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SURFACE TRANSPORTATION BOARD

DECISION

STB Finance Docket No. 30186 (Sub-No. 3)<sup>1</sup>

TONGUE RIVER RAILROAD COMPANY, INC.—CONSTRUCTION  
AND OPERATION—WESTERN ALIGNMENT

Decided: October 5, 2007

The Board approves the construction and operation of a 17.3-mile line in Rosebud and Big Horn Counties, MT, known as the Western Alignment. The Board also modifies the environmental conditions imposed on earlier approvals for the construction and operation of 89 miles of rail line between Miles City and Ashland, MT, and the extension of that line from Ashland to Decker, MT, via the 41-mile Four Mile Creek Alternative route.

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<sup>1</sup> This decision also embraces Finance Docket No. 30186, Tongue River R.R.—Rail Construction and Operation—In Custer, Powder River and Rosebud Counties, MT, and Finance Docket No. 30186 (Sub-No. 2), Tongue River Railroad Company—Rail Construction and Operation—Ashland to Decker, Montana.

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## OVERVIEW

In this decision (Tongue River III), we grant the application of Tongue River Railroad Company, Inc. (TRRC)<sup>2</sup> to construct and operate a 17.3-mile rail line known as the Western Alignment. TRRC wishes to use this line in lieu of the southernmost section of a 41-mile line between Ashland and Decker, MT, known as the Four Mile Creek Alternative,<sup>3</sup> that was authorized in Tongue River II,<sup>4</sup> which is an extension of an 89-mile line from Miles City to Ashland, MT, authorized in Tongue River I.<sup>5</sup> A map depicting the lines authorized in Tongue River I and Tongue River II—neither of which has yet been built—and the Western Alignment is attached as Appendix A. We find that the Western Alignment is a superior route to the portion of the Four Mile Creek Alternative that it would replace, as the Western Alignment is shorter and less steep and also minimizes impacts to the Tongue River Canyon, an environmentally sensitive 10-mile section of the Tongue River. This route will allow TRRC to haul coal more cheaply, efficiently, and safely than using the original Four Mile Creek Alternative. It also will allow BNSF Railway Company (BNSF), which will be TRRC’s interchange partner, to improve service to the Midwestern electric utilities located on BNSF’s system.

The Board’s Section of Environmental Analysis (SEA) has prepared a Supplemental Environmental Impact Statement (SEIS), pursuant to the National Environmental Policy Act, 42 U.S.C. 4321 et seq. (NEPA),<sup>6</sup> analyzing the environmental impacts of the construction and operation of the Western Alignment and comparing those to the previously authorized Four Mile

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<sup>2</sup> This application was originally filed by Tongue River Railroad Company, a partnership, which has since been converted to a corporation to which its assets have been transferred. Tongue River Railroad Company, Inc. has been substituted as the applicant in the Tongue River III proceeding, and this decision refers to the applicant in all three Tongue River proceedings as TRRC.

<sup>3</sup> The remaining portion of that line approved for construction will not be affected by this realignment.

<sup>4</sup> Tongue River RR Co.—Const. and Oper.—Ashland-Decker, MT, 1 S.T.B. 809 (1996), pet. for judicial review in abeyance, Northern Plains Resource Council Inc. et al. v. STB, No. 97-70073 et al. (9th Cir. filed Jan. 7, 1997).

<sup>5</sup> Tongue River R.R.—Construction and Operation—In Custer, Powder River and Rosebud Counties, MT, Finance Docket No. 30186 (ICC served Sept. 4, 1985), modified (ICC served May 9, 1986), pet. for judicial review dismissed, Northern Plains Resource Council v. ICC, 817 F.2d 758 (9th Cir.), cert. denied, 484 U.S. 976 (1987).

<sup>6</sup> An Environmental Impact Statement (EIS) is the detailed written statement required by NEPA for “major federal actions significantly affecting the quality of the human environment.” 42 U.S.C. 4332(2)(c). See 40 CFR 1508.11, 49 CFR 1105.4(f). A supplement to an EIS is prepared where, as here, pertinent new environmental information is presented after a Final EIS has been issued. See 40 CFR 1502.9(c)(1).

Creek Alternative.<sup>7</sup> As the SEIS shows, the Western Alignment would be environmentally preferable, primarily because it would have a flatter grade (which would serve to reduce fuel consumption and the potential for accidents) and would require fewer at-grade public road crossings and less total acreage. Moreover, the environmental mitigation imposed here will significantly reduce the potential impacts in areas where the Western Alignment would otherwise have greater impacts than the Four Mile Creek Alternative: earth work (cut and fill and grading), soil erosion, sedimentation to the Tongue River and its tributaries, dust during construction, and visual quality.

The SEIS also addresses TRRC's proposed refinements to the alignments authorized in Tongue River I and Tongue River II, as well as changed environmental circumstances in the project area (such as changes at the Miles City Fish Hatchery, discussed below), and includes additional analysis requested by the cooperating agencies. Although SEA has determined that there will not be significant impacts that have not already been examined with respect to those lines, it recommends additional and modified mitigation measures to further minimize the potential environmental impacts of the construction and operation of the lines authorized in Tongue River I and Tongue River II. SEA recommends that, except as specifically noted, the environmental conditions it recommends here be applied uniformly to all three lines.

We have thoroughly reviewed the SEIS, as well as the pertinent portions of the EISs prepared in Tongue River I and Tongue River II, and we concur in SEA's analysis and recommendations. We conclude that, with the environmental conditions we are imposing, this project satisfies the standard of 49 U.S.C. 10901(c).<sup>8</sup> Therefore, we approve the Western Alignment, subject to the environmental conditions recommended by SEA, with slight modifications. We also revise and supplement the conditions previously imposed on the Board's approval of the construction and operation of the Tongue River I and Tongue River II lines to further minimize the environmental impacts of those projects. A complete set of the mitigation measures we are imposing is attached as Appendix B.

## BACKGROUND

### TRRC's Prior Authorizations

In 1983, TRRC sought authority from the Board's predecessor, the Interstate Commerce Commission (ICC), to construct and operate 89 miles of rail line between Miles City, MT, and two termini located near Ashland, MT, to serve future coal mines in the Ashland area and to

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<sup>7</sup> The SEIS was prepared in coordination with three cooperating agencies: 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 (MTDNRC), acting as lead agency for other Montana agencies. See 40 CFR 1501.6. Further references to SEA in this decision include the work of the cooperating agencies.

<sup>8</sup> Under 49 U.S.C. 10901, we must authorize the construction and operation of a new line "unless the Board finds that such activities are inconsistent with the public convenience and necessity."

connect with a BNSF line at Miles City for shipment of coal to eastern and western destinations. In Tongue River I, the ICC authorized TRRC to construct and operate the line, using TRRC's proposed alignment, subject to environmental conditions.

In 1991, TRRC sought authority to construct and operate a 41-mile rail line between Ashland and Decker, MT, to connect with the 89-mile line authorized in Tongue River I and to serve mines around Decker and potential mines around Ashland, located in the Northern Powder River Basin (NPRB). TRRC proposed two alternative routes for consideration. Its "preferred" route would have followed the Tongue River and passed about 1 mile west of the Tongue River Reservoir. The Four Mile Creek Alternative was developed at SEA's request in order to avoid the environmentally sensitive Tongue River Canyon. In Tongue River II, the Board authorized TRRC Inc. to construct and operate the Four Mile Creek Alternative, subject to extensive environmental conditions. The Board found that TRRC had sufficient financial backing to make the project work; that it had shown a public demand for the Ashland-to-Decker extension; and that potential users were seriously committed to the project and its viability, because the project would reduce transportation distances, costs, and sulphur dioxide emissions, and would allow TRRC to offer a more efficient transportation service in conjunction with BNSF than BNSF could offer on its own. Neither the Tongue River I nor the Tongue River II line has yet been built.

In the meantime, another rail carrier, the Dakota, Minnesota & Eastern Railroad Corporation (DM&E), has obtained authority to build a new 280-mile rail line extension of its system to reach the Southern Powder River Basin (SPRB) area of Wyoming.<sup>9</sup>

### This Application

In 1997, TRRC asked the Board to reopen the Tongue River II proceeding to approve the Western Alignment as an alternate routing for the southernmost portion of the already approved Four Mile Creek Alternative. The Board denied that request without prejudice to the railroad filing a separate application for authority to construct and operate the proposed Western Alignment.<sup>10</sup> Accordingly, on April 27, 1998, TRRC filed the Tongue River III application that is before us here.

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<sup>9</sup> See Dakota, Minnesota & Eastern RR.—Construction—Powder River Basin, 3 S.T.B. 847 (1998) (1998 DM&E) (preliminary consideration); Dakota, MN & Eastern RR—Construction—Powder River Basin, 6 S.T.B. 8 (2002) (2002 DM&E)(first approval), remanded sub nom. Mid States Coalition for Progress v. STB, 345 F.3d 520 (8th Cir. 2003) (Mid States) (requiring further consideration of four environmental issues), reauthorized, Dakota, Minnesota & Eastern Railroad Corporation Construction into the Powder River Basin, STB Finance Docket No. 33407 (STB served Feb. 15, 2006) (2006 DM&E) (final approval), aff'd sub nom. Mayo Foundation et al. v. STB, 472 F.3d 545 (8th Cir. 2006) (Mayo).

<sup>10</sup> See Tongue River Railroad Company – Rail Construction and Operation – Ashland to Decker, Montana, Finance Docket No. 30186 (Sub-No. 2) (STB served Dec. 1, 1997).

After TRRC filed this application, the Board received comments and replies on the transportation aspects of the proposal and SEA began its environmental review. The environmental review was suspended, however, at the request of the railroad, from March 2000 to December 2002. In early 2003, TRRC expressed interest in moving forward and asked to update the record on the transportation aspects of its proposal.<sup>11</sup> TRRC filed supplemental evidence in May 2003; replies and comments were filed in November 2003; and TRRC filed its rebuttal in December 2003.

### 1. Nature of the Proposal

TRRC seeks authority to construct and operate the 17.3-mile Western Alignment as an alternative to the southernmost portion of the Four Mile Creek Alternative routing approved in Tongue River II. See map at Appendix A. The Western Alignment would shorten the route from Decker to Miles City by 12.1 miles, and would provide a considerably milder grade: under 1%, compared with 2.31% for the Four Mile Creek Alternative. TRRC claims that this would result in significant economic benefits, including annual reductions in locomotive capital costs (because fewer helper locomotive units would be required), and reduced locomotive maintenance costs, capital costs, fuel costs, main line track maintenance costs, and train labor costs. TRRC estimates that using the Western Alignment would save it \$4.4 million in its initial operating year and greater savings in later years, as traffic volumes increase.<sup>12</sup> TRRC also claims that the Western Alignment would reduce the risk of derailment and that the faster speeds permitted on the Western Alignment's flatter grades would result in reduced cycle times.

TRRC asserts that the Western Alignment would benefit the public as well. It notes that the regulatory constraints imposed by the Clean Air Act have led to a significantly increased demand for low-sulfur ("compliance") coal. TRRC plans to use this line to haul coal from mines near Decker, mines in Wyoming (by means of traffic interchange with BNSF), and proposed mines near Ashland whose development would be hastened by the project. According to TRRC, the coal would go to the upper Midwest and Great Lakes regions, including Minnesota, North Dakota, Wisconsin, Michigan, and lakeside power plants as far east as Buffalo, NY. TRRC claims that the Western Alignment routing would ensure that the coal reaches these markets efficiently and economically, thus benefiting both electric utilities and the electricity-consuming public. Finally, TRRC claims that the Western Alignment is environmentally preferable to the Four Mile Creek Alternative, primarily because of its grade and shorter length.

Several potential coal recipients, including Minnesota Power & Light Company, Commonwealth Edison Company, Midwest Energy Resources Company, Northern States Power Company, and Detroit Edison, as well as a number of local businesses and ranchers, submitted letters of support for the application. The application also is supported by BNSF, two former

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<sup>11</sup> See Tongue River Railroad Company—Construction and Operation—Western Alignment, STB Finance Docket No. 30186 (Sub-No. 3) (STB served Mar. 11, 2003) at n.8.

<sup>12</sup> See Applicant's 2003 Supplement, Leilich Verified Statement (V.S.), at 4.

governors of Montana (Judy Martz and Marc Racicot), United States Senator Max Baucus, former United States Senator Conrad Burns, and Congressman Dennis R. Rehberg.

BNSF states that the new routing would benefit it and its utility customers because BNSF would use TRRC as a bridge carrier for Wyoming coal. BNSF explains that its northern route for Wyoming coal, which runs through Forsyth, MT, would be shortened by the availability of this new line.<sup>13</sup> Moreover, the TRRC line would reduce BNSF's need to make expensive improvements to increase capacity on its own system in a time of increasing demand for low sulfur PRB coal.<sup>14</sup> Finally, BNSF considers the Western Alignment superior to the Four Mile Creek Alternative from an operating, economic, and environmental standpoint.<sup>15</sup>

a. Operations

According to TRRC, two alternatives are being contemplated for the operator of the line. TRRC could be the operator, and TRRC has included an operating plan for this possibility. Alternatively, TRRC could arrange for BNSF to operate the line pursuant to an agreement with TRRC that has yet to be finalized. TRRC provided a general plan describing how BNSF would conduct such operations. (If BNSF is to be the operator, it would need to obtain authority from the Board to conduct the operations.)

b. Organization

All of TRRC's stock is owned by TRR Limited Partnership, a Montana limited partnership. The general partner is Transportation Properties LLP, a Montana limited liability partnership, and the limited partner is Tongue River Holdings, Inc., a Montana corporation. The general partners of Transportation Properties LLP are WesRail LLC, and Railco, LLC.<sup>16</sup> According to TRRC, none of these entities has any relationship with industries to be served by the line.<sup>17</sup>

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<sup>13</sup> BNSF currently has two routes to utilities in the Upper Midwest—the main target market that would be served by TRRC/BNSF—for traffic that originates in Wyoming and exits the PRB out of the north via Donkey Creek, WY. The northern route first turns northwest at Donkey Creek before turning back east through Forsyth, MT, and on through North Dakota. The southern route turns southeast out of Donkey Creek and travels down to Alliance, NE, and eastward through Nebraska.

<sup>14</sup> See Application, V.S. Swienton at 3-4.

<sup>15</sup> See Final SEIS, at 3-418 to 3-420.

<sup>16</sup> See Applicant's 2003 Supplement, V.S. Gustafson at 2-3.

<sup>17</sup> See Applicant's Nov. 3, 2004 filing at 2.

c. Financing

TRRC plans to finance the construction of the proposed line by: (1) the raising of equity capital in the amount of \$105 million and (2) the private placement of approximately \$218 million of long-term debt secured by plant, property, and contracts for the movement of coal. The debt would take the form of a construction loan and first mortgage debt instrument.<sup>18</sup> To the extent that the capital construction cost estimate increases, the amount of capital and long-term debt would increase correspondingly.

2. Opponents

A comment in opposition to the application was filed on behalf of the United Transportation Union-General Committee of Adjustment and United Transportation Union-Montana State Legislative Board (UTU-GCA/MT). Also, John D. Fitzgerald filed a comment on behalf of the United Transportation Union-General Committee of Adjustment and Randall S. Knutson filed a comment on behalf of Local 951 of the United Transportation Union. The labor interests are concerned about job losses if traffic on BNSF's more circuitous northern route through Forsyth is rerouted as a result of this project. The City of Forsyth shares these concerns.

Also, the Northern Plains Resource Council, Inc. (NPRC), a coalition of ranchers, environmentalists, and others, opposes the application. NPRC contends that TRRC's forecasts for the amount of coal that would be transported over the line are overstated. The organization argues that the project would not spur the development of new mines in the Ashland area, as predicted by TRRC, and that the project would undermine the use of Montana coal by making SPRB coal from Wyoming more attractive in current NPRB markets. NPRC also claims that, if DM&E's new line is constructed, that line would reduce the need for this project, drive TRRC's rates down, and take traffic from TRRC. NPRC claims that the lack of need for the line, coupled with the potential adverse environmental impacts of the project, should lead the Board to deny this application.

A number of ranchers, including Mark Fix and the Lower Tongue River Protection Association (a body he heads), and other Montana residents also oppose the application. Their concerns include potential harm to the Tongue River Valley and the loss of mining and railroad jobs. In addition, they question whether there is a need for the line, because all the local mines are already served by BNSF. They contend that the development of new coal mines that could result from this project would adversely affect irrigation water. Finally, they raise concerns about TRRC's construction cost estimates and design and engineering plans.

The Northern Cheyenne Tribe and Native Action, Inc. raise concerns that the proposed line would be close to the Tongue River Canyon and that the construction and operation of the line would destroy local traditions, religious sites, and culture.

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<sup>18</sup> See Application at 23-24.

## The Environmental Review Process

As mentioned above, because the proposal here is to alter a portion of the line authorized in Tongue River II, SEA prepared a supplement to the EIS prepared for Tongue River II to address the proposed Western Alignment.<sup>19</sup> The SEIS also includes a limited reexamination of the EISs in Tongue River I and Tongue River II, where appropriate, to reflect changed circumstances or to accommodate the requests of the cooperating agencies.

In preparing the SEIS, SEA undertook extensive public outreach activities to give interested parties, agencies, organizations, tribes and the general public the opportunity to learn about the project, define issues, and actively participate in the environmental process. In July 1998, SEA sought public comment on the scope of the SEIS,<sup>20</sup> and the extent to which refinement of the environmental analysis in Tongue River I and Tongue River II might be warranted. In addition, BLM and MTDNRC conducted joint scoping meetings in Miles City and Ashland to solicit public involvement and ideas. Based on the information obtained, SEA in February 1999 identified the specific topics, issues, and environmental issues to be addressed in the SEIS. Following the 2-1/2 year hiatus mentioned above, in March 2003 SEA provided for additional comments from the public on the scope of the SEIS, and it announced the amended scope in August 2003. SEA conducted site visits, consulted with appropriate agencies and Native American representatives, and prepared technical studies.

A Draft SEIS was issued in October 2004, which provided a thorough environmental analysis of the proposed Western Alignment and compared the potential impacts of that alignment to those of the previously authorized Four Mile Creek Alternative. The analysis considered a wide variety of issues, including: transportation and safety; plants; wildlife; land use; cultural and paleontological resources; hydrology and water quality; socioeconomics; low income and minority (“environmental justice”) communities; soils and geology; air quality; aesthetics; noise and vibration; recreation; energy; and cumulative and indirect effects. The environmental analysis also addressed impacts on Native Americans, including potential impacts to sites of religious or cultural importance. Where appropriate, the Draft SEIS updated the environmental analysis of Tongue River I and Tongue River II to reflect changed circumstances and to assist the cooperating agencies.<sup>21</sup> The Draft SEIS also suggested a comprehensive

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<sup>19</sup> As explained more fully in the SEIS, this was the appropriate procedure because the agency has already examined in detail the environmental impacts of the lines proposed in Tongue River I and Tongue River II in the EISs prepared for those proceedings. NEPA does not require relevant environmental analysis that remains accurate to be redone. Moreover, SEA relied, where appropriate, on the EISs of the Tongue River regions prepared by BLM and MTDNRC for other projects in the area. See Final SEIS at 1-16.

<sup>20</sup> “Scoping” is an open process under NEPA for determining the scope of environmental issues to be addressed and their potential for significance. This process affords the public an opportunity to assist in identifying important resources, issues, or concerns.

<sup>21</sup> Draft SEIS at 3-6 to 3-9, 5-1 to 5-28.

package of environmental mitigation measures (reflecting a combination of new, modified, and existing measures) to apply to the Tongue River I, Tongue River II, and Tongue River III rail lines.<sup>22</sup>

As explained in the Draft SEIS, the Western Alignment was the only feasible “build” alternative considered in the SEIS,<sup>23</sup> because in Tongue River II the Board had already rejected for environmental reasons the only other “build” alternative to the Four Mile Creek Alternative: the railroad’s preferred route.<sup>24</sup> The Draft SEIS also explained that, even if the Tongue River III application were denied, the railroad already has authority, under Tongue River I and Tongue River II, to construct and operate a rail line from Miles City to Decker via the Four Mile Creek Alternative.<sup>25</sup> Therefore, the “no-build” alternative here would be construction and operation of the currently authorized Four Mile Creek Alternative.

SEA received 68 written comments on the Draft SEIS from a variety of agencies and individuals.<sup>26</sup> In addition, SEA hosted public meetings in Miles City and Ashland, which more than 100 people attended.

The Final SEIS, issued in October 2006, responded to the concerns raised in the comments; contained additional analysis of certain issues; updated information on SEA’s consultations; and contained SEA’s final recommendations for environmental mitigation.<sup>27</sup> The Final SEIS also fully incorporates and adopts by reference the analysis contained in the previously prepared EISs in Tongue River I and Tongue River II, as applicable.

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<sup>22</sup> Draft SEIS, 7-1 to 7-34.

<sup>23</sup> A hybrid alignment that would have combined the lower portion of the Four Mile Creek Alternative with the upper portion of the Western Alignment to reduce potential impacts to wildlife and federally listed species, was found not to be feasible or practical for this project. See Final SEIS at 3-43, 3-94, and Appendix I.

<sup>24</sup> See Draft SEIS at 1-15; Final SEIS at 1-19 to 1-20; Tongue River II at 23.

<sup>25</sup> See Draft SEIS at 1-17.

<sup>26</sup> The Final SEIS includes all of the comments.

<sup>27</sup> The recommended mitigation includes measures to minimize impacts associated with the 100-year flood plain; require the preparation of detailed surveys of a number of different types of wildlife, plants, and habitats prior to construction of each rail line segment; further minimize impacts to aquatic resources, wetland habitat, and plant and animal resources of special concern; reduce impacts on the Miles City Fish Hatchery; provide more detail regarding mitigation relating to vegetation; address impacts of saline/sodic soils and soil slumping; minimize the impacts of blasting on the Tongue River Dam and sediment production and delivery in the Tongue River; clarify conditions for bridge and culvert construction; improve safety; better explain the Board’s ongoing monitoring process; and minimize impacts on paleontologic resources. See Final SEIS at ES-4, ES-8 to ES-9.

## DISCUSSION AND CONCLUSIONS

### I. TRANSPORTATION ANALYSIS

#### Request for Oral Hearing

UTU-GCA/MT argues that TRRC has failed to provide sufficient information about BNSF's involvement in this matter and raises concerns that the construction and operation of the proposed line would divert traffic from BNSF's northern route through Forsyth to Miles City. UTU-GCA/MT requests an oral hearing to elicit more information on BNSF's role and the effect of this project on BNSF. NPRC also asks the Board to hold a hearing on the Tongue River III proposal.

We see no need for an oral hearing. TRRC has provided all the information required of an applicant under the Board's regulations. The current record—which includes the supplemental information filed in 2003, BNSF's verified statements, and the SEIS and public comments to it—is extensive and provides us with sufficient information to properly consider this application. Moreover, all interested agencies, organizations and members of the general public have had ample opportunity to participate by filing written comments and attending the public meetings SEA held during the comment period on the Draft SEIS.

With respect to the concerns about BNSF's role and involvement, the record clearly shows that BNSF has been providing monetary and staff support for this project, and that TRRC and BNSF have been discussing a potential arrangement whereby BNSF would operate over the Decker to Miles City line.<sup>28</sup> However, as of July 16, 2007, they had not yet reached an operating agreement.<sup>29</sup> Thus, an oral hearing would not resolve the question of which carrier would operate the line.

The fact that it is not clear at this point whether TRRC or BNSF would operate the line is not an impediment to our authorizing construction of the line and operations by TRRC.<sup>30</sup> We already have the information we need to authorize TRRC to conduct the proposed operations.<sup>31</sup> Should BNSF seek to operate the line, it would first need to obtain authority from the Board and update the general plan that is in the record describing how BNSF would conduct these operations.

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<sup>28</sup> See Applicant's 2003 Supplement, V.S. Gustafson at 9.

<sup>29</sup> See Tongue River II Status Report filed July 16, 2007.

<sup>30</sup> See Southern Electric Railroad Company—Construction Exemption—Jefferson County, AL, Finance Docket No. 31972 (ICC served Mar. 17, 1992) at 2.

<sup>31</sup> TRRC has provided an operating plan with TRRC as the operator.

Standard for Approval

Under 49 U.S.C. 10901(c), the Board is directed to 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” (PC&N). This permissive licensing policy reflects a statutory presumption adopted in the ICC Termination Act of 1995 (ICCTA)<sup>32</sup> that new rail lines and new rail operations should be approved.<sup>33</sup>

While the statute does not define “public convenience and necessity,” the agency has traditionally looked at whether: (1) the applicant is financially able to undertake the project and provide rail service; (2) there is a public demand or need for the proposed service; and (3) the proposal is in the public interest and will not unduly harm existing services.<sup>34</sup> The agency accords the interests of existing shippers substantial importance in assessing the PC&N in railroad construction proceedings.<sup>35</sup>

UTU-GCA/MT and several other parties argue that this proceeding is governed by the pre-ICCTA licensing standard, which contained no presumption in favor of approving an application. Section 204 of ICCTA<sup>36</sup> provided that cases pending before the ICC at the time ICCTA was enacted be handled under the pre-ICCTA provisions of the Interstate Commerce Act. UTU-GCA/MT argues that this application is a continuation of the Tongue River II proceeding that was pending in 1995, and that the savings provision of ICCTA therefore applies.

Those parties advancing this argument seek to relitigate an issue that was settled by the Board’s decision in 1997 that rejected TRRC’s request to reopen Tongue River II and ruled that a new application would be required for the Western Alignment. Because the Tongue River III application was not filed until 1998, this is not a proceeding that was pending when ICCTA was

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<sup>32</sup> Pub. L. No. 104-88, 109 Stat. 803 (1995). Prior to 1980, the ICC had been directed to scrutinize rail construction proposals closely to prevent excess capacity, and the ICC was to issue a license only if it found that the PC&N “require” the new line. See former 49 U.S.C. 10901(a) (1978). In the Staggers Rail Act of 1980, Pub. L. No. 96-448, 96 Stat. 1895 (1980), Congress relaxed the standard by providing that the ICC need only find that the PC&N “permit” a proposed construction. See former 49 U.S.C. 10901(a) (1994). With ICCTA, Congress completed its shift in policy, directing that the Board “shall” issue construction licenses “unless” the agency finds a proposal “inconsistent” with the PC&N. See current 49 U.S.C. 10901(c).

<sup>33</sup> See Mid States, 345 F.3d at 552; Class Exem. for the Construction of Connecting Track, 1 S.T.B. 75, 79 (1996).

<sup>34</sup> See 1998 DM&E, 3 S.T.B. at 863.

<sup>35</sup> See Mid States, 345 F.3d at 533; Burlington Northern, Inc.—Construction and Oper., 348 I.C.C. 388, 400 (1976), citing Chesapeake & O. Ry. Co. Construction, 267 I.C.C. 665 (1947).

<sup>36</sup> 109 Stat. 822-29, 942.

enacted. The fact that the application proposes a modification to a line that had been approved prior to ICCTA does not alter this result.

Accordingly, this application is governed by the current statutory standard. We note, however, that even if there were no statutory presumption, we would approve this proposal, as it clearly meets the pre-ICCTA standard as well.

### Financial Fitness

We first look at the financial condition of the applicant and the financial feasibility of the project. Our purpose in doing so is not to protect the applicant or those who choose to invest in the proposed project. Rather it is to protect (1) existing shippers from financial decisions that could jeopardize the carrier's ability to carry out its common carrier obligation to serve them,<sup>37</sup> and (2) the affected communities from needless disruptions and environmental impacts if the applicant were to start construction but not be able to complete the project and provide the proposed service.<sup>38</sup> Here, as discussed below, we conclude that TRRC is financially capable of successfully completing this project and providing the service that it proposes.

#### a. Construction Costs

In its application in 1998, TRRC estimated the cost of constructing the Western Alignment to be \$92,612,496 and the combined cost of constructing the Tongue River I and the Tongue River II lines, as modified by the Tongue River III alignment, to be \$295,023,368.<sup>39</sup> In its supplemental evidence in 2003, TRRC revised its estimate of the construction cost of the Western Alignment to \$108,963,467 (in 2002 dollars), and the combined cost to construct the three lines, using the Western Alignment, to \$341,350,059 (also in 2002 dollars).<sup>40</sup> These estimates include costs associated with excavation, major structure installation, construction reclamation, track installation, signals and communication system, and railroad infrastructure.

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<sup>37</sup> See e.g., Texas & Pac. Ry. v. Gulf, Etc., Ry., 270 U.S. 266, 277-78 (1925); Texas and New Orleans R.R. Co. v. The North Side Belt Ry. Co., 276 U.S. 475 (1928). Here, because TRRC is not an operating railroad, there are no rail shippers who depend upon its service. If this line were not built, shippers at Decker would continue to receive rail service over BNSF's more circuitous route through Forsyth.

<sup>38</sup> See Ozark Mountain Railroad – Construction Exemption, Finance Docket No. 32204 (ICC served Dec. 15, 1994), reopening denied, (ICC served Sept. 25, 1995) (denying request by a new company with no existing customers to construct and operate a new rail line because the company had provided no evidence of its financial condition and the financial feasibility of its proposal).

<sup>39</sup> See Application, V.S. Hadley at Attachment 1.

<sup>40</sup> See Applicant's 2003 Supplement, V.S. Hadley at Updated Attachment 1.

Mr. Fix argues that the applicant's construction cost estimates are too low, and he questions aspects of the design and engineering plans for the Western Alignment. For example, he questions the accuracy of TRRC's estimate of the amount of surface area that would be disturbed by construction of the line because the line will be constructed through bedrock which, he alleges, would lead to a greater disturbance of surface area than that predicted by TRRC. Mr. Fix raises concerns about the size of vehicle underpasses and whether loaded trains could traverse the line in both directions without the need for helper locomotives.<sup>41</sup> Also, Mr. Fix claims that Granite Construction, a company involved in the Tongue River project, ran over budget when constructing Denver International Airport. And he questions whether the culverts will be sufficient to handle 50-year and 100-year floods.

In its reply, TRRC adequately responded to each of Mr. Fix's concerns. Specifically, TRRC explains that the more bedrock is encountered during construction, the less surface area will be disturbed, because TRRC will be able to use steeper slopes for the portions of the alignment that traverse bedrock.<sup>42</sup> TRRC further explains that the size of the underpasses that will be constructed will be adequate,<sup>43</sup> that Granite Construction did not participate in the construction of Denver's airport,<sup>44</sup> and that the culverts will be sufficient to handle larger floods.<sup>45</sup> Finally, the record demonstrates that, although helper locomotives would be needed on the Western Alignment in some circumstances, fewer would be needed than on the Four Mile Creek Alternative.<sup>46</sup> Because less fuel would therefore be required for operating over the Western Alignment than would be the case under the Four Mile Creek Alternative, no additional study of the fuel consumption of the helper locomotives that would be used on the Western Alignment is required.

After considering all of the evidence on this issue, we accept Applicant's construction cost estimates as unrebutted.

b. Financing

In its application, TRRC explained that, to finance construction of the three lines, it planned both to raise approximately \$105 million in equity capital, and to arrange for a privately placed (construction loan and first mortgage) debt of approximately \$218 million. The privately placed debt would be at competitive market interest rates at the time of issuance and would have various maturities. TRRC further explained that interest expenses accrued during the first 2

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<sup>41</sup> Should helper locomotives be necessary, Mr. Fix asks the Board to conduct additional environmental study to examine their fuel consumption.

<sup>42</sup> Applicant's 1998 Reply at 22.

<sup>43</sup> Id. at 23.

<sup>44</sup> Id. at 36.

<sup>45</sup> Id. at 22.

<sup>46</sup> See Applicant's 2003 Rebuttal, Revised Att. 1 at n.24.

years of operation would be deferred and capitalized, and that the debt would be financed under a line of credit provided by a syndicate of commercial or institutional lenders.<sup>47</sup> TRRC has updated its financial plan, explaining that, to the extent that the capital construction cost estimates have increased, the approximate amount of capital and long-term debt would increase accordingly.<sup>48</sup> We have reviewed the applicant's financing plan, and find it to be reasonable.

Mr. Fix has raised concerns that the railroad could have difficulty financing the project, depending on market conditions at the time financing is sought. However, as with any business transaction, the financial community itself will ultimately determine whether it considers the project to be economically viable, and there is no reason, based on the record here, that we should foreclose that opportunity.<sup>49</sup>

Mr. Fix also argues that the railroad could have difficulty acquiring financing if it fails to acquire the property for the right-of-way that it will need. However, as TRRC explains, the company will negotiate with land owners to obtain the necessary property. If these negotiations fail, TRRC could institute condemnation proceedings under Montana state law.<sup>50</sup>

Based on TRRC's 1998 estimates, the \$323 million in capital available to TRRC exceeds the estimated funds necessary to construct the lines from Miles City to Decker along the Western Alignment (\$295,023,368) by approximately \$28 million. After the construction costs were recalculated at \$341,350,059, TRRC indicated that it would still have a similar surplus in capital. In short, we are confident that TRRC will be able to obtain sufficient financial backing to complete this rail construction.

### c. Operating Revenues

NPRC takes issue with TRRC's tonnage forecasts and hence the revenue that TRRC could expect.

TRRC proposes to transport both NPRB coal and SPRB coal. For the Wyoming (SPRB) coal, TRRC would serve as a bridge carrier for BNSF, with BNSF both originating and terminating that traffic. The Montana (NPRB) coal would originate on TRRC before being interchanged to BNSF for transport to its final destination. In its 1998 application, TRRC anticipated that in the first 10 years of operations the vast majority of the coal that would be transported on the line would be Montana coal. In its 2003 supplemental evidence, TRRC

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<sup>47</sup> See Application at 24.

<sup>48</sup> See Applicant's 2003 Supplement, V.S. Gustafson at 6.

<sup>49</sup> See Mid States, 345 F.3d at 552; 2002 DM&E, 6 S.T.B. at 46.

<sup>50</sup> Eminent domain proceedings are governed by state law. In rail construction cases, the Board determines whether the proposed line is consistent with the PC&N. The applicant is responsible for acquiring the land necessary to build the line. See Dakota, Minn. & E.R.R. v. State of South Dakota, 236 F. Supp. 2d 989 (D. S.D. 2002), aff'd, 362 F.3d 512 (8th Cir. 2004).

reported that, while a somewhat smaller percentage of the total coal expected to move on the line over the first 10 years would come from Montana, Montana coal would still constitute the majority of the coal that TRRC would carry.<sup>51</sup>

In its 1998 application, the railroad estimated that it would haul a total of 26.4 million tons of coal in its initial year of operations. In its 2003 supplemental testimony, TRRC revised its estimates to 32.1 million tons of coal in its initial year of operations (2009) and 36.9 million tons of coal in 2019.<sup>52</sup> (These figures include 16.6 million tons of Wyoming coal in 2009 and 12.2 million tons in 2019.)

NPRC raises concerns that the mines in the Ashland area from which the railroad forecasts hauling coal may not develop because the untapped NPRB coal is too far from most North American markets and there is greater demand for SPRB coal from Wyoming.<sup>53</sup> NPRC's argument is not persuasive. First, there is no question that the overall demand for PRB coal is expected to increase between now and 2025, given the growth of the domestic economy, the regulatory constraints on sulfur dioxide imposed by the Clean Air Act (which will continue to make low-sulfur PRB coal attractive to power plants), electric power deregulation, and the cost of coal compared to natural gas and other available energy sources.<sup>54</sup> The past coal production of Montana also does not fully take into account the new coal reserves in the Otter Creek tracts that TRRC expects to access.<sup>55</sup>

Second, even if demand for Wyoming coal has greater growth potential, the record here shows that demand for Montana coal has been and should remain stable.<sup>56</sup> Montana coal has a higher British Thermal Unit (BTU) content than coal found further south in the Wyoming

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<sup>51</sup> TRRC notes that demand for Montana coal is not as high as had previously been expected, whereas the predicted levels of Wyoming coal production and demand are increasing. See Applicant's 2003 Supplement, V.S. Morey at 28-29. However, the volume of Wyoming coal handled by TRRC would be only a small percentage of the total coal originating in Wyoming. See Final SEIS at 2-41.

<sup>52</sup> See Applicant's 2003 Supplement, V.S. Morey (total tonnage forecast table).

<sup>53</sup> Also, Mr. Fix questions whether new mines around Decker will develop if there is coal bed methane well (CBM) development in the area. However, Mr. Fix fails to explain why such wells would preclude mine development.

<sup>54</sup> See 2006 DM&E at 15.

<sup>55</sup> See Applicant's 1998 Reply at 10 n.10.

<sup>56</sup> TRRC submitted evidence showing that utility market demand for Montana NPRB coal was 35,292,000 tons in 1990 and 33,438,000 in 2004. See Final SEIS at 2-40; Statement of Francis A. Roberts In Response to SEA Information Request of Aug. 29, 2005, at Table 2. It also showed that the customer base for NPRB coal from Montana had 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 an NPRB customer for at least 14 years. See id.

portion of the PRB,<sup>57</sup> which means that there is limited substitutability of Montana NPRB coal from the Decker and Ashland areas for other types of coal.<sup>58</sup>

In these circumstances, NPRC has not supported its claim that the Ashland mines will not be developed. The Decker area mines are depleting their reserves, and as that occurs new Montana coal will need to be mined to meet the demand for that coal. The record indicates that this demand will be met by Ashland coal once the railroad links this area to markets. Thus, we credit TRRC's 2003 evidence forecasting that Decker area coal will decline from 15.3 million tons in 2009 to 12.3 million tons in 2019, and that Ashland area coal will increase from 0.3 million tons in 2009 to 12.3 million tons in 2019.<sup>59</sup>

NPRC further claims that the Ashland-area coal is high in sodium and that this affects its commercial value. A study of the sodium content of Ashland-area coal had not yet been completed when this record was developed. However, as TRRC notes, the coal around Decker has a high level of sodium, and that has not prevented the mines around Decker from developing and selling coal. Moreover, newer coal-fired plants can burn coal that is high in sodium, and older plants can be modified to burn it.<sup>60</sup>

NPRC also suggests that TRRC has not adequately addressed how the construction of DM&E's new line into the PRB may affect this project. The DM&E line has not yet begun to be constructed. However, as explained in the Final SEIS, little of the coal TRRC expects to carry would compete with DM&E coal.<sup>61</sup> While TRRC expects to carry both Montana and Wyoming coal, DM&E would only carry Wyoming coal. Therefore, DM&E would not directly compete with TRRC for customers that use Montana coal. And even for customers of Wyoming coal, DM&E assumed that generally it would not succeed in obtaining commitments to serve plants that are solely served by either BNSF or Union Pacific Railroad Company (UP).<sup>62</sup> In contrast, TRRC plans to participate in movements destined to customers that are solely served by BNSF. Because TRRC and DM&E would primarily serve different customers, the effect of DM&E's construction project on TRRC is expected to be minimal.

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<sup>57</sup> Application, V.S. Swienton at 2.

<sup>58</sup> A utility substituting SPRB coal from Gillette, WY, for NPRB coal from Decker, MT, would need more coal to compensate for the lower heat content. In addition, the chlorine and moisture content of Decker and Ashland coals are significantly different from those of other coals (even other Montana NPRB coals), which can affect substitutability. See Final SEIS at 2-40 to 2-41.

<sup>59</sup> Draft SEIS Table 2-2 at 2-4; Applicant's 2003 Supplement, Supplemental V.S. Morey (total tonnage forecast chart).

<sup>60</sup> See Applicant's 2003 Rebuttal, V.S. Gustafson at 19.

<sup>61</sup> See Final SEIS at 2-41, 2-50 to 2-51.

<sup>62</sup> Id. at 2-39, 2-51 to 2-52.

As the Board concluded in the 1998 DM&E decision, some markets that use Montana coal might switch to Wyoming coal if DM&E could deliver the coal at a reduced cost. That could happen in the Great Lakes market, which includes power plants served by vessel with rail service to Great Lakes transloading facilities.<sup>63</sup> However, a BNSF-TRRC-BNSF-vessel route would have a mileage savings over existing BNSF routes to some plants in eastern Michigan.<sup>64</sup> Therefore, BNSF/TRRC could lower their joint rate to these plants in response to competitive pressure from DM&E. This would reduce the chance of BNSF and TRRC losing market share. Accordingly, we are satisfied that the construction and operation of the new DM&E line would have little impact on TRRC's proposed line, even where TRRC and DM&E would compete for customers.

d. Conclusions

Based on its traffic projections, TRRC has submitted a pro forma statement for the first 10 years of operations that was updated in 2003.<sup>65</sup> It projects TRRC starting to earn sustained profits in the 5th year of operations and for TRRC's profit margin to continue to grow. TRRC projects that it would pay off its loans in no more than 12 years. The information provided by the applicant appears reasonable and adequate to show that TRRC should be financially able to construct the line, operate it, and service its debts.<sup>66</sup> In any event, while we believe that TRRC would secure sufficient traffic to make the Western Alignment project financially viable, the market ultimately will determine whether or not the line is built. The venture capitalists, banking institutions, and overall financial sector will provide the necessary financing if they agree that TRRC is financially viable. Given the liberal nature of our licensing statute, they should have that opportunity.<sup>67</sup>

Public Demand or Need

As discussed above, TRRC has provided letters of public support from Montana officials, ranchers, businesses, and electric utilities. Moreover, the record shows that the construction and operation of the Western Alignment rather than the portion of the previously approved Four Mile Creek Alternative it is designed to replace would have substantial benefits. Operations over that portion of the Four Mile Creek Alternative would require the use of helper locomotives to negotiate the steep grade. Fewer helper locomotives will be needed to operate over the proposed

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<sup>63</sup> See 1998 DM&E, 3 S.T.B. at 878.

<sup>64</sup> See Final SEIS at Appendix J.

<sup>65</sup> See Applicant's 2003 Supplement at Revised Exhibit G.

<sup>66</sup> Indeed, TRRC's revenue projections appear conservative given the current capacity constraints in the railroad industry.

<sup>67</sup> See Mid States, 345 F.3d at 552.

Western Alignment,<sup>68</sup> thus reducing operating costs. In addition, the shorter length of the Western Alignment will lower the operating costs and maintenance-of-way expenses, and will reduce cycle times. The flatter grades coupled with the shorter length will also reduce the risk of derailments. Accordingly, the Western Alignment will enable more efficient and economical operations and allow the operator to better provide the service previously approved in Tongue River I and Tongue River II.

TRRC will carry some SPRB coal for BNSF out of Wyoming. As discussed above, and in the SEIS in the DM&E case, the demand for this coal continues to increase. BNSF's southern route for carrying the SPRB coal out of the region is already heavily congested.<sup>69</sup> The availability of this shorter route will help BNSF handle Wyoming PRB traffic using BNSF's northern route through Forsyth more quickly and efficiently.<sup>70</sup> To the extent that the cost savings are passed through, the shorter route to some of BNSF's core markets could also result in lower rates for the utilities and ultimately the electricity consuming public.

For these reasons, we find that there will be a demand for the service over the Western Alignment.

NPRC suggests that the DM&E line would satisfy the need for a shorter transportation route for existing coal mines in the PRB and therefore lessen the need for this project. However, the DM&E line, if built, would be over 100 miles to the south-southeast of the TRRC line at its closest point.<sup>71</sup> Moreover, TRRC will carry NPRB coal from Montana as well as SPRB coal from Wyoming, whereas DM&E would only access SPRB coal from Wyoming. As discussed above, the two types of coal are not easily interchangeable at electric utility power plants. Construction of the DM&E line, therefore, would have little effect on the need that TRRC would fill of providing coal more efficiently to those utilities that already rely on NPRB coal. Moreover, the TRRC line will facilitate opening up mines in the Ashland area to replenish the dwindling supply of NPRB coal from the Decker mines, and this is a need that DM&E cannot fulfill. Although DM&E could take some Wyoming coal traffic from the existing BNSF line, there would still be plenty of traffic on BNSF's line. Construction and operation of the proposed Western Alignment will ensure that both TRRC's traffic and BNSF's traffic reach utilities quickly, safely, and efficiently.

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<sup>68</sup> See Applicant's 2003 Rebuttal, Revised Att. 1 at n.24. On the Western Alignment, trains coming from Decker and Wyoming would need helper locomotives, but trains from Spring Creek would not. All trains on the Four Mile Creek Alternative would require helper locomotives.

<sup>69</sup> To meet the increasing demand, BNSF has entered an agreement with UP to construct more than 40 miles of triple and quadruple track along the Joint Line to meet the current and future forecasted demand for Wyoming PRB coal. See UP/BNSF joint press release dated May 8, 2006.

<sup>70</sup> See Final SEIS at 2-51 to 2-52 & Appendix J.

<sup>71</sup> Final SEIS at 2-58.

A number of opponents contend that there is no need for the proposed line because existing coal mines around Decker are already served from BNSF. However, BNSF's current service is less efficient than what could be provided in conjunction with TRRC.<sup>72</sup> Additionally, BNSF may not be able to continue to meet the demand for NPRB coal, because the mines on BNSF's line around Decker are being depleted.

The opponents also note that the Montco mine in the Ashland area has not yet been developed. While the need for rail service to this mine was one of the reasons the ICC approved the Tongue River I application, the failure of this one mine to develop does not mean that the historic demand for NPRB coal will not continue or that the Western Alignment will not ensure that coal can be transported to utilities in a more efficient and more economical manner than the previously approved Four Mile Creek Alternative.

Finally, NPRC notes that a proposed project to ship electricity from the Otter Creek coal mining area to the West Coast by electric transmission could affect the need for this project. However, this project would be small in scale and would not compete with TRRC's service.<sup>73</sup> The bulk of the coal hauled by TRRC will head to Midwestern markets, not to the West Coast.

#### Lack of Harm to Competitors

The record shows that the proposed construction has little potential for harming existing rail services. The DM&E and TRRC lines generally would serve different customers and transport primarily different types of coal. The two could compete for some Wyoming coal, and the Western Alignment could have some effect on DM&E's ability to obtain traffic by making TRRC a more attractive carrier for this Wyoming coal. The effect should not be significant, however, because, as explained in DM&E, DM&E would still offer a shorter, straighter route to its target utility markets.<sup>74</sup>

#### Public Interest Analysis

Construction of the Western Alignment will further the national rail transportation policy. Because the Western Alignment will create a shorter route and more efficient service for both

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<sup>72</sup> For example, as the Draft SEIS explains (at 2-4), these lines would reduce the round trip mileage between existing coal mines in the Decker area and Midwestern utilities on BNSF's existing line by more than 320 miles.

<sup>73</sup> Applicant's 2003 Rebuttal, V.S. Gustafson at 15.

<sup>74</sup> DM&E would provide east-west service on a route that would reduce coal transportation distances as much as 390 miles to various electrical generation facilities in Minnesota and Wisconsin. DM&E would also have a mileage advantage for Wyoming PRB coal in the Great Lakes market, and would have a slightly shorter route to Chicago than that currently available (by approximately 30 miles each way). See Final SEIS at 2-39 n. 22 & 23.

BNSF and TRRC, it will contribute to a sound transportation system. See 49 U.S.C. 10101(4). The more efficient route will also lower costs for TRRC and for shippers, thereby encouraging sound economic conditions. See 49 U.S.C. 10101(5).

a. Loss of Railroad Jobs

A number of commenters object to the Western Alignment because of the potential loss of railroad jobs that would result from use of TRRC's shorter route for coal to reach Midwestern markets. It is projected that 87 BNSF crew member positions would be lost due to TRRC.<sup>75</sup> Fewer employees would be needed on the Western Alignment than on the Four Mile Creek Alternative because the proposed route is shorter and would require fewer helper locomotives.<sup>76</sup> However, the potential job losses on BNSF would be largely offset by the new jobs that construction and operation of this line would create.<sup>77</sup> Moreover, the number of job opportunities should increase as TRRC handles an increasing amount of traffic. And because of the greater amount of earthwork that would be needed for the Western Alignment, building this route would create dozens more jobs during the 3-year construction period than the Four Mile Creek Alternative.<sup>78</sup> Finally, BNSF has entered into labor agreements with the Brotherhood of Locomotive Engineers and Trainmen and the United Transportation Union that provide for protection of its employees.<sup>79</sup>

b. No Loss of Mining Jobs

NPRC and other commenters are concerned that the construction and operation of this line will harm existing Montana coal mines by making SPRB coal from Wyoming more attractive in markets currently purchasing NPRB coal from Montana. This concern is based on the Duffield Report, a 1992 study submitted by NPRC in the Tongue River II proceeding, which asserted that the construction and operation of that line would drive existing mines around Colstrip, MT, out of business.

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<sup>75</sup> See Draft SEIS at 4-170. NPRC argues that 182 BNSF positions will be lost when the loss of administrative and support jobs is considered. However, most, if not all, of BNSF's administrative and support staff should retain their jobs because their services will still be necessary in connection with the Montana operations that will not be affected by this project. See Applicant's 1998 Rebuttal at 17-18.

<sup>76</sup> Draft SEIS at 4-169.

<sup>77</sup> TRRC's updated projections estimate that 98.5 employees ultimately will be needed to operate these lines as routed over the Western Alignment. See Applicant's 2003 Supplement, V.S. Leilich at 3.

<sup>78</sup> See Draft SEIS at 4-162 to 4-163.

<sup>79</sup> UTU-GCA/MT asks that we impose labor protective conditions to safeguard those displaced by the construction and operation of the new line. However, we do not have that discretion. See 49 U.S.C. 10901(c).

We do not credit these 15-year-old predictions. The Colstrip mines do not produce low-sulfur “compliance” coal, and there is ample evidence in the record to support the conclusion that the historic demand for the low-sulfur type of NPRB coal that TRRC will carry will continue.<sup>80</sup> Furthermore, it is clear today that, without this line, it would be difficult for Montana mines to bring their coal to market. The mines around Decker are being depleted, and new mines around Ashland must be developed to meet the demand for NPRB coal from Montana. The proposed line will hasten the development of these mines by creating a practical way of getting coal from Ashland-area mines to market. Thus, the TRRC project will benefit, rather than harm, the Montana mining industry.

c. Harm to Ranchers

As discussed above, some ranchers have expressed reluctance to sell land to create the right-of-way and some have expressed concern about whether they will be adequately compensated for the loss of their property. TRRC intends to negotiate with the ranchers to reach an appropriate purchase price for the property needed for the right-of-way. Should negotiations reach an impasse and TRRC acquires the land under the Montana state rail condemnation law, the Montana courts will determine the land’s fair market value. See Mont. Code Ann. Sec 70-30-301 (1997). Thus, ranchers should be adequately compensated.

d. Native American Interests

Both the proposed Western Alignment and the Four Mile Creek Alternative would cross mostly undeveloped land; neither alternative would traverse Native American reservation property. (At the rail line’s closest point, it will be approximately 4 miles east of the Crow reservation.) For both alignments, the primary cultural and paleontological resource issues relate to concerns about disturbing prehistoric, historic, and traditional cultural resources during construction and operation. Native Action and the Northern Cheyenne have expressed concerns that the Western Alignment would bring the rail line closer to the Tongue River Canyon, a site Native Americans consider sacred. They also fear that the construction and operation of the Western Alignment could undermine Native American culture.

SEA has developed a Programmatic Agreement (PA) in consultation with a number of entities, including the Advisory Council on Historic Preservation, the Montana State Historic Preservation Officer, MTDNRC, BLM, the Corps, the Northern Cheyenne Tribe, and the Crow Tribe.<sup>81</sup> The PA sets out the detailed requirements of how the impacts to Native Americans

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<sup>80</sup> See, e.g., Applicant’s 2003 Supplement, V.S. Morey at Table 1; Final SEIS at 2-40 to 2-41.

<sup>81</sup> The fully executed PA is set out at Appendix C of the Final SEIS. See also Draft SEIS at 4-118 to 4-127; Final SEIS at 2-21 to 2-22. The work SEA performed to identify potential impacts on cultural resources in the vicinity of the Western Alignment is reported in section

(continued...)

associated with the construction and operation of either the Western Alignment or the Four Mile Creek Alternative will be addressed. The PA details 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 right-of-way prior to construction and development of a Treatment Plan in consultation with the parties to the PA; in addition, it sets out procedures for reviewing and addressing objections and/or disagreements. This new PA will replace the previous PA developed in connection with the Tongue River II decision. It has been executed and TRRC will be required to comply with it by Mitigation Measure 52 that we are imposing here. The PA, which reflects public input and consultation with tribal representatives,<sup>82</sup> should assure that impacts to cultural and paleontological resources are minimized to the extent possible.

Accordingly, we are satisfied that the Western Alignment will not significantly harm existing rail services and that the construction and operation of the Western Alignment will be in the public interest.

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(...continued)

4.3.5.2 and 4.3.5.3 of the Draft SEIS and is summarized in the Final SEIS at 3-28 to 3-30 and 3-114 to 3-115.

<sup>82</sup> SEA's outreach efforts included letters and phone calls directed to members of the Northern Cheyenne Tribe, Arapaho Business Council, Crow Tribe Council, Shoshone Business Council, Oglala Sioux Tribal Council, and Standing Rock Sioux Tribal Council. The Northern Cheyenne Tribe participated in the Tongue River I proceeding as a cooperating agency. In the Tongue River II proceeding, a formal meeting was held with the Northern Cheyenne Tribe, and a number of other tribes were contacted. The Northern Cheyenne and the Crow are concurring parties to the PA. Also, as part of the PA process, SEA will seek the cooperation of the Northern Cheyenne and the Crow in the identification of sites of cultural significance to them along the Western Alignment, to ensure proper identification and treatment of cultural and paleontological resources that may be affected by this project. See Draft SEIS, Appendix C; Final SEIS at 2-21 to 2-22, 3-29, 3-11 to 3-115, 3-121, 3-213 to 3-214, 3-121, 3-486 to 3-487, Appendix C.

## II. ENVIRONMENTAL ANALYSIS

### The Requirements of NEPA

Under NEPA and related environmental laws, Federal agencies must examine the potential environmental effects of their proposed actions and must inform the public concerning those effects.<sup>83</sup> The purpose of NEPA is to focus the attention of the agency and the public on the likely environmental consequences of a proposed action, in order to minimize or avoid potential negative environmental impacts.<sup>84</sup> While NEPA requires that we take a “hard look” at the environmental consequences of our licensing decisions, it does not mandate a particular result. Once the adverse environmental effects have been adequately identified and evaluated, we may conclude that other benefits outweigh the environmental cost.<sup>85</sup>

Here, we have thoroughly reviewed the SEIS, as well as the EISs prepared in Tongue River I and Tongue River II to the extent they remain relevant. We concur in, and adopt, all of SEA’s analyses and recommendations, including those not specifically addressed here. Below, we briefly discuss SEA’s analysis of several major issues examined in the environmental documents.

### Major Issues Discussed in the SEIS

#### a. Air Quality Concerns

Minnesotans for an Energy Efficient Economy (ME3) and NPRC suggested that coal usage as a result of this project would increase enough to require an in-depth analysis of that usage and the resulting air emissions in the Midwestern markets that TRRC would serve. They cited to the court’s directive in Mid States that the Board 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.<sup>86</sup> In addition, these commenters suggested that the Board 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 DM&E’s line.

In response to Mid States, SEA prepared a detailed SEIS in the DM&E case addressing, among other things, how the DM&E project might affect the consumption of PRB coal through lower transportation rates, and how these changes might in turn affect air quality. SEA’s

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<sup>83</sup> See Public Citizen v. DOT, 541 U.S. 752, 768 (2004); Baltimore Gas & Electric Co. v. Natural Resources Defense Council, 462 U.S. 87, 97 (1983).

<sup>84</sup> Marsh v. Oregon Natural Resources Council, 490 U.S. 360, 371 (1989).

<sup>85</sup> Robertson v. Methow, 490 U.S. 342, 350-51 (1989); Mid-States, 345 F.3d at 533, 535; Mayo, 472 F.3d at 553-54.

<sup>86</sup> See Mid States, 345 F.3d at 548-550.

approach was to assess the sensitivity of coal-fired power plants to changes in the transportation rates for PRB coal, using the National Energy Modeling System (NEMS) of the Department of Energy's Energy Information Administration—a tool that is widely used by the Legislative and Executive branches of the Federal government in forecasting energy use and the associated environmental impacts. Based on that rate sensitivity analysis, the Board concluded that little additional coal would be consumed, regionally or nationally, as a result of DM&E's new line, and that the small changes in PRB coal usage from the DM&E project would translate to minimal changes in air emissions regionally or nationally.<sup>87</sup> In Mayo, the court found the agency's analysis to be sufficient.

As explained in the Final SEIS, in light of the results of the rate sensitivity analysis conducted in the DM&E case, conducting a similar detailed analysis is not necessary here.<sup>88</sup> This proposal is less likely than DM&E's to result in lower transportation rates.<sup>89</sup> For example, part of the Ashland area coal that TRRC would carry would simply be a replacement for coal from depleted mines in the Decker area. As discussed above, the demand for Montana NPRB coal has remained remarkably stable in recent years, suggesting that the new reserves would have little impact on the consumption of that type of coal. With respect to coal originated in Wyoming, the amount handled by TRRC would be only a small percentage of the total volume of coal originating in Wyoming.<sup>90</sup> There is no reason to expect TRRC, acting as a bridge carrier to BNSF without direct access to the mines or utilities, to significantly influence the pricing and consumption of Wyoming coal. Finally, TRRC would have fewer incentives to offer lower transportation rates than DM&E. That is because DM&E, as a new, separate competitor in the PRB, could be expected to under-price BNSF and UP in order to obtain market share. In contrast, TRRC would transport coal in conjunction with BNSF, so it would not have the same need to offer lower rates to capture traffic.

For the same reasons that we do not expect significant coal rate reductions to result solely from TRRC's presence in the market, we do not expect significant cumulative air quality impacts, or further effects on coal rates and hence coal consumption, to result from building both the TRRC and DM&E lines that would not result from the new DM&E line alone. More specifically, we do not anticipate any combined rate reductions that would reach twice the amount of the rate reductions expected from DM&E alone. Because the study in the DM&E

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<sup>87</sup> The potential local impacts of the DM&E project on coal usage and resulting air emissions could not be predicted using NEMS or any available model. See DM&E Draft SEIS at 4-42 to 4-43; DM&E Final SEIS at 4-34 n. 52. Accordingly, as suggested by the court in Mid States, 345 F.3d at 549-50, the Board followed the procedures established by the Council on Environmental Quality in 40 CFR 1502.22(b) for addressing local impacts when critical information is unavailable or incomplete.

<sup>88</sup> See Final SEIS, Chapter 2 at Master Response 23.

<sup>89</sup> See Final SEIS at 2-36 to 2-59.

<sup>90</sup> TRRC expects to handle 16.6 million tons of Wyoming coal in 2009 and 12.2 million tons of Wyoming coal in 2019. Final SEIS at 2-41.

case showed that even if the rate reduction were twice the most likely scenario,<sup>91</sup> little additional coal would be consumed regionally or nationally due to DM&E, there is no need to conduct a separate study here. The information we already have is sufficient for us to determine with confidence that the cumulative air quality impacts of the TRRC and DM&E projects would be minimal, at least on a national and regional basis.<sup>92</sup>

b. Cattle Issues

Cattle passes are commonly used on roadways and rail corridors to route cattle across roadways and rail lines. In Mitigation Measure 3 we will require TRRC to install cattle passes to allow the cattle to go underneath the rail line, at spots to be negotiated with the land owners. Some commenters have raised concerns that, if a cattle owner should choose to move cattle between pastures over the rail line (rather than underneath), the proposed line could cut their cattle off from grazing land or result in train kills of cattle during crossings. However, there would be a 90-minute or longer interval between trains.<sup>93</sup> Therefore, cattle owners should have ample time to move their cattle safely over the rail line.

c. Coal Bed Methane Issues

Concerns were also raised about the cumulative impacts of this project and coal bed methane (CBM) well development in the area, which was approved by BLM in 2003.<sup>94</sup> However, as explained in the SEIS, under either the Western Alignment or the Four Mile Creek Alternative, the development of the wells would not alter the land use in the vicinity of the rail line. Moreover, the changes are not expected to be long-term; for any CBM gas well project a reclamation plan must be submitted to BLM for approval that shows how the land will be returned to its original state after the gas has been extracted.<sup>95</sup> We recognize that both construction and operation of the railroad and CBM well development could create fugitive dust

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<sup>91</sup> The rate sensitivity analysis in DM&E used 4 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 rate scenario based on the Board's decisions in DM&E), a rail rate decrease twice that size (the "Low7Pct scenario"), and, for comparison purposes, rate increases of equivalent sizes.

<sup>92</sup> See Final SEIS at 2-49 to 2-57.

<sup>93</sup> See Draft SEIS at 4-137; Final SEIS at 2-24.

<sup>94</sup> Commercial quantities of CBM gas exist within coal-bearing geological formations, and large quantities of CBM gas are currently collected throughout southeastern Montana and northeastern Wyoming in conjunction with coal mining. CBM gas is collected by drilling a series of water wells and pumping out groundwater, which frees the CBM gas. Gas pipelines run from each well to a central collection point, where it is dehydrated and compressed in preparation for transportation to market, also via pipelines.

<sup>95</sup> See Draft SEIS at 6-12 to 6-13; Final SEIS at 2-32.

during construction.<sup>96</sup> However, Mitigation Measures 69-72 should serve to suppress dust generated from construction and operation of these lines. Similarly, with Mitigation Measures 43-51 and the conditions imposed by BLM for the CBM wells, the potential effects on hydrology and water quality should not be significant.<sup>97</sup>

### The Western Alignment Versus the Four Mile Creek Alternative

Both the Western Alignment and the Four Mile Creek Alternative are environmentally acceptable routes: they both can be operated safely, they both avoid the sensitive Tongue River Canyon, and the environmental impacts of either route, with mitigation, would be generally comparable.<sup>98</sup> However, the Western Alignment generally would be environmentally preferable, primarily because it would have a flatter grade. The Western Alignment would have a 0.93 % maximum descending grade, compared to a 2.31 % maximum descending grade for the Four Mile Creek Alternative.<sup>99</sup> This would make the Western Alignment a safer route because there would be less risk of derailments.<sup>100</sup>

Moreover, grades steeper than 1.0%, like the Four Mile Creek Alternative, would require additional engines to haul loaded trains against the grade, which translates into greater consumption of fuel.<sup>101</sup> Operation of the Western Alignment would require only 65% of the fuel required by the Four Mile Creek Alternative.

The Western Alignment would also have less of an impact on local residents. For example, as the Final SEIS explains, the route would require only four at grade public road crossings, as compared to the seven that would be required for the Four Mile Creek Alternative. The Western Alignment would cross the property of 13 land owners—two fewer than the Four Mile Creek Alternative.<sup>102</sup> Lastly, operation of the Western Alignment would not affect any noise-sensitive receptors such as homes, whereas operation of the Four Mile Creek Alternative would affect five receptors.<sup>103</sup>

In addition, the Western Alignment would affect less land than the Four Mile Creek Alternative, because it is 12.1 miles shorter than the previously approved route. This shorter

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<sup>96</sup> See Draft SEIS at 6-20.

<sup>97</sup> See Draft SEIS at 6-15 to 6-16; Final SEIS at 2-28 to 2-31, 3-118 to 3-120.

<sup>98</sup> See Final SEIS at ES-1, n.1, 1-30.

<sup>99</sup> See id. at ES-1, n.1, 1-30 n.23.

<sup>100</sup> SEA has calculated only a 0.32 estimated annual train derailment rate for the Western Alignment, in comparison to a 0.55 rate for the Four Mile Creek Alternative. See id. at 1-30.

<sup>101</sup> See id. at ES-2, 1-30.

<sup>102</sup> See id. at ES-3.

<sup>103</sup> See id.

distance translates into 672 acres required for the right-of-way for the Western Alignment, compared to 765 acres using the Four Mile Creek Alternative.<sup>104</sup> And the Western Alignment would affect less wetlands (1.69 acres) than the Four Mile Creek Alternative (6.09 acres).<sup>105</sup>

As explained in the SEIS, the amount of earthwork (i.e., grading cut and fill) is a potentially significant impact under either route.<sup>106</sup> However, the Western Alignment would require more earthwork (17.3 million cubic yards moved) than the Four Mile Creek Alternative (10.3 million cubic yards). As a result, the Western Alignment has a 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.<sup>107</sup> However, Mitigation Measures 36-42, which address cut and fill activities, would significantly reduce these potential impacts.

In sum, we agree with SEA that the Western Alignment is environmentally preferable.<sup>108</sup>

#### Additional Focused Environmental Analysis for the Tongue River I and Tongue River II Lines

As noted above, the SEIS contains additional analysis of the Tongue River I line and the remainder of the Tongue River II line where: (1) environmental consequences or requirements have changed in a manner warranting the updating and augmenting of the prior analysis; (2) TRRC has made adjustments to the alignment previously considered in the EISs for Tongue River I and Tongue River II that might result in significant environmental impacts not addressed in those previous EISs; and (3) additional environmental analysis is appropriate to assist the cooperating agencies in fulfilling their regulatory responsibilities and functions.<sup>109</sup> For example, SEA conducted further wetlands analysis and prepared a Biological Assessment updating baseline habitat and species data, identifying threatened and endangered species and their habitat, and containing current information on the presence of bald eagles along the entire right-of-way for these lines. A new PA was developed, which requires additional cultural surveys and the development of a Treatment Plan prior to beginning construction of any portion of the Tongue River I, Tongue River II, or Tongue River III lines. Additional analysis of the water quality of Otter Creek and the upper and lower Tongue River was conducted, because these bodies of water were recently designated as impaired water bodies by the State of Montana. The SEIS also includes a review and update of aerial photographs and the results of SEA's site visits to the project area; an evaluation of the effects of the Tongue River I, Tongue River II, and Tongue River III lines on BLM property; new analyses of soils and geology, air quality, noise and vibration, and socioeconomics; new studies of the potential effects on the Miles City Fish

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<sup>104</sup> See id. at ES-3.

<sup>105</sup> See id. at ES-2.

<sup>106</sup> See id. at 1-31.

<sup>107</sup> See id. at ES-2 n.3, 1-31.

<sup>108</sup> See id.

<sup>109</sup> See Draft SEIS at 1-17 to 1-18, 3-6 to 3-9, 5-1 to 5-28; Final SEIS at 1-20.

Hatchery; and an analysis of the feasibility of realigning the Tongue River I line via a bypass that would avoid the Battle Butte battlefield site.<sup>110</sup>

As discussed in the SEIS, the refinements proposed by TRRC to the Tongue River I line and to the remainder of the Tongue River II line would not result in significant impacts not previously considered in the EISs prepared in those proceedings.<sup>111</sup> Moreover, there was no need to modify the analysis of increased coal production in the Ashland/Birney/Otter Creek area beyond what was discussed in the Tongue River I and in Tongue River II proceedings because there are currently no proposals under review for leasing of the Otter Creek tracts or constructing the coal-fired generator and power line that have been discussed.<sup>112</sup> At the same time, certain of the mitigation measures in the Tongue River I and Tongue River II decisions should be modified or updated so that mitigation will generally apply uniformly to all segments of line. The Final SEIS includes new or modified mitigation measures to (1) minimize impacts associated with the 100-year flood plain; (2) further minimize impacts on aquatic resources, wetland habitat, and plant and animal species of special concern; (3) minimize impacts on the Miles City Fish Hatchery; (4) improve the mitigation relating to the revegetation of disturbed soils; (5) address the impacts of saline/sodic soils and soil slumping; (6) minimize the impacts of blasting on the Tongue River Reservoir Dam; (7) further insure train operation safety; (8) clarify the Board's process for monitoring and enforcement of TRRC's implementation of the environmental mitigation; and (9) minimize impacts on paleontological resources.<sup>113</sup>

### Other Concerns Raised

#### a. Battle Butte Battlefield

Some commenters to the Draft SEIS suggested that the effect of the project on the Battle Butte (or Wolf Mountains) Battlefield (a site associated with the Sioux Wars and the subsequent surrender of the Sioux and Cheyenne)<sup>114</sup> was not addressed sufficiently in the Draft SEIS, and that the project would have a substantial adverse effect on the battlefield that could not be mitigated without rerouting the rail line around the site. However, as the Final SEIS explains, while the alignment approved in Tongue River II would pass through the center of the site, the railroad's proposed realignment in Tongue River III would place the line approximately 1,100 feet farther to the south, and farther from an identified Cheyenne grave site.<sup>115</sup> Moreover, as the

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<sup>110</sup> See Draft SEIS at 5-1 to 5-28; Final SEIS at ES-7 to ES-8, 2-1 to 2-5, 2-6, 2-8, 2-10 to 2-11, 2-22, 2-32 to 2-33.

<sup>111</sup> Final SEIS at ES-4.

<sup>112</sup> See Draft SEIS, Section 6.4.3; Final SEIS at 2-32 to 2-33, 3-102 to 3-103, 3-299 to 3-300, and 3-431 to 3-432.

<sup>113</sup> See Final SEIS at ES-4, ES-8 to ES-9.

<sup>114</sup> See Final SEIS at 2-19.

<sup>115</sup> Id. at 2-18 to 2-21.

Final SEIS notes, the new PA that has been executed includes methods to address the potential adverse effects of the rail line on the Cheyenne grave site. The Final SEIS also explains that bypass routings were carefully assessed, but were found to be infeasible because of potential engineering and environmental concerns.<sup>116</sup> In short, the commenters have not supported their claim that more analysis of the battlefield was required or that a bypass route would be feasible.

b. Miles City Fish Hatchery

TRRC has proposed changes to the alignment approved in Tongue River I where it crosses the Miles City Fish Hatchery.<sup>117</sup> In Tongue River I, two alternatives for crossing hatchery property were evaluated. One alternative would have connected to the former Chicago, Milwaukee, St. Paul, and Pacific railroad facility. The second (the BNSF alternative) involved the creation of a new yard and facilities depot on the hatchery's property, including the area occupied by Branum Lake.

As explained in the Draft SEIS, TRRC now proposes to move the staging yard and necessary facilities to a location south of Interstate 94, and to construct a wye track to connect with the existing BNSF line.<sup>118</sup> TRRC has consulted with the Montana Department of Fish, Wildlife and Parks (MTDFWP) regarding the proposed alignment across the hatchery. MTDFWP raised concerns about weed control, harm to water supply pipelines, and the potential for harm caused by vibration from train operations. MTDFWP is particularly concerned about possible impacts of rail construction and operations on research activities associated with the pallid sturgeon, which began at the Fish Hatchery after the Tongue River I line was authorized in 1985. As detailed in the Final SEIS, TRRC has conducted a number of studies and consulted with the MTDFWP to address these concerns. TRRC and MTDFWP have agreed on how to resolve the weed and pipeline concerns, and Mitigation Measures 84 and 85 will require TRRC to comply with these measures.

As set out in the SEIS, the parties also have had a number of discussions on the potential vibration issues. MTDFWP has asked the applicant to conduct additional baseline studies to more fully understand the potential long-term effects that vibration may have on the fish. TRRC is concerned that long-term studies of the sort MTDFWP has sought could significantly delay its construction schedule. However, in April 2006, the railroad agreed to implement a work plan

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<sup>116</sup> See id. at 2-19 to 2-21, 3-27.

<sup>117</sup> The hatchery is used as a temporary holding area for rainbow trout, and it produces warmwater fish species including walleye pike, brood bass, and crappie. All of these species of fish are used to stock lakes, rivers, and reservoirs in the area. See Tongue River I Final EIS at 118. Since Tongue River I, the facility has expanded to include more ponds and now performs research activities and breeding programs with pallid sturgeon. See Draft SEIS at 5-6.

<sup>118</sup> See Draft SEIS at 5-6 to 5-7.

(included as Appendix G to the Final SEIS) for additional vibration monitoring at the hatchery.<sup>119</sup>

We have imposed Mitigation Measure 92, requiring TRRC to prepare its proposed work plan. Beyond that, we believe that TRRC and MTDFWP should continue to work cooperatively on a mutually acceptable solution to the potential vibration issues involving the hatchery.<sup>120</sup> To encourage and facilitate these negotiations, and to address what would happen in the event of an impasse, we are imposing Mitigation Measure 86, which will require TRRC to make itself available to consult with MTDFWP for 6 months (or longer if the parties ask for more time to continue their negotiations). The condition further provides for reporting to the Board on the outcome of the parties' negotiations and, if the parties cannot come to an agreement themselves, would allow either party to request that the Board develop further mitigation to address any remaining concerns related to the fish hatchery that the Board determines warrants mitigation. Finally, Mitigation Measure 87 requires TRRC to adhere to reasonable conditions imposed by MTDFWP in any easement granted by the State allowing TRRC to cross the fish hatchery.<sup>121</sup> We are satisfied that our mitigation adequately addresses concerns raised during the SEIS process about the fish hatchery.

c. Total Maximum Daily Load

Several comments raised concerns related to potential water quality degradation within the project area, particularly with regard to the water quality restoration plans and associated total maximum daily load standards (TMDLs)<sup>122</sup> that are being established. As explained in the

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<sup>119</sup> See Final SEIS at 3-143.

<sup>120</sup> We note that the U.S. Fish and Wildlife Service has agreed that the work plan is an appropriate and adequate way to address any potential effects of this project on the pallid sturgeon, the species MTDFWP is primarily concerned about. See Final SEIS, Appendix D, and cover letter to that agency's Biological Opinion at 6.

<sup>121</sup> The U.S. Environmental Protection Agency (EPA), in a letter dated November 7, 2006, states that it would prefer that Mitigation Measure 87 be revised to require TRRC to meet all conditions imposed by the MTDFWP on any state-granted easement crossing the Miles City Fish Hatchery. We will leave the condition as SEA has drafted it. As discussed above and in the SEIS (Draft SEIS, at 5-6 to 5-9; Final SEIS at ES-9), we are confident that TRRC and MTDFWP will be able to work together cooperatively on a mutually acceptable solution to address the remaining concerns relating to the fish hatchery now that the railroad has agreed to implement the vibration monitoring work plan. Moreover, to address the potential of an impasse, Mitigation Measure 86 specifically permits either TRRC or MTDFWP to request that the Board develop a condition to address any concerns that the parties cannot work out themselves. Given this process, we agree with SEA that Mitigation Measure 87 should remain as is.

<sup>122</sup> A TMDL is the amount of a pollutant that a water body may receive without exceeding applicable water quality standards.

Final SEIS,<sup>123</sup> Mitigation Measures 36 and 38 through 47 will adequately address the concerns involving water quality that have been raised.

d. Monitoring and Enforcement of Mitigation Measures.

Finally, several commenters raised concerns about how the mitigation measures we impose will be monitored and enforced. As explained in the Final SEIS,<sup>124</sup> SEA has recommended three mitigation measures addressing monitoring and enforcement of our mitigation, each of which we will impose. First, we provide for a Multi-agency/Railroad Task Force to monitor and approve the implementation of all of our biological (i.e., terrestrial and aquatic) mitigation measures for Tongue River I, Tongue River II, and Tongue River III (except for issues concerning the Miles City Fish Hatchery), which will remain active for the construction period and at least 2 years after rail operations begin (Mitigation Measure 14). Second, our mitigation requires TRRC to retain an independent third-party contractor to assist SEA in the monitoring and enforcement of all the mitigation measures and the management of the Task Force (Mitigation Measure 16). Finally, we will require TRRC to document its implementation of our environmental conditions by filing a status report every 4 months (beginning with the effective date of this decision and continuing through the first 2 years of railroad operations) so that we are kept up to date on the implementation of, and effect of, all of the mitigation we have imposed (Mitigation Measure 17). As explained in the Final SEIS,<sup>125</sup> the monitoring and reporting will allow mitigation to be refined, prior to construction if warranted, when final engineering is completed and the exact alignment is determined. It will also allow for modifications, if appropriate, to address the conditions that exist during construction and the first 2 years of rail operations. See also Mitigation Measure 15 (providing that the Board may review whether the continued application of its final mitigation is warranted, if there is a material change in the facts or circumstances upon which the Board relied in imposing the environmental mitigation).

### III. CONCLUSIONS

#### Balancing of Environmental and Transportation Concerns

In evaluating the public interest, safety and environmental impacts are weighed against transportation concerns.<sup>126</sup> Here, the potential environmental impacts do not warrant disapproving the Tongue River III proposal in view of the significant transportation and other public benefits associated with this project and the fact that the Western Alignment, as

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<sup>123</sup> See Final SEIS at 2-26 to 2-27 and 3-86 to 3-87.

<sup>124</sup> Final SEIS at 2-8 to 2-10.

<sup>125</sup> Final SEIS at 2-10.

<sup>126</sup> See Indiana & Ohio Ry. – Construction & Operation – Butler, Warren & Hamilton Counties, OH, 9 I.C.C.2d 783 (1993) (denying application to build new 2.9 mile line because of significant safety and environmental impacts that could not be adequately mitigated).

conditioned, will generally have less of an impact on the environment than the previously approved Four Mile Creek Alternative.

We have also thoroughly examined SEA's analysis of the updated information related to the Tongue River I and Tongue River II lines and adopt it. Nothing in the SEIS causes us to question the grant of authority in those decisions. Moreover, as previously noted in the SEIS, SEA has recommended that we update and improve the final environmental conditions previously imposed in Tongue River I and Tongue River II. We agree that SEA's final recommended conditions for the proceedings are reasonable and appropriate.

### The Final Mitigation Measures

The Final SEIS includes 92 recommended mitigation conditions to reduce the potential adverse impacts of constructing and operating the Western Alignment and to modify and update the conditions imposed in Tongue River I and Tongue River II.<sup>127</sup> The areas covered by the conditions include land use (agricultural, ranching, recreational); social, economic and transportation concerns; air and noise impacts; safety and fire prevention; water quality and hydrology; aquatic and terrestrial ecology; Native American concerns; and cultural and historic resources.

MTDNRC and other Montana agencies have jointly asked that the condition involving spill prevention (Mitigation Measure 62) be modified to require TRRC to post a bond in the event of a spill. However, the State has not demonstrated that this requirement is needed here. We believe that this issue is best left for the parties to negotiate as a final plan is developed to prevent spills of oil or other petroleum products during construction, operation, and maintenance of this line pursuant to Mitigation Measure 62.

MTDNRC also asks that it be granted the right to negotiate specific cattle pass locations and private and/or public crossings on state trust lands under Mitigation Measure No 3. This request is reasonable, and we will modify the condition accordingly.<sup>128</sup>

Finally, some commenters asked for a condition that would require TRRC to construct the Tongue River I, Tongue River II, and Tongue River III lines within 3 years of the service date of this decision. We will not impose such a condition at this point. We recognize that the project has caused frustration, anxiety, and economic uncertainty for ranchers and BNSF employees in the area, and that the Tongue River I and Tongue River II lines have long been authorized, but have not yet been built. However, a 3-year window in which to complete

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<sup>127</sup> We note that EPA, in its letter dated November 7, 2006, supports the changes made in the Final SEIS to improve several of the mitigation measures recommended in the Draft SEIS.

<sup>128</sup> We see no reason to modify Mitigation Measure 92 to require that the work plan for further study of vibration at the Miles City Fish Hatchery be accepted by MTDFWP, as the State suggests. Mitigation Measure 86 already permits MTDFWP to ask the Board to impose further mitigation, if warranted, following completion of the work plan.

construction might not be long enough in view of the various consultations, studies, and approvals from other agencies that will be required to implement the authority we are issuing here. Moreover, our mitigation conditions specifically include reporting and monitoring, including a requirement that TRRC file regular status reports pursuant to Mitigation Measure 17.<sup>129</sup> If it should appear that TRRC is not going forward with construction in a timely manner, we can revisit whether a time limit might be warranted at that time.

In sum, we adopt SEA's recommended environmental mitigation conditions, with slight modifications, for Tongue River I, Tongue River II, and Tongue River III (see Appendix B), and grant approval, as conditioned, for TRRC to construct and operate the Western Alignment.

### Findings

For the reasons discussed above, we find that, with the environmental mitigation set out in Appendix B to this decision, the proposed construction and operation of the Western Alignment will not be inconsistent with the public convenience and necessity. We further find that, except as otherwise noted in the conditions themselves, the conditions in Appendix B should also apply to Tongue River I and Tongue River II, and should be substituted for the environmental conditions imposed in those proceedings.

#### It is ordered:

1. The motions for an oral hearing are denied.
2. The application in STB Finance Docket No. 30186 (Sub-No. 3) to construct and operate the Western Alignment is granted, subject to the environmental mitigation measures set out in Appendix B.
3. Finance Docket No. 30186 and Finance Docket No. 30186 (Sub-No. 2) are reopened for the limited purpose of modifying the environmental conditions imposed in those proceedings to substitute the environmental conditions set forth in Appendix B.
4. This decision is effective on November 8, 2007.

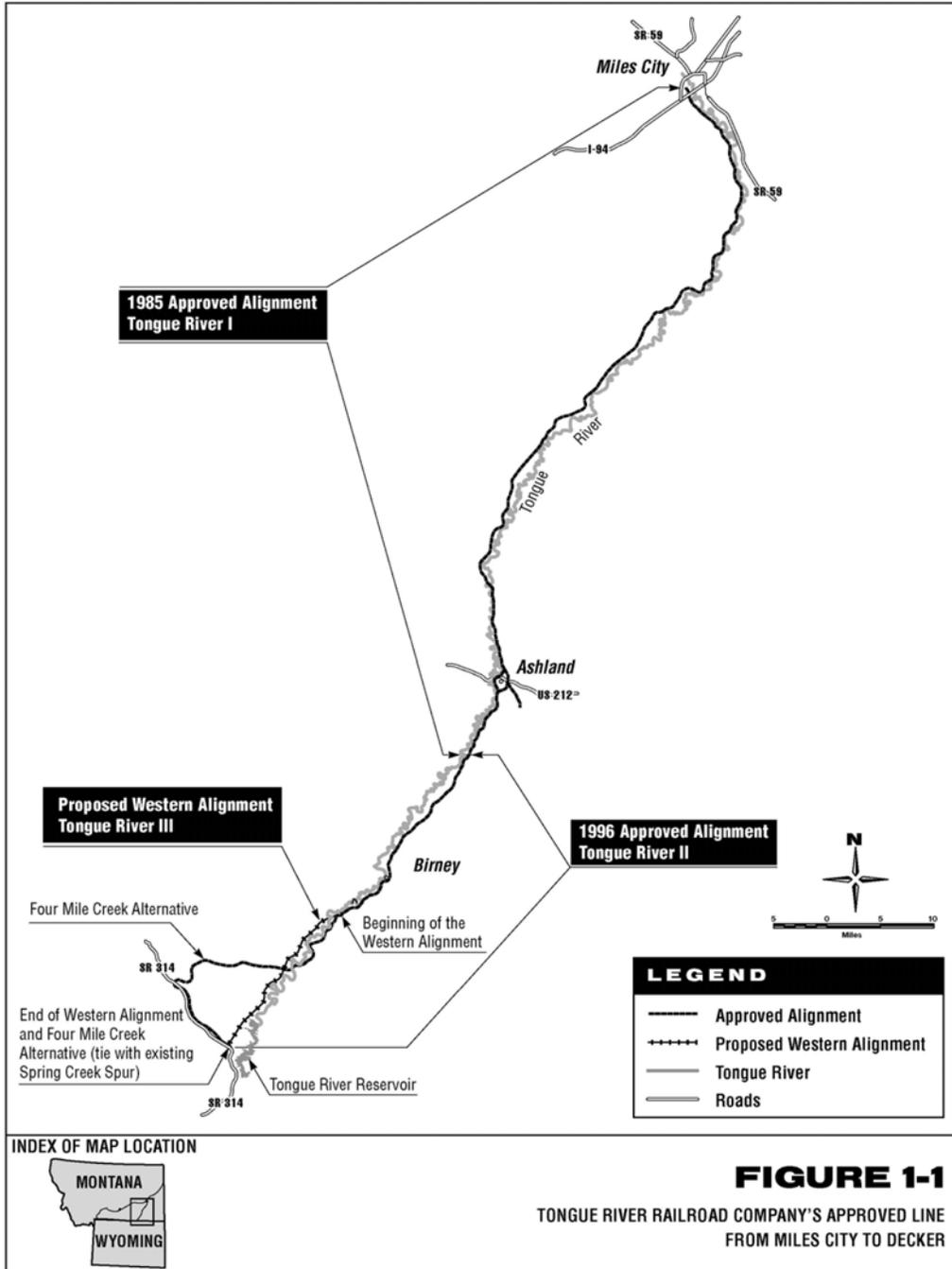
By the Board, Chairman Nottingham, Vice Chairman Buttrey, and Commissioner Mulvey.

Vernon A. Williams  
Secretary

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<sup>129</sup> We expect TRRC to continue filing the progress reports required in the Tongue River II proceeding.

## Appendix A



## Appendix B

### 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 lines 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. [*Tongue River 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) for these lines. 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 Multi-agency/Railroad 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 appropriate ROW fencing mitigation on a case-by-case basis. [*Tongue River 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 shall also negotiate the placement of specific cattle passes and private and/or public crossings on state trust lands with the Montana Department of Natural Resources and Conservation. [*Tongue River II, Land Use Condition (4), modified at the request of MTDNR*]

**Mitigation Measure 4 (Displacement of Capital Improvements).** Where capital improvements are displaced as a result of construction or operation of these rail lines, TRRC shall relocate or replace these improvements or provide appropriate compensation based on the fair market value of the capital improvements being displaced. [*Tongue River 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. [*Tongue River 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 lines, at locations to be negotiated between individual landowners and TRRC [*Tongue River II, Land Use Condition (6), modified by minor edits*]

**Mitigation Measure 7 (Construction Camps).** TRRC shall require its construction contractors to assure that all construction camps are orderly. Upon completion of construction, TRRC shall return the camps to their previously existing use. [*Tongue River 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. [*Tongue River II, Land Use Condition (8)*]

**Mitigation Measure 9 (Wildfire Suppression and Control Plan).** Prior to construction of these rail lines, 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.

[*Tongue River II, Safety Condition (4), modified to clarify that the above measures are 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. [*Tongue River II, Safety Condition (4), modified to clarify that this measure is to help prevent fire*]

**Mitigation Measure 11 (Fire Suppression).** Prior to construction of the rail lines, 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 lines. [*Tongue River II, Safety Condition (5), modified by minor edits*]

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

**Mitigation Measure 13 (Mobile Communications).** Prior to beginning construction of these rail lines, 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 the lines. [*Tongue River II, Safety Condition (7), modified by minor edits*]

### 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 Tongue River I, Tongue River II, and Tongue River III, with the exception of the Miles City Fish Hatchery.

Unless otherwise indicated in the Board's 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 will be 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. If a consensus cannot be reached by the Task Force members within 15 working days, 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 implement mitigation. Other parties may be invited to consult on specific issues, as appropriate; however the actual membership of the Task Force will be 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, Montana Department of Natural Resources and Conservation, United States Fish and Wildlife Service, Bureau of Land Management, and United States Army Corps of Engineers. 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 a representative(s) to work with the Task Force. The United States Environmental Protection Agency (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 concerns 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. [Tongue River 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. [*Tongue River 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. 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. [*Tongue River III, new*]

**Mitigation Measure 17 (Reporting).** TRRC shall submit to SEA no less than every 4 months, beginning with the effective date of the Board's final decision in Tongue River III and continuing for the first 2 years of railroad operations, reports documenting the status of implementation of the Board's environmental mitigation conditions. [*Tongue River III, new*]

**Mitigation Measure 18 (Plant Species of Concern).** TRRC shall conduct a field search of the alignment during final-phase engineering of these lines 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 Multi-agency/Railroad 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. [*Tongue River III, new*]

**Mitigation Measure 19 (Reclamation).** During construction of these lines, 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. [*Tongue River 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. [*Tongue River I, Condition 10.3(1)(a); Tongue River 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 these rail lines, 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. [*Tongue River 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 Multi-agency/Railroad Task Force in accordance with the process set forth in Mitigation Measure 14. On Bureau of Land Management 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* (*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, 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.  
*[Tongue River I, Condition 10.3(1)(c); Tongue River 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**

- (a) On all slopes less than 3:1 (a slope of 3:1 signifies 1 vertical unit for every 3 horizontal units), Best Management Practices (BMPs) shall be utilized to effectively and efficiently revegetate the surfaces. Specific BMPs have been identified by the National Resource Conservation Service for Montana, and these BMPs will be the primary guidance for all revegetation on slopes less than 3:1. Each cut and fill slope to be used shall be evaluated individually, and the practices shall be modified to meet the needs of each individual slope and conditions. In general, however, the BMPs will be utilized unless site-specific conditions warrant different management practices. Below is a list of general BMPs that should be utilized by TRRC for revegetation of slopes less than 3:1, unless the site-specific conditions at each individual cut/fill slope warrant modifying the BMPs.
  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 laws 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. [*Tongue River II, Vegetation Condition A.9.3.2(1)(d)3, modified to include additional specifics regarding slopes*] [*Tongue River II, Vegetation Condition A.9.3.2(1)(d)1; deleted here, inserted as modified as HYD-5*]; [*Tongue River 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 Multi-agency/Railroad 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 of these lines is complete. [*Tongue River III, new*]

**Mitigation Measure 21 (Noxious Weed Control).** TRRC shall construct these rail lines 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 85 in and near the Miles City Fish Hatchery, TRRC, in consultation with local ranchers, the county extension agents, and the Multi-agency/Railroad 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 lines. 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 achieved. TRRC shall submit a report of weed control activities to the Multi-agency/Railroad 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. [*Tongue River 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 (Plan)—a document prepared to determine the appropriate habitat mitigation. TRRC shall adhere to all mitigation measures suggested in the Plan, as well as any measures imposed by the U.S. Army Corps of Engineers (Corps) in any Section 404 permit(s) issued by the Corps for construction of these lines. The Plan shall be prepared during the Section 404 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. [*Tongue River 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 Conservation, 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 the Montana Department of Natural Resources Conservation on appropriate mitigation. [*Tongue River III, new*]

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

**Mitigation Measure 25 (Aerial Survey).** TRRC shall conduct an updated biological aerial survey during the winter before construction of each rail line segment 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 Multi-agency/Railroad Task Force in accordance with the process set forth in Mitigation Measure 14. [*Tongue River II, Wildlife Condition A.9.3.1(1), modified to clarify that aerial surveys shall be required for species of concern and to involve Task Force in developing any needed new conditions*]

**Mitigation Measure 26 (Data Reconnaissance).** Prior to the beginning of construction of each segment of these lines, 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 lines 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 these lines on the black-tailed prairie dog and the black-footed ferrets for approval by the Multi-agency/Railroad 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 that will be traversed by the railroad but are located on private properties and were not accessible due to landowner issues at the time the Biological Assessment 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 the United States Fish and Wildlife Service.

The surveys shall also locate habitat areas and nesting sites for the following species on these rail lines. 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.

*[Tongue River 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. *[Tongue River 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. *[Tongue River 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 5 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 lines. 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.

*[Tongue River II, Wildlife Condition A.9.3.1(2)(c), modified to clarify possible mitigation options]*

- (4) To reduce impacts on prairie dog colonies, prior to construction, TRRC shall develop appropriate means to mitigate the effects of construction and operation of these lines on the black-tailed prairie dog for approval by the Task Force in accordance with the process set forth in Mitigation Measure 14. *[Tongue River 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 and July 31, prior to construction of each segment of these rail lines, for the purpose of identifying the location of any bat species of concern. *[Tongue River 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. *[Tongue River 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 these lines. If impacts to these areas (short of destroying them) are unavoidable, TRRC shall seek approval from the Multi-agency/Railroad 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. *[Tongue River 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. *[Tongue River 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 right-of-way for these lines:

- (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. These ponds could include “dugout” type ponds and “bypass” ponds designed to be filled during high flows where appropriate. [*Tongue River 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. [*Tongue River III, new*]
- (2) If adjacent landowners agree, TRRC shall provide public access, in appropriate locations, if any, along the rail lines’ right-of-way. [*Tongue River 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 these rail lines where appropriate. [*Tongue River I, Condition 10.1(4); Tongue River 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 Multi-agency/Railroad 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 lines. 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; and
- (4) follow-up monitoring on an annual basis to evaluate effectiveness of passage.

Monitoring shall continue through the 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. [*Tongue River 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. [*Tongue River 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 Multi-agency/Railroad 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. [*Tongue River I, Condition 9.1(1); Tongue River 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) Stream average depth.
- (d) Pool quality and forming feature (in feet).
- (e) Riffle (a ripple in a stream or a 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. [*Tongue River 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. [*Tongue River I, Condition 9.1(1)(b); Tongue River 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. [*Tongue River 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 87 (the Miles City Fish Hatchery), 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 Multi-agency/Railroad 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. [*Tongue River 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 appropriate storm water BMPs, 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. [*Tongue River 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 these rail lines. 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. [*Tongue River III, new*]

**Mitigation Measure 38 (Geotechnical Investigations).** Prior to beginning construction of these lines, 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. [*Tongue River III, new*]

**Mitigation Measure 39 (Slumping).** If slumping occurs during construction of these lines, 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. [*Tongue River III, new*]

**Mitigation Measure 40 (Erosion).** Prior to beginning construction of these lines, 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. [*Tongue River III, new*]

**Mitigation Measure 41 (Sediment Delivery).** Prior to beginning construction, TRRC shall assess the potential for construction and operation of these rail lines 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 Total Maximum Daily Loads and associated water quality restoration plans. [*Tongue River III, new*].

**Mitigation Measure 42 (Soil Survey).** Prior to any construction of these lines, 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 of these lines. [*Tongue River 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 the construction of these lines, TRRC shall submit detailed information about its plans for construction, for review and approval, to applicable agencies, including the U.S. Army Corps of Engineers, local conservation districts, and the Water Protection Bureau of the Montana Department of Environmental Quality prior to construction. [*Tongue River II, Hydrology and Water Quality Condition (1), modified to reflect current state agency and make minor additional changes*]

**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 U.S. Army Corps of Engineers, and the local conservation districts for bridge crossings over the streambed of the Tongue River. [*Tongue River 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 U.S. Army Corps of Engineers (Corps) and the U.S. 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. [*Tongue River 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. [*Tongue River II, Hydrology and Water Quality Condition (6)*]

**Mitigation Measure 47 (Bank Stabilization).** In constructing these lines, 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. [*Tongue River 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). [*Tongue River 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 these lines 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 [*Tongue River 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 for these lines 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. [*Tongue River 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 these lines, 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. [*Tongue River 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

these lines, which has been executed. [*Tongue River 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. [*Tongue River 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. [*Tongue River 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 these rail lines, 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 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. [*Tongue River I, Condition 4.3(2) and Tongue River 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 these rail lines, 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. [*Tongue River 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. [*Tongue River 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. [*Tongue River 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. [*Tongue River 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 these rail lines, 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. [*Tongue River II, Safety Condition (2), modified with 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 in Mitigation Measure 60, 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 entire route of the lines; 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. [*Tongue River II, Safety Condition (3), modified to clarify that all such agencies shall receive a copy of the plan and make minor edits*]

**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 these rail lines.

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 these lines. 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 lines. 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) Best Management Practices 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 most important 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.

*[Tongue River 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 three rail lines, 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. *[Tongue River II, Vegetation Condition, A.9.3.2(1)(d)2, modified by minor edits]*

**Mitigation Measure 64 (Oil and Fuel).** Prior to construction of these lines, 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. *[Tongue River II, Safety Condition (9), modified by minor edits]*

**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. [*Tongue River 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. [*Tongue River 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. [*Tongue River 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 U.S.C. 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). [*Tongue River 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. [*Tongue River 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. [*Tongue River 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 dry periods. [*Tongue River 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. [*Tongue River 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 these railroad lines 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. [*Tongue River 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. [*Tongue River 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. [*Tongue River R 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. [*Tongue River III, new*]

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

**Mitigation Measure 78 (Quiet Zone).** TRRC shall consider establishing a quiet zone for one or more communities along these rail lines, if appropriate, under the Federal Railroad Administration's *Use of Locomotive Horns at Highway-RailGrade Crossings; Final Rule* (April 27, 2005), which became effective June 24, 2005. [*Tongue River 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 noise related to rail construction or maintenance, 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. [*Tongue River 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 noise contour, TRRC shall provide a copy of a map to each county and city planning department along the rail lines, depicting the 65 dBA noise contour. The planning departments can make this information available to landowners so that they can make informed decisions about future development. [*Tongue River III, new with minor edits*]

#### 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 related to the construction and operation of these lines. To accomplish this, TRRC shall provide all practical assistance to the government planning agencies involved. [*Tongue River I, Condition 3.1, modified to clarify TRRC as the party responsible for this measure, and to make minor editorial changes*]

**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. [*Tongue River 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 of these lines. [*Tongue River 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 (MTDFWP), 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 the MTDFWP 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 rail construction or operation. [*Tongue River III, new*]

**Mitigation Measure 85 (Weed Control on MCFH).** As agreed to by TRRC and the Montana Department of Fish, Wildlife and Parks (MTDFWP), TRRC shall use only mechanical means of weed control in its right-of-way adjacent to the Miles City Fish Hatchery between the points where the rail line crosses Interstate 94 to the connection with the BNSF Railway 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 MTDFWP, as to the type of herbicide, application rate, means of application, wind speed and direction. [*Tongue River 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 (MTDFWP) to reach consensus on any remaining issues concerning the environmental effects on the Miles City Fish Hatchery from railroad construction and operations, for a period of up to six months after the effective date of the Board's final decision 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 the hatchery 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. MTDFWP also shall be invited to provide its position, and either TRRC or MTDFWP (or both) may request that the Board develop a condition designed to mitigate any remaining concerns of MTDFWP related to the environmental effects on the hatchery that the Board determines warrant mitigation. [*Tongue River 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 Miles City Fish Hatchery. [*Tongue River 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. [*Tongue River III, new, to avoid any inconsistency between the USDA's own mitigation conditions, and Tongue River I Condition 2.2.2*]

#### 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. [*Tongue River I, Condition 6.1(6), modified to clarify the tree buffer requirement at the Spotted Eagle Lake recreation area*]

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 these lines, 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 then 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. [*Tongue River III, new*]

**Mitigation Measure 91 (Compensation Program).** TRRC shall participate in the development of a reasonable compensation program for lost wildlife habitat along these rail lines prior to beginning construction on any portion of the lines. 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 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 Multi-agency/Railroad 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. [*Tongue River I, Condition 10.1(1); Tongue River 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, dated April 13, 2006. [*Tongue River III, new*]