a given body of water.

7. Mitigation Measure 42 would require TRRC to conduct a soil survey along the entire alignment, including a review of soil survey data from Big Horn and Rosebud counties.

8. Mitigation Measure 43 would require that TRRC submit detailed information about its plans and construction, for review and approval, to applicable regulatory agencies (e.g., Water Protection Bureau of the Montana Department of Environmental Quality) prior to construction.

SEA continues to believe that, with these recommended mitigation measures, the effects of Tongue River III on erosion and sedimentation rates would not be significant. Consequently, SEA believes that the project would not have a significant impact on water quality in the Tongue River and in its adjacent tributaries.

Master Response 13: Imposition of a 3-year Time Limit on Construction

Several commenters suggest that the Board should again impose a time limit on the construction of the project. The commenters note that a three-year time limit was originally imposed by the Board as part of its approval of Tongue River II.

Making recommendations on time limits for the construction of rail lines is not within the scope of the SEA's environmental review under NEPA unless time limits are recommended to prevent or minimize a potential adverse environmental effect of the project, such as a requirement to avoid construction during the nesting period of a particular species.

Transportation-related issues, such as whether a time limit on construction is needed, are considered by the Board in determining whether to grant final approval to a rail construction project, and, if so, what conditions to place on the Board's approval, based on the record that has been presented.

Master Response 14: Effect of the Project on the Battle Butte Battlefield

Commenters suggest that the effect of the project on the Battle Butte Battlefield was not addressed sufficiently in the Draft SEIS, and that the project would have a substantial adverse effect on this resource that cannot be mitigated without rerouting the rail line around the site.

Since the conclusion of the Board's proceeding in Tongue River II, two relevant actions have occurred that relate to the Battle Butte Battlefield. First, in 1997, BLM defined a portion of the Wolf Mountain Battlefield, also known as the Battle Butte Battlefield, as an Area of Critical Environmental Concern. Second, in 2001 the site was placed on the

National Register of Historic Places. The site is nationally significant because of its association with the Sioux Wars and its role in the subsequent surrender of the Sioux and Cheyenne. The site is also important because of its association with Crazy Horse and General Nelson A. Miles, who were two important individuals during the Sioux Wars.

The alignment approved in Tongue River II would pass through the center of Battle Butte Battlefield. The refinements proposed as part of Tongue River III for this portion of the Tongue River II alignment would place the rail line approximately 1,000 feet farther to the south. This proposed realignment would move the rail line farther away from the military encampment and military positions located near the river, and would place the rail line in areas of the site that were associated with Indian positions.

The proposed refinements to the Tongue River II alignment would also place the rail line farther from an identified Cheyenne grave, and this additional distance or buffer achieved by the proposed realignment make it somewhat more favorable. However the location of both the Four Mile Creek alignment and the proposed Western Alignment would adversely affect the Cheyenne grave site.

As shown in Figure 5-3 of the Draft SEIS, neither alignment would pass through the BLM's established Area of Critical Environmental Concern. The Programmatic Agreement (PA) has been signed by all parties. The fully executed Programmatic Agreement, which is included in this Final SEIS as Appendix C, includes methods to address the effect of the rail line on the site, including preparation of a Class I literature survey and a Class III pedestrian survey. Based on the results of the surveys, a treatment plan would be developed in consultation with the SHPO to avoid or mitigate the impacts of the rail line to this site.

Several comments were received on the Draft SEIS asking for a re-routing of the alignment via a bypass that would avoid the battlefield site entirely. In response to these comments, an analysis was undertaken by TRRC and Mission Engineering (TRRC's consultant in this proceeding). The analysis is included in this Final SEIS as Appendix I.

Based on this analysis, TRRC determined that bypass routings either to the north/west or east/south of the National Register of Historic Place (NRHP) boundary would be infeasible from an engineering perspective and inconsistent with the objective of the TRRC line, which is to efficiently transport coal using unit coal trains. These reasons are summarized below.

TRRC concluded that the main concern associated with a bypass route is the amount of cut and fill that it would require. According to TRRC, an analysis of the bypass alternatives showed that either a north/west or east/south bypass would involve substantial topographic and elevation changes. As a result, the cut and fill volumes for both potential bypass routes would be significantly greater than either the originally proposed or the refined alignment for Tongue River II. In fact, the amounts of excavation and embankment would be increased by tens of millions of cubic yards in order to meet the TRRC engineering design criteria for curvature of rail grades. This

increase would be inconsistent with the criteria used to design Tongue River I, Tongue River II, and Tongue River III , which seek to avoid unnecessary and avoidable disturbance to the landscape, and the environmental issues that would be associated with such cuts and fills.

According to the TRRC, specific impacts or changes that would occur if the alignment were rerouted to the north/west of the NRHP boundary include the following:

- The overall rail alignment would be increased by 4,700 feet;
- The crossing of the Tongue River would require a 4,600-foot long fill across the Tongue River alluvial valley floor, exceeding fill heights of 90 feet; and
- A minimum of 8 ridges and valleys would have to be crossed with maximum cut lengths of up to 4,250 feet and exceeding 260 feet in depth at maximum.

Specific impacts or changes that would occur if the alignment were rerouted to the east/south of the NRHP boundary include the following:

- The overall rail alignment would be increased by 6,400 feet; and
- A minimum of 6 ridges and valleys would have to be crossed with maximum cut lengths of up to 12,500 feet and exceeding 620 feet in depth at maximum.

Tongue River III contemplates a maximum cut length of 1,100 feet with a maximum 75 foot depth, which is substantially less than either bypass route for Tongue River II described above. Additional impacts or differences associated with a north/west or east/south bypass route include the following:

- A more circuitous alignment;
- Grade and curvature demands that are inconsistent with the project engineering criteria and with safe rail operations;
- Significantly more disruption to the landscape;
- Increased amount of total private and federal land disturbance by a minimum of 40 acres, 14 acres of this being irrigated farm land, based on an assessment of the amount of land that would be disturbed in connection with the cuts and fills described above;
- Increased likelihood of derailments due to increased curves and grades;
- Greater air quality impacts associated with train operations due to increased fuel consumption resulting from greater length of the line;

- Significantly greater construction expense; and

- Higher operating (largely, fuel and labor) and maintenance costs.

Based on the reasons identified above, TRRC concluded that an attempt to re-route the alignment around the NRHP boundary would present several difficult problems from an engineering and environmental standpoint. After carefully reviewing the information provided by TRRC, SEA agrees that a bypass routing for Tongue River II is not feasible and should not therefore be pursued. The NRHP boundary in relation to the rail alignment is shown in Figures A-71 to A-73 in Appendix A of this Final SEIS.

Master Response 15: Effect of the Project on Native Americans

Several commenters state that the proposed Tongue River rail line would disproportionally affect Native Americans and that clear disclosure of direct, indirect, and cumulative impacts of construction and operation on Tribal Trust resources is needed.

SEA's analysis presented in the Draft SEIS includes a thorough evaluation of potential direct, indirect, and cumulative effects to Native Americans. As described in Section 4.3.5.2 and 4.3.5.3 of the Draft SEIS, SEA consulted with Northern Cheyenne, Crow, and other Tribal representatives to identify potentially sacred sites within 1,500 feet of both the Four Mile Creek and proposed Western alignments so that potential effects to Native Americans could be evaluated and mitigated. During the Board's proceeding in Tongue River II, potential effects resulting from construction and operation of the rail line at issue there were analyzed and this information was utilized in the development of a Programmatic Agreement (PA) for Tongue River II that would guide the identification and treatment of impacts along the entire rail line corridor from Miles City to Decker via the Four Mile Creek Alternative.

For Tongue River III, SEA developed a new PA under Section 800.14 of the Section 106 Regulations (36 CFR 800) of the NHPA, which would apply to construction and operation of the entire rail line from Miles City to Decker via either the proposed Western Alignment or the approved Four Mile Creek Alternative. The PA sets forth detailed requirements for addressing the impacts to Native Americans resulting from the construction and operation of either the proposed Western Alignment or the approved Four Mile Creek Alternative, as well as the remainder of the rail line to Miles City. The PA sets out a process for the identification and treatment of cultural resources, including archeological, architectural, historic, and cultural properties. The PA requires completion of detailed on-the-ground surveys of the railroad ROW prior to construction; development of a Treatment Plan in consultation with the parties to the PA; and procedures for reviewing and addressing objections and/or disagreements. The new PA will replace the previous PA developed for Tongue River II. The PA been signed by all the parties. The fully executed PA is included in this Final SEIS as Appendix C. SEA is confident that the PA, which reflects public input and extensive consultation with tribal

representatives, assures that the interests of Native Americans will be adequately protected.

Master Response 16: The Need for a New EIS

Several commenters state that a new EIS should be prepared that covers the entire alignment from Miles City to Decker.

As stated in Section 1.4 and 1.5 of the Draft SEIS, SEA concluded that the preparation of a Supplemental EIS is the appropriate means of conducting the environmental review of TRRC's application for the proposed Western Alignment in Tongue River III.

The potential environmental effects of Tongue River I and Tongue River II have been thoroughly studied and presented in the previously prepared EISs. There is no need to redo, in Tongue River III, the analysis that was previously done in Tongue River I and Tongue River II unless there may have been significant changes. As discussed in the Draft SEIS on page 1-13 and pursuant to the Council on Environmental Quality's regulations for implementing NEPA, a Supplement shall be prepared where, as here, significant new information that is relevant to environmental concerns is presented after a Final EIS has been prepared. Moreover, in the Draft SEIS, SEA has updated analyses where existing environmental conditions or effects may have changed substantially since the completion of the Final EISs in Tongue River I and Tongue River II. Specifically, SEA concluded that new analysis of information considered in Tongue River I and Tongue River II should be included in the SEIS for Tongue River III under the following three circumstances:

- Where environmental consequences or requirements have changed in a manner warranting the updating and augmenting of analysis for Tongue River I or Tongue River II.

- Where TRRC has made adjustments to the alignment previously considered in the Tongue River I and Tongue River II EISs that require additional environmental analysis because they might result in significant environmental impacts not addressed in those previous EISs.

- Where further environmental analysis is appropriate to assist the cooperating agencies in their environmental review and planning processes, as specifically requested by those agencies.

Accordingly, new analyses of Tongue River I and Tongue River II were conducted in the Draft SEIS for the following issue areas: Soils and Geology, Air Quality, Noise and Vibration, Native Americans, Socioeconomics, the Miles City Fish Hatchery, and Biological Resources. References to additional or updated analyses are found throughout the Draft SEIS.

In short, in preparing the Draft SEIS for Tongue River III, SEA completed a thorough and extensive review of the potential effects of construction and operation of the Western Alignment, compared those potential effects to the potential effects of Tongue River II, and also updated information where appropriate for Tongue River I and Tongue River II. SEA is also recommending that the comprehensive list of mitigation measures included in the Draft SEIS apply uniformly to the entire rail line from Miles City to Decker, Montana, in order to ensure consistency in mitigation requirements for the entire line between Miles City and Decker. This approach was reasonable and appropriate.

Master Response 17: Financial Stability of the Tongue River Railroad Company

Several commenters express concern that the financial backing of the project is not stable.

The financial viability of a project is not considered as part of the environmental review under NEPA but is considered by the Board in determining whether the project is inconsistent with the public convenience and necessity, as required by 49 U.S.C. 10901.

Master Response 18: Land Use Effects of the Project

Commenters express several concerns related to land use including the following:

- *Easement versus fee title transfer.*
- *How will the land be acquired for the right-of-way?*
- *The project will adversely affect property values.*
- *The need for roadway maintenance will increase.*
- *Cattle crossings will be problematic.*
- *Who will be responsible for fire suppression costs and lost property?*
- *Who will be operating the fire equipment mentioned in the document?*

Easement versus fee title transfer

If this project is approved, TRRC will then acquire the property needed to build the line by purchasing it from landowners or if necessary through condemnation under State law. If lands are acquired via easement as opposed to fee title, full use of the lands would revert to the former owners upon abandonment of the railroad.

Acquisition of property and the effect on property values

Regarding the acquisition of private property for the ROW, TRRC states that it would enter into negotiations with each property owner as detailed in recommended Mitigation Measure 1 (Direct and Indirect Land Loss). The appropriate market-value compensation for each property would be determined by a qualified market economist.

Potential changes in property values do not constitute a physical effect on the environment that is addressed under NEPA. The negotiation for the acquisition of

properties would include consideration of any effect of the rail line on the subsequent fair market value of the property.

Roadway Maintenance
The Final SEIS includes two new recommended mitigation measures to minimize the impact of railroad construction on local roadways. Mitigation Measure 53 would require contractors to provide laborers with transportation to the worksite from a central location. Mitigation Measure 54 would require TRRC to confine construction traffic to a temporary access road within the ROW, and provided that this is not possible, TRRC would make arrangements with landowners or agencies to gain access via private roadways.

TRRC proposes to build two temporary construction camps as part of the project. One camp would be constructed in or near Ashland, and a smaller one with trailer hookups, shower, laundry, and commissary facilities would be located on the south end of the line. TRRC expects that since the construction centers would be self-contained they would have limited effect on the surrounding community. The total number of new construction workers that might choose to reside in the communities of Sheridan or Miles City, instead of the construction camps, is estimated by TRRC to be less than 100, thereby reducing the short term effects of this project on local roadways and communities.[5] In short, SEA believes that the concerns raised by commenters related to increased roadway maintenance as a result of this project have been fully addressed.

Cattle Passes
Cattle passes are commonly used on roadways and rail corridors throughout the country, and according to the Department of Transportation, are appropriate devices with which to route cattle across roadways and railroads. As discussed on page 4-137 of the Draft SEIS, train frequency is estimated to be seven round-trip trains per day or 14 train movements in a 24-hour period, with an additional round trip from Ashland north to Miles City. This equates to the passing of a train on the line every hour and a half, approximately. If a cattle owner chose to move his or her cattle between pastures over the rail line versus underneath in the crossings that would be provided by TRRC, SEA believes that the 90-minute timeframe between trains would allow most, if not all cattle owners to move their cattle across the railroad.

Several cattle owners expressed concern regarding the potential for train kills of cattle during crossings and at other times. Under Montana Code Section 69-14-701, if a railroad corporation does not build and maintain a right-of-way fence, and its engines or cars, because of the lack of a fence or maintenance of a fence, kill or maim cattle or other domestic animals upon its line of road, the railroad must pay to the owner of the cattle or other domestic animals a fair market price for the animal, unless the harm to the animal occurred through the neglect or fault of the owner of the animal killed or maimed**.** Please refer to the language of the statute for further information.

[5] See page 4-13 of TRRC's Environmental Report (Exhibit H of the Tongue River III application).

Fire prevention and response
Recommended Mitigation Measures 9-13 address potential impacts related to wildfires. These measures require that TRRC establish a Wildfire Suppression and Control Plan, a fire access road, and a mobile communications system between emergency fire responders and property owners. Recommended Mitigation Measures 60 and 61 address emergency response procedures. Mitigation Measure 60 would require TRRC to prepare an emergency response plan pursuant to state guidelines. The plan would include a roster of agencies and persons to be contacted in the event of specific types of emergencies. Mitigation Measure 61 would require that SEA share its draft plan with appropriate local, state, and federal agencies and incorporate their comments into the final emergency response plan.

Master Response 19: Availability of Water During Construction

Several commenters note that the Draft SEIS erroneously states that the project could rely upon allocations from the Tongue River Water Users Association, because this association does not supply water for non-agricultural uses. The commenters ask for confirmation of where water would be obtained for construction purposes.

As the commenters correctly note, construction-period water would not be obtained from the Tongue River Water Users Association, which does not supply water for non-agricultural uses. This sentence is deleted from the Draft SEIS.

The water needed for construction would largely be drawn from the Tongue River Resevoir's annual discharge. As stated on page 4-115 of the Draft SEIS, the estimated need for water during construction would represent at most 0.25 percent of the Tongue River Reservoir's annual discharge for the proposed Western Alignment and 0.13 percent for the Four Mile Creek Alternative, either of which is not considered to be a significant water withdrawal. As further explained on page 4-115, if construction of the rail line coincides with a drought and consequently discharges from the reservoir are not available, construction water could be obtained through an agreement with the Northern Cheyenne Tribe, whose water purchase contract under the Northern Cheyenne-Montana Water Rights compact has increased from 7,500 acre-feet per year to 27,500 acre-feet per year.

TRRC has provided additional information regarding how water would be obtained for construction activities. This additional information is included in Appendix I of the Final SEIS; specifically, TRRC explains that water for constructing the TRRC line would be obtained according to the water allocation process established by Montana's Water Use Act of 1973. According to the Montana State Code, Section 85-2-311(1), the Montana DNRC will approve a water-use permit for an appropriation of less than 5.5 cubic feet per second and 4,000 acre-feet of water if the application shows by a preponderance of evidence that certain criteria, which are listed in full in Appendix I, would be met. The application for a water permit would be prepared as part of the final engineering and design process for the line.

Master Response 20: Total Maximum Daily Load (TMDL)

Several commenters note that the State of Montana has compiled new data regarding the Total Maximum Daily Load identified for the Tongue River and that the Draft SEIS did not report this information.

A total Maximum Daily Load (TMDL) is the total amount of a pollutant that a water body may receive without exceeding water quality standards. TMDL studies are performed only on water bodies that are found to be impaired, i.e., below EPA water-quality standards. Bodies of water that EPA finds to be impaired are placed on a list referred to as the 303(d)[6] list that is maintained by EPA.

The 2004 State of Montana 303(d) List indicates that TMDLs will be required for the following conditions: (1) excessive algal growth in the Tongue River Reservoir; and (2) siltation problems in Hanging Woman Creek. Other previously listed impairments in the Tongue River planning area may be reevaluated or eliminated based on new data. These include: (1) suspended solids in the Tongue River Reservoir; (2) metals, salinity and suspended solids in the middle and lower Tongue River and Otter Creek; (3) metals and salinity in Hanging Woman Creek; and (4) salinity and water temperature problems in Pumpkin Creek.

A Water Quality Assessment Report is being prepared by the Montana Department of Environmental Quality to determine the current status of all previously identified 303(d) water bodies and to confirm whether TMDLs are necessary. Montana DEQ is specifically evaluating the need for sediment TMDLs for the Tongue River Reservoir, the middle and lower Tongue River mainstream, and Hanging Woman Creek. Pending completion of sediment TMDLs for some or all of these segments, requirements for potential new sediment (or other pollutant) sources such as the proposed action have been established in the Montana Water Quality Act. The Act (MCA 75-5-703 (10)(c)) states that:

> Pending completion of a TMDL on a water body listed pursuant to 75-5-702: (c) new or expanded nonpoint source activities affecting a listed water body may commence and continue if those activities are conducted in accordance with reasonable land, soil, and water conservation practices.

"Reasonable land, soil, and water conservation practices" are defined as "methods, measures, or practices that protect present and reasonably anticipated beneficial uses. These practices include, but are not limited to, structural and nonstructural controls and operation and maintenance procedures. Appropriate controls may be applied before, during, or after pollution-producing activities" (ARM 17.30.602 (24)).

[6] 303(d) is a section of the Clean Water Act that requires each state to identify impaired water bodies and develop TMDLs to aid in the enhancement of water quality.

The draft Water Quality Assessment Report, which is expected to be released for public comment in fall 2006, is expected to confirm that TMDLs are required for the lower Tongue River. A date for establishing what the TMDLs will be for the lower Tongue River is not currently available.[7] The current status of TMDL development for the Tongue River is available at www.Deq.state.mt.us/wqinfo/TMDL/TonguePowderRosebudTMDL.asp

Given the lack of specific TMDLs for the Tongue River planning area at this point, SEA cannot evaluate the consistency of the proposed action with TMDL requirements at this time. However, recommended Mitigation Measure 36 would require that TRRC adhere with the Montana Water Quality Act by obtaining a Montana Pollutant Discharge Elimination System general permit for stormwater discharges associated with construction activity. Under the conditions of this permit, TRRC would be required to comply with TMDL requirements after they are finalized.

In summary, requirements already exist under state law for ensuring that the proposed action will be consistent with the TMDL process pending completion of the actual TMDLs, and recommended Mitigation Measure 36 assures that the requirements of the State Act will be followed in this case.

SEA also has proposed mitigation measures pertaining to sediment production and delivery, which are discussed in Sections 4.3.3.2 and 4.3.4.2 of the Draft SEIS (p. 4-103, 4-107, 4-111-112). These mitigation measures (36 and 38 through 47) would require developing a SWPPP (Stormwater Pollution Prevention Plan), consulting with local, state and federal agencies, applying numerous best management practices, and obtaining certain approvals.

The need for coordination between the Board, TRRC, Montana Department of Environmental Quality and EPA with regard to the proposed project and its relationship to TMDL development in the Tongue River watershed will be adequately addressed through the agency consultation process described in proposed Mitigation Measures 36 and in Measures 43-45 (discussed at pages 4-103, 4-111, and 4-112 of the Draft SEIS).

Master Response 21: Adequacy of Cumulative Impact Analysis

Several comments were made concerning the cumulative impact analysis in the Draft SEIS, including the following:

- *The effect of Coal Bed Methane (CBM) wells on water quality, sedimentation, and soil erosion have not been fully taken into account, especially in conjunction with the increase in high-sodium CBM produced water going into the river.*

- *Mitigation measures do not adequately address Total Maximum Daily Loads and changes in water flow relative to coal bed methane development.*

[7] *Personal Communication.* George Matthews, MT DEQ, August 9, 2006.

- *New studies or a new EIS are needed to determine the effects of both the Tongue River Railroad mining and CBM simultaneously on the Tongue River Valley and its agricultural economy.*

- *The indirect and cumulative environmental impacts of potential reasonably foreseeable future coal mining that may be induced or facilitated by the Tongue River Railroad should be completely analyzed and presented in accordance with 40 CFR 1508.7 and 1508.8.*

- *Transportation and coal bed methane: "It defies logic to argue that methane development will not have cumulative transportation impacts on roads in Rosebud, Big Horn, and Custer Counties."*

SEA conducted a thorough and comprehensive analysis of the project's cumulative and indirect effects as part of the Draft SEIS (Chapter 6). In doing so, SEA focused on the potential cumulative effects that could be created by the TRRC project in combination with statewide Coal Bed Methane (CBM) development that was approved by the BLM and MTDEQ in 2003. As explained in the Draft SEIS, the potential environmental effects associated with statewide CBM development were analyzed in the Final Statewide Oil and Gas Environmental Impact Statement (January 2003). Figure 6-2 of the Draft SEIS identifies the proposed location of coal bed methane gas activity in relation to the project area for the proposed Western Alignment and the Four Mile Creek Alternative and the Tongue River.

Effect on water quality, sedimentation and erosion
Of particular concern to many commenters is the potential for cumulative water quality effects. Section 6.6.4 of the Draft SEIS provides a thorough evaluation of the potential cumulative hydrology and water-quality effects of CBM development and rail line construction and operation, and concludes that the cumulative effects on hydrology and water quality within the Tongue River watershed would not be significant. SEA based this conclusion on the fact that BLM, in issuing its Record of Decision for the CBM gas wells, has required the development of a Water Management Plan for exploratory wells and plans of development (PODs). Additionally, all well operators must obtain certification from MDEQ under Section 401 of the Clean Water Act for any disposal of water. In accordance with BLM and MDEQ requirements, the Water Management Plan must assure that there is no degradation, as defined by MDEQ, to water quality in any watershed. SEA believes that these existing requirements, combined with the mitigation measures recommended by SEA in the SEIS (Mitigation Measures 43-51) to mitigate hydrology and water-quality effects of the rail line construction and operation, would effectively mitigate potential cumulative hydrology and water quality effects.

For further discussion of soil erosion, please refer to Master Response 12, "Effects of the project on erosion and sedimentation rates."

Effect on TMDLs and water flow rates
Master Response 20, "Total Maximum Daily Load (TMDL)" provides a full discussion of the status of the TMDL process established in Montana by the Department of Environmental Quality.

Effect of both the mining operations and CBM simultaneously on the Tongue River Valley.
The potential for mining operations and CBM development in the Tongue River Valley are discussed in the cumulative impact analysis (Chapter 6 of the Draft SEIS) and are therefore appropriately analyzed as activities that could occur simultaneously and have adverse effects in combination with each other or the proposed project.

Section 6.4 of the Draft SEIS discusses the issue of changes in the potential for coal mine development in the Tongue River Valley since completion of the EISs for Tongue River I and Tongue River II. The locations of potential development that are discussed include the Ashland/Birney Area, Spring Creek Mine, alluvial valleys, and the Otter Creek Tracts 1, 2, 3. In regards to the Spring Creek Mine, the BLM issued a federal coal lease to the Spring Creek Mine Company in 1991 for a 150-acre tract of land containing an estimated 19.8 million tons of Federally-owned coal. Spring Creek Mine Company also filed an application with MT DNRC in 1998 to lease a 480-acre tract containing an estimated 62.1 million tons of coal. The lease was issued by MT DNRC in December 2000. These tracts are all located in Big Horn County and would be mined as an extension of the Spring Creek Mine. BLM and MT DNRC prepared an Environmental Assessment (MT-022-1320-DB) and published a Finding of No Significant Impact (*Federal Register*, July 14, 2000, Volume 65, Number 136) for activities associated with these leasing agreements.

Potential mining operations in the Ashland/Birney, alluvial valley coal-exchange areas, and the Otter Creek tracts are discussed below in this response under the sub heading, *Effect of potential reasonably foreseeable future coal mining.*

Section 6.5.2 of the Draft SEIS discusses the potential for adverse effects related to CBM development based on the conclusions set forth in the *Final Statewide Oil and Gas Environmental Impact Statement and Proposed Amendment of the Powder River and Billings Resource Management Plan*, January 2003. BLM issued this EIS to assess the potential impacts of CBM gas exploration and production in 16 counties in south-central and southeastern Montana.

In Section 6.5.2 of the Draft SEIS, SEA discusses two CBM Plans of Development (PODs) in particular and the status of environmental review for each. The first is a Fidelity Exploration and Production Company POD for up to 85 CBM gas wells in Big Horn County. As stated in Section 6.5.2 of the Draft SEIS, in February 2004, BLM released an Environmental Assessment, Decision Record, and a Finding of No Significant Impact on this POD. The second is another Fidelity Exploration and Production Company POD application that was submitted in April 15th, 2004[8] to the

[8] http://www.mt.blm.gov/mcfo/cbng/CoalCreek/fidelity/index.html.

Montana Board of Oil and Gas Conservation for development of 217 wells in Big Horn County in southeastern Montana near the Wyoming border. At the time that the TRRC Draft SEIS was issued for public review, the environmental assessment for this POD had not yet been completed. As discussed below, the analysis in those environmental assessments are now reflected in this Final SEIS.

In preparation of this Final SEIS, SEA consulted with BLM and the Montana Board of Oil and Gas to determine whether any additional environmental analyses had been completed for any new CBM PODs since the Draft SEIS was published in October 2004. BLM and the Board of Oil and Gas advised SEA that they have completed environmental review of eight PODs since circulation of the Draft SEIS. Seven of the eight PODs are located within a larger CBM development area that is shown in Figure 6-2 of the Draft SEIS. The eight PODs include the following:

1. Fidelity - Tongue River - Coal Creek Project - January 2005, which would include drilling 217 coal bed natural gas wells in the CX field near Decker. The ROW for the proposed Western Alignment would intersect with the Fidelity PRG-Coal Creek project area (as shown on Exhibit A-81 in Appendix A).
2. Fidelity - Tongue River - Dry Creek Project - December 2004, which would include 24 federal coal bed natural gas wells in the CX field near Decker.
3. Powder River Gas, LLC - Coal Creek Project - November 2004, which would include 16 exploratory coal bed natural gas wells.
4. Pinnacle Gas Resources, Inc. Coal Creek Project - August 2005, which would include 48 exploratory coal bed natural gas wells, is directly south of the coal Powder River Gas Coal Creek project area.
5. Pinnacle Gas Resources, Inc. Dietz Plan of Development – September 2005, which would include 132 exploratory coal bed natural gas wells.
6. Fidelity - Pond Creek Project - August 2005, which would include 78 exploratory coal bed natural gas wells.
7. Fidelity -Deer Creek Project - August 2005, which would include 170 exploratory coal bed natural gas wells.
8. Powder River Gas, LLC – Castle Rock-Stevens Plan of Development – November 2005, which would include drilling and operate 284 CBNG wells.
9. Pinnacle Gas Resources, Dietz Plan of Development – November 2005, which would include 161 coal bed natural gas wells. The FONSI was completed in September 2005.[9]

As part of the Final SEIS, SEA reviewed the project-specific environmental analysis completed for each of these PODs to determine if any of the proposals would result in new and significant cumulative effects not already analyzed in Section 6.6 of the Draft SEIS. For each POD, a NEPA Environmental Assessment/ Finding of No Significant Impact (EA/FONSI) was completed. The Tongue River railroad project was evaluated in each EA as a reasonably foreseeable project that could, in combination with each CBM POD, result in adverse cumulative impacts.

[9] http://bogc.dnrc.mt.gov/PDF/Dietz%20FONSI2005.pdf.

In all completed EA/FONSI documents, BLM determined that the respective proposals would not have any new significant effects including additional cumulative impacts on the human environment beyond those identified in the *Final Statewide Oil and Gas Environmental Impact Statement and Proposed Amendment of the Powder River and Billings Resource Management Plan*. More specifically, BLM's analysis indicates that none of the PODs would have new effects related to water quality, sedimentation, or erosion beyond those identified in the State's Final EIS. As a result, the conclusions of the cumulative analysis for Tongue River III, presented in Section 6.6 of the Draft SEIS, have not changed as a result of the additional environmental analysis that has now been conducted.

In the EA/FONSIs completed for PODs numbered 1-5 above, a determination of a lack of cumulative impacts was based on the understanding that potentially significant impacts related to CBM development would be limited to the construction period. These EA/FONSIs state that CBM well construction activities (i.e. installation of access roads and infrastructure) would occur within 2-6 months of CBM project approval. Given that these five projects have been approved, and that construction of them is already underway if not completed, BLM and the Board of Oil and Gas concluded that CBM well construction would not overlap with the timeframe of the rail line construction. Therefore, because CBM well construction and rail line construction activities would not occur in the same area at the same time, no cumulative impacts are expected to occur.

The EAs completed for PODs numbered 6, 7, 8, and 9 did not compare the construction period of the POD construction to the construction and operations periods of the Tongue River Railroad. However, the FONSI documents completed for these projects ultimately determined that these two projects, through adherence to permitting requirements and mitigation measures, would not result in a significant impact on the environment.

Other CBM development in the Tongue River watershed beyond the POD submittals listed above is speculative in nature because no other applications have been submitted to date.

In short, potential coal bed mining and CBM operations were properly addressed in the cumulative impact analysis of the Draft SEIS as activities that could occur simultaneously with the construction or operation of the proposed Western Alignment or the Four Mile Creek Alternative. Further, based on a review of CBM PODs that have been approved since completion of the Draft SEIS, there are no known CBM projects that could result in cumulative impacts.

Potential cumulative effects on agricultural operations in the Tongue River Valley are fully discussed in the Draft SEIS, Section 6.6.1-Land Use. As stated there, the ROW for the proposed Western Alignment consists primarily of non-irrigated rangeland, irrigated and non-irrigated farmland, and less than 20 acres of prime farmland. The proposed Western Alignment would divide parcels of land and would convert to rail use land that is currently used for grazing and farming. In its analysis for this SEIS, SEA did not identify any reasonably foreseeable projects within the ROW of the proposed Western

Alignment that would also impact land use. SEA identified the development of CBM gas wells as the only reasonably foreseeable project that would change the use of other parcels outside the ROW that are currently used for ranching and farming activities. However, no long-term impacts to land use (e.g. farming and ranching operations) would occur from the CBM gas-well activities because all foreseen CBM gas wells must include a reclamation plan, submitted to BLM for approval, that shows how the land will be returned to its pre-existing conditions upon completion of the drilling activities.

Effect of potential reasonably foreseeable future coal mining
The environmental documentation completed for Tongue River I, Tongue River II, and Tongue River III makes it clear that potential coal mine development in the Ashland/Birney/Otter Creek area would become more likely through the introduction of rail transport facilities. Due to the likelihood of such development, each EIS (or SEIS) provides coal tonnage forecasts for volumes that would be generated and transported from these mines, as discussed in Section 6.4.3 of the Draft SEIS for Tongue River III.

Specifically, the environmental effects of potential coal mining in the Ashland/Birney/ Otter Creek area was analyzed as a related action in Section 4.0 of the Draft EIS completed for Tongue River I. This analysis specifically evaluated potential environmental effects related to the development of the Montco mine and four additional mine sites in the Ashland/Birney/Otter Creek area. According to this analysis, potential mine development could have adverse effects on land use, hydrology and water quality, biological resources, cultural resources, and aesthetic resources.

In Tongue River II, SEA updated the Tongue River I coal tonnage forecasts related to Ashland/Birney/Otter Creek area and reevaluated the environmental effects associated with potential mine development. No new and potentially significant cumulative impacts, beyond those identified in Tongue River I, were identified in relation to the construction or operation of the Ashland/Birney area mines.

In the Tongue River III Draft SEIS, SEA evaluated whether the potential for mining has increased in the Ashland/Birney/Otter Creek area since completion of Tongue River II and whether, based on a change in circumstances, mine development in this area could now be defined as reasonably foreseeable. Consistent with Tongue River I and Tongue River II, SEA again determined in the Draft SEIS that coal mine development in the Ashland/Birney/Otter Creek area is likely to occur and the potential for such development is likely to increase with improvements to the transportation system (i.e., the Tongue River Railroad). As discussed in Section 6.4.3 of the Draft SEIS, SEA further concluded that there have been no material changes since the analysis in Tongue River II to indicate any significant increase or decrease in the potential for mine development as a result of construction of either the Four Mile Creek Alternative or the proposed Western Alignment. Further, SEA concluded that there are no material changes that warrant an assumption of increased coal production generally or increased coal production in the Ashland/Birney/Otter Creek area beyond what was analyzed in Tongue River II. In regards to the Montco mine, the permit has expired since the preparation of Tongue River II. In short, there are no prospective mine development projects beyond what were

analyzed in Tongue River I and Tongue River II that meet SEA's definition of reasonably foreseeable.

Because environmental conditions in the corridor have not meaningfully changed since completion of the EISs for Tongue River I and Tongue River II, SEA concludes that the previous assessment of potential impacts related to mine development in the Ashland/Birney/Otter Creek area, as identified in the EISs for these proceedings, remain valid. On this basis, SEA concludes that the construction and operation of Tongue River III would not result in any new significant cumulative environmental effects related to mine development beyond what was found in Tongue River I and Tongue River II.

Effect on transportation in Rosebud, Big Horn, and Custer Counties.
The Draft SEIS includes a thorough discussion of the project's effect on transportation corridors in Rosebud, Big Horn and Custer counties and the comments have not cast doubt on SEA's conclusions. As discussed in Section 4.3.6 of the Draft SEIS, the projected increase in car trips in the region during construction was not found to be substantial, since the project includes the construction of a temporary access road within the ROW for the transportation of workers and equipment. Moreover, during the operation period of the railroad, all roadways in the area would continue to operate at Level of Service A, which is the highest Level of Service attainable. In the Draft SEIS, the delay caused by train crossings at public roadways was not found to be adverse, given the current volume of traffic and the proposed frequency of train crossings. SEA stands by that conclusion in the Final SEIS.

Master Response 22: The Use and Sizing of Culverts for Side Drainages

Several commenters expressed concern over the use and sizing of culverts for side drainages.

As stated in Section 4.3.4.2 of the Draft SEIS, both the proposed Western Alignment and the approved Four Mile Creek Alternative would cross a number of non-perennial streams, requiring the placement of fill to the stream's ordinary high-water mark (see Table 4-23 of the Draft SEIS). The drainage crossings would be constructed in accordance with current industry practice and the Montana Floodplain and Floodway Protection Act (MCA 76-5-401 through 406), as described in recommended Mitigation Measures 49 and 50. The culverts would be designed in accordance with the criteria established by the American Railway Engineering and Maintenance of Way Association. Those criteria specify that, at a minimum, the culverts would be designed to accommodate a 25-year recurrence interval flow without static head at the inlet and a 100-year recurrence interval flow using the available head at the inlet, the head to 2 feet below the base of the railway, or a head depth of 1.5 times the culvert diameter/rise, whichever is less.

Under SEA's recommended Mitigation Measure 50, the final project alignment would also be designed to avoid the floodplain of perennial streams, where possible. In areas where the railroad grade infringes on the floodplain, drainage structures would be

installed to ensure that the grade does not restrict or reroute the 25-year recurrence interval flow. In addition, the culverts would be installed at the existing grade of the streambed to avoid, to the maximum extent possible, altering the character of the streambed and impacting the movement of amphibians and reptiles. This recommended mitigation measure reflects current industry practices. SEA believes that this mitigation would reduce potential effects to hydrology to a level that is less than significant.

Master Response 23: Cumulative Air Quality Analysis

Several commenters, including Minnesotans for an Energy Efficient Economy (ME3) and Northern Plains Resource Council (NPRC), expressed concern that the Draft SEIS failed to adequately assess the possible effects of the TRRC project on demand for coal and resulting air emissions in the Midwestern markets that TRRC would serve. In addition, these commenters argued that the Draft SEIS did not consider the cumulative effects of the 40 million tons of coal that TRRC could carry, in combination with the 100 million tons that could be carried on the Dakota Minnesota & Eastern's (DM&E's) proposed new line into the PRB.

In this response, SEA presents its analysis of this issue, which involved a thorough review of the analysis conducted in DM&E on this same issue and the applicability of that analysis to TRRC. For this Final SEIS, SEA first analyzed the effects of TRRC alone on transportation rates and the potential increase in the use of coal for electric power generation, along with the resulting potential effect on air emissions. SEA then analyzed the potential cumulative effects of the TRRC and DM&E projects in combination on transportation rates, potential coal consumption, and resulting air emissions. SEA performed both assessments based on its experience with the United States Department of Energy's Energy Information Administration's (EIA's) National Energy Modeling System (NEMS). In the DM&E air quality analysis, SEA found that NEMS is the best available model to forecast coal supply and demand and also quantify air quality impacts.

At the outset of this response, SEA reaffirms the discussion of this issue in the Draft SEIS.[10] As the Draft SEIS explains, there is clearly an existing demand for low-sulfur coal from the PRB. As long as the regulatory restraints imposed by the Clean Air Act remain in place, which make low sulfur PRB coal attractive to power plants, this demand seems likely to increase with or without projects like TRRC.[11] The Draft SEIS expressly

[10] Draft SEIS, Chapter 6, at 6-20 to 6-22.

[11] See Dakota, Minnesota & Eastern R.R. Construction into the Powder River Basin, STB Finance Docket No. 33407 (STB served Feb. 15, 2006) (DM&E 2006), slip op. at 15-16, pending judicial review sub. nom, Mayo Foundation et al. v. STB, Nos. 06-2031 et al. (8th Circuit, filed April 14, 2006) (noting that the expected year-by-year increases in demand for PRB coal between now and 2025 could be met by the two existing carriers in the PRB (BNSF Railway Company (BNSF) and Union Pacific Railroad Company (UP)) on their existing routes, and that both BNSF and UP have recently rehabilitated and expanded their own PRB routes by double-tracking and triple-tracking, thereby increasing their ability and capacity to transport additional PRB coal). Copies of all the Board's decisions in DM&E are available on the Board's website (www.stb.dot.gov).

acknowledges that one possible indirect effect of the construction and operation of TRRC, which could carry 30 to 40 million tons of coal annually, is that there might be more mines opening near the new rail line or that existing mines would be exploited more rapidly. The Draft SEIS further recognizes that TRRC and projects like it might reduce transportation rates associated with low-sulfur coal by shortening the route from existing mines to power plants in the upper Midwest region, and that the effect of this could be to prolong the use of coal as an energy source over other energy sources. The Draft SEIS notes, however, that the extent to which this would actually be the case depends on many factors that could affect future demand for coal (the mine price of coal, the cost of oil and natural gas, and various economic, social, political and environmental factors). As the Draft SEIS states, if TRRC were to contribute in some small way to a power producer favoring coal over other energy sources, emissions from power plants would be subject to individual power plant permit requirements and State Implementation Plans (SIPs), adopted to meet the requirements of the Clean Air Act. Any Board-issued rail construction authority would not allow the level of airborne pollutants emitted from coal-burning power plants to rise above the applicable Federal and state allowable limits.[12]

Both ME3 and NPRC suggest that coal usage as a result of TRRC would increase enough to require an in-depth environmental analysis of the increased coal usage, noting that in Mid States Coalition for Progress v. STB, 345 F.3d 520, 548-50 (8th Cir. 2003) (Mid States), the court directed the Board to examine the potential indirect air emission impacts of increased coal usage that might result from lower transportation rates brought about by DM&E's PRB rail construction project. However, commenters have failed to show that modeling similar to what was required in Mid States is warranted here. In the DM&E SEIS, SEA evaluated the likely effects on transportation rates from DM&E and the impact of those lower transportation rates on coal production, coal consumption and resulting air quality impacts. As SEA explains below, the results of the Board's analysis in DM&E show that little additional coal would be consumed, regionally or nationally, as a result of DM&E. Therefore, minimal changes in air emissions from the electric power sector, regionally or nationally are expected. SEA acknowledged that there may be a potential for a significant effect on a local basis, but as discussed below, there is no way to predict what the impacts of DM&E would be on a local basis. Moreover, EPA's new Clean Air Interstate Rule and Mercury Rule, which became effective after the modeling was conducted, would act to constrain sulfur dioxide emissions, nitrogen oxides emissions and mercury emissions at power plants in the future, and could eventually

[12] Commenters note that DOT v. Public Citizen, 541 U.S. 752 (2004) (Public Citizen) (NEPA requires a reasonably close ("proximate") causal relationship between an environmental effect and alleged cause), which SEA cited in the Draft SEIS, is factually distinguishable, because, unlike the Board in this rail construction proceeding, the agency in that case had no authority to take, or refuse to take, the action that would have the environmental effects petitioners were complaining about. The point that is dispositive here, however, is not that this is a licensing proceeding that the Board could deny. Rather, the point SEA wants to make is that commenters have not shown that SEA was unreasonable in determining that analysis similar to what the court required in Mid States for DM&E is not warranted here. Moreover, just as the agency at issue in Public Citizen could not directly regulate the activity that caused the air emissions of motor carriers, the Board cannot directly control coal consumption by power plants.

result in decreased reliance on PRB coal because PRB coal is higher in mercury than other coals, including Appalachian coal.

As we will show, this case is *less* likely to result in lower transportation rates than DM&E because of the smaller amount of coal TRRC would carry, the nature of the TRRC project, and the kind of coal TRRC would transport. Accordingly, an analysis similar to what the court required in DM&E is not necessary or appropriate here. In reaching that conclusion, SEA carefully reviewed the implications of the information collected and analysis performed for DM&E on TRRC. SEA presents the results of that review below.

1. History of the DM&E Proposal

As discussed in greater detail in the Board's decision in DM&E 2006 (at pp. 3-6), DM&E sought authority from the Board in 1998 to construct and operate an approximately 280-mile rail line extension beginning near Wall, South Dakota, so that it could reach certain coal mines in Wyoming's PRB. The proposed line was intended to allow DM&E to become a third rail carrier to transport low-sulfur coal from the PRB to the Midwest, and to thereby generate the funds needed to completely upgrade DM&E's existing 598-mile rail system in South Dakota and Minnesota. In 2002, the Board approved the project subject to extensive environmental mitigation addressing potential environmental impacts discovered during the course of the Board's environmental review.[13]

Several petitioners challenged the Board's decision in court on multiple grounds. In Mid States, the court vacated and partially remanded DM&E 2002. The court upheld the Board's determination that DM&E would be financially viable. The court also upheld the Board's analysis of most of the environmental issues that had been raised. The court found, however, that additional discussion or analysis was necessary on four environmental issues. As pertinent here, the court directed that the Board examine the potential indirect air emission impacts of increased coal usage brought about by the DM&E project. See 345 F.3d at 548-550.

2. Analysis of Effects on Air Emissions from Increased Availability of PRB Coal in DM&E

In response to the court's decision in Mid States, SEA prepared a Supplemental Environmental Impact Statement (SEIS) addressing each of the issues remanded by the court. As detailed in DM&E 2006 (at pp. 10-14) and Chapter 4 of both the Draft and Final SEIS in DM&E (which is available at the Board's website (www.stb.dot.gov) by clicking on "environmental matters" and then selecting "Key Cases"), SEA conducted an extensive rate sensitivity analysis to determine how the consumption of PRB coal might change due to the lower transportation rates that could result from DM&E, and how these changes might in turn affect air quality.

The first step was to select the computer model best-suited to assess these impacts. After examining a number of models, SEA decided to perform a rate sensitivity analysis using

[13] See Dakota, MN & Eastern R.R. – Construction – Powder River Basin 6 S.T.B. 8 (2002) (DM&E 2002).

EIA's NEMS model, because NEMS not only forecasts coal supply and demand but also quantifies air quality impacts.[14] As the SEIS explained, NEMS is widely used by the Legislative and Executive branches of the Federal government to predict energy use. The coal transportation rates in NEMS are based on actual transportation rate information between specific mines and specific plants. The actual data are then aggregated to determine an average transportation rate between the various supply and demand regions within NEMS. NEMS looks at the entire breadth of the national energy marketplace, simulating demand, growth, new generation (by fuel type and amount) and cost (including fuel cost). NEMS models coal production, consumption, exports, imports, distribution and prices in the United States.

As DM&E 2006 and the DM&E SEIS explain, SEA supplied EIA with the information necessary for the rate sensitivity analysis. EIA's own forecasts allowed a comparison of coal usage and concomitant air emissions both with and without the construction of the DM&E rail line.[15] SEA selected a range of potential rate changes and asked EIA to perform model runs using four different rate assumptions: a percentage rail rate decrease proportionate to the mileage savings of DM&E's proposed route over the existing UP and BNSF routes (the most likely scenario based on the Board's decisions in DM&E), a rail rate decrease twice that size (called the "Low7pct scenario"), and for comparison purposes, rail rate increases of equivalent sizes, to determine whether the expected rate changes that would result from DM&E would significantly affect the consumption of PRB coal.[16] SEA asked EIA to analyze the years 2010, 2015, and 2025, to be able to examine the impacts over time.

On the air emissions part of the study, EIA provided results with respect to sulfur dioxide, nitrogen oxides, carbon dioxide, and mercury.[17] Because NEMS does not evaluate carbon monoxide and particulate matter, SEA used NEMS data to calculate those emissions separately and disclose them in the DM&E SEIS.

As the SEIS in DM&E and the Board's decision in DM&E 2006 explain (at pp. 12-13), the rate sensitivity analysis and report that EIA produced for the Board show that little additional coal would be consumed regionally or nationally due to DM&E. The analysis further shows that the small changes in PRB coal usage from DM&E would translate to minimal changes in national and regional air emissions from the electric power sector. According to EIA's report, on both national and regional levels, projected air emissions for sulfur dioxide, nitrogen oxides, carbon dioxide, and mercury would be less than 1%. (One region was forecasted to have higher mercury emissions because of changes in usage of a coal type unrelated to the DM&E project. Even so, that increase would be

[14] ME3 observed in its comments on the Draft SEIS that NEMS can forecast the location and amount of increased emissions.

[15] EIA's Annual Energy Outlook 2005 report was used as the "base case" to which the results of the DM&E project were compared.

[16] The four alternative rate scenarios are explained in detail in the DM&E Final SEIS, Chapter 4, at 4-6 to 4-7 and 4-23 to 4-27.

[17] These include the same pollutants ME3 and NPRC are concerned about in this case.

offset by a corresponding decrease in a neighboring region.) Projected air emission increases for carbon monoxide and particulate matter would also be less than 1%. Moreover, significant changes in the blend of coals burned by individual power plants that might use PRB coal transported by DM&E, as well as any new power plants that might be built, would be constrained by all applicable environmental laws and other regulatory constraints that apply to power plants. EIA's report also noted that the new EPA rules issued in March 2005, which were not reflected in the NEMS study, that impose additional regulations for sulfur dioxide and nitrogen oxides at power plants and regulate mercury would likely further dampen the impacts of the changes to coal transportation rates in the rate sensitivity analysis.

Neither NEMS, which is a national and regional modeling tool, nor any other available model could be used to predict the potential of local impacts on coal usage and resulting air emissions from DM&E. Although SEA could not know whether or where local impacts might actually occur (for reasons set forth in the SEIS in that case),[18] SEA could not rule out the possibility that there could be an increase in air emissions at some locations because more PRB coal would be burned as a result of DM&E. The President's Council on Environmental Quality (CEQ) has established procedures (at 40 CFR 1502.22(b))[19] for dealing with circumstances where critical information is unavailable or incomplete, and SEA followed those procedures in the SEIS in DM&E.[20]

3. Implications of DM&E's Rate Sensitivity Analysis on the TRRC Construction Project

Given the results of SEA's rate sensitivity analysis showing that the DM&E project would result in only minimal air quality impacts, at least on a national and regional basis, SEA concludes that a detailed air quality analysis—similar to that performed for DM&E—is not necessary for TRRC. As discussed below, TRRC would carry less coal than DM&E and would likely have less effect on transportation rates. While TRRC would be able to access certain new coal reserves in Montana, some of these reserves

[18] As SEA explained, to be able to reasonably foresee the likely impacts of DM&E on a local level, the Board would need to know not only what existing or new power plants would actually use DM&E's service and where any new plants would be, but also whether they would otherwise not burn as much coal, not burn PRB coal, or burn a different mix of coal. Because this could not be determined in advance with any degree of confidence, SEA concluded that any attempt to determine the locations where emissions would increase on a local basis and to measure the amount of such an increase would lack a sound foundation and would instead be largely speculation. See DM&E Draft SEIS, Chapter 4, at pages 4-42 to 4-51; DM&E Final SEIS, Chapter 4 at pages 4-11 to 4-13, 4-34, n.52.

[19] CEQ's rules require that in this situation an agency should explain the relevance of the incomplete or unavailable information to evaluating reasonably foreseeable significant adverse impacts on the human environment; summarize the existing credible scientific evidence that is relevant to evaluating the reasonably foreseeable significant adverse impacts on the human environment; and evaluate the potential impacts given the informational limitations that it faces. 40 CFR 1502.22(b).

[20] As discussed below, SEA has more information on the location of the plants that TRRC expects to serve than was available in DM&E. However, there is no way to predict whether these plants would otherwise not burn as much coal, not burn PRB coal, or burn a different mix of coal. Thus, in the case of both TRRC and DM&E, the potential local impacts of the project on coal usage and resulting air emissions cannot be ascertained using NEMS or any other available model.

would simply replace mines that have been depleted, and the market for this particular type of coal has remained remarkably stable in recent years, suggesting that these new reserves would have little impact on consumption of that type of coal. As a result, coal usage is expected to increase less than projected for DM&E, resulting in even fewer air quality impacts than the minimal effects found in DM&E.

a. Implications on Coal Volumes

TRRC expects to carry significantly less coal than DM&E. DM&E anticipates carrying up to 100 million tons of coal out of the Wyoming PRB. TRRC anticipates carrying a maximum of less than 40 million tons originating from the PRB.[21] Because of the smaller volume of coal that TRRC would carry, SEA believes that TRRC would have fewer effects on coal consumption and related air emissions than DM&E.

b. Implications on Transportation Rates

TRRC also would have fewer incentives to offer lower transportation rates than DM&E, even though both carriers would provide a shorter route to some customers. DM&E would be a new, third competitor into the PRB, which, as the Board explained in its decisions in DM&E, would be able to attract substantial PRB coal traffic over a route that would be shorter and straighter than those of either of the two existing carriers (UP and BNSF)[22] to reach DM&E's target utility markets.[23] As such, DM&E can be expected to under-price BNSF and UP in order to gain market share.[24] While TRRC would also provide a shorter route to its markets, TRRC would not be a new competitor into the PRB. Rather, TRRC would transport coal in conjunction with BNSF—BNSF would originate the Wyoming coal that moves over TRRC and BNSF would terminate all of the traffic handled by TRRC. Therefore, TRRC would not have the same incentives to reduce rates as DM&E.

In addition, TRRC and DM&E would likely serve different customers even though they both expect to serve many of the same markets. DM&E assumed that generally, it would not be successful in obtaining commitments to serve plants that are solely rail-served by BNSF (or UP). TRRC would be able to serve customers that *are* solely rail-served by BNSF, since it would interchange traffic to BNSF for transport to those utilities. TRRC would not have the same incentives to offer lower rates than the existing carriers to serve these customers because it would not be competing with BNSF.

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[21] See Table 2-2 of the Draft SEIS, page 2-4.

[22] The UP and BNSF rail lines that serve the PRB extend north into Montana and south into Colorado and Nebraska (passing through southwest South Dakota). DM&E will provide east-west service.

[23] The DM&E project will reduce coal transportation distances as much as 390 miles to various electrical generation facilities in Minnesota and Wisconsin. DM&E also will have a mileage advantage for Wyoming PRB coal in the Great Lakes market, and will have a slightly shorter route to Chicago than that currently available (by approximately 30 miles one-way).

[24] See e.g. Dakota, MN &Eastern R.R. – Construction – Powder River Basin 3 S.T.B. 870-878 (1998) (DM&E 1998).

In sum, SEA believes that the TRRC project would be less likely to result in reduced transportation rates than DM&E and, therefore, that coal consumption and resulting air emissions would increase less than for DM&E.

c. Implications of New Coal Sources on Coal Consumption

TRRC would have access to new coal reserves in Montana that DM&E would not have access to, in addition to carrying coal from Wyoming, which DM&E would also access. Generally, introducing new coal reserves into the marketplace can lead to an increase in coal consumption. However, SEA believes that in this case a variety of factors would limit any increase in coal consumption from the new coal reserves.

TRRC would have access to the yet-to-be-developed coal reserves in the Ashland, Montana area. Some of the Ashland area coal would simply replace Montana coal from Decker area mines as those mines deplete their reserves. Table 2-2 of the Draft SEIS forecasts that Decker area coal would decline from 15.3 million tons in 2009 to 12.3 million tons in 2014, and that Ashland area coal would increase from 0.3 million tons in 2009 to 12.3 million tons in 2014.[25] Therefore, the net increase in accessible coal reserves as a result of the TRRC project is expected to be 9 million tons.

Even with this access to new coal reserves, there are several factors that would limit any increase in coal consumption as a result of the TRRC project. For example, both Ashland area coal and Decker area coal are considered Montana Northern Powder River Basin (NPRB) coal. Demand for Montana NPRB coal has remained stable over the years. Table 2 of Francis A. Roberts' verified statement submitted to SEA on September 20, 2005 (copy attached in Appendix K), shows that utility market demand for Montana NPRB coal was 35,292,000 tons in 1990 and 33,438,000 tons in 2004.[26] The customer base for this coal also has remained very stable. In 2004, 86% of the coal sold from the NPRB in Montana into the electric generation market was sold to a power plant that had been a NPRB Montana coal customer for 14 years.[27] Given these trends, SEA does not expect that the size of the market for NPRB Montana coal, or the customers in this market, would dramatically change from historic levels because of TRRC access to these new reserves.

One reason for the stability of the Montana NPRB coal market is the limited substitutability of Montana NPRB coal from the Decker and Ashland areas for other types of coal. The verified statement of Francis A. Roberts indicates that a utility substituting a Gillette, Wyoming Southern Powder River Basis (SPRB) coal for a Decker, Montana NPRB coal would require more Wyoming SPRB coal to compensate for the

[25] TRRC confirmed in Francis A. Roberts' verified statement, submitted to SEA on September 20, 2005, that the coal forecasts in the Draft SEIS are up-to-date and accurate (reproduced at Appendix K).

[26] See verified statement of Francis A. Roberts.

[27] See verified statement of Francis A. Roberts.

lower heat content.[28] In addition, the chlorine and moisture content of Decker and Ashland coals are significantly different than those of other coals (even other Montana NPRB coals), which can affect substitutability.[29]

Another reason for the stability of the Montana NPRB coal market is the limited size of the coal reserves in Montana. According to the coal forecasts in EIA's Annual Energy Outlook 2005 report, the western Montana NPRB coal production region—which includes the Decker area—produced 40 million tons of coal in 2005. By comparison, the Wyoming SPRB coal production regions produced 428 million tons of coal in 2005, which means that the Montana NPRB market is approximately 1/10th the size of the Wyoming SPRB market. As such, SEA believes that while the Montana NPRB market is significant in its own right, it is limited in its growth potential by the much greater size of the Wyoming SPRB market. This view is reinforced by the limited projected net increase in Decker and Ashland area coal of 9 million tons.

TRRC would handle some coal originated by BNSF in Wyoming, where DM&E would also originate coal. However, the volume of Wyoming coal handled by TRRC would be only a small percentage of the total volume of coal originating in Wyoming. TRRC expects to handle 16.6 million tons of Wyoming coal in 2009 and 12.2 million tons of Wyoming coal in 2014 and 2019.[30] SEA does not expect TRRC, acting as a bridge carrier for BNSF without direct access to the mines or utilities, to significantly influence the pricing or coal consumption patterns of Wyoming coal.

For all of these reasons, SEA believes TRRC would be less likely than DM&E to affect coal consumption patterns.

d. Implications on Air Quality Impacts

Because SEA expects that less coal would be consumed as a result of TRRC than the increase in coal usage likely to result from DM&E, SEA expects that TRRC would have a smaller impact on air quality than SEA anticipates from the addition of DM&E into PRB rail transportation markets.

i. National and Regional Air Quality Impacts

As previously noted, TRRC expects to handle significantly less coal than DM&E—40 million tons for TRRC versus a maximum 100 million tons for DM&E. TRRC would have less incentive to offer reduced transportation rates than DM&E because it essentially would operate as a bridge carrier for BNSF, and would not introduce an additional competitor into the PRB like DM&E. Therefore, SEA anticipates only a minimal change to national and regional coal consumption and resulting air emissions from the volume of coal TRRC expects to carry.

[28] Wyoming SPRB coal has a heat content of 8400 to 8800 Btu-1b. Montana NPRB coal has a heat content of 9300 to 9500 Btu-1b.

[29] See verified statement of Francis A. Roberts.

[30] See Draft SEIS, Table 2-2 at p. 2-4.

TRRC expects to carry a net increase of 9 million tons of NPRB coal from the Decker and Ashland areas of Montana and a maximum of 15 million tons of Wyoming coal. While these volumes are not insignificant, SEA found in its DM&E analysis that coal production increases in one region can be offset by decreases in another region. In addition, an increase in volume carried by one railroad can be offset by a decrease in volume carried by another railroad, resulting in a minimal net increase in coal moved between regions. Moreover, the overall demand for PRB coal is expected to increase whether or not TRRC (or DM&E) enter the coal transportation market, given the growth of domestic economy, electric power deregulation, and the relatively inexpensive cost of coal compared to natural gas and other available energy sources. Therefore, the volume of coal carried by TRRC would likely translate to only minor increases in coal consumption and resulting air emissions, at least on a national and regional basis.

ii. Local Impacts

In its analysis of the NPRC and ME3 comments, SEA also considered the potential for any local air quality impacts. In the DM&E SEIS, SEA explained that neither NEMS, which is a national and regional modeling tool, nor any other available air quality model could be used to determine the extent of local air quality impacts in DM&E. Given the inherent uncertainty and lack of data, which would have made any attempt to determine the locations and amounts where emissions would increase on a local basis mere speculation in DM&E, SEA followed the procedures set forth in the CEQ rules for dealing with situations where critical information is unavailable or incomplete.[31]

There is no way to reasonably foresee the likely impacts from TRRC on a local level either. To do so, SEA would need to know not only what existing or new power plants would actually use TRRC, and where any new plants would be located, but also whether they would otherwise burn less coal, not burn PRB coal, or burn a different mix of coal. While TRRC did not identify the potential users of the Wyoming coal it expects to carry, TRRC did identify a list of seventeen customers that would likely use the Decker and Ashland area coal from Montana that it would carry.[32] SEA evaluated the geographical relationship of these plants, because the more geographically widely dispersed the plants are, the more likely it would be that the local impacts on air emissions would also be widely dispersed. These seventeen plants are located in eight different states. Six of the eight states have only one plant, while Minnesota and Michigan have six plants and five plants, respectively.

Even with this information, SEA could not determine with any degree of confidence what changes in coal usage would occur at any particular plant due to this project. How much coal a power plant uses depends on many factors that cannot be determined in advance (i.e., the price of coal versus the cost of alternative fuels, the requirements of applicable laws, the state of the nation's economy and power needs at the time, and what kind of coal the plant is equipped to burn). Moreover, as previously noted, new power plants that

[31] See DM&E 2006, slip op. at 13; DM&E Draft SEIS, pp. 4-42 to 4-43, DM&E Final SEIS, p. 4-34 at n. 52.

[32] Table 2, Francis A. Roberts verified statement.

might use Montana NPRB coal will likely be built regardless of TRRC, and overall demand for PRB coal is expected to increase regardless of whether the TRRC project is built.

In short, while SEA cannot rule out the possibility that at certain locations there could be more PRB coal consumed as a result of this project—and therefore some increase in air emissions—this case has inherent uncertainty and lack of data similar to DM&E, which means that SEA cannot know whether and where that increase might occur. Accordingly, SEA agrees with NPRC that it is appropriate here, as in DM&E, to follow the process set out in the CEQ regulation at 40 CFR 1502.22(b) for situations where the information needed to examine reasonably foreseeable impacts is missing and unavailable. In accordance with that regulation, the Final SEIS summarizes the existing scientific evidence on each of the pollutants that are emitted by power plants: sulfur dioxide, nitrogen oxides, carbon monoxide, particular matter, carbon dioxide, and mercury. While the extent of any local impact on air emissions is unknown, the nature of the potential impacts is known based on existing credible scientific evidence.

Sulfur Dioxide

Sulfur dioxide (SO_2) results from the burning of fossil fuels containing sulfur.[33] Emissions of SO_2 come primarily from stationary sources such as coal-burning power plants and other stationary facilities burning fossil fuels, including coal.[34]

SO_2 contributes to the formation of fine particles.[35] SO_2 emissions at high concentrations may affect breathing, particularly by aggravating existing respiratory diseases such as asthma, as well as cardiovascular disease.[36] Sensitive populations such as children and the elderly are most likely to be affected. In addition, SO_2 is a primary component of acid rain formation.[37] Acid rain has been found to cause acidification of water bodies (lakes and streams) and damage crops, historic buildings and other exterior structures such as statues.[38] Finally, SO_2 can contribute to the formation of minute particles in the

[33] EPA's website at www.epa.gov/air/urbanair/SO2/what1.html; Acid Rain, Microsoft Encarta Online Encyclopedia 2005 available at http://encarta.msn.com.

[34] See EPA's website at www.epa.gov/air/urbanair/SO2/what1.html.

[35] American Lung Associations website at www.lungusa.org.

[36] EPA's website at www.epa.gov/air/urbanair/SO2/what1.html; American Lung Associations website at www.lungusa.org; U.S. Department of Health and Human Services, Toxicological Profile for Sulfur Dioxide, December 1998; and Wisconsin Department of Natural Resources website at www.dnr.state.wi.us.

[37] Acid Rain, Microsoft Encarta Online Encyclopedia 2005 available at http://encarta.msn.com.

[38] EPA's website at www.epa.gov/air/urbanair/SO2/chf1.html; Hutchinson, T.C. and M. Havas, Effects of Acid Precipitation on Terrestrial Ecosystems. Plenum Press, New York, New York (1980).

atmosphere, impairing visibility, particularly in areas of high scenic value such as national parks.[39]

It is estimated that over 65% of SO_2 released into the air, or more than 13 million tons per year, comes from electric utilities, especially those that burn coal.[40] Other sources of SO_2 are industrial facilities that derive their products from raw materials like metallic ore, coal, and crude oil, or that burn coal or oil to produce heat.[41] Examples are petroleum refineries, cement manufacturing, and metal processing facilities. Also, locomotives, large ships, and some Anonroad diesel equipment currently burn high sulfur fuel and release SO_2 emissions to the air in large quantities.[42] SO_2 emissions from combustion at power plants are controlled by scrubbing the gas leaving the plant or by removing sulfur from the fuel before it is burned.[43] EPA's new Clean Air Interstate Rule will act to constrain SO_2 from power plants, including the plants that DM&E and TRRC/BNSF expect to serve in the future.

Nitrogen Oxides

Nitrogen oxides (NO_x) include several compounds containing nitrogen and oxygen, including nitric oxide (NO) and nitrogen dioxide (NO_2).[44] Nitrogen oxides form during combustion at high temperatures.[45]

According to EPA, NO_x compounds can cause lung irritation, bronchitis, and pneumonia, while lowering the body's resistance to other respiratory infections.[46] The available scientific literature indicates that NO_x is an important substance linked to the formation of ozone and, along with SO_2, acid rain.[47] As noted above, acid rain damages crops, acidifies water bodies, and damages exterior structures. NO_x also may contribute to algal blooms causing fish kills in aquatic systems.[48] Ozone, formed by the interaction of NO_x,

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[39] Information summarized from EPA's website at www.epa.gov/air/urbanair/SO2/chf1.html.

[40] See www.epa.gov/air/urbanair/SO2/what1.html.

[41] Id.

[42] See www.congeneration.net/SulfurDioxides.html.

[43] Id.

[44] See website of Wisconsin Department of Natural Resources at www.dnr.state.wi.us.

[45] EPA Green Book - Criteria Pollutants. Available at www.epa.gov/air/oaqps/greenbk.

[46] Id.

[47] Id; Acid Rain, Microsoft Encarta Online Encyclopedia 2005 available at http://encarta.msn.com; Nitrogen Dioxide at American Lung Association's website at http://lungusa.org.

[48] Nitrogen Oxides and the Environment at http://cta.policy.net.

volatile organic compounds, and sunlight,[49] has been linked to a number of respiratory impacts including lung tissue damage leading to emphysema and other respiratory diseases, reduced lung function, increased sensitivity to other respiratory diseases, as well as aggravating existing conditions such as asthma.[50] While children and the elderly are most susceptible to ozone, respiratory function in otherwise healthy adults can be impaired by ozone exposure.[51] Ozone also impairs a plant's ability to produce and store food, reducing crop yields, plant growth, reproduction, and overall health.[52]

It has been estimated that utilities contribute 22% of NO_x emissions.[53] NO_x and the pollutants formed from NO_x can be transported over long distances, following the pattern of prevailing winds in the United States.[54] This means that problems associated with NO_x emissions are not confined to areas where NO_x are emitted. Therefore, controlling NO_x is often most effective if done from a regional perspective, rather than focusing on sources in any particular local area.[55] Similar to SO_2, EPA's new Clean Air Interstate Rule will act to constrain NO_x from power plants, including the plants that DM&E and TRRC/BNSF expect to serve in the future.

Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless, poisonous gas.[56] It results from the incomplete combustion of carbon-based fuels, primarily from vehicles.[57]

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[49] Environmental Science Published for Everybody Round the Earth. Available at www.atmosphere.mpg.de/enid/2.html

[50] EPA's website at www.epa.gov/air/urbanair/NOX/hlth.html; American Lung Associations website at www.lungusa.org; Wisconsin Department of Natural Resources website at www.dnr.state.wi.us.

[51] EPA Green Book - Criteria Pollutants. Available at www.epa.gov/air/oaqps/greenbk.

[52] Id. See also website of North Carolina State University, Agricultural Research Service, at www.ces.ncsu.edu.

[53] See www.epa.gov/air/urbanair/nox/what.html; www.ces.ncsu.edu.

[54] See www.epa.gov/air/urbanair/nox/effrt.html.

[55] Id.

[56] EPA Green Book - Criteria Pollutants. Available at www.epa.gov/air/oaqps/greenbk.

[57] Carbon Monoxide, Microsoft Encarta Online Encyclopedia 2005 available at http://encarta.msn.com; www.epa.gov/air/urbanair/co/what1.html.

When inhaled, CO blocks oxygen from binding with hemoglobin in the lungs, reducing the amount of oxygen the lungs can uptake for delivery to the rest of the body.[58] CO poisoning can impair visual perception, manual dexterity, learning, and the performance of complex tasks. In extreme cases at high concentrations, CO poisoning can be fatal.[59]

EPA regulates CO emissions under the Clean Air Act Amendments of 1990. According to EPA, less than 1% of CO emissions in the U.S. come from electric utilities.[60]

Particulate Matter

Particulate matter (PM) includes particles of dust, soot, and chemicals ranging from 10 micrometers to 2.5 micrometers in diameter.[61] PM10 emissions at a coal-fired electricity generating facility result from dust-generating activities, including coal handling, crushing and grinding, vehicular traffic, and combustion of fuel. Generally, PM10 emissions settle out of the air quickly, thus affecting only the area a short distance down wind of the emission point.

PM10 emissions have the potential to cause serious health problems. Children, the elderly, and those with cardiopulmonary diseases such as asthma and congestive heart disease are most susceptible to PM10 emissions.[62] Additionally, PM10 particles may contain harmful chemicals such as sulfates, which can be corrosive and cause damage to external structures similar to the impacts of acid rain.[63] PM10 emissions can also contribute to regional haze.[64]

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[58] EPA Green Book - Criteria Pollutants. Available at www.epa.gov/air/oaqps/greenbk.

[59] Carbon Monoxide, Microsoft Encarta Online Encyclopedia 2005 available at http://encarta.msn.com; EPA Green Book - Criteria Pollutants. Available at www.epa.gov/air/oaqps/greenbk; Clean Air Trust; Carbon Monoxide available at www.cleanairtrust.org; Wisconsin Department of Natural Resources website at www.dnr.state.wi.us.

[60] EPA's website at www.epa.gov/air/airtrends/pdfs/CONational.pdf.

[61] What is Particulate Matter, available at Air Info Now at www.airinfonow.org; www.epa.gov/air/urbanair/pm/what1.html.

[62] American Lung Associations website at www.lungusa.org; Wisconsin Department of Natural Resources website at www.dnr.state.wi.us; Particles in Our Air - Concentrations and Health Effects, edited by R. Wilson and J. Spengler, Harvard School of Public Health (1996).

[63] Wisconsin Department of Natural Resources website at www.dnr.state.wi.us; Particulate Soot at www.cleanairtrust.org.

[64] Id.

EPA regulates PM10 emissions under the Clean Air Act Amendments of 1990. According to EPA, the range of PM10 emissions from electric utilities is between 1 and 3% of total PM10 emissions nationwide.[65]

Carbon Dioxide

Carbon dioxide (CO_2) is one of several compounds categorized as greenhouse gases.[66] Carbon dioxide is a product of the release of energy stored in carbon-based fuels (such as sugar and coal) for use by plants and animals (as in the case of sugar) or to generate heat during combustion to produce electricity (as for coal).[67]

As a greenhouse gas, CO_2 allows sunlight to pass through the atmosphere but absorbs some of the radiant energy (heat) reflected from the Earth's surface.[68] Absorption and trapping of heat is believed to cause a gradual heating of the atmosphere and, subsequently, increased surface temperatures.[69]

According to the available data, approximately 82% of the CO_2 emissions in 2001 resulted from burning fossil fuels, including coal, oil, and natural gas.[70] Carbon dioxide emissions currently are not regulated.

Mercury

Mercury, which has only recently become a restricted pollutant, is found naturally in air, water, soil, and rock.[71] It occurs in several forms, including in a pure elemental form as well as combined with other substances in metallic, organic (carbon-based) compounds, and inorganic (non-carbon-containing substances) compounds. Mercury occurs naturally in substances such as coal. When coal is burned, mercury is released as an emission. Coal-burning electricity generating facilities are known to be the largest non-natural source of mercury emissions in the United States, contributing 40% of the total national

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[65] EPA's website at www.epa.gov/air/airtrends/pdfs/PM10NationalNoCondensibles.pdf; www.epa.gov/air/airtrends/pdfs/PM10NationalWithCondensibles.pdf.

[66] EIA's website at www.eia.doe.gov.

[67] Carbon Dioxide, Microsoft Encarta Online Encyclopedia 2005 available at http://encarta.msn.com.

[68] See www.eia.doe.gov.

[69] Global Warming - Frequently Asked Questions, National Oceanic and Atmospheric Administration's website at www.ncdc.noaa.gov.

[70] Id.

[71] See EIA website at www.epa.gov/mercury/about.htm.

mercury emissions, which is approximately 1% of annual mercury emissions worldwide.[72]

After being emitted, mercury settles into water either directly or indirectly by being washed into streams, rivers, and lakes. Scientific studies show that, once in water, mercury is ingested and changed by certain microorganisms into highly toxic methyl mercury, which can accumulate in shellfish and fish feeding on these microorganisms. Humans and other animals consuming large amounts of methyl mercury-containing fish and shellfish can be exposed to harmful levels of methyl mercury.[73] The available data indicates that mercury exposure at high levels can lead to brain, heart, kidney, lung, and immune system damage. However, natural exposure to mercury or exposure through fish consumption generally is insufficient to cause these types of health concerns for adults.[74] It has been determined that exposure to methyl mercury can result in damage to the nervous systems of unborn babies and young children, resulting in impaired ability to think and learn.[75]

EPA's new mercury rule will act to constrain mercury emissions from power plants (including the plants that TRRC and DM&E would serve) in the future. Mercury regulation eventually could result in decreased reliance on PRB coal because PRB coal is higher in mercury than other coals, such as Appalachian coal.

iii. Mitigation

Finally, as part of its analysis under the CEQ regulation at 40 CFR 1502.22, SEA considered whether, notwithstanding the missing and unavailable information, it could nonetheless fashion appropriate additional air quality mitigation measures to address the potential for increased localized emissions in this case. SEA has concluded that it could not, given the lack of critical information needed to identify and predict local impacts, and the Board's lack of authority to impose mitigation measures directly on power plants. Furthermore, any attempt to limit the amount of coal that a TRRC/BNSF routing could deliver to particular plants would ultimately be ineffective because those plants could simply turn to UP (or BNSF alone) to supply any additional coal that they might want.

e. Conclusions Regarding TRRC's Potential Effects on Coal Consumption and Air Quality

For this Final SEIS, SEA thoroughly reviewed the analysis conducted in DM&E, its applicability for TRRC, as well as the differences between the DM&E and TRRC projects. Based on that analysis, SEA concludes that because TRRC would likely result

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[72] See id; www.netl.doe.gov/publication/proceedings/O3/mercury/Bauer.

[73] Id; Mercury (element), Microsoft Encarta Online Encyclopedia 2005 available at http://encarta.msn.com.

[74] www.epa.gov/mercury/about.htm.

[75] Id; U.S. Department of Health and Human Services, Toxicological Profile for Mercury, March 1999.

in only a minor increase in coal consumption that would be even less than the increase that would result from DM&E, the effect of TRRC on air quality, at least on a national and regional basis, also would be minor (and less than the impacts on air emissions expected to result from DM&E). Accordingly, SEA determined that there was no need for further air quality modeling in TRRC. SEA also concluded that there is no way to accurately foresee the likely impacts of TRRC on a local level. Therefore, here, as in DM&E, SEA followed the process set out in the CEQ regulation at 40 CFR 1502.22 for circumstances where critical information is missing or unavailable.

4. Cumulative Air Quality Impacts of the TRRC and DM&E Projects

ME3 and NPRC expressed concern that the TRRC construction, in combination with DM&E, could result in adverse cumulative air quality impacts. In response to that concern, SEA examined whether there would be any additional effects on coal consumption and resulting air emissions from both TRRC and DM&E that would not be present with TRRC alone.

In the DM&E SEIS, SEA used information available from the Board's DM&E decisions to evaluate whether or not there would be increased coal use and concomitant air emission increases due to the DM&E construction. In DM&E, as described earlier, SEA's approach was to assess the sensitivity of power plants to changes in the transportation rates using PRB coal by performing a rate sensitivity analysis using the NEMS model to reflect the changes in usage and concomitant air emissions that might be expected from DM&E entering the marketplace and competing for traffic with BNSF and UP. NEMS then calculated the amount of additional coal that would likely be consumed as a result of these lower transportation rates.

Specifically, based on the Board's assessment of DM&E's route mileage savings over BNSF and UP to utilities in DM&E's core markets and DM&E's expected market shares, as set forth in the Board's decisions in DM&E, SEA asked EIA to perform NEMS runs using four different rail rate assumptions: a percentage rail rate decrease proportionate to the mileage savings of DM&E's proposed route over the existing UP and BNSF routes (the most likely scenario based on DM&E 1998, known as the "Low4pct scenario"); a rail rate decrease twice that size (known as the "Low7pct scenario"); and for comparison purposes, rail rate increases of equivalent sizes. In order to assess the air impacts over time, SEA asked EIA to conduct runs for the years 2010, 2015, and 2025.

Because the specific rates that DM&E might charge were unknown, SEA assumed that existing rates would drop in proportion to the mileage savings DM&E would offer over BNSF and UP since, all other things being equal, it costs less to move a train a shorter distance.[76] SEA then compared the results of this NEMS analysis with EIA's Annual Energy Outlook for 2005 report—which served as the base case for the rate sensitivity

[76] This assumption would likely slightly overstate the transportation rate reduction DM&E would offer. That is because, in addition to the costs to move the coal train from origin to destination, there are costs to load and originate a coal train, and to terminate and unload a coal train. Thus, if there were a 10% mileage savings, and the cost to move the train from origin to destination were 80% of the total cost of the movement, this would translate to cost savings of 8% (10% of 80%)—not the full 10% assumed by SEA.

analysis, reflecting what would take place without any effects of DM&E—and examined the resulting changes to coal consumption and air emissions. The results of the NEMS analysis showed that little additional coal would be consumed, regionally or nationally, in response to rate changes of the magnitude studied (including a decrease twice the size of the most likely rate scenario), and that the small changes in PRB coal usage that would result would translate to minimal changes in air emissions from the electric power sector, both nationally and regionally.

For the reasons presented earlier, SEA expects TRRC to have less incentive to offer lower transportation rates than DM&E. However, TRRC might offer lower transportation rates for coal in response to DM&E entering markets where TRRC, in conjunction with BNSF, would compete with DM&E to Midwestern markets. Accordingly, SEA examined how transportation rates might drop if the TRRC and DM&E lines were both built. SEA reasoned that if these combined rate reductions were less than twice the amount of the rate reductions SEA expected from DM&E alone, then SEA could use the results of its DM&E analysis to evaluate the combined effects of TRRC and DM&E on air quality (because, as explained above, the NEMS study doubled the expected rate increase in the "Low7pct scenario" when examining DM&E alone in the rate sensitive analysis).

Unlike DM&E, TRRC has not identified mileage savings to particular plants or market shares it expects to capture; therefore, SEA calculated this information for its cumulative impact analysis. SEA first determined the markets where TRRC would likely compete with DM&E. SEA next calculated representative mileage savings to plants in those markets, as well as the market shares TRRC might capture to the NEMS regions represented by those markets. SEA again assumed that existing transportation rates would drop in proportion to the mileage savings TRRC would realize to those markets. SEA then calculated the combined effects that the TRRC and DM&E projects would be expected to have on transportation rates. SEA used the results of its DM&E analysis to examine the effect of the lower transportation rates of both TRRC and DM&E on coal consumption and the resulting air quality impacts. Each of these steps is described below.

a. Determination of TRRC Traffic That Would be Competitive with DM&E

While TRRC expects to carry two different types of coal (NPRB coal from Montana and SPRB coal from Wyoming originated by BNSF), DM&E would carry only SPRB coal that it originates from mines in Wyoming. As discussed above, there would generally be fewer incentives for TRRC/BNSF to offer reduced transportation rates than DM&E, which would be a new competitor for PRB coal traffic. Nevertheless, TRRC/BNSF might offer lower rates than they would otherwise charge in response to DM&E trying to under-price them for certain movements of Wyoming coal. This could occur where TRRC and BNSF would have a combined route to market that would be shorter than BNSF's existing route to that market.

The Montana NPRB coal that TRRC would carry from Decker and Ashland would not compete directly with the Wyoming SPRB coal that DM&E would carry. As discussed earlier, the differences in the chemical composition between Montana NPRB coal and

Wyoming SPRB coal limits the substitutability of these coal types. Indeed, the size of the NPRB coal market and the users of NPRB coal have remained stable in recent years, thus showing that Montana NPRB coal does not compete directly with Wyoming SPRB coal. As a result, TRRC and BNSF would have no incentive to reduce their rates for transporting Montana NPRB coal because of DM&E.

The Wyoming coal that TRRC would carry would directly compete with DM&E, but only in markets that would be served by both TRRC—using BNSF as the terminating carrier—and DM&E.[77] However, TRRC and DM&E likely would serve different customers in some of those markets. For example, DM&E has assumed it would *not* likely obtain commitments to serve plants that are now solely rail-served by BNSF (or UP). TRRC would likely serve customers that *are* solely rail-served by BNSF because it would be able to interchange traffic to BNSF for transport to such utilities, and in so doing in some instances would reduce the mileage for these movements over the mileage of a route using only BNSF. Therefore, TRRC and BNSF might reduce their rates for transporting Wyoming coal because of DM&E.

b. Calculation of Mileage Savings

For the Wyoming coal originated by BNSF, SEA examined which of TRRC's markets would have a shorter route using TRRC than by using BNSF without TRRC. SEA assumed that these would be the only markets where a TRRC/BNSF joint route might lead TRRC or BNSF to offer lower transportation rates in response to competition from DM&E. Where BNSF has an existing route that is shorter than a route using TRRC, the TRRC route would not make BNSF more competitive than it already is. Therefore, for those situations, SEA assumed rates would not change because of the TRRC project. In those markets where TRRC *would* provide a shorter route than any other BNSF alternative, SEA assumed TRRC or BNSF could offer reduced transportation rates in proportion to the mileage savings from using TRRC because, in general, it costs less to move traffic a shorter distance. (SEA's route analysis is described in detail in Appendix J.)

As explained in Appendix J, BNSF currently has two alternative routes to utilities in the Midwest for traffic that originates in Wyoming and exits the PRB out of the north via Donkey Creek, Wyoming. The first alternative turns northwest at Donkey Creek before turning back east through Forsythe, Montana and on through North Dakota (the northern route). The second alternative turns southeast out of Donkey Creek and travels down to Alliance, Nebraska and on eastward through the rest of Nebraska (the southern route). Only the northern route through Forsyth would be shortened if BNSF were to use TRRC as a bridge carrier. The southern route through Alliance would not realize any mileage

[77]According to information in Francis A. Roberts' verified statement, TRRC/BNSF would be expected to serve markets in Minnesota, Wisconsin, Michigan, Washington, northern Illinois, and the Dakotas – with other possible destinations in Ohio, Pennsylvania, New York, and Canada. SEA considers the upper Midwest to be the main target market for the coal that would be delivered via TRRC/BNSF. DM&E's core markets are expected to be the upper Midwest (particularly Minnesota and Wisconsin), where DM&E would reduce coal transportation distances to various electric generation facilities by as much as 390 miles. DM&E also would serve the Great Lakes market and would provide a slightly shorter route (about 30 miles one-way) to Chicago, a major rail interchange point for traffic bound for the Ohio River and points east.

savings from the construction of TRRC. BNSF would only be likely to reduce rates on northern route traffic where the BNSF/TRRC route through Forsythe is shorter than the southern BNSF route through Alliance.

SEA's route analysis presented in Appendix J shows that BNSF would only have a mileage savings to two of TRRC's six markets if it used TRRC as a bridge carrier and, therefore, most likely would only lower its rates in those two markets. Specifically, SEA found that BNSF would have a shorter route by using TRRC to reach utilities in the Minneapolis, Minnesota and the Detroit, Michigan markets. SEA found no mileage savings for BNSF by using TRRC to reach utilities in the Wisconsin market, the Northern Illinois markets, or points east of Chicago served by rail. Table 2-1 summarizes SEA's findings.

Table 2-1 – Summary of Mileage Savings by Market Using a BNSF-TRRC Joint Route

Market	Mode	Maximum Savings
Wyoming PRB to Minneapolis, Minnesota	Rail	12.1%
Wyoming PRB to Chicago, Illinois	Rail	n/a
Wyoming PRB to Milwaukee, Wisconsin	Rail	n/a
Wyoming PRB to Green Bay, Wisconsin	Rail to Vessel	n/a
Wyoming PRB to Muskegon, Michigan	Rail to Vessel	n/a
Wyoming PRB to Detroit, Michigan	Rail to Vessel	7.3%

c. Calculation of TRRC's Regional Market Share

SEA next calculated the share of the Wyoming coal market upon which TRRC might lower its rates in response to competition from DM&E. This was used to estimate the effect (if any) on transportation rates in the NEMS model if both TRRC and DM&E enter the market.

TRRC expects to carry a total of 16.6 million tons of Wyoming PRB coal in 2009, 12.2 million tons in 2014, and 12.2 million tons in 2019.[78] As discussed above, TRRC/BNSF would most likely not offer reduced rates on all this traffic in response to DM&E's entry into the market; rather, they would most likely offer lower rates only to markets where the combined TRRC/BNSF route would be shorter than a BNSF route not using TRRC. As shown above, TRRC/BNSF would only have a shorter route to two of TRRC's six potential markets (1/3 of the markets). Therefore, SEA estimates that TRRC/BNSF would reduce its rates on 33% of the Wyoming coal traffic that TRRC expects to carry.

SEA then calculated what percentage this traffic represented of *all* coal traveling from Wyoming to TRRC's markets in EIA's own coal forecasts. In order to compare the effect of likely transportation rate reductions from TRRC and DM&E, using the results of SEA's DM&E analysis, SEA needed to calculate the TRRC rate savings as a percentage

[78] See Draft SEIS, Table 2-2 at p. 2-4.

of all transportation rates used in NEMS. Since only a fraction of the coal traveling between Wyoming and TRRC's markets within NEMS would realize the transportation rates savings from TRRC, SEA needed to determine what percent the TRRC traffic represents within EIA's coal forecasts, which are used in NEMS. Only then would SEA be able to assess the extent to which coal usage and concomitant air emissions would be influenced by changes in rail rates of the magnitude that might be expected from the addition of both TRRC and DM&E into the PRB.

SEA asked EIA to provide a breakdown of its Annual Energy Outlook 2005 coal forecasts – which is used in NEMS – detailing where the coal originating in the Wyoming PRB is destined. That breakdown is shown in Table 2-2.[79]

Table 2-2 – NEMS Wyoming PRB Forecast to Coal Demand Regions (Million Short Tons)

Supply Region Code	NEMS Coal Supply Region	Demand Region Code	NEMS Coal Demand Region States	2009	2014	2019
NW	Wyoming, N. PRB	AM	AL,MS	0.00	0.00	1.67
NW	Wyoming, N. PRB	CU	CO,UT,NV	3.59	1.10	7.57
NW	Wyoming, N. PRB	CW	MN,IA,ND,SD,NE,MO,KS	27.22	25.66	28.40
NW	Wyoming, N. PRB	EN	IN,IL,MI,WI	71.96	74.92	77.26
NW	Wyoming, N. PRB	KT	KY,TN	4.01	7.14	11.15
NW	Wyoming, N. PRB	MT	MT,WY,ID	14.78	15.55	15.61
NW	Wyoming, N. PRB	PC	AK,HI,WA,OR,CA	1.21	0.00	0.00
NW	Wyoming, N. PRB	WS	TX,LA,OK,AR	60.44	74.20	74.34
	Wyoming, N. PRB			**183.21**	**198.57**	**215.99**
SW	Wyoming, S. PRB	AM	AL,MS	10.07	11.77	11.77
SW	Wyoming, S. PRB	CU	CO,UT,NV	5.81	8.51	2.65
SW	Wyoming, S. PRB	CW	MN,IA,ND,SD,NE,MO,KS	107.91	108.38	111.94
SW	Wyoming, S. PRB	EN	IN,IL,MI,WI	91.19	108.08	123.49
SW	Wyoming, S. PRB	GF	GA,FL	11.75	13.21	13.46
SW	Wyoming, S. PRB	KT	KY,TN	13.49	25.67	27.45
SW	Wyoming, S. PRB	MT	MT,WY,ID	2.94	2.99	3.09
SW	Wyoming, S. PRB	OH	OH	7.79	9.06	16.66
SW	Wyoming, S. PRB	WS	TX,LA,OK,AR	44.65	34.05	33.63
SW	Wyoming, S. PRB	YP	NY,PA,NJ	5.93	8.51	9.50
SW	Wyoming, S. PRB	ZN	AZ,NM	2.99	2.99	0.00
	Wyoming, S. PRB			**304.52**	**333.23**	**353.66**
	Wyoming PRB			**487.73**	**531.80**	**569.65**

[79] TRRC and EIA use different terminology to describe the same coal supply regions. While TRRC defines all Wyoming coal as Southern PRB coal, EIA defines Wyoming as two coal supply regions – northern PRB and southern PRB coal supply regions. TRRC defines Northern PRB coal as the Decker and Ashland area Montana coal. While this master response generally uses TRRC's terminology, this table uses EIA's terminology because it represents EIA's forecasts.

The NEMS coal demand regions that correlate to markets where TRRC/BNSF would compete with DM&E are the "CW" region – representing the states of Minnesota, Iowa, North Dakota, South Dakota, Nebraska, Missouri, and Kansas – and the "EN" region – representing the states of Indiana, Illinois, Michigan, and Wisconsin.

SEA calculated the market share of traffic where TRRC/BNSF might offer lower rates to be competitive with DM&E by dividing the volume of traffic where TRRC/BNSF might offer lower rates by the volume of coal that EIA forecasts will move from the Wyoming NPRB coal supply region to the CW and EN coal demand regions. That calculation is shown in Table 2-3.

Table 2-3 – TRRC Wyoming PRB Regional Market Shares Of Traffic Where TRRC/BNSF Could Lower Its Rate

Forecast	**2009**	**2014**	**2019**
TRRC Wyoming Coal Forecast	16.60	12.20	12.20
Percentage of TRRC Wyoming traffic with a shorter TRRC/BNSF joint route	33%	33%	33%
TRRC Wyoming volume where TRRC/BNSF might offer reduced rates	5.48	4.03	4.03
EIA Wyoming, N. PRB to the CW Region forecast	27.22	25.66	28.40
EIA Wyoming, N. PRB to the EN Region forecast	71.96	74.92	77.26
EIA Wyoming, N. PRB forecast	*99.18*	*100.58*	*105.66*
TRRC market share where TRRC/BNSF might offer reduced rates	5.5%	4.0%	3.8%

SEA only used EIA's Wyoming NPRB forecast to calculate this market share because SEA believes it is less likely that Wyoming SPRB coal would move via TRRC. SEA believes that coal originating on BNSF at the southern PRB mines in Wyoming is more likely to travel out the south end of the PRB via Guernsey, Wyoming to Alliance, Nebraska rather than out the north end of the PRB via Donkey Creek because that route is shorter.

d. Calculation of TRRC Regional Rate Reductions

Having estimated the mileage savings to TRRC's markets and the market share of the traffic that it expects to realize those mileage savings, SEA calculated how much regional transportation rates would likely change as a result of TRRC with competition from DM&E.

SEA assumed that transportation rates would drop in proportion to the mileage savings because, all other things being equal, it costs less to move a train a shorter distance.[80]

[80] As explained above, this assumption would likely slightly overstate the transportation rate reduction DM&E would offer. That is because, in addition to the costs to move the coal train from origin to destination, there are costs to load and originate a coal train, and to terminate and unload a coal train. Thus, if there were a 10% mileage savings, and the cost to move the train from origin to destination were 80% of the total cost of the movement, this would translate to cost savings of 8% (10% of 80%)—not the full 10% assumed by SEA.

Because only a portion of all the rates between the NEMS regions would realize transportation rate reductions as a result of these projects, SEA calculated the regional transportation rate reductions to the transportation rates that are already reflected in NEMS by multiplying TRRC's average mileage savings by the market share percentages of the BNSF/TRRC traffic that might realize those savings. Those calculations are shown in Table 2-4.

Table 2-4 – TRRC Wyoming PRB Regional Rate Reductions

TRRC Market	NEMS Demand Region	Maximum Mileage Savings	2009 Market Share	Overall Rate Reductions
Minnesota Market (CW)	CW	12.6%	5.5%	0.7%
Northern Illinois Market	EN	n/a	5.5%	n/a
Wisconsin Market	EN	n/a	5.5%	n/a
Michigan Market (EN)	EN	7.3%	5.5%	0.4%

These calculations show that the "CW" coal demand region in NEMS (Minnesota) would have an overall rate reduction of 0.7%. The "EN" coal demand region in NEMS (Michigan, Illinois and Wisconsin) would have an overall rate reduction of 0.4%.[81]

e. Calculation of TRRC and DM&E Regional Rate Reductions

For the DM&E SEIS, SEA asked EIA to perform a rate sensitivity analysis using four different rail rate assumptions to allow SEA to assess the impacts of different rate changes on coal consumption and its subsequent impacts on air quality. One assumption, the "Low4pct scenario," represented a percentage decrease proportionate to the mileage savings of DM&E's proposed route over the existing UP and BNSF routes (and was the most likely rate scenario based on the Board's DM&E decisions). SEA also asked EIA to assess rail rate decreases of *twice* that amount (the "Low7pct scenario") and, for comparison purposes, asked EIA to analyze rate increases of equivalent sizes.

SEA used the "Low7Pct scenario" from the rate sensitivity analysis in DM&E to evaluate the cumulative effects of TRRC and DM&E for this Final SEIS. As discussed above, SEA had calculated that the effect of BNSF/TRRC offering lower rates in response to competition from DM&E would be a 0.7% reduction in the regional transportation rates from the "NW" coal supply region in NEMS to the "CW" coal demand region in NEMS, and a reduction of 0.4% in the regional transportation rates from the "NW" coal supply region to the "EN" coal demand region. These rate reductions would be in addition to the rate reductions expected from DM&E entering the market, which are reflected in the NEMS rate sensitive analysis conducted in DM&E. Based on these calculations, the combined effect on transportation rates from TRRC and DM&E would be a reduction of 4.3% in the regional transportation rates from the "NW" coal supply region to the "CW" coal demand region (3.6% from DM&E plus 0.7% from TRRC), and a reduction of 4.0 percent in regional transportation rates from the "NW" coal supply region to the "EN"

[81] SEA assumed conservatively that all the states in the "EN" coal demand region would receive this rate reduction even though only one of the four states would actually realize a shorter route by using TRRC.

coal demand region (3.6 percent from DM&E plus 0.4 percent from TRRC). Thus, the transportation rate reductions expected from the "Low7Pct scenario" in the DM&E rate sensitivity analysis are larger than the cumulative effects SEA expects from both the TRRC and DM&E construction projects combined. And, as discussed above, the rate sensitivity analysis in DM&E showed that little additional coal would be consumed, regionally or nationally, in response to changes in rail rates under any of the rate scenarios that were studied (including the "Low7pct scenario"). It further showed that the small changes in PRB coal usage that could result would translate to minimal changes in air emissions from the electric power sector, both nationally and regionally.

f. Low7pct Scenario: Effects on Coal Production and Consumption

Table 2-5 compares EIA's coal production forecasts from its Annual Energy Outlook 2005 report, which is the base case to which the effects of DM&E were compared to the "Low7pct scenario,"[82] which incorporates more than the cumulative effects SEA expects from TRRC and DM&E combined.

Table 2-5
Coal Production (Million Short Tons)
Comparing the Annual Energy Outlook 2005 Report (AEO 2005) to the Low7pct Scenario

	AEO 2005			Low7pct			Percent Change from AEO 2005		
Coal Supply Region	**2010**	**2015**	**2025**	**2010**	**2015**	**2025**	**2010**	**2015**	**2025**
Appalachia	403	385	406	401	380	396	-0.5%	-1.3%	-2.5%
Interior	159	157	182	156	152	182	-1.9%	-3.2%	0.0%
WY Powder River Basin	497	538	633	510	556	650	2.6%	3.3%	2.7%
Other Western Regions	179	189	267	174	186	265	-2.8%	-1.6%	-0.7%
National Total	1,238	1,270	1,488	1,241	1,275	1,494	0.2%	0.4%	0.4%

While there are some regional changes between the "Low7pct scenario" and the "base case" presented in the Annual Energy Outlook 2005 report (ranging from a 3.3% increase in Wyoming PRB coal supply region production in 2015 to a 3.2% decrease in production in the "Interior" coal supply region in 2015), the change in national coal production would be less than 1% (0.4%). Thus, EIA's NEMS model predicts a small change in the location of coal production due to lower PRB transportation rates that might result from both of these projects, but virtually no change in the total amount of coal that would otherwise be produced between 2010 and 2025.

Likewise, as might be expected and as reflected in Table 2-6, changes in transportation rates from TRRC and DM&E combined would only minimally affect the coal consumption otherwise predicted by EIA in its Annual Energy Outlook 2005 report.

[82] See DM&E Draft SEIS.

Table 2-6
Coal Consumption (Million Short Tons) – National Totals

	AEO 2005			Low7pct			Percent Change from AEO 2005		
Region	**2010**	**2015**	**2025**	**2010**	**2015**	**2025**	**2010**	**2015**	**2025**
National	1,139	1,185	1,425	1,141	1,190	1,430	0.2%	0.4%	0.4%

g. Low7pct Scenario: Effects on Coal-Fired Electricity Generation

The NEMS rate sensitivity analysis run by EIA for DM&E found that coal-fired electricity generation forecasts between EIA's Annual Energy Outlook 2005 report and the "Low7pct scenario"[83] would be almost unchanged.

h. Low7pct Scenario: Electric Power Sector Emissions

The NEMS rate sensitivity analysis run by EIA for DM&E found that the small changes expected in coal production, coal consumption and coal-fired electricity generation between the Annual Energy Outlook 2005 report and the "Low7pct scenario" would translate to minimal changes in emissions from the electric power sector.

i. Evaluation of Local Air Impacts

SEA's analysis of the individual effects of TRRC, as well as the combined effects of TRRC and DM&E, on a national and regional basis, shows only very minor air quality impacts. As in DM&E, however, the local air quality impacts of either or both construction projects cannot be determined. To be able to reasonably foresee the likely cumulative impacts of these two projects on a local level, one would need to know not only what existing or new power plants would actually use TRRC's and DM&E's services, but also whether they would otherwise not burn PRB coal, not burn as much coal, or burn a different mix of coal. SEA cannot rule out the possibility that at some locations there could be an increase in air emissions because more PRB coal would be burned as a result of these two construction projects. Therefore, SEA has followed the process established in the CEQ regulation at 40 CFR 1502.22(b), as discussed above, for dealing with the circumstances where critical information is unavailable or incomplete.[84]

j. Conclusions Regarding Cumulative Air Quality Impacts of TRRC and DM&E Projects

SEA thoroughly evaluated the cumulative route mileage savings of both the TRRC and DM&E projects, and the resulting transportation rate savings that might occur in the markets served by both TRRC and DM&E and found that only minimal changes in coal consumption and air pollution emissions would occur, at least on a national and regional basis. While potential effects on a local basis cannot be ruled out, there is no way to predict, based on the available information, where and the extent to which those impacts

[83] See DM&E Draft SEIS.

[84] The analysis required under 40 CFR 1502.22(b) is the same for the cumulative effects of the two projects as it was for TRRC alone. Therefore, there is no need to repeat the analysis here.

would occur. Nor could SEA devise meaningful mitigation to address the potential cumulative air quality effects of the two projects on a local basis.

5. Other Issues

NPRC generally suggests that DM&E would satisfy the need for a shorter transportation route for existing coal mines in the PRB and therefore lessen the need for TRRC, particularly if a mine-mouth power plant were constructed and transmission lines carried electricity to the Midwest. However, the DM&E line, assuming it is built, would be over 100 miles to the south-southeast of TRRC at its closest point. TRRC would carry NPRB coal from Montana, as well as SPRB coal from Wyoming. DM&E, in contrast, would only access SPRB coal from Wyoming. SPRB and NPRB coal are not easily interchangeable at electric utility power plants. Construction of the DM&E line, therefore, would have little effect on the need for TRRC to provide coal more efficiently to those utilities that already rely on NPRB coal.

In any case, the need for this project is not an issue that SEA must consider in preparing the environmental review for this proposal.[85] Even if DM&E were to reduce the need for increased capacity into the PRB, which is unlikely, the nature of PRB coal (which is relatively inexpensive to mine compared to other coals, and cheaper than alternative fuel sources, such as natural gas) would continue to make it an attractive fuel. In short, whether or not both the TRRC and DM&E projects move forward, the overall trend of increased demand for PRB coal will continue and both projects would help meet that growing demand. Neither TRRC nor DM&E would, however, cause the demand.

NPRC and ME3 suggest that SEA should have studied not only the amount of additional coal consumption anticipated as a result of TRRC, but the potential impacts of making additional coal available on the market for increased use of coal by power plants in general. NPRC further suggests that SEA should assess in detail the currently existing air quality conditions in the Midwest, and discuss in detail the State Implementation Plan (SIP) of each state for implementing the national ambient air quality standards under the Clean Air Act. However, state agencies, EPA, and other Federal agencies, not the Board, are responsible for regulating the effects on air quality of increased coal usage through enforcement of the Clean Air Act and other statutes they administer.[86] The Board's role here is to consider the effects of the TRRC project on PRB coal usage and the cumulative effects (if any) of adding both TRRC's and DM&E's service in the PRB region.

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[85] The Board is charged with weighing the need for a rail construction project against its environmental effects.

[86] The Board plays no role in reviewing SIPS, or determining what the terms and conditions of a SIP should be. Moreover, SIPS can be lengthy and current information on the requirements of an individual state's SIP is public information, available from EPA. Given the fact that TRRC would be expected to transport coal to utilities in several states and that the TRRC construction should have only a minimal impact on coal usage and resulting air emissions on a national and regional basis and that whether and where any local impacts might be cannot be predicted with any level of certainty, NPRC plainly has failed to support its claim that this SEIS needs to discuss the requirements of each SIP, and whether the terms and conditions of each SIP could mitigate some of the predicted air quality impacts of this project.

NPRC also maintains that SEA should have done more to assess the development of Otter Creek coal tracts and new coal-fired power plants near Ashland, Montana. These issues were thoroughly addressed in the environmental review of TRRC I and TRRC II, as well as the Draft SEIS for the proposed Western Alignment. The railroad has verified that the information previously submitted remains accurate. As explained in more detail in Master Response 21 and the Draft SEIS (at pp. 6-4 to 6-8), at present none of the coal tracts have been leased, no mine development is imminent, and no transmission line right-of-way has been acquired. While the TRRC project might encourage the development of new coal tracts (and possibly power plants) in the area,[87] a meaningful assessment of the indirect effects of TRRC on the development of new coal tracts is not possible at this time because information on when and what kind of development might actually take place is unknown and unavailable. Estimates and analysis included in TRRC I and updated in TRRC II remain the best estimate of the effects of this project on mine development in the Ashland area.

[87] The closest power plant that has been identified is the Hardin Plant, which would be approximately 60 miles away and thus is not expected to contribute to adverse cumulative effects in conjunction with the TRRC construction. Any new power plants that are built that might use coal transported by TRRC would be constrained by all applicable environmental laws and other regulatory constraints that apply to power plants (including EPA's new Clean Air Interstate and mercury rules).

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Chapter 3: Comments and Responses

Federal Agencies

F1 Advisory Council on Historic Preservation

F2 United States Senate: Max Baucus

F3 United States Geological Survey

F4 United States Department of the Interior, Bureau of Land Management

F5 United States Department of the Interior, Office of the Secretary

F6 United States Environmental Protection Agency

F7 United States Senate: Conrad Burns

F8 United States Congress: Denny Rehberg

F9 Northern Cheyenne Tribe Administration

F1

EI#1119

November 16, 2004

Mr. Kenneth H. Blodgett
Environmental Protection Specialist
Office of Economics, Environmental
Analysis and Administration
Surface Transportation Board
Washington, D.C. 20423

REF: *Tongue River Railroad Company, Inc. – Finance Docket 31086 (Sub-No.3).*

Dear Mr. Blodgett:

On October 26, 2004, we received a revised draft Programmatic Agreement for the Tongue River Railroad Company (TRRC) Western Alignment for our review and comment. We have reviewed the current draft and offer the attached comments for your consideration. We recommend that before the Section of Environmental Analysis (SEA) presents a final PA to the signatories and concurring parties, that SEA contact the parties to consult about and resolve any remaining comments offered that SEA does not incorporate into the agreement. 1

If you have any questions regarding these matters, please contact me at (303) 969-5110 or Email at astanfill@achp.gov.

Sincerely,

Alan Stanfill
Senior Program Analyst
Western Office of
Program Review

ADVISORY COUNCIL ON HISTORIC PRESERVATION

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ACHP Comments on Draft #4, Programmatic Agreement Regarding Construction and Operation of a Rail Line from Miles City to Decker, Montana

1. Upon careful review of the revised draft and prior comments provided by us and other reviewers, we are convinced that an Identification Plan is needed. In addition to providing thorough definitions of Class I through Class III standards, the Plan needs to discuss identification strategies in relation to the project as presented on detailed maps. The Plan should clarify how and where inventory efforts will be conducted and the nature and purpose of those efforts. For example, among the purposes of a "Windshield "survey should be the intent to assess whether cultural landscapes may exist in the APE (eg., farming, ranching, Traditional Cultural), and to provide initial recognition and identification of such landscapes and the elements that distinguish them. 2
2. An Identification Plan, should also provide clearer explanations of how tribal involvement will be integrated into the identification effort, and whether there is a need to contract directly with the tribes to gather information about properties of traditional religious and cultural importance to them within the APE. Having a tribal representative walking around with the archaeological field crew may not be the best strategy to gain this information since it would not be reasonable to assume that any one member of any particular tribe would retain all the traditional information necessary to recognize or evaluate the importance of such properties. A more concerted and systematic effort involving informant interviews may be necessary, and that effort needs to be presented in a Plan. 3
3. The Board needs to explain what information will be provided prior to determining whether requested information missing in an inventory report is required. What standards and guidelines will the Board follow to determine whether information requested from a reviewer is required? Clarification of the specific identification information that will be generated in reports would be helpful for minimizing requests for additional information and delays when parties invoke the dispute resolution clause as their only option when the Board decides that requested information is not required. The sequential steps of Stipulation I.f. should be numbered for clarity. 4
4. At Stipulation II, how will the Board consult with the signatories and concurring parties to identify treatment options? Evidently, the Inventory Report will provide the basis for consulting about the development of treatment options, but the PA is not clear as to whether the Inventory Report will include recommendations for treatment or when or how the Board will seek consensus from the signatories and concurring parties about appropriate mitigation measures. 5
5. Stipulation III directs TRRC to prepare a Treatment Plan for each affected segment of the alignment. Such Plans are then presented to the signatories and consulting parties for review in accordance with Stipulation IV. The stipulation states that requests for additional information beyond that which is contained in the Treatment Plan may be refused by the Board. To avoid delays and disputes, please provide clarification of the standards and guidelines that will be followed by the Board to determine whether requested information is required. 6

SEA's Responses to Comment Letter F1
Alan Stanfill, ACHP (November 16, 2004)

F1.1 A Final Programmatic Agreement (Final PA) is contained in Appendix C. SEA consulted with the Advisory Council and the Bureau of Land Management and provided the Final PA to all signatory and concurring parties for review prior to signing.

F1.2 The Final PA includes an Identification Plan (ID Plan) as suggested by the Advisory Council. The ID Plan includes detailed information about how the Class I and III inventories would be conducted including the purposes of each and the methodologies for intensive pedestrian, subsurface, and geomorphologic surveys.

F1.3 The ID Plan included in the Final PA provides additional clarification on the role of Native American representatives in assessing National Register eligibility of any properties of religious or cultural significance to the tribes.

F1.4 The ID Plan, which is included in the Final PA as Attachment A, includes the standards and methods to be used in preparing the inventory report(s). The ID Plan, and therefore the required contents for inventory report(s), has been developed in accordance with Section 106 of the National Historic Preservation Act (NHPA), Executive Order 13175, *Consultation with Indian Tribal Governments,* other applicable Federal laws that consider impacts to historic properties for Federal undertakings, and the *Secretary of Interior's Standards and Guidelines for Archaeology and Historic Preservation* (Standards and Guidelines) (48 FR 44716-44742) (1983).

The ID Plan provides a detailed outline of the information to be included in each report. This enables reviewing parties to easily determine whether requested information is missing in the report(s). The Final PA has also been revised to number the sequential steps in the review and approval process for reports prepared pursuant to the ID Plan (Stipulation I.e. in the Final PA).

F1.5 The ID Plan included in the Final PA requires that inventory report(s) include recommendations on site-specific eligibility as well as avoidance and mitigation options. These recommendations would form the basis for consultation with the parties regarding treatment options as outlined in Stipulation II.

F1.6 The Board, in evaluating requests for additional information regarding a specific Treatment Plan, will rely on the requirements outlined in Stipulation III and the principles of the Council's Treatment of Archaeological Properties: A Handbook, Parts I and II, the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 FR 44716-44742) (1983).

F2

EI#1123

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United States Senate
WASHINGTON, DC 20510-2602

November 16, 2004

Mr. Kenneth Blodgett
Surface Transportation Board
Case Control Unit
Washington, D.C. 20423-0001

Dear Mr. Blodgett:

I am writing to express my continued support for the application of the Tongue River Railroad Company to construct and operate the Western Alignment. The Western Alignment replaces the southernmost 17 miles of the Four Mile Creek alternative alignment approved by the Board in 1996. Further, I support the Draft Supplemental Environmental Impact Statement (Draft SEIS) issued by the Surface Transportation Board (the Board) on October 15, 2004, addressing the environmental impacts of the proposed alignment and the mitigation measures proposed for the construction and operation of the Western Alignment. 1

I have submitted several written statements in the past supporting the Tongue River Railroad project, the most recent on April 13, 1998. I applaud the Board for approving the extension of the Tongue River Railroad project from Ashland, Montana to Decker in 1996. It is my understanding that approval of the Western Alignment in place of the Four Mile Creek alternative route will provide a safe and dependable rail alignment. The Western Alignment appears to be the most efficient rail alignment from an operating and maintenance perspective.

As I have stated before, the State of Montana is blessed with an abundance of low sulfur, high quality coal, including in the vicinity of Ashland, Montana. I was a strong proponent of the 1990 Clean Air Act Amendments that increased demand for low sulfur coal. However, adequate and affordable transportation is needed to allow Montana's coal to reach low sulfur markets. The Tongue River Railroad is expected to provide such transportation infrastructure, and will offer important job and economic opportunities to southeastern Montana communities and citizens.

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Successful implementation of the mitigation measures proposed by the Board in the Draft SEIS will help to ensure the construction and operation of a safe, economic and responsible rail development. I urge the Board to carefully review and approve the Western Alignment application. 1 cont.

With best personal regards, I am

Sincerely,

MSB/klb

cc: Roger Nober, Chairman

SEA's Response to Comment Letter F2
United States Senate: Max Baucus (November 16, 2004)

F2.1 Comment noted.

"Brenda J Johnson" <bjjohnso@usgs.go
To "web.site.feedback" <web.site.feedback@stb.dot.gov>
11/16/2004
Subject: NO COMMENTS FOR THE TONGUE RIVER RAILROAD COMPANY

The USGS has reviewed the Draft Supplemental Environmental Impact Statement for Tongue River Railroad Company, Inc., - Construction and Operation?
Western Alignment, Tongue River III, Rosebud and Big Horn Counties, Montana and has no comments.

Thanks

****
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****

SEA's Response to Comment Letter F3
United States Geological Survey (November 16, 2004)

F3.1 Comment noted.

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Miles City Field Office
111 Garryowen Road
Miles City, Montana 59301
http://www.mt.blm.gov/mcfo

TAKE PRIDE IN AMERICA

IN REPLY TO:
MTM-59033
2800

December 8, 2004

Surface Transportation Board
Office of the Secretary, Case Control Unit
Section of Environmental Analysis
Attention: Ken Blodgett
1925 K Street, NW
Washington, DC 20423-0001

Dear Mr. Blodgett:

This letter is in response to Surface Transportation Board's (STB) Finance Docket No. 30186 (Sub. No. 3) request for comments on the draft of the supplement to the final environmental impact statement for the *Tongue River Railroad Company (TRRC), Construction and Operation of the Western Alignment in Rosebud and Big Horn Counties, Montana*. Our comments are attached.

We would appreciate a response addressing each comment and showing that you have incorporated it. If you do not incorporate a comment, we would appreciate an explanation as to why it was not used.

We will require the submission of a construction, operation and maintenance plan by Tongue River Railroad Company, Inc. prior to the approval of all rights-of-way by the Bureau of Land Management.

Thanks for giving us the opportunity to comment on this document. If you have any other comments or questions, please contact Dalice Landers, Realty Specialist, at the above address or call (406) 233-2836.

Sincerely,

/s/ David McIlnay

David McIlnay
Field Manager

Enclosure:
Comments

COMMENT FORM – Draft SEIS

PG#	LINE#	RECOMMENDED CHANGE	
		4.2.10 There are no mention of recreation on BLM or USFS lands.	1
5-26	20	"No new significant" is a subjective term. Loss of an opportunity to recreate is very significant to those losing the experience.	2
4-118	33-35	Paleontologic resources are not eligible for listing in the NRHP.	3
4-118 4-119	40-48 1-7	The PA (Appendix G) does not cover paleontological resources. Delete all references to paleo throughout this paragraph. The document, therefore, contains no mitigation measures discussion for paleo.	4
4-120	22-26	These two sentences are incorrect. Paleo resources are <u>not</u> surveyed during cultural survey efforts, nor is that allowed. Any surveys required for paleontological resources must be done by a qualified and permitted Paleontologist, not an Archaeologist. In the case of the TRR, however, the low potential for discovery of significant paleo resources negates the need for a formal field paleo survey.	5
4-125	24-26	Again, the PA does not address paleontological resources.	6
4-127	15	Although the title of this section mentions Paleontological Resources, there's no discussion in the text. Basically, there would be no impacts on Paleontological Resources from Operation and Maintenance, unless new surface disturbance occurs.	7
		Suggestion: As appropriate within this Chapter, inclusion of our standard stipulation for paleontological resources may be useful. Although the text is variable, it basically says "If significant paleontological resources are discovered during surface disturbing activities, all work that potentially would damage the resource must cease, the area of concern must be protected, and the BLM notified as soon as possible. Appropriate mitigation measures would be developed by the BLM and implemented as soon as possible."	8
2-6	Table 2-2	Row e, Number of locomotive engineers for Western Alignment is shown as two (2). However, many of the eastbound loaded coal trains passing through Miles City have three locomotives—wouldn't the outbound, loaded trains on the Western Alignment also have three locomotives?	9
6-4	47	The subject Spring Creek Federal Coal Lease was issued in March of 1991 and mining has been underway in the new lease areas since the lease issued. The state leases have also issued.	10
6-1		The cumulative impacts to Miles City from increased rail traffic are not assessed in this document. The increased train traffic from Decker to Miles City is discussed in Chapter 2 which states that there will be 14 trains a day from Decker to Miles City. However, we never add that to the existing traffic passing through Miles City which would not come from the TRR and discuss these cumulative impacts to the community. There are several freight trains and coal trains (Colstrip and Absaloka Mines) that will not use the TRR but still pass through Miles City. This needs to be done to fully address cumulative impacts. One long coal train passing through town disrupts much of the vehicular cross town/tracks traffic access several times a day for several minutes each day. This affects emergency services as we have only one underpass. More train traffic means more disruptions to basic emergency services for a town of about 10,000 people We need a comprehensive analysis of the increased rail traffic impacts and safety impacts of additional train traffic going through Miles City and an updated discussion about the railyard operation and maintenance in Miles City. Have any physical changes occurred in Miles City since last analyzed?	11
4-7		Noxious weeds are not any more of a fire hazard than any other type of vegetation. Please remove that part of the sentence and adjust it to say, 'Due to the soil disturbance from the proposed construction the possibility of noxious weed infestations sharply increases. The infestations would result in a loss of crop production along the Tongue River corridor and surrounding areas. Spotted knapweed, Houndstongue, Canada Thistle and Burdock are the four known weed species that are present along the Tongue River at this time. Other possible species are primarily Leafy Spurge and Salt Cedar, but any weed seeds could be brought in on equipment used within the construction area.'	12
4-13	5	According to our list, the Tiger Salamander is not a species of special concern. Paddlefish (*Polyodon spathula*), Sturgeon chub (*Macrhybopsis gelida*), and the Blue sucker (*Cycelptus elongates*) are all on the Montana Species of Concern List, and are located downstream of the proposed Western Alignment within the Tongue and/or Yellowstone River. Baseline habitat and population information was not provided and an effects analysis was not completed to these downstream fish species.	13
4-15	23	According to our list, the Tiger Salamander is not a species of special concern.	14
4-21	25	We were wondering where you received the over winter information. We believe that the rainbow population has very little natural reproduction and could have low over winter survival. However, electroshocking data from Montana Fish, Wildlife	15

		and Parks indicated in 2000, 2003, & 2004 that the mean length was 14.6, 13.5, and 9.96 inches, respectively. These relatively high mean lengths may indicate a larger amount of over winter survival. In addition, the Tongue River does not freeze for a considerable distance downstream of the dam, which may also increase survival rates.	15 cont.
4-21	25-28	Based on conversation with Montana Fish, Wildlife and Parks; brown trout were stocked periodically for many years, but have not been stocked recently. The 2000 "Evaluation of Salmonid Populations in Tongue River Reservoir's Tailrace Following Re-construction of Tongue River Dam" report made the following recommendation: " Stock brown trout over a five-year period to reestablish a natural recruiting population, as water temperatures are more conducive to browns than rainbows".	16
4-78	39-42	The statement indicates that mitigation measures should "minimize placement of fill in streams". How is this going to occur with the proposed Western Alignment?	17
4-81	35-39	There is no mention of sauger being on the MT NHP Species of Concern list.	18
4-82	36-41	There is no mention of the timing of fish surveys.	19
4-97	23	Does the number of 20 include the sauger?	20
4-114	4-7	With the amount of fill that will be deposited (associated with the proposed Western Alignment), we believe it is essential to have a culvert that will pass a 100 year event without static head and with anticipated beload/debris. These culverts should be able to pass an unrestricted 100 year event. Using the head at entrance and allowing ponding will only increase the potential for failure in these stream crossings. Large releases of sediment can harm and kill aquatic life. In a high flow event, the large amount of fill material (associated with the proposed Western Alignment) could reach levels that could harm and kill aquatic life within the Tongue River.	21
4-114	33-38	We believe that the structures should pass a 100 year event to lesson effects to aquatic fish and other biota.	22
8-1	31-36	This comment is for this section and for the direct, indirect, and cumulative effects analysis throughout the document. The document seems to be trying to support an idea that the proposed Western Alignment is a better alternative for wildlife, aquatic biota and other resources, since it impacts less acres, etc. The amount of acres affected does not necessarily result in a determination that can be classified as a lessoned effect. In regard to aquatics, the proposed Western Alignment poses a much greater risk of harm to populations of fish (including the sauger), aquatic invertebrates, and amphibians due to the potential of a high flow event washing sediment down the much steeper draws of the proposed Western Alignment. This risk is elevated by not considering the construction of trusses/bridges (instead of fill) and the placement of culverts that can pass unrestricted 100 year event flows. The risk of a high flow event and the effects of sediment (deposited directly into the Tongue River) on aquatic biota is not analyzed in the document. This potential effect should at least be analyzed before selecting an action.	23
		Appendix E: The write-up refers to tables, but there are none. The tables need to be included in this appendix. Page 3: The former Powder River Resource Area is not now known as the Powder River Planning Unit. It is now known as the Miles City Field Office. However, if you are just referring to the area as the Powder River Planning Unit for the purpose of Appendix E, it is okay. Page 6, Footnote 1 – the wording "estimated AUM loss." is out of place or needs different capitalization or punctuation to fit into the sentence.	24
4-74 7-15	33-39 14-20	On BLM tracts, all seeds shall be from native species. Species to be used for revegetation may include, but are not limited to: Western wheatgrass (*Pascopyrum smithii)* Bluebunch wheatgrass (*Pseudoroegneria spicata)* Green needlegrass (*Nassella viridula)* Slender wheatgrass (*Elymus trachycaulus)* Little bluestem (*Schizachrium Scoparium)* Blue flax (*Linum perenne* - forb) Purple prairie clover (*Dalea lasiathera* – forb). Thickspike wheatgrass may be substituted only when western wheatgrass is unavailable.	25
4-74 7-15	47-48 29-29	If straw or any other kind of bale is used for mulch, the twine should be composed of biodegradable material instead of plastic. (Usually the bale is loaded into the mulching machine with the twine on it so it holds together. It is time-consuming to cut the twine off after the bale is loaded so the twine is usually mulched along with the straw. If the twine is biodegradable, it will decompose over time. If the twine is plastic, it will not decompose and can cause damage to livestock. Plus plastic twine shredded all over the ROW looks unsightly.)	26
4-47		4.2.9 Socioeconomics: The report needs to include the Amish community that has settled north of Ashland. We expect that they will be impacted disproportionately and may be covered by Environmental Justice. They drive buggies and ride horses to Ashland so it is expected that the construction traffic would be extremely annoying and probably very dangerous for them.	27

		They also may have moved to that ranch because of the isolated lifestyle which may change due to the TRR.	
4-160		4.3.9 Environmental Consequences – Socioeconomics: The effects to ranches from changes in livestock grazing should be addressed.	28
4-174		4.3.9.4 Environmental Justice: There is little discussion of the Northern Cheyenne Reservation. The only thing discussed in the EJ section is employment. As the reservation is located just west of Ashland, other effects to the reservation must be discussed, especially the possibility of increased traffic across the reservation and the potential impact to emergency services and policing increased traffic, social effects from the increase in numbers of people in the area. There may not be any effects and if so, this should be stated in the document. This analysis was prepared in response to comments from the Northern Cheyenne (see paragraph 5 on page 3-8 of the same document) and was supposed to focus on effects to Native Americans but I do not think this is done adequately. The Northern Cheyenne were very concerned about graves in the Birney area being disturbed. This needs to be discussed somewhere.	29
4-161 to 4-173		This analysis does not address social effects at all. What about effects (other than from services) from increased numbers of people in the area, changes in local communities. If there would not be changes, this should be stated.	30
4-31	2-3	Drop sentence beginning "Fossil resources are part…" It creates confusion.	31
4-25 4-35	40-41 15-16	On page 4-25, lines 40-41, the Fort Union is listed as a formation, with the Tongue River as a Member. On page 4-35, lines 15-16, it is listed as a Group with the Tongue River as a Formation. Need to verify most current designation and correct one or the other listing.	32
		The SEIS states that coal is the only product that will be hauled on the trains and it only analyzes for spills of coal, etc. **Will that be TRRC's policy that only coal will be hauled?** If coal-fired facilities are built, there could be a possibility of hauling Hog Fuel/wood chips as a result of Biomass harvest on Federal, state, and private lands in Eastern Montana. If that occurs, there would also be a possibility of hauling logs or finished lumber products to and from facilities in Ashland (Northern Cheyenne mill) or Miles City/Sheridan. If the policy is coal only, then they would not need to analyze for accidents, etc. while hauling other substances or products.	33
4-2	Table 4-8	Are these mean water quality values or what? Water quality information without associated flows or appropriate statistical information has no meaning due to the high variability of water quality and flow in this area.	34
4-10	24	There are 4-5 active bald eagle nests within the project area and one inactive nesting territory (2004 data). However, only two active nests are discussed.	35
4-97 4-98		There needs to be more discussion on the importance of the hunted wildlife species (deer and pronghorn antelope). All hunted species of wildlife are of huge economic importance and should have a more thorough discussion.	36
4-98 4-99		With the increasing importance of sage grouse, more discussion on sage grouse is needed, including discussion on wintering areas and impacts of West Nile virus on sage grouse. Need to check statewide data base for more information on sage grouse strutting grounds which have been found in the past few years.	37
4-83	30-34	Sage grouse inventories need to be conducted at least two miles from any proposed disturbance.	38
4-83	41-42	Dates need go through mid July so as to protect important nesting, brood rearing habitat.	39
4-88	42-43	The comment on depressed grouse populations needs to be supported by documentation. For sage grouse this is most likely true. Sharptails may not have been depressed.	40
4-89	36-46	Some of the disturbance to raptors could be permanent. Not temporary as suggested.	41
4-96	19+	New nest sites need to be identified and discussed.	42
4-97	1+	Need to discuss the habitat that is indirectly affected, not just the acres directly affected. Indirect impacts will be substantial in terms of acres. This comment holds true for most species.	43
1-26		-DOI requires a minimum of 60 days from the date the Draft is transmitted to EPA -60-day Governor's consistency review -30-day waiting period when final is issued before we can issue our ROD	44
Add		The other "Alternatives Considered but Dropped from Further Analysis" such as those suggested by the public or other agencies should be listed in Appendix E. BLM need this to make this document workable for our processes.	45
		A general rule of thumb for preparing documents for the BLM NEPA process is never to call an impact adverse/beneficial or significant/insignificant.	46
		There were several misspellings of Mile as Mike.	47
		The Cultural Resource Programmatic Agreement: The Programmatic Agreement (PA) employs faulty reasoning to assume that the PA can address ALL cultural resource issues.	48

		Of primary concern is the lack of inclusion of known cultural resource information in the EIS concerning known sites within the proposed rail corridor and the lack of the document to address potential impacts to these known sites. Overall, the document does not include cultural resource information in the analysis and therefore the document contains a major flaw. The draft EIS mentions other known historic sites in the Tongue River Canyon area that the EIS refers to as a result of the windshield survey. However, the draft EIS document does not include or mention or take into account in any of the analysis any of this supposedly known information that is loosely referred to in the document. Regardless of the PA, the **KNOWN** cultural data needs to be analyzed in the EIS. Not everything can be deferred by the PA. Even the windshield survey results are not analyzed and they need to be. Not to mention the "windshield" survey did a very poor job of identifying sites along the route, particularly, it missed identifying the Battle Butte Battlefield site. At the least, the "windshield" survey should be redone and the results included and analyzed in the EIS. Some of the information gathering cannot be postponed to after the fact after the issuing of the Record of Decision and permit to proceed. What has resulted so far with the various documents, including this draft EIS and Programmatic Agreement in Appendix G, is to defer taking cultural resource considerations into account in the analysis of the EIS which results in not taking Cultural Resource considerations into account in the final decision. Of concern is one site in particular, the Battle Butte Battlefield, a site that is now "**LISTED**" on the National Register of Historic Places. It has been pointed out to STB numerous times over the past several years and throughout the preparation of the various drafts of this document that the EIS analysis needs to address potential impacts to this site from the proposed rail line. The lack of consideration of this site in the analysis results in foreclosing of the opportunity to take this site into account in the overall decision to permit the railroad. In Appendix G, page 6, Section III.b the statement is made that "TRR, Inc. shall develop specific procedures to preserve historic properties in-place. These procedures may include avoidance by re-routing the railroad alignment around the resources **where feasible**…" Since the railroad's proposed alignment passes through the Battle Butte Battlefield site, this will be one of the major issues to be dealt with under the PA. Since the PA states that avoidance or in-place preservation is the preferred alternative to dealing with and mitigating sites, and since it is well known that the site will be impacted, the document needs to address this fact up front in the document. The potential exists that the railroad alignment may need to be re-rerouted around this site and, therefore, the impacts to this most significant site need to be disclosed the analysis and the alternatives for the rerouting around the site also need to be analyzed and addressed in the document. Postponing this analysis will cause the subsequent decision to be flawed and forecloses the opportunity to consider environmental alternatives to impacting this site within the analysis of the EIS. In reference to the "…**where feasible**..." statement, some procedure needs to be fleshed out to address by whom and by what means the decision is made as to the feasibility of moving the line. The potential need to move of the proposed alignment and the pros and cons and difficulties of such a move also needs to be addressed in the document. Otherwise, the decision is left up to the discretion of the company and a cavalier decision to ignore avoidance could basically invalidate the PA. Also, **NOT** taking this knowledge into account and consideration in the analysis will cause the EIS to be fatally flawed. The analysis needs address alterative routes around the Battle Butte site and/or potential mitigation options and what the impacts will be if the decision is made NOT to avoid the site. Without this analysis the document is fatally flawed and incomplete. Also, without this analysis BLM will not be able to use the EIS to make a decision to grant a ROW on TRR I and II and sign an ROD without doing its own analysis to address these issues. Somewhere in the PA, it needs to address this fact.	48 cont
		A major concern is the statements made throughout the document that the preferred alignment alternative, the Western Alignment, is the environmentally preferred alignment. Beginning on page xix, paragraph 3, and occurring elsewhere throughout the document, the document makes the claim that both the Western Alignment and the Four Mile Creek Alternative are environmentally preferred because they both avoid the "sensitive" Tongue River Canyon. However, this analysis is flawed because the proposed location of the Western Alignment will side hill up through the Tongue River Canyon causing as much impacts to the canyon and the visual esthetic of the canyon as the originally proposed alignment that ran through the bottom of the canyon.	49
		In addition, no analysis is given to address the fact that the proposed Western Alignment will cross several side canyons at their mouth where they enter the Tongue River Canyon. The result of placing the proposed Western Alignment in its proposed/current location will result in the filling in these canyon mouths with huge earthen embankments to form the	50

		roadbed. The impacts to the visual esthetics of the canyon and the impacts to the hydrology of the side canyons, the fact that huge long culverts will be needed to pass under these embankments and their effects on wildlife movement down these canyons to the river corridor and the damming affect and large impoundments of water that will be caused by the embankments when large precipitation events occur are simply and completely not addressed in the document. These issues need to be addressed and analyzed and potential mitigation measures proposed to offset the impacts of the large embankments crossing the side canyon mouths, such as the use of trestles to cross the side canyons, eliminating the embankments.	50 cont
4-33	10	Many issues concerning the PA remain and apparently, have still not been addressed. At no time has TRRC or STB taken into account the true potential of cultural resource values in the EISs since no survey of the route has occurred yet. To date there still has been no cultural survey of the proposed line. What the PA will do is to preempt consultation and segments consultation by stating survey will occur only on portions of the line TRRC has access to immediately prior to construction. This is a violation of National Historic Preservation Act. Project consultation can not be segmented in this way. Cultural resources need to be considered within the body of **THIS** document, meaning that the route **NEEDS** to be inventoried **PRIOR** to completing the EIS and the findings disclosed and analyzed in the document.	51
4-33	10	The document state "SEA identified, through a Class I inventory potential impacts on cultural resources…" However, the analysis and use of this information concerning the impacts to cultural resources does not appear anywhere in the document. The flaw with the entire EIS cultural analysis is that the original Class I inventory was faulty and therefore of little use. Consequently, use of this information causes the analysis in the EIS to also be faulty.	52
4-118	31	Conclusions: This section falsely projects that there will be no significant impacts to cultural resources. The document can not make this statement as no on-the-ground survey of the proposed lines has occurred yet. This paragraph also assumes that development of a PA addresses the need to disclose potential impacts. The PA is not designed to do this. This must be done in the EIS document. Some wording concerning an analysis of potential and known impacts to cultural resources. Development of a PA is a mitigation measure deriving from disclosure of impacts. There will likely be SIGNIFANCT impacts to sites by line construction and these impacts and proposed mitigation measures to lessen these impacts need to be disclosed in this document.	53
4-119	32	The sentence starting here states "SEAs assessment of impacts…has been conducted in compliance with applicable Federal…policies…" This has not yet happened and the implementation of the PA, as written, does not protect, at this point impact to significant sites, such as to the Battle Butte Battlefield site, particularly since the first option for mitigation in the PA sates that line re-location would be the first mitigation measure considered. Should the line need to be re-routed, then these re-routes should be and need to be discussed in the document, not handled after the fact under the PA.	54
xxi	8	This paragraph correctly identifies the cut and fill and grading actions of line construction as being the most potentially impacting of the entire project. Yet, the document offers no forms of mitigation to offset these impacts. The only forms of impacts identified with cut and fills is erosion. No mention is made that the Western Alignment will cross numerous drainages at the point where they empty into the Tongue River. The proposal calls for using earth fill crossings creating a "dam" across the mouths of these drainages, effectively stopping them up and causing an unacceptable level of cuts and fills and not to mention the Visual intrusion (VRM) to the scenic Tongue River canyon. None of these impacts are identified or mitigation measures offered to reduce the impacts. These impacts are considered **SIGNIFICANT** and need to be disclosed and reduced. The document fails to identify and analyze these impacts.	55
3-4	26	Comments made by BLM have not yet been addressed in the PA. Many issues concerning the PA remain and apparently, have still not been addressed. The document incorrectly states that the PA "sets forth requirements…that may be encountered during construction." At no time has TRRC or STB taken into account the true potential of cultural resource values in the EISs since no survey of the route has occurred yet. To date there still has been no cultural survey of the proposed line. What the PA will do is to preempt consultation and segments consultation by stating survey will occur only on portions of the line TRRC has access to immediately prior to construction. This is a violation of National Historic Preservation Act. Project consultation can not be segmented in this way. Cultural resources need to be considered within the body of **THIS** document, meaning that the route **NEEDS** to be inventoried **PRIOR** to completing the EIS and the findings disclosed and analyzed in the document.	56
3-6	35	Section 3.3.1: This section talks about re-analysis of the realignment from the original Tongue River I to the revised route for Tongue River I. This should be considered a significant change and should be disclosed in the document and what this change will mean.	57
4-32	13	Section 4.2.5.3: The opening sentence of this paragraph states that the PA will by applied at the construction phase. This is illegal. Cultural resources need to be identified and analyzed and taken into account during the decision process this document is meant to disclose, not after it, at the construction phase. It will be too late then. Cultural resources need to be taken into account **IN THIS** document, not after, at the construction phase.	58
4-100	23	Section 4.3.3: This section again fails to identify one of the most significant impacts of line construction, that being the filling	59

		in of the mouths of all the drainages the line will cross in the Western Alignment leg.	
4-108	15	Section 4.3.4: This section fails to identify and address one of the most significant impacts of line construction and operation that being the damming of the mouths of all the drainages the line will cross in the Western Alignment leg especially during a large runoff event. This "damming" will create large lakes behind the earth fill drainage crossings causing seepage and possible slope failure, not to mention flooding of the riparian zone and other related impacts. The foot print of these crossings at the elevation the line proposes to cross the drainages will be in the order of some 500 feet or more with culverts of corresponding length. There is also the visual intrusion of these major large land fills will have on the scenic Tongue River canyon and side draws. These large land fills will also block the movement of wildlife and cattle up and down the drainages and will block access to the Tongue River as a source of water.	60
4-118	31	Conclusions: This section falsely projects that there will be no significant impacts to cultural resources. The document can not make this statement as no on-the-ground survey of the proposed lines has occurred yet. There will likely be SIGNIFANCT impacts to sites by line construction and these impacts and proposed mitigation measures to lessen these impacts need to be disclosed in this document.	61
4-118	40	This paragraph states that the PA will set forth requirements of how impacts will be appropriately addressed. No where in the document does it address any of these impacts or potential impacts. Many of them can't' and shouldn't be dealt with in the PA. They need to be disclosed and analyzed in the EIS. Class III survey of the line needs to occur prior to finalizing the EIA and the findings analyzed in the document since known potential impacts will be **SIGNIFICANT**.	62
6-15	22-24	Does the statement beginning in Line 22 with "simultaneous" take into consideration that the CBM rights-of-way that will be reseeded, may not be revegetated and able to prevent soil loss for several years depending on soil moisture, timing of seeding, and other natural factors?	63
6-17 6-17	3-5 22-25	On page 6-17, beginning at line 3, it states "No reasonable foreseeable projects were identified within the area of impact that would contribute to the degradation or loss of these (CR) resources." The SEIS states it again on page 6-17 at line 22. These statements are incorrect considering the proposed Western Alignment will pass through the Powder River Gas - Coal Creek CBM project area just northwest of the Tongue River Dam.	64
4-28		4.2.3 Affected Environment – Soils and Geology: Soils are not addressed in this section - discuss affected soils under this heading. Alluvial units and alluvial terrace deposits are geological units. Take discussion to series level and describe the physical and chemical characteristics of the soils and their position on the landscape. Is there any potentially prime farmland disturbed by construction activities? Soils in this area are considered prime farmland only if they are irrigated.	65
4-44		Scoria is a local term for clinker. Scoria is generally considered to be of volcanic origin. The term is used interchangeably with clinker but does create confusion. It is generally best to use the term clinker.	66
4-108		4.3.3.1 Summary – Environmental Consequences – Soil and Geology: Soil erosion by wind and water during construction is a main concern and must be included. These are different impacts than soil slumping and saline and sodic soils. Soils in this area have a large component of coarse silt and very fine sand and are highly susceptible wind erosion once disturbed. Another characteristic of soils in this area that should be addressed is their low strength when moist. Low soil strength will impact construction and post construction management.	67
4-111		County Natural Resource Conservation Service is probably meant to be the: Natural Resource Conservation Service in the appropriate county. NRCS is a federal agency. Also modify 7-25	68
4-114		Slumping commonly occurs in this area when coal seams provide additional moisture to the surface soils. A greater concern should be placed on mapping coal outcrops and near surface exposures as this is where slumping will occur. Construction on or removal of toe slopes will generate potential for slumping and pre-mapping of these areas should provide areas where mitigation measures may be needed.	69
4-161		Vibration during construction and train use may also result in slumping on adjacent slopes. It will be difficult to determine if the slumping is the result of construction or train use, but vibration could induce slope failure.	70

SEA's Response to Comment Letter F4
Bureau of Land Management (December 8, 2004)

F4.1 A discussion of recreation in Section 4.2.10 of the Draft SEIS has been revised to include Bureau of Land Management (BLM) and U.S. Forest Service (USFS) lands. For the inserted text, please see Errata (Chapter 5: where it references Page 4-55 and 56, section 4.2.10).

F4.2 The term "significant" as used in the Draft SEIS is derived from the NEPA regulations adopted by the President's Council on Environmental Quality (CEQ) (40 CFR 1500-1508). In this context the term *significant* is based on the twin criteria of *context* and *intensity* (40 CFR 1508.27). *Context* means the affected environment in which a proposed action would occur. *Intensity* means the degree to which the proposed action would involve one or more of the following ten factors:

- Adverse effects associated with "beneficial projects";
- Effects on public health or safety;
- Unique characteristics of the geographic area (e.g., historic resources, park lands, prime farmland, wetlands, wild and scenic rivers, ecologically critical areas);
- Degree of controversy;
- Degree of highly uncertain effects or unique or unknown risks;
- Precedent-setting effects;
- Cumulative effects;
- Adverse effects on scientific, cultural, or historical resources;
- Adverse effects on endangered or threatened species or designated critical habitat (pursuant to the Endangered Species Act); and
- Violations of federal, state, or local environmental law.

In the case of the loss of recreational opportunities, the determination of "no new significant impacts on recreational resources" is made based on the continued availability of a multitude of recreational opportunities in the Tongue River Valley (if Tongue River III is approved and the entire line is built and operated). The criteria of intensity was considered low because "the railroad as a whole would not affect access to fishing sites, and hunting access would be almost fully restored during the operational phase of the project" (5-26). The term "almost fully restored" refers to the fact that portions of block management areas would in some cases be acquired for the rail line ROW, but access to the block management lands at large would be fully restored for hunting and other recreational uses.

F4.3 SEA acknowledges that paleontologic resources are not eligible for listing in the NRHP. The identified text is corrected. Please see Errata (Chapter 5: where it references Page 4-118, lines 33-35).

F4.4 SEA acknowledges that paleontologic resources should not be discussed in the PA. The identified text is corrected. Please see Errata (Chapter 5: where it references Page 4-118, lines 33-35, 40-48; and Page 4-119, lines 1-7).

F4.5 SEA acknowledges that paleontologic resources should not be discussed in the PA, nor are they eligible for listing in the NRHP. Section 4.3.5 of the Draft SEIS is modified to omit any erroneous information regarding paleontologic resources. Please see Errata (Chapter 5: where it references Page 4-118, lines 40-48; and Page 4-119, lines 1-7).

F4.6 SEA acknowledges that paleontologic resources should not be discussed in the PA. The identified text is corrected. Please see Errata (Chapter 5: where it references Page 4-118, lines 40-48; and Page 4-119, lines 1-7).

F4.7 The word "paleontological" is included in the title of this section of the Draft SEIS to be consistent with the title of Section 4.2.5. The text is edited to clarify that that there are no effects to such resources expected during operation and maintenance of the proposed line because minimal (if any) subsurface activities would be required. Moreover, in the event that more extensive subsurface activities are required than initially contemplated and said resources are discovered, a new recommended mitigation measure (Mitigation Measure 90) has been added to reduce any potentially significant effects. SEA believes that, with this mitigation, any potential effects would not be significant. Please see Chapter 4 (Mitigation Measures) or Chapter 5 (Errata where it references Page 4-127, line 41) for the new recommended mitigation measure.

F4.8 SEA has included the recommended Mitigation Measure 90 to protect paleontological resources in the unlikely event that they are discovered during rail construction activities.

F4.9 The information in Table 2-4 of the Draft SEIS is accurate, as confirmed by TRRC in March 2005. The train performance modeling accurately presents the number of locomotives that would be required to haul a loaded train on the proposed rail line.

F4.10 SEA incorporates this new information regarding the Spring Creek Federal coal lease into Section 6.4.3 of the Draft SEIS. Please see Errata (Chapter 5: where it references Page 6-4, lines 47-48 and Page 6-5, lines 1-5).

F4.11 The purpose of Tongue River III is to evaluate the proposed Western Alignment and compare it to the approved Four Mile Creek alternative. Tongue River I is administratively complete, and is not being reevaluated as part of this proceeding. Tongue River III does analyze proposed refinements to the Tongue River I and modifications to mitigation measures or new mitigation measures that would apply to the entire line from Miles City to Decker.

As stated in Section 6.6.6 of the Draft SEIS, transportation impacts of construction of the proposed Western Alignment would include an increase in vehicular traffic, and increased traffic delays and safety concerns, while operational impacts would include safety concerns at rail crossings. Cumulative effects on transportation and safety would occur as concurrent construction activities increase the vehicular traffic in the area near the proposed rail line, or as development activities generate traffic resulting in the potential for increased rail crossings by vehicles. Under recommended Mitigation Measure 55, however, TRRC would be required to enter into a memorandum of agreement (MOA) with the Montana Department of Transportation evaluating project-related safety needs. The MOA would address the existing train traffic passing through Miles City from the Colstrip and Absaloka Mines. The MOA would include an evaluation of each crossing for safety needs and potential traffic problems during construction and operation, including passage of emergency vehicles. Based on these evaluations, the MOA would set forth specific safety measures, such as warning signal and devices, and appropriate measures to alleviate any traffic problems, such as grade separations. A construction traffic plan would also be prepared by TRRC for review and approval by the Montana Department of Transportation (MDT).

Regarding changes to Miles City that might affect SEA's analysis in the Draft SEIS, the population of Miles City has increased from 8,461 in 1990 to an estimated 8,504, according to Census 2000 data. In designing safety measures the MOA process discussed above would take into account all conditions that exist at the time the memorandum is prepared. No further analysis or mitigation is necessary or appropriate.

F4.12 The text is changed to indicate that noxious weeds are no more of a fire hazard than any other type of vegetation. The commenter's suggested text is added. Please see Errata (Chapter 5: where it references Page 4-7, line 1).

F4.13 The discussion of species of concern potentially present in the vicinity of the proposed Western Alignment and the approved Four Mile Creek Alternative is revised to include updated state listings. Please see Errata (Chapter 5: where it references Page 4-13, line 1) for the relevant updates.

A Montana fish species of concern, the blue sucker (*Cycelptus elongates*), occupies the lower reaches of the Tongue and Yellowstone Rivers, downstream of the proposed Western Alignment. Two other state species of concern, the sturgeon chub (*Macrhybopsis gelida*) and the paddlefish (*Polyodon spathula*), occupy the lower reaches of the Yellowstone River, downstream of the proposed Western Alignment.

These species were not discussed in Section 4.2.2.2 of the Draft SEIS because that section addresses wildlife potentially present in the vicinity of the proposed

Western Alignment and the approved Four Mile Creek Alternative. Potential impacts to downstream fish resources are fully assessed in Tongue River I and Tongue River II. Neither the proposed Western Alignment nor the approved Four Mile Creek Alternative is likely to result in additional impacts to these species.

F4.14 The species of concern list is revised to reflect updated state listings. Please see Errata (Chapter 5: where it references Page 4-13, line 1).

F4.15 The text is clarified in Errata (Chapter 5: where it references Page 4-21, lines 19-28) regarding the over-wintering survival rate of fish in the Tongue River.

F4.16 As detailed in Mitigation Measure 34 from the Draft SEIS, TRRC would be required to complete a three-part aquatic resource sampling program prior to the beginning of construction activities in locations where the railroad would cross the Tongue River. Part three of this program involves fish surveys. Under the recommended mitigation, once detailed sampling is completed and detailed data on the aquatic resources to be affected have been obtained, TRRC would be required to develop appropriate mitigation measures for approval by the Task Force, in accordance with the process set forth in recommended Mitigation Measure 14.

SEA concludes that the implementation of these mitigation measures would be adequate to ensure that the impacts to aquatic organisms from the construction of either the proposed Western Alignment or the approved Four Mile Creek Alternative would not be significant. Due to the adequacy of the mitigation measures that are being recommended as part of this Final SEIS, SEA does not believe that additional mitigation requiring TRRC to commit to a program of fish stocking is necessary.

F4.17 The Conceptual Habitat Mitigation Plan, which is included in Appendix D of the Draft SEIS, identifies a mitigation measure to avoid fill placement in perennial streams by constructing bridges with clear spans and concrete abutments where possible. SEA's recommended mitigation provides that, if clear spans are not feasible on longer stream crossings, concrete piers could be installed. The use of concrete structures rather than earthen fills would reduce potential downstream sedimentation. No additional mitigation is warranted.

F4.18 Although the sauger was listed in Table 4-3 (State Rankings of Species of Concern) of the Draft SEIS, it was not mentioned in the referenced paragraph on page 4-81 of the Draft SEIS. The text has been revised to include this species. See Errata (Chapter 5: where it references Page 4-81, lines 32-39) for the correction.

F4.19 The comment requests clarification regarding the timing of surveys for fish. The methodology and timing of the required fish surveys are addressed in recommended Mitigation Measure 34.

F4.20 The Draft SEIS text is revised to include the previously omitted sauger in the species count. See Errata (Chapter 5: where it references Page 4-81, lines 32-39).

F4.21 For a discussion of the use and sizing of culverts for side drainages, please refer to Master Response 22.

F4.22 The use and sizing of culverts is discussed in Master Response 22.

F4.23 SEA acknowledges that a determination of adverse effects on biological resources is not solely determined by the total acres impacted. Regarding potential impacts to aquatic resources, please see Master Response 12, Effects of the Project on Erosion and Sedimentation Rates.

F4.24 The tables that were omitted from Appendix E of the Draft SEIS are included in Errata (Chapter 5: where it references Appendix E, Table 1). The requested clarifications of text are also included in the Errata (Chapter 5: where it references Appendix E).

F4.25 The requested clarification regarding the use of native species for revegetation is added to the discussions in Chapters 4 and 7 of the Draft SEIS. Please refer to Errata (Chapter 5: where it references Page 4-74, lines 33-39; and Page 7-15, lines 16-20).

F4.26 The text is revised to reflect the use of biodegradable twine in holding mulch bales together. Please refer to Errata (Chapter 5: where it references Page 4-74, line 8).

F4.27 Although they would not be eligible for consideration under SEA's environmental justice[1] analysis, the text of the Draft SEIS is revised to identify the existence of the Amish Community north of Ashland. Please refer to Errata (Chapter 5: where it references Page 4-48, section 4.2.9.1). The updates concerning the Amish are based on consultation with the Montana Department of Commerce, the Rosebud County Clerk and Recorder's Office, and the Rosebud County Department of Revenue in March 2005.

[1] To be considered to have environmental impacts under environmental justice, a minority community must exceed 50 percent or be "meaningfully greater than the minority population in the general population (Council on Environmental Quality, 1998)." The small size of the Amish population in the Ashland area precludes it from being considered a community for purposes of triggering an environmental justice analysis.

Several mitigation measures included in the Draft SEIS would address potentially adverse effects on the Amish in relation to traffic safety. For instance, Recommended Measures 53, 54, and 57 are specifically designed to limit the amount of construction-related traffic on public roads and reduce instances of speeding when construction traffic does utilize public roads. Implementation of these measures would reduce impacts to the Amish community from project-related traffic. Based on all the available information, SEA believes that no additional mitigation or analysis is needed.

The Tongue River Railroad would only haul freight (e.g., coal). The railroad would not introduce land use changes that would trigger a population increase in the vicinity of the Amish ranch. As a result, SEA believes that the project would not substantially disturb the rural lifestyle of the Amish.

F4.28 Negotiations with property owners would include the construction of fencing and cattle passes, as required. The intent of the negotiations would be to maintain the productivity of farmland and rangeland to the greatest extent possible. Where lands would be severed, this would be considered a partial taking under eminent domain law. In accordance with this law, affected property owners would be compensated based on fair market value for the land taken and for any effect that the condemnation of that land has on the value of the owner's remaining property.

F4.29 BLM requests clarification of the project's impacts on the Northern Cheyenne Reservation. As BLM correctly notes, the primary effects would include potential increases in traffic and population.

As stated in Section 4.3.6 of the Draft SEIS, the traffic volumes on reservation roads would not increase substantially as a result of either the proposed Western Alignment or the Four Mile Creek alternative. As shown in Table 4-27, reservation roads would experience an average daily increase of 30 cars, which would not substantially affect local traffic.

Regarding the provision of emergency response services, Mitigation Measure 55 would require TRRC and MDT to perform an evaluation of each public-grade crossing for safety needs and potential traffic problems during construction and operation, including passage of emergency vehicles. The MOA that would be required would set forth specific safety measures, such as warning signals and devices, and appropriate measures to alleviate any traffic problems, such as grade separations, if warranted.

To address concerns related to the construction period, recommended Mitigation Measures 53 and 54 are specifically designed to minimize the number of vehicle trips and the amount of TRRC-related traffic using roadways outside the construction ROW. SEA believes that these measures would be adequate to reduce potential adverse effects of construction-period activities on traffic circulation and roads, including reservation roads.

According to TRRC estimates, construction of the proposed Western Alignment would generate an estimated 265 out-of-region hires that would reside in construction centers, and an additional 25 individuals who would seek rental apartments or homes in Sheridan or Miles City. Of the population that would not live in construction centers, approximately 20 individuals would bring their families with them. Assuming one spouse and two children, the new temporary population resulting from direct employment with TRRC would equal approximately 80 people, with most living in Miles City or Sheridan.[2] Some of the indirect employment demand that would result from the construction and operation of the new line might be met by newcomers to the community. Because these jobs likely would pay less and are more likely to be filled by those seeking part-time service jobs, it is unlikely that the short-term increases in indirect employment that would result from this project would attract many newcomers to the community.

Based on the information provided in Section 4.3.9 of the Draft SEIS, SEA continues to believe that the small population increases that would be triggered by the construction and operation of the proposed Western Alignment or the Four Mile Creek Alternative would not have any significant socioeconomic effects. Support for these conclusions is presented in the Draft SEIS in Sections 4.2.9; 4.3.9; 5.3.9; and 6.6.9.

Regarding graves in the Birney area, as part of the PA process, SEA has sought the cooperation of the Northern Cheyenne and the Crow tribes in the identification of sites of cultural significance to them (e.g., graves) along the Four Mile Creek Alignment and the proposed Western Alignment, to ensure proper identification and treatment of cultural resources during construction. These coordination efforts are discussed in Section 1.6.3 of the Draft SEIS. The PA also includes stipulations that representatives from the Northern Cheyenne and Crow tribes participate in surveys and treatment of Native American resources that might be encountered during construction within the rail line ROW.

F4.30 Please refer to the response to Comment 29 above.

F4.31 As requested by the commenter, the sentence beginning "Fossil resources are part" is removed from the text. Please see Errata (Chapter 5: where it references Page 4-31, lines 2-3).

[2] TRRC and its construction consultant, Granite Engineering, believe it is unlikely that the out-of-region construction workers would bring their families with them. Therefore, this estimate likely is high (conservative) for purposes of impact assessment.

F4.32 The text is revised to indicate that Fort Union is a formation, of which Tongue River is a member. Please see Errata (Chapter 5: where it references Page 4-35, lines 15-16).

F4.33 The only commodity currently being considered for transport is coal. However, the line would be a common carrier line and, as such, could be utilized for the distribution of any goods. The range of possible commodities that can be carried by rail is too wide, and would be speculative if considered in the Draft SEIS.

F4.34 The text is corrected to clarify the units of measurement. Please see Errata (Chapter 5: where it references Page 4-29, lines 5-25).

F4.35 Section 4 of the Draft SEIS describes the affected environment for the proposed Western Alignment and the approved Four Mile Creek Alternative. The project area referred to in Section 4.2.2.2, page 4-10, line 24 of the Draft SEIS is the proposed Western Alignment, or the Tongue River III portion of the project. The active bald eagle nests in this project area (Nests 03, 04, and 04 alternate) were discussed in Section 4.2.2.2, page 4-10, lines 24 to 36 of the Draft SEIS. The inactive nest located within the Tongue River III project area (Nest 02 alternate) and all of the other known bald eagle nests within the entire Tongue River Railroad project area are discussed in the Biological Assessment (BA), which covers the previously approved rail line from Miles City to Decker, Montana. The revised BA, which is included as Appendix D of this Final SEIS, has been updated to include the 2004 bald eagle survey data. The text in Section 4.2.2.2 of the Draft SEIS is revised to include this updated data; please see Errata (Chapter 5: where it references Page 4-10, lines 24-36).

F4.36 SEA recognizes the economic significance of revenues generated from recreational hunting (i.e., license fees) to the State economy. As stated in Section 4.3.2.2 of the Draft SEIS, the construction of either the proposed Western Alignment or the Four Mile Creek Alternative would remove habitat for mule deer and white-tailed deer (primarily pine, juniper, big sagebrush, and grassland habitat) and pronghorn antelope (primarily big sagebrush, grassland, and prairie habitat). Table 4-18 of the Draft SEIS quantifies the acres of these habitats that would be affected. SEA continues to believe that implementation of the mitigation measures proposed in the Draft SEIS (Measures 91 and 32) would be adequate to ensure that the impacts on deer and pronghorn antelope from the construction of either the proposed Western Alignment or the approved Four Mile Creek Alternative would not be significant. Therefore, while revenue generated from recreational hunting may temporarily be affected as a result of this project, SEA does not expect this effect to be substantial, nor does SEA expect it to extend beyond the construction period.

F4.37 Sage grouse habitat and known leks (strutting grounds) in the project vicinity are discussed in the Draft SEIS in Section 4.2.2.2, Other Wildlife, Upland Game

Birds. As explained there, sage grouse select winter-use sites based on composition of sagebrush, snow depth, and topography. Because snowfall can affect the amount and height of sagebrush available to grouse for winter habitat, assessing the availability of sage grouse winter habitat on the basis of shrub structure is difficult without a measure of snow depth (Montana Sage Grouse Work Group 2004). While direct impacts to sagebrush could occur during construction of the proposed project, the displacement of potential winter habitat is not expected to significantly impact the sage grouse population. As required by recommended Mitigation Measure 26, pre-construction surveys would be conducted to determine the extent of sage grouse habitats and activity in the project area. Recommended Mitigation Measures 26, 29, and 30 address potential impacts to grouse leks.

SEA recognizes that the sage grouse population is susceptible to West Nile virus; however, the rail line is not likely to result in the creation of mosquito habitat sufficient to cause an increased risk associated with this disease because the line would not create long-standing pools of water. (See Master Response 22 for a discussion of planned culverts.)

F4.38 SEA agrees that the sage grouse inventories should be conducted at least 2 miles from any proposed disturbance. Recommended Mitigation Measure 26 of the Draft SEIS is revised to require this. Please see Errata (Chapter 5: where it references Page 4-83, lines 30-34) for the addition of text.

F4.39 SEA acknowledges that late brood-rearing habitat may be utilized through mid-July. Based on survey data collected prior to construction, the Task Force proposed in Mitigation Measure 14 would determine if additional avoidance measures are needed through mid-July.

F4.40 Section 4.2.2.2 of the Draft SEIS is revised to include citations for the statements regarding the depressed grouse populations. Please see Errata (Chapter 5: where it references Page 4-88, lines 42-43).

F4.41 The discussion of potential impacts to raptors in the paragraph referenced in the comment includes both potential temporary impacts and potential long-term impacts. Roosting and hunting habitats lost during construction are probably permanent losses, but are not significant impacts for these species. In response to the comment, the Draft SEIS is revised to distinguish between temporary and long-term impacts. See Errata (Chapter 5: where it references Page 4-89, lines 36-46).

Recommended Mitigation Measure 26, discussed in Section 4.3 and Section 7.2.2 of the Draft SEIS, would minimize potential permanent impacts to wildlife species, including raptors. Therefore, no significant impacts to raptors are expected from either the proposed Western Alignment or the approved Four Mile

Creek Alternative.

F4.42 New nest sites are identified and discussed in the revised BA, as well as in Section 4.3.2.2 of the Draft SEIS. The revised BA is included in this Final SEIS as Appendix D.

F4.43 Indirect effects to habitat were discussed in relation to specific species throughout the Draft SEIS. In particular, Section 4.3.2.2, Other Wildlife, specifically describes indirect effects that might occur as a result of railroad construction. Recommended Mitigation Measure 91 (Compensation Program) is designed to mitigate for loss of wildlife habitat for individual species. SEA believes the discussion of this issue in the Draft SEIS is adequate. No changes or additions are required.

F4.44 The public review period of the Draft SEIS lasted 45 days, as required by CEQ regulations. In any event, SEA accepted comments well past that date. All comment letters were submitted to the Board within 60 days from the date the Draft SEIS was transmitted to the U.S. Environmental Protection Agency (EPA). Thus, the opportunity for public review and comment on all aspects of the Draft SEIS has been fully adequate.

F4.45 SEA discussed the Alternatives Considered but Dropped from Further Analysis in Section 1.3.1 of the Draft SEIS. These alternatives were originally presented and analyzed in Tongue River I. Among these were the Tongue River Road alternative route, the Moon Creek alternative route, and the Colstrip alternative route. Figure 1-2 of the Draft SEIS shows the locations of each alternative. The 404 (b)(1) Showing in Appendix D of the Draft SEIS also discusses the broader range of alternatives that were originally considered before being narrowed to the four routes analyzed in detail in Tongue River I. A revised 404 (b)(1) Showing is included in Appendix D of this Final SEIS.

F4.46 The use and derivation of the term "significant" was explained in the response to comment F4.2

F4.47 The Draft SEIS was electronically searched for incidences of the misspelling of "Mile" as "Mike." No incidences of this misspelling were found.

F4.48 SEA performed a Class I Inventory to study the existing cultural resources in the area, and impacts to those identified resources are discussed in Sections 4.2.5 and 4.3.5 of the Draft SEIS. Table 4-25 of the Draft SEIS lists the cultural resource properties within the proposed Western Alignment and the approved Four Mile Creek Alternative 200-foot right-of-way (ROW). Table 4-26 of the Draft SEIS lists the impacts to cultural resource properties outside the ROW, but within the 3,000-foot corridor. In the Draft SEIS, SEA also discussed the possibility of unknown cultural resources being affected by construction, and called for

additional cultural resource studies to be performed and a Treatment Plan to be developed in the PA. SEA believes its analysis of the cultural resource issues is adequate and that no further study of these issues is necessary.

The potential impacts to Battle Butte Battlefield (now called the Wolf Mountains Battlefield) are discussed in Master Response 14, including the analysis requested by BLM of routes that would bypass the battlefield. The boundary of the Wolf Mountains Battlefield in relation to the rail alignment is shown in Figures A-71 to A-73 in Appendix A of this Final SEIS.

F4.49 Operation of the proposed Western Alignment would have an adverse impact on the western edge of the Tongue River Canyon, resulting in a change to the rural character of this area. However, this impact would not be significant because the railroad would not be visible from the canyon along most of the Tongue River corridor. As stated in Section 4.3.11.3 of the Draft SEIS, along most of the canyon, the tracks would be located approximately 1 mile to the west of county road C380, which is the only automobile route through the canyon. The proposed Western Alignment would generally follow a route that geographically lies between the two alignment alternatives considered in Tongue River II, and would be located on lands above the Tongue River Canyon. The proposed Western Alignment would therefore have less impact on the aesthetic value of the canyon than the originally proposed alignment that would have run along the bottom of the canyon.

The use of trestles to cross side drainages on the proposed Western Alignment was investigated by TRRC, but was deemed to be both an unsafe option, and prohibitively expensive. Trestles are more likely than fill embankments to sustain major damage in the event of derailment, because fallen locomotives or cars can damage trestle piers and abutments, and can also increase the likelihood of deaths or serious injuries and the possibility of catastrophic damage to locomotives or cars. A more detailed discussion of this issue is presented in Appendix I, in a letter dated May 11, 2005, from Mission Engineering, TRRC's consulting engineer in this proceeding.

F4.50 Please refer to Master Response 22 for a discussion of the use and sizing of culverts.

The effects of aesthetic changes resulting from fill are discussed in Section 4.3.11.2, page 4-178 of the Draft SEIS. SEA acknowledges that these fills would be visible from public roads. However, the visibility of these fills would be reduced because of the location of the proposed Western Alignment and lack of public roads in the area.

SEA also believes that this potential aesthetic impact would be mitigated by adopting and implementing (for the proposed Western Alignment) the same mitigation measures adopted in Tongue River II for the approved Four Mile Creek

Alternative (Mitigation Measure 19 of the Draft SEIS) and the additional measures recommended by SEA in the Draft SEIS that would establish a process for the revegetation of disturbed slopes. These measures would make disturbed slopes less visible and would help them blend in with adjacent undisturbed areas.

TRRC investigated the use of trestles to cross side drainages on the proposed Western Alignment but this was deemed to be both an unsafe option and prohibitively expensive. Trestles are more likely than fill embankments to sustain major damage in the event of derailment, because fallen locomotives or cars can damage trestle piers and abutments, and can also increase the likelihood of deaths or serious injuries and the possibility of catastrophic damage to locomotives or cars. Additional information on this issue is provided in Appendix I, in a letter dated May 11, 2005, from Mission Engineering, TRRC's consulting engineer in this proceeding.

F4.51 As explained in Section 4.2.5.3 of the Draft SEIS, SEA did perform a Class I inventory to identify potential impacts on cultural resources within 1,500 feet on either side of the proposed Western Alignment. The Class I inventory involved a literature search, including a review of the following sources: the Natural Register of Historic Places, the Montana Sites Compendium, the University of Montana archeological site files, and the State Historic Preservation Office (MT SHPO) files in Helena. SEA reviewed previous cultural resource surveys completed in the area, pertinent historical cartographic records (recorded General Land Office subdivision maps and U.S. Geological Survey maps), and recent aerial photographs. SEA also conducted limited field reconnaissance to identify standing structures in the area. The Class I survey identified the number of known historic properties within the Project corridor, and extrapolated from this information the number of additional properties that could be uncovered during construction of the rail line. This information is reported in the Draft SEIS in section 4.3.5.2. Section 106 does not require that a Phase III survey be completed as part of the environmental review process. A Phase I is considered an acceptable level of review for the purposes of identifying potential impacts to resources.

The ability to conduct a Class III inventory (an on-the-ground survey) is highly limited due to the rugged terrain, limited access, and rural location of the proposed Western Alignment. In such cases, surveys typically utilize site visits using local roads and previous mapping and surveys conducted in the area. These methodologies are consistent with past STB cases [the 8th U.S. Circuit Court of Appeals in a Dakota, Minnesota, and Eastern (DM&E) case] and the methodology used by other federal agencies when conducting NEPA analysis for linear transportation corridors in rural areas.

36 Code of Federal Regulations (CFR) Part 800 addresses the implementation of Section 106 of the National Historic Preservation Act. Section 800.4(b)(2) states:

> Where alternatives under consideration consist of corridors or large land areas, or where access to properties is restricted, the agency official may use a phased process to conduct identification and evaluation efforts. The agency official may also defer final identification and evaluation of historic properties if it is specifically provided for in a memorandum of agreement executed pursuant to § 800.6, a programmatic agreement executed pursuant to § 800.14 (b), or the documents used by an agency official to comply with the National Environmental Policy Act pursuant to § 800.8. The process should establish the likely presence of historic properties within the area of potential effects for each alternative or inaccessible area through background research, consultation and an appropriate level of field investigation, taking into account the number of alternatives under consideration, the magnitude of the undertaking and its likely effects, and the views of the MT SHPO/ Tribal Historic Preservation Office and any other consulting parties. As specific aspects or locations of an alternative are refined or access is gained, the agency official shall proceed with the identification and evaluation of historic properties in accordance with paragraphs (b)(1) and (c) of this section.

In the case of Tongue River III, the PA was developed to ensure proper identification and treatment of identified resources and to set forth requirements of how impacts that cannot be determined until full access is allowed onto the corridor would be addressed.

The PA has been developed in consultation with MT SHPO, Advisory Council on Historic Preservation, Montana Department of Natural Resources and Conservation (MT DNRC), the Corps, BLM, U.S. Department of Agriculture, TRRC, and the Northern Cheyenne and Crow Tribes. As explained in Section 4.2.5.3 of the Draft SEIS, a PA is an agreement executed under 36 CFR 800.14 in which the lead agency (here, the Board), ACHP, MT SHPO, and other parties agree on a process for considering historic properties with respect to an entire project. The PA prescribes a review process tailored to a particular program or project, and stands in place of the normal review process under Section 106 of the NHPA. In this case, due to access restrictions in the corridor that will continue until a final determination is made on the alignment that would be constructed and construction begins, the PA specifically sets forth measures to ensure that on-the ground surveys for cultural surveys occur within the ROW and that appropriate mitigation measures are developed to address potentially significant effects prior to the time construction actually takes place. As stated in the PA, the Identification (ID) Plan involves two steps: 1) updating the Class I Inventory and conducting a windshield survey of the approved rail alignment to identify previously recorded sites; and 2) conducting a Class III Inventory for identification and evaluation of additional cultural resources. This second step will be performed for the entire rail alignment; however, it may be performed

sequentially for portions of the rail line, such that once TRRC has access to a portion of the rail line, the intensive survey for that portion can be completed.

F4.52 The results of the Class I survey are documented in Section 4.3.5.2 of the Draft SEIS in Table 4-26. The discussion in that section also documents the potential effects to the resources identified during the completed surveys. As explained in Section 4.2.5.3 of the Draft SEIS, the Class I inventory completed for this project followed standard protocol for such surveys and involved contacting appropriate Federal, State, and local agencies; Native American tribes; other interested persons; and records repositories. A Class I inventory was conducted for the Four Mile Creek Alternative as part of the EIS for Tongue River II. A Class I inventory was conducted for the proposed Western Alignment as part of the preparation of Applicant's Environmental Report, which SEA independently reviewed and verified. Together, these inventories constitute the Class I inventory for Tongue River III.

F4.53 Section 4.3.5 of the Draft SEIS indicates that the project will have an impact on cultural resources. SEA's analysis recognizes that construction of the proposed rail line has the potential to directly affect cultural resources within 200 feet of the centerline through actual disturbance during construction, and also has the potential to indirectly affect cultural resources located between 200 and 1,500 feet of the centerline through proximity of the construction and operation activities. The potential direct and indirect effects of both the Four Mile Creek Alternative and the Western Alignment are presented in Table 4-25 and 4-26 of the Draft SEIS. However, SEA believes that, with the implementation of the mitigation that will be developed under the PA, the potential direct and indirect effects of the project on cultural resources would be reduced or avoided wherever possible.

F4.54 Please refer to Master Response 14, Effects of the Project on the Battle Butte Battlefield (now called Wolf Mountains Battlefield). As described in Master Response 14, SEA asked TRRC to undertake an analysis of the feasibility of re-routing the line to avoid the Battle Butte Battlefield. The analysis is included in this Final SEIS as Appendix I. After carefully reviewing the information provided by TRRC, SEA agrees that a bypass routing for Tongue River II is not feasible and therefore should not be pursued.

F4.55 The culvert drainage design criteria used for the proposed Western Alignment and the Four Mile Creek Alternative were derived from the Montana Department of Transportation, the Federal Highway Administration and the Federal Railroad Administration. Earth fill crossings near drainages would not effectively create dams because of the rate at which the water flows. During a 25-, 50- or 100-year flood, water could accumulate behind the rail embankments, but would likely dissipate within 8 hours. Please see Master Response 22, The Use and Sizing of Culverts, for additional information.

SEA fully analyzed the impact of cuts and fills on visual resources. SEA identified and included extensive recommended mitigation measures, such as Mitigation Measure 38, to address the reduction of slumping related to cuts and fills. All perennial drainages supporting fisheries that are crossed by the rail line would be crossed with bridges and not culverts, thereby reducing the impact to instream habitat.[3]

F4.56 This comment repeats text from comment 51 above. Please refer to the text under F4.51 above for a response.

F4.57 Chapter 5 of the Draft SEIS presents SEA's analysis of the proposed changes to the alignments previously approved in Tongue River I and Tongue River II. Chapter 5 of the Draft SEIS includes additional analysis as well as new recommended mitigation measures and modifications to previously adopted mitigation measures to ensure that all potential effects are reduced to the greatest extent feasible.

F4.58 Please refer to the response to comment F4.51.

F4.59 This comment raises general concerns about the environmental implications of multiple non-perennial stream crossings that would be required by the proposed Western Alignment. Specific reference is made to drainage in-fill at rail crossing points.

The use of trestles to cross side drainages on the proposed Western Alignment was investigated but was deemed to be both an unsafe option and prohibitively expensive. Trestles are more likely than fill embankments to sustain major damage in the event of derailment, because fallen locomotives or cars can damage trestle piers and abutments, and can also increase the likelihood of deaths or serious injuries and the possibility of catastrophic damage to locomotives or cars. Additional information on this issue is provided in Appendix I, in a letter dated May 11, 2005, from Mission Engineering, TRRC's consulting engineer in this proceeding.

The Draft SEIS fully acknowledges and describes the potential for water quality and hydrologic impacts associated with the estimated 42 non-perennial stream crossings that would be required by the proposed Western Alignment. The document also recommends a number of mitigating measures for minimizing impacts from stream crossings.

This issue is described in general terms in the Draft SEIS, in Section 4.3.3.2 - Construction-Period Impacts on Soils and Geology (p. 4-101). Additional discussion of impacts associated with stream crossings and the installation of bridges and culverts is provided in Section 4.3.4.2 - Construction-Period Impacts

[3] Mission Engineering, letter to TRRC dated May 11, 2005.

on Hydrology and Water Quality (p. 4-108 to 4-111 of the Draft SEIS). Proposed mitigation measures for stream crossings are set out on pages 4-112 to 4-114 of the Draft SEIS.

F4.60 Please refer to Master Response 22 for a discussion of the use and sizing of culverts.

The use of trestles to cross side drainages on the proposed Western Alignment was investigated by TRRC, but was deemed to be both an unsafe option and prohibitively expensive. Trestles are more likely than fill embankments to sustain major damage in the event of derailment, because fallen locomotives or cars can damage trestle piers and abutments, and can also increase the likelihood of deaths or serious injuries and the possibility of catastrophic damage to locomotives or cars. Additional information on this issue is provided in Appendix I, in a letter dated May 11, 2005, from Mission Engineering, TRRC's consulting engineer in this proceeding.

With respect to slope stability, Section 4.3.3.3 of the Draft SEIS evaluates impacts of the operation and maintenance of the rail line on soils and geology. As discussed, the revegetation plan described in Section 4.3.2 of the Draft SEIS was developed to minimize soil erosion and would aid in stabilizing project-affected slopes. In addition, Section 4.3.3.2 of the Draft SEIS identifies measures such as engineering controls and remedial actions to address and minimize impacts due to soil slumping.

Finally, as discussed in Section 4.3.2.2 of the Draft SEIS (page 4-85, lines 18-23), preconstruction surveys, as detailed by recommended Mitigation Measure 18, would be conducted to assess potential project impacts on wildlife migration/movement. The results of the surveys would be reviewed by the Multi-agency Task Force, and additional mitigation measures could be developed by the Task Force if appropriate to ensure adequate access opportunities for wildlife species.

F4.61 See response to comment F4.53.

F4.62 See response to comment F4.53.

F4.63 The conclusion in the Draft SEIS that construction-period cumulative effects on surface water quality would not be significant or adverse considers the simultaneous occurrence of other projects, and assumes that other parties would be responsible for revegetation of disturbed slopes associated with coal bed methane development.

F4.64 The identified statements from page 6-17 of the Draft SEIS have been revised. Please refer to Chapter 5: Errata where it references Page 6-17, lines 3,12, and 17. According to a 2005 BLM map of oil and gas fields in the area, the ROW for the

proposed Western Alignment would overlap with the Powder River Gas-Coal Creek Coal Bed Methane project area. As a result, this proposal is a reasonably foreseeable project that could contribute to the degradation or loss of these resources. However, because BLM requires that CBM-gas well development plans include a cultural resource survey, MT SHPO coordination, and tribal consultation, it is not expected that the Powder River Gas-Coal Creek proposal, by itself or in combination with the proposed Western Alignment, would result in cumulative adverse impacts on cultural or paleontological resources. The Powder River Gas-Coal Creek CBM project area, in relation to the ROW for the proposed Western Alignment, is shown on Figures A-80 and A-81 in Appendix A of this Final SEIS.

Similar statements in the cumulative analysis regarding a lack of reasonably foreseeable projects within the area of impact have been revised to reflect the overlap with the Powder River Gas-Coal Creek project area. The issue of potential cumulative impacts related to CBM development and the Tongue River Railroad is further discussed in Master Response 21, Adequacy of Cumulative Analysis.

F4.65 A survey to identify the soil units occurring within 300 meters of the proposed Western Alignment centerline was prepared for this Final SEIS. The survey summarizes available information on the distribution, structure, permeability and erodability of the soil units. Please refer to the soil table, map, and descriptions provided in Appendix E of this Final SEIS.

Based on information contained in the soil survey, three soil units within the 600-meter study corridor are eligible for designation as prime farmland. The prime farmland designation is conditional, and requires that the eligible soil units be irrigated to be considered prime farmland. The eligible soil units are identified in Table E.1 of the Soil Survey.

F4.66 The text referred to in the comment can be found on page 4-38 (rather than page 4-44) of the Draft SEIS. The text is changed to clarify the use of the term "clinker." Please see Errata (Chapter 5: where it references Page 4-38, line 30).

F4.67 If the proposed Western Alignment is approved with SEA's recommended mitigation, and TRRC decides to go forward with that alignment, results of the soil survey included in Appendix E of this Final SEIS would be used as a basis for further studies to address erosion issues in both construction and post-construction phases. The additional studies to be required are outlined in the recommended mitigation measures set out in Chapters 4 and 7 of the Draft SEIS. In particular, Mitigation Measure 36 would require preparation of a Stormwater Pollution Prevention Plan (SWPPP) to minimize soil mobilization and transport during the construction process. Mitigation Measure 40 would use the results of the Soil Survey to assess erosion potential at specific cut-and-fill locations. Reclamation and revegetation activities would be initiated on cleared land as soon as

construction activities allow. Reclamation and revegetation would be performed in accordance with recommended Mitigation Measures 19 and 20.

Assessing soil strength characteristics is standard protocol for geotechnical engineering investigations. Recommended Mitigation Measure 38 would require the completion of a geotechnical engineering investigation prior to rail line construction. Results of the geotechnical investigation would be incorporated in the final engineering design, which would compensate for low strength soils.

F4.68 The text is changed to indicate that the Natural Resource Conservation Service is a federal agency. Please see Errata (Chapter 5: where it references Page 4-104, lines 1-6 and Page 7-24, lines 43-45). The text identified in the comment can be found on page 4-104 (rather than page 4-111) of the Draft SEIS.

F4.69 The geologic and geotechnical engineering investigation, performed for TRRC in 1997 by ESA Consultants, Inc., included a superficial geology map and advancement of four soil borings beneath the alignment footprint.

No coal seams are depicted on the 1997 geologic map. The boring logs indicate the presence of coal in one of the four borings (boring CH-1-7S41E-1). Coal noted in this boring occurs in isolated beds from less than 6 inches to approximately 2 feet thick. The coal beds are first encountered at 32 feet below ground surface and are separated by non-coaliferous claystone, siltstone and sandstone.

Based on these boring results, SEA believes that the potential for slumping as a result of this project would be low. A more detailed assessment of the geotechnical engineering properties of the soil and bedrock would be performed prior to final design of the rail line (for the proposed Western Alignment or the Four Mile Creek Alternative). The geotechnical investigation that would be required is detailed in Mitigation Measure 38 in the Draft SEIS.

In addition, please refer to response to comment F4.70.

F4.70 SEA has developed a series of recommended mitigation measures (Nos. 38 through 41) to address the issue of slumping during and after construction of either the proposed Western Alignment or the Four Mile Creek Alternative. For example, recommended Mitigation Measure 39 identifies several remedial actions that would be implemented if a slope failure were to occur during construction. Mitigation Measure 38 requires TRRC to complete pre-construction geotechnical investigations before activities are initiated to identify the potential for slumping in cut areas following construction. Mitigation Measure 38 also requires TRRC to develop engineering controls to minimize the potential for slumping.

United States Department of the Interior

OFFICE OF THE SECRETARY
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Denver Federal Center, Building 56, Room 1003
Post Office Box 25007 (D-108)
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December 2, 2004

ER 04/797

Ms. Victoria Rutson, Chief
Section of Environmental Analysis
Surface Transportation Board
1925 K Street, NW
Washington, DC 20423-0001

Dear Ms. Rutson:

The U.S. Department of the Interior (Department) has reviewed the Draft Supplemental Environmental Impact Statement (DSEIS) for the Tongue River Railroad Company's (TRRC) proposed 17.3 mile rail line construction in Rosebud and Big Horn Counties, Montana, known as Tongue River III (also referred to as the proposed Western Alignment), and offers the following comments.

The Surface Transportation Board's (Board) Section of Environmental Analysis (SEA) previously submitted two related applications that were considered and approved by the Board and its predecessor agency, the Interstate Commerce Commission (ICC), in 1986 and 1996, respectively. The rail line proposed in these applications, known as Tongue River I and Tongue River II, would be located in Custer, Big Horn, Powder River, and Rosebud Counties. The proposed Western Alignment is an alternative routing for the southernmost portion of the 41-mile Ashland to Decker alignment approved in Tongue River II, known as the Four Mile Creek Alternative.

The DSEIS was prepared by SEA in cooperation with the U.S. Department of the Interior, Bureau of Land Management (BLM), the U.S. Army Corps of Engineers (Corps), and the Montana Department of Natural Resources and Conservation (DNRC), acting as lead agency for other Montana State agencies. Under the requirements of the NEPA, the Board is the lead agency for preparing the DSEIS. The BLM, Corps, and Montana DNRC are cooperating agencies.

General Comments:

The U.S. Fish and Wildlife Service (USFWS) has provided significant recommendations to the Tongue River Railroad Company through consultation over the past 20 years. Many of the

concerns have been addressed in the last two alternative routes, along with additional new mitigation. However, the USFWS believes that, regardless of the proposed alterations and mitigation, all negative impacts to the Tongue River Corridor cannot be avoided. The USFWS previously supported a no build alternative. However, although TRRC states that the proposed Western Alignment would avoid the environmentally sensitive Tongue River Canyon, it is still within the Tongue River Corridor. The Four Mile Creek alignment would avoid 10 miles of this very important reach of the Tongue River. In effect, the lower portion of the Four Mile Creek alignment and the upper section of the Western Alignment (where S566 crosses the Tongue River) may result in the lowest negative impacts to wildlife and federally listed species than either of those two alternatives. This includes avoiding three bald eagle nests and one bald eagle winter roost site. 1

Specific Comments:

Page 2-6, Table 2-4, row 3 - The number of locomotive engines for western alignment is shown as 2. However, many of the eastbound loaded coal trains passing through Miles City have 3 locomotives – wouldn't the out bound loaded trains on the western alignment also have 3 locomotives? 2

Page 3-3, lines 4-5: The USFWS will complete a biological opinion only if formal consultation is required. Formal consultation should be initiated by the Board if the project is "likely to adversely affect" a listed species or their critical habitats. 3

Page 4-7, line 1-4 - Noxious weeds are not any more of a fire hazard than any other type of vegetation, and we suggest removing that part of the sentence. Perhaps adjust it to say, "Due to the soil disturbance from the proposed construction the possibility of noxious weed infestations sharply increases. The infestations would result in a loss of crop production along the Tongue River corridor and surrounding areas. Spotted knapweed, Houndstongue, Canada Thistle and Burdock are the four known weed species that are present along the Tongue River at this time. Other possible species are primarily Leafy Spurge and Salt Cedar, but any weed seeds could be brought in on equipment used within the construction area." 4

Page 4-10; Page 4-80, lines 30-45; Page 4-96, lines 19-48; Page 4-97, lines 1-6; Page 5-10, line 41, and Volume II – *Biological Assessment For Endangered or Threatened Species, Tongue River Railroad - September, 2004*, pages 16-48: These pages provide statements on the threatened bald eagle (*Haliaeetus leucocephalus*). Bald eagles use the action area throughout the year for foraging, nesting, and roosting activities. Bald eagles winter throughout the area, and concentrate locally near open water, roost sites, or food sources found away from water such as carcasses. The value of the river above and below the Tongue River Dam to attract migrant and wintering bald eagles has been recognized (e.g., Phillips et. al. 1978). Fluctuating numbers of bald eagles winter along the Yellowstone River and its other major tributaries. It is estimated that an average of 10-15 bald eagles winter along the Tongue River below the Tongue River dam (U.S. Fish and Wildlife Service 1992). Significant numbers of eagles pass through these areas as migrants. During migration as many as 50 bald eagles have been counted along the Tongue River from Miles City to the upper end of the Tongue River Reservoir (Farmer 1992). An aerial 5

winter survey along the Montana/Wyoming border in January 2003 identified 53 bald eagles hunting and roosting along a 20-mile long Tongue River Corridor (Hayden-Wing, Pers. Comm. 2003). The TRRC needs to update its status information on the bald eagle and include this information in a revised biological assessment. Spring surveys along the Tongue River in Montana in 2004, identified at least 7 active bald eagle territories for a total of 11 documented nests. Aerial surveys by the BLM from January to March 2004 on the upper Tongue River identified five winter roost sites. On March 4, 2004, 50 bald eagles were observed at 22 locations. The final EIS should analyze the impacts of the proposed action on these and other possible winter roost sites and current nesting territories along the Tongue River.

In November of 1995, the USFWS formally consulted with the ICC on the proposed TRRC's additional rail line from Ashland to Decker, Montana, in the Powder River Basin (U.S. Fish and Wildlife Service 1995). The USFWS anticipated one bald eagle could be lethally taken as a consequence of increased disturbance. The incidental take was expected to occur as a result of potential premature fledglings and/or nest abandonment during the construction phase and possible train strikes of adult birds during the operational phase.

Our current understanding is that the proposed alignment is between 0.5 to 1.1 miles from the 11 bald eagle nests along the Tongue River and a yet to be determined distance to current winter roost sites. Even with the proposed mitigation measures, it is not unreasonable to conclude that the total negative impacts to the bald eagle are not insignificant or discountable or that incidental take is not anticipated. 5 cont.

The USFWS recommends additional commitments by SEA to survey for additional winter roosts and analyze impacts to wintering bald eagles. We also recommend as discussed on page 44 on your *Biological Assessment for Endangered or Threatened Species, Tongue River Railroad – September 2004*, that additional mitigation be proposed to identify tracts of land important for winter roost sites and nesting, for purchase/easement and management. The USFWS and the Montana Bald Eagle Working Group would assist TRRC in this effort.

The USFWS looks forward to reviewing your revised biological assessment that includes updated species-specific survey data and additional actions to address the concerns stated in this review. If it is determined that the project "may affect, but is not likely to adversely affect" federally listed species or their critical habitats, the Federal agency should request the USFWS's review of the biological assessment and concurrence with the determination for the project. If it is determined that the project "may affect, likely to adversely affect" any federally listed species or their critical habitats, formal consultation should be initiated with the USFWS. Alternatively, informal consultation can be continued so the USFWS can assist in modifying the project to reduce impacts to federally listed species to the "not likely to adversely affect" threshold. Should new or additional information become available regarding this project, we will be pleased to address specific issues as appropriate. Should you have questions, please contact Lou Hanebury in the USFWS Billings, Montana, Field office at (406) 247-7367.

Page 4-12, line 28-41; and Page 4-81, lines 5-30: Currently the pallid sturgeon (*Scaphirhynchus albus*) does not occupy the upper reach of the Tongue River. It is our hope, 6

that once passage is attained at Intake Diversion Dam on the Yellowstone River, and at T and Y Diversion Dam on the Tongue River, that the pallid will reoccupy its former spawning habitat. Endangered pallid sturgeon do occur at the Miles City Fish Hatchery and therefore within the proposed action area. 6 cont.

Pages 4-13, line 5 and 4-15, line 23 - According to our information, the Tiger Salamander is not a species of special concern. Paddlefish (*Polyodon spathula*), Sturgeon chub (*Macrhybopsis gelida*), and the Blue sucker (*Cycelptus elongates*) are all on the Montana Species of Concern List, and are located downstream of the proposed Western Alignment within the Tongue and/or Yellowstone River. Baseline habitat and population information was not provided and an effects analysis was not completed for these downstream fish species. 7

Page 4-21, line 25 - The source of the "over winter" information should be identified. We believe that the rainbow population has very little natural reproduction and could have low over winter survival. However, electroshocking data from Montana Fish, Wildlife and Parks indicated in 2000, 2003, & 2004 that the mean length was 14.6, 13.5, and 9.96 inches, respectively. These relatively high mean lengths may indicate a larger amount of over winter survival. In addition, the Tongue River does not freeze for a considerable distance downstream of the dam, which may also increase survival rates. 8

Page 4-21, lines 25-28 - Based on conversation with Montana Fish, Wildlife and Parks, brown trout were stocked periodically for many years but have not been stocked recently. The 2000 "Evaluation of Salmonid Populations in Tongue River Reservoir's Tailrace Following Re-construction of Tongue River Dam" report made the following recommendation: "Stock brown trout over a five-year period to reestablish a natural recruiting population, as water temperatures are more conducive to browns than rainbows". 9

Pages 4-55 & 56, Section 4.2.10 - There is no mention of recreation on BLM or USFS lands. This should be corrected in the final EIS. 10

Pages 4-56 & 67, Section 4.2.11 - VRM Management Class II – This river corridor is a lovely segment of Eastern Montana landscape which includes good character, diversity, color, line, form, and views. 11

Page 4-78, line 27. Mitigation Measure 22 (Wetland Permit): The word "reasonable" should be omitted from "reasonable mitigation." Compensatory mitigation is required to offset unavoidable wetland impacts which remain after all appropriate and practicable avoidance and minimization have been applied. The compensatory mitigation required to offset the wetland impacts from your proposed action will be determined by the Corps before issuance of the required Section 404 permit. The USFWS will provide comments to the Corps during the public notice process on any permit. 12

Page 4-78, lines 39-42 - The statement indicates that mitigation measures should " minimize placement of fill in streams". How is this going to occur with the proposed Western Alignment? 13

Page 4-79, line 31: Replace "mitigation conditions" to "terms and conditions of incidental take statements" imposed by…. 14

Page 4-81, lines 35-39 - There is no mention of sauger being on the MT NHP Species of Concern list. 15

Page 4-82, lines 36-41 - The timing of fish surveys should be specified. 16

Page 4-97, line 23 - Does the number of 20 include the sauger? 17

Page 4-114, lines 4-7 - With the amount of fill that will be deposited (associated with the proposed Western Alignment), I believe it is essential to have a culvert that will pass a 100 year event without static head and with anticipated beload/debris. These culverts should be able to pass an unrestricted 100 year event. Using the head at entrance and allowing ponding will only increase the potential for failure in these stream crossings. Large releases of sediment can harm and kill aquatic life. In a high flow event, the large amount of fill material (associated with the proposed Western Alignment) could reach levels that could harm and kill aquatic life within the Tongue River. 18

Page 4-113, line 21, Mitigation Measure 48 (Tongue River Crossing): We support TRRC's commitment to design the bridge crossing the Tongue River so that the bridge does not require a center abutment, and so the side abutments are placed outside of the riparian zone. 19

Page 4-114, lines 33-38 - We believe that the structures should pass a 100-year event to lessen effects to aquatic fish and other biota. 20

Pages 4-118-127, Section 4.3.5 - As appropriate within this section, we suggest inclusion of BLM's standard stipulation for paleontological resources. Although the text is variable, it basically says "If significant paleontological resources are discovered during surface disturbing activities, all work that potentially would damage the resource must cease, the area of concern must be protected, and the BLM notified as soon as possible. Appropriate mitigation measures would be developed by the BLM and implemented as soon as possible." 21

Page 4-118, lines 33-35 - Paleontologic resources are not eligible for listing in the NRHP. 22

Pages 4-118, lines 40-48 and 4-119, lines 1-7 - The PA (App.G) does not cover paleontological resources, and all references to paleontological throughout this paragraph should be deleted. The document, therefore, contains no mitigation measures discussion for paleontological resources. 23

Page 4-120, lines 22-26 - These two sentences are incorrect. Paleontological resources are not surveyed during cultural survey efforts, nor is that allowed. Any surveys required for paleontological resources must be done by a qualified and permitted Paleontologist, not an 24

Archaeologist. In the case of the TRRC, however, the low potential for discovery of significant paleontological resources negates the need for a formal field paleontological survey. 24 cont.

Page 4-125, lines 24-26 - Again, the PA does not address paleontological resources. 25

Page 4-127, line 15 - Although the title of this section mentions Paleontological Resources, there is no discussion in the text. Basically, however, there would be no impacts on Paleontological Resources from Operation and Maintenance, unless new surface disturbance occurs. 26

Pages 4-175 & 176, Section 4.3.10.1 - This evaluation should be revised. Block management and dispersed of use BLM and USFS lands would be impacted. You need to rethink the Tongue River Reservoir State Park to analyze the use and pressure impact over time for people and space during the construction phase. 27

Pages 4-176 & 177, Section 4.3.10.3 - Visual impacts and noise both diminish "quality of experience". Trains may impact hunting on block management areas because of displacement of game. 28

Page 4-177, Section 4.3.11.1 - VRM contract ratings would breach management class criteria. VRM resource would diminish. Cuts/fills, track lines, and coal trains are all evidence of landscape change. You need to think of the view from the river which is a public route. 29

Pages 5-6 to 5-9. Miles City Fish Hatchery: The Miles City Fish Hatchery raises endangered pallid sturgeon for the pallid sturgeon recovery effort. It supplies only young pallid sturgeon for augmentation of the pallid sturgeon population in the Missouri River above Fort Peck Reservoir. Any impacts that would result in the failure to produce pallid sturgeon for this effort would adversely affect pallid sturgeon recovery. We concur with the proposed mitigation measures to minimize adverse affects and recommend that TRRC address all additional requests from Montana Fish Wildlife and Parks. 30

Page 5-26, Section 5.3.10 - Except for the land used for the right-of-way and the dissected land outside of the fenced right-of-way corridor, block management needs lots of gates or other ways to cross the railroad tracks. 31

Page 5-26, line 20 - "No new significant" is a subjective term. Loss of an opportunity to recreate is very significant to those losing the experience. 32

Pages 5-26 & 27, Section 5.3.11 - VRM is not just about personal domiciles and the C/F view from their home. It is about the overall landscape character of the Powder River Valley. The before versus the after construction of a rail line. 33

Page 6-1 ff., Chapter 6 - The cumulative impacts to Miles City from increased rail traffic is not assessed in this document. The increased train traffic from Decker to Miles City is discussed in Chapter 2 which states that there will be 14 trains a day from Decker to Miles City. However, we never add that to the existing traffic passing through Miles City which would not come from the TRRC and discuss these cumulative impacts to the community. There are several freight trains and coal trains (Colstrip and Absaloka Mines) that will not use the TRRC but still pass through Miles City. This needs to be done to fully address cumulative impacts. One long coal train passing through town disrupts much of the vehicular cross town/tracks traffic access several times a day for several minutes each day. This affects emergency services as we have only one underpass. More train traffic means more disruptions to basic emergency services for a town of about 10,000 people. 34

Pages 6-4, lines 47 & 48 and 6-5, lines 1-5 - The subject Spring Creek federal coal lease was issued in March of 1991 and mining has been underway in the new lease area since the lease issued. The State leases have also issued. 35

Page 6-16, lines 27-33, Conclusions on the cumulative and indirect effects of Coal Bed Methane and your proposed action: USFWS in the *Final Biological Opinion for Coal Bed Methane (CBM) Production in Blaine, Gallatin, Park, Carter, Powder River, Custer, Rosebud, Treasure, Wheatland, Sweet Grass, Stillwater, Carbon, Golden Valley, Musselshell, Yellowstone, and Big Horn Counties finalized on September 3, 2002,* (USFWS 2002) determined that the proposed CBM production would adversely affect the bald eagle. These adverse affects should be included in your cumulative impacts discussion. 36

Pages 6-25 & 26, Section 6.6.10 - Loss of space is only part of the recreation equation. Quality of experience in space is equally or more important. The recreation resource would be impacted by this project. This project is not too far from the coalbed methane project. The Tongue River Railroad in conjunction with other projects will fracture land use, bump use pressure, and alter the experience. 37

Pages 6-26 & 27, Section 6.6.11 - The conclusion about VRM significance is merely an opinion. What is in the minds of locals and frequent visitors to the area? Are they equally as tolerant to landscape disturbance as SEA? 38

Page 7-27, lines 12-22 - With the amount of fill that will be deposited (associated with the proposed Western Alignment), we believe it is essential to have a culvert that will pass a 100-year event without static head and with anticipated beload/debris. These culverts should be able to pass an unrestricted 100-year event. Using the head at entrance and allowing ponding will only increase the potential for failure in these stream crossings. Large releases of sediment can harm and kill aquatic life. In a high flow event, the large amount of fill material (associated with the proposed Western Alignment) could reach levels that could harm and kill aquatic life within the Tongue River. 39

Page 8-1, lines 31-36 - This comment is for this section and for the direct, indirect, and cumulative effects analysis throughout the document. The document seems to be trying to support an idea that the proposed Western Alignment is a better alternative for wildlife, aquatic biota and other resources, since it impacts fewer acres, etc. The amount of acres affected does not necessarily result in a determination that can be classified as a lessened effect. In regard to aquatics, the proposed Western Alignment poses a much greater risk of harm to populations of fish (including the sauger), aquatic invertebrates, and amphibians due to the potential of a high flow event washing sediment down the much steeper draws of the proposed Western Alignment. This risk is elevated by not considering the construction of trusses/bridges (instead of fill) and the placement of culverts that can pass unrestricted 100 year event flows. The risk of a high flow event and the effects of sediment (deposited directly into the Tongue River) on aquatic biota is not analyzed in the document. This potential effect should at least be analyzed before selecting an action. 40

Sincerely,

Robert F. Stewart

Robert F. Stewart
Regional Environmental Officer

Literature Cited

Farmer, P.J. 1992. Western Technology and Engineering, Inc. February 23, 1992. Letter to Alan Newell, Historical Research Associates, Inc.

Phillips, R.L., A.H. Wheeler, J.M. Lockhart, T.P. McEneaney and N.C. Forrester. 1978. Nesting ecology of golden eagles and other raptors in southeastern Montana and northern Wyoming. U.S. Fish and Wildl. Serv., Fish and Wildl. Tech. Rep. 26, Washington, D.C.

U.S. Fish and Wildlife Service. 1992. Fish and Wildlife Coordination Act report for the Tongue River Dam rehabilitation project. Montana State Office, Helena.

U.S. Fish and Wildlife Service. 1995. Biological opinion on Tongue River Railroad Company's additional rail line from Ashland To Decker, Montana. Montana Field Office. Helena, Montana. 18 pp.

U.S. Fish and Wildlife Service. 2002. Final Biological Opinion for Coal Bed Methane (CBM) Production in Blaine, Gallatin, Park, Carter, Powder River, Custer, Rosebud, Treasure, Wheatland, Sweet Grass, Stillwater, Carbon, Golden Valley, Musselshell, Yellowstone, and Big Horn Counties Montana Field Office, Helena.

SEA's Responses to Comment Letter F5
Department of the Interior, Office of the Secretary (December 2, 2004)

F5.1 SEA acknowledges that despite alignment modifications and mitigation to minimize potential environmental impacts, some significant environmental effects resulting from this project would be unavoidable. Chapter 8 of the Draft SEIS documents the unavoidable adverse environmental effects of the proposed Western Alignment and the Four Mile Creek Alternative.

Regarding the feasibility of a hybrid alignment that would combine the lower portion of the Four Mile Creek alignment with the upper portion of the Western Alignment, to further reduce adverse impacts to wildlife and federally listed species, SEA asked TRRC to consider such an option and to submit documentation regarding the potential to implement such a proposal. This documentation is included in Appendix I of this Final SEIS and demonstrates why such an alignment would not be practicable due to adverse grades, the need for a much longer crossing of the Four Mile Creek drainage with concurrent fill requirements, the reduced safety of such an alignment during operation, and the inability to meet the design criteria for the project, which are as stringent as, or more stringent than the criteria of the American Railway Engineering and Maintenance-of-Way Association. SEA independently reviewed and verified the documentation submitted by TRRC.

F5.2 An outbound unit coal train traveling on the proposed Western Alignment could have more than two locomotives; however, according to the train performance modeling, only two locomotives would be necessary to move the train along the proposed Western Alignment. Unit trains typically have the necessary locomotive power attached to move the train over the full distance of the haul. These hauls can be in excess of 1,000 miles. Only those locomotives required to move the train in a particular segment of the haul would be under power; however, in the case of the proposed Western Alignment, this would be two locomotives.

F5.3. SEA acknowledges its obligation under the Endangered Species Act to initiate Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS) if the project is likely to adversely affect a listed species or supporting habitat. The revised BA is included in Appendix D of this Final SEIS, as is the USFWS Biological Opinion issued on July 12, 2006.

F5.4 The text has been changed to indicate that noxious weeds are no more of a fire hazard than any other type of vegetation. Please see Errata (Chapter 5: where it references Page 4-7, line 1).

F5.5 SEA has prepared a revised BA to address USFWS concerns. The Revised BA and Biological Opinion are included in this Final SEIS as Appendix D.

F5.6 TRRC has agreed to a work plan to study the potential effects of vibration on the pallid sturgeon. This methodology is presented in detail in the "Revised Work Plan for High Resolution Vibration Monitoring, Evaluation of Potential Effects of Tongue River Railroad Construction and Operation, and Potential Mitigation at Miles City Fish Hatchery," which is included in Appendix G of the Final SEIS. TRRC is committed to executing the work plan.

F5.7 The discussion of species of concern potentially present in the vicinity of the proposed Western Alignment and the approved Four Mile Creek Alternative is revised to include updated state listings. Please see Errata (Chapter 5: where it references Page 4-13, line1) for the relevant updates.

A Montana fish species of concern, the blue sucker (*Cycelptus elongates*), occupies the lower reaches of the Tongue and Yellowstone Rivers, downstream of the proposed Western Alignment. Two other state species of concern, the sturgeon chub (*Macrhybopsis gelida*) and the paddlefish (*Polyodon spathula*), occupy the lower reaches of the Yellowstone River downstream of the proposed Western Alignment.

These species are not discussed in Section 4.2.2.2 of the Draft SEIS because that section addresses only wildlife potentially present in the vicinity of the proposed Western Alignment and the approved Four Mile Creek Alternative. Potential impacts to downstream fish resources are fully addressed in the EISs for Tongue River I and Tongue River II, however. Neither the proposed Western Alignment nor the approved Four Mile Creek Alternative is likely to result in additional impacts to these species.

F5.8 Because the over-wintering information appears to be inconclusive and may be out-dated, this sentence is deleted from Sections 4.2.2 and 4.2.10. See Errata (Chapter 5: where it references Page 4-21, lines 19-28). This omission does not change the conclusions of the analysis.

F5.9 The text of the Draft SEIS is changed to indicate that the MT DFWP recommended, in a report completed in 2000, that brown trout be stocked over a 5-year period in the area below the Tongue River Reservoir Dam. See Errata (Chapter 5: where it references Page 4-21, lines 19-28).

F5.10 A discussion of recreation on BLM and USFS land is added to the Draft SEIS in Section 4.2.10. See Errata (Chapter 5: where it references Page 4-55 and 4-56, section 4.2.10).

F5.11 Comment noted.

F5.12 Recommended Mitigation Measure 22 has been revised. Please see Errata (Chapter 5: where it references Page 4-78, line 27) for the correction.

F5.13 The Conceptual Habitat Mitigation Plan was developed for TRRC by Westech Environmental Services, Inc. As part of the plan, Westech recommended design methods to minimize direct and indirect effects associated with placement of fill in streams. The Conceptual Habitat Mitigation Plan, which is included in Appendix D of the Draft SEIS, identifies potential impacts to wetlands and waters of the U.S. as a result of the project and mitigation concepts to address these impacts. One example of a mitigation measure is to avoid fill placement in perennial streams by constructing bridges with clear spans and concrete abutments. If clear spans are not feasible on longer stream crossings, concrete piers could be installed. The use of concrete structures rather than earthen fills would reduce potential downstream sedimentation. As indicated in revised Mitigation Measure 22, TRRC shall adhere to the reasonable mitigation measures suggested within the newly prepared Detailed Habitat Mitigation Plan.

F5.14 The text is edited as suggested. Please see Errata (Chapter 5: where it references Page 4-79, line 31).

F5.15 Although the sauger was listed in the Draft SEIS in Table 4-3 – State Rankings of Species of Concern, it erroneously was not mentioned in the referenced paragraph on page 4-81. See Errata (Chapter 5: where it references Page 4-81, lines 32-39) for the correction.

F5.16 The comment requests clarification on the timing of surveys for fish. The methodology and timing of required fish surveys are addressed in recommended Mitigation Measure 34.

Prior to construction of each rail segment, TRRC shall conduct a fish survey and fish habitat survey. The fish survey shall be conducted to estimate population and to monitor potential mortality or emigration due to construction impacts. Sampling shall occur before and after construction in impacted areas to allow quantification of effects, if any.

In addition, if determined to be necessary by the Task Force, a spawning habitat potential survey shall be conducted at each proposed bridge location as well as in areas of proposed riprapping and other perennial, intermittent, and ephemeral draws that the railroad crosses. Sampling periods for the spawning survey shall be early spring after ice breakup, after peak runoff, and in the fall.

F5.17 The number of species of state concern noted in the Draft SEIS did not include the sauger. The Draft SEIS text is revised to include the sauger in the species count. See Errata (Chapter 5: where it references Page 4-81, lines 32-39).

F5.18 Culvert design criteria were developed using the Soil Conservation Service procedures as well as the Montana Department of Transportation Hydraulics Manual. Furthermore, as proposed by recommended Mitigation Measure 49 in the Draft SEIS, TRRC would be required to ensure that all culverts and other drainage structures comply with the design guidelines adopted by the American Railway Engineering and Maintenance of Way Association, established in 2000. This means that at a minimum, culverts would be designed to discharge a 25-year flood without static head at entrance and a 100-year flood using the available head at entrance—the head to 2 feet below base of rail, or the head depth of 1.5 times the culvert diameter/rise, whichever is less.

Additionally, TRRC would be required to incorporate the culverts into the existing grade of the streambed to avoid, to the maximum extent possible, changing the character of the streambed and impacting migrating amphibians and reptiles. This recommended measure reflects current industry practice, and its adequacy was confirmed in consultation with Kleinfelder Geotechnical Engineering, Inc. SEA acknowledges that the placement of fill as a result of this project could result in releases of sediment that could be harmful to aquatic resources, and recommended Mitigation Measures 43 and 45 address this concern. For example, Mitigation Measure 43 would require SEA to submit detailed construction plans, for review and approval, to applicable regulatory agencies such as the Montana Department of Environmental Quality prior to construction of any part of this line.

F5.19 Comment noted.

F5.20 Please see response to comment 18.

F5.21 BLM's standard condition for paleontological resources is added to the text. Please see Errata (Chapter 5: where it references Page 4-127, line 41).

F5.22 The text is changed to indicate that paleontological resources are not eligible for listing in the NRHP. Please see Errata (Chapter 5: where it references Page 4-118, lines 40-48; and Page 4-119, lines 1-7).

F5.23 The text is changed to reflect that the PA does not cover paleontological resources. A sentence is added to clarify that no effects to such resources expected during operation and maintenance of the TRRC line because minimal (if any) subsurface activities would be required. In the event that sub-surface activities are required and said resources are discovered, a new recommended mitigation measure (Mitigation Measure 90) has been added to reduce potentially significant effects to a less-than-significant level. Please see Chapter 4 Mitigation Measures and Errata (Chapter 5: where it references Page 4-127, line 41) for the new mitigation measure.

F5.24 The text is changed to indicate that paleontological resources are not surveyed during cultural resource efforts. The low potential for discovery of significant paleontological resources as a result of this project negates the need for a formal field paleonotological survey.

F5.25 The text is changed to indicate that the PA does not address paleontological resources. See Errata (Chapter 5: where it references Page 4-120, lines 22-26; and Page 4-125, lines 24-26).

F5.26 "Paleontological" is included in the title section 4.3.5.3 to be consistent with the title of Section 4.2.5. A sentence is added to clarify that no effects to such resources are expected during operation and maintenance of the proposed line because minimal (if any) subsurface activities would be required during this phase of the project. In the event that sub-surface activities were required and said resources were discovered, SEA's recommended Mitigation Measure 90 has been included to reduce potentially significant effects to a less-than-significant level.

F5.27 Regarding Block Management Areas (BMAs), the Draft SEIS states that the ROW required for rail construction activities as a result of this project would restrict access to portions of BMAs in Custer and Rosebud counties. However, due to the size of the BMAs (the smallest of seven is 1,800 acres) and the relatively small acreages that would be required for rail construction, hunters and fisherman could continue to use all BMAs throughout the construction period and after rail operations begin. With regard to the Tongue River Reservoir State Park, which is the most heavily used recreational resource in the project area, neither the proposed Western Alignment nor the Four Mile Creek Alternative would affect the availability of camping, fishing, or boating opportunities during the construction or operation phases.

As stated in Section 4.2.10 of the Draft SEIS, the Tongue River Reservoir Park received approximately 90,000 visitors in 2003. Given that the proposed influx of temporary construction workers from April to October is approximately 250 people, as stated in Table 4-45 of the Draft SEIS, there would be no significant increase in demand for local recreation as a result of the project.

F5.28 Comment noted. As SEA acknowledged in the Draft SEIS, the project would change the existing noise and visual environments in the project corridor. However, these changes are not expected to significantly degrade the "quality of (recreational) experience" as suggested in the comment. As discussed in Section 4.3.10.3 of the Draft SEIS, the changes are not expected to have a significant effect due to the distance of recreational use areas (i.e., campgrounds and picnic areas) from the proposed Western Alignment, as well as the Four Mile Creek Alternative. With regard to BMAs, SEA acknowledges that the ROW required for construction activities would restrict access to portions of BMAs in Custer and Rosebud counties. However, due to the size of the BMAs (the smallest of seven is 1,800 acres) and the relatively small acreages that would be required for rail

construction and operation, hunters and fisherman could continue to use all BMAs throughout the construction period and after rail operations begin.

F5.29 The effect of construction on visual resources has been considered in the analysis of the impacts of the proposed Western Alignment and the Four Mile Creek Alternative. Section 4.3.11 of the Draft SEIS discusses the roads from which the proposed Western Alignment and the Four Mile Creek Alternative would be visible.

As noted in Section 4.3.11 of the Draft SEIS, much of the proposed Western Alignment would be constructed in cuts, most of which would be deep enough to hide the locomotives and rail cars from public roadway view. However, the construction of fills across some of the drainages would be clearly visible to motorists traveling along C528, which becomes C380 at the Big Horn County line.

Operation of the proposed Western Alignment would have an adverse impact on areas of the Tongue River Canyon where the railroad would border the western edge of the Canyon, resulting in a change of the rural character of those areas. Along most of the Canyon, the tracks would be located approximately 1 mile to the west of C380, and the intervening hills and vegetation would shield views of much of the proposed Western Alignment from public roadways.

For the Western Alignment, a greater distance between the viewer and the project, and a shorter length of time with the project in view from the public roadways would cause weaker contrast ratings during project operation. The alignment of the Four Mile Creek Alternative, because it parallels S314 and S566 for much of its length, would have a shorter distance between the viewer and the project, and a longer length of time that the alignment would be in view from the public roadways; this would lead to a higher contrast rating (moderate to strong).

The construction period would result in a strong contrast rating until revegetation of the disturbed slopes can be achieved. As noted in section 4.3.2.2 of the Draft SEIS "Construction-period impacts on biological resources," revegetation is a critical part of the mitigation process. Mitigation Measure 19 requires TRRC to begin reclamation as soon as practicable after construction ends, with the goal of rapidly reestablishing ground cover on disturbed soils that could support vegetation, with all cut and fill slopes mulched and seeded as they are completed. As part of this reclamation plan, TRRC would be required to retain the services of a reclamation specialist, as well as to analyze the soil requirements and seasonal precipitation patterns to identify planting dates for optimal revegetation success. SEA concludes that implementation of recommended Mitigation Measure 19 would adequately address the potential aesthetic impacts of construction and operation of the Tongue River line, and that no significant aesthetic impacts would result from the project.

F5.30 Comment noted.

F5.31 All of the ROW will be fenced for purposes of public safety and security. At this point, only TRRC personnel would have access to areas within the proposed ROW during the construction and operation period. The portions of BMAs that overlap with the ROW would therefore be restricted from public access. However, due to the size of the BMAs (the smallest of seven is 1,800 acres) in comparison to the acreages that would be required for construction and operation of the TRRC line, hunters would not be restricted from any one BMA entirely. Access to all portions of BMAs adjacent to, but outside of the ROW would continue to be accessible to the public for recreational activities such as hunting. In addition, access gates would be provided to landowners at private grade crossings. It would be up to the individual landowners to determine who may utilize the crossings and whether permitted users could make use of the cattle passes below the tracks.

F5.32 As documented by SEA in the Draft SEIS, land within the ROW would be inaccessible for recreational hunting and fishing for purposes of safety and security. However, given the number of fishing sites and hunting areas (e.g., BMAs) that would still be available during construction and operation of the rail line, SEA does not consider this impact to be significant. With regard to the Tongue River Reservoir State Park, which is the most heavily used recreational resource in the project area, neither the proposed Western Alignment nor the Four Mile Creek Alternative would affect the availability of camping, fishing, or boating opportunities during the construction or operation phases of this Rail line.

F5.33 Please refer to Response 5.29.

F5.34 As stated in Section 6.6.6 of the Draft SEIS, transportation impacts during construction of the proposed Western Alignment include an increase in vehicular traffic, increased traffic delays, and safety concerns. Operational impacts would include safety concerns at rail crossings. Cumulative effects on transportation and safety would occur as concurrent construction activities increase the vehicular traffic in the area near the proposed rail line or as development activities generate traffic resulting in the potential for increased rail crossings by vehicles. In accordance with recommended Mitigation Measure 55, however, TRRC would be required to enter into a MOA with MDT that evaluates project-related safety needs. The MOA would account for the existing train traffic passing through Miles City from the Colstrip and Absaloka Mines. The MOA would evaluate each crossing for safety needs and potential traffic problems during construction and operation, including passage of emergency vehicles. Based on these evaluations, the MOA would set forth specific safety measures, such as warning signal and devices, and appropriate measures to alleviate any traffic problems, such as grade separations. A construction traffic plan would also be prepared by TRRC for review and approval by MDT. SEA believes that this mitigation is

adequate to ensure that, as mitigated, the transportation impacts of this project would not be significant.

F5.35 The text is edited to reflect the correct status of the Spring Creek federal and state coal leases. Please see Errata (Chapter 5: where it references Page 6-4, lines 47-48; and Page 6-5, lines 1-5).

F5.36 The Biological Opinion for the Montana Statewide Oil and Gas project (USFWS 2002) states that "the Service's biological opinion [is] that the direct and indirect effects of Coal Bed Methane Production in Montana, as proposed, are not likely to jeopardize the continued existence of the bald eagle." However, adherence to the reasonable and prudent measures indicated in Biological Opinion for the Montana Statewide Oil and Gas project will ensure that there is no cumulative impact to the bald eagle.

F5.37 Comment noted. As SEA states in Section 6.6.10, neither the proposed Western Alignment nor the Four Mile Creek Alternative would significantly degrade the "quality of (recreational) experience" at the Tongue River Reservoir State Park due to the distance between the rail line for either alignment and the park's more utilized areas (e.g. camping grounds) and less utilized areas (e.g. open space). The cumulative effects analysis in the Draft SEIS did account for Coal Bed Methane (CBM) development, and properly concluded that CBM projects, in combination with construction and operation of either the proposed Western Alignment or the Four Mile Creek Alternative, would not result in significant cumulative effects on recreational opportunities in the project area. See pages 6-25 and 6-26 in Draft SEIS.

F5.38 SEA's conclusions in the SEIS regarding potential changes in the aesthetic environment are based on foreseen effects and the ability of SEA to minimize the significance of those effects through mitigation.

F5.39 Please see the response to comment 18.

F5.40 SEA acknowledges that a determination of adverse effects on biological resources is not solely determined by the total acres impacted. Regarding potential impacts to aquatic resources, please see Master Response 12, Effects of the Project on Erosion and Sedimentation Rates.

TRRC considered the use of trestles to cross side drainages on the proposed Western Alignment and ultimately determined that they would be both an unsafe option and prohibitively expensive, and SEA agrees. Trestles are more likely than fill embankments to sustain major damage in the event of derailment, because fallen locomotives or cars can damage trestle piers and abutments, and can also increase the likelihood of deaths or serious injuries and the possibility of catastrophic damage to locomotives or cars. A more detailed discussion of this

issue is presented in Appendix I of this Final SEIS, in a letter dated May 11, 2005, from Mission Engineering, TRRC's consulting engineer in this proceeding.

As required by recommended Mitigation Measure 49, culverts shall be designed by TRRC in accordance with the criteria established by the American Railway Engineering and Maintenance of Way Association. Those criteria specify that, at a minimum, the culverts shall be designed to accommodate a 25-year recurrence interval flow without static head at the inlet and a 100-year recurrence interval flow using the available head at the inlet, the head to 2 feet below the base of the railway, or a head depth of 1.5 times the culvert diameter/rise, whichever is less. Recommended Mitigation Measure 49 also requires that TRRC incorporate the culverts into the existing grade of the streambed to avoid, to the maximum extent possible, changing the character of the streambed and impacting migrating amphibians and reptiles.