Wyoming and then back north through Montana (via Hardin and Huntley) to Miles City, Montana (Figure 1-8, page 1-24). The DSEIS states that the purpose of the TRR is to get coal to market more efficiently, indicating that the proposed TRR alignment would provide a shorter, more efficient transportation route to eastern and midwestern coal markets for coal mined from the Decker/Spring Creek coal mines, saving 320 miles on each round trip to the midwest (page 2-4). It is stated that this mileage reduction will result in sizeable reductions in fuel consumption, locomotive emissions, train-turn-around times, maintenance and operation expenses, etc,.

21 cont.

It is not clear, however, if the 320 mile savings on each round trip to an eastern destination and the associated reductions in fuel consumption, locomotive emissions, train-turn-around times, maintenance and operation expenses, etc, fully justifies building a new rail line that will cost $108.9 million dollars, and that will involve additional environmental, social and cultural impacts. We believe a clearer, more comprehensive cost-benefit analysis should be provided to assist in better understanding the economic and operational efficiency benefit from the TRR, and there should also be additional discussion and evaluation of unquantified environmental impacts, values and amenities associated with the construction and operation of the TRR for comparison with the cost-benefit analysis and economic and operational benefits. This is necessary to assist in full evaluation of all the various trade-offs, including environmental, social and cultural resource impacts of the proposed TRR, and to more clearly demonstrate that a second rail line is needed to serve this coal mining area, and that TRR benefits justify the adverse impacts. The CEQ regulations for implementing NEPA (40 CFR 1502.23) indicate that when a cost-benefit analysis is prepared, it should include discussion of the relationship between the cost-benefit analysis and any analyses of unquantified environmental impacts, values and amenities.

Improved quantification or at least discussion of environmental, social and cultural resource impacts is needed for comparison with economic and operational factors. The DSEIS should compare environmental impacts from vegetation removal, erosion and increased sedimentation, stream bank modification, degraded water quality, and potential loss of wildlife habitat of fragmentation of habitat, loss of recreational opportunities and impacts to cultural resources, with the economic and operational benefits. Without this information, the public, and decision-makers do not know if the environmental impacts are acceptable, and/or how they can be compared to cost-benefit and economic and operational factors. The project documents have identified impacts likely to occur as a result of the proposed project, but have not provided estimation of the magnitude of these impacts to the critical resources for comparison to cost-benefit and economic and operational factors.

Some questions that it would be helpful to have additional discussion and explanation regarding are as follows:

How are unquantified environmental impacts, values and amenities being evaluated and weighed in the decision-making regarding construction of a second rail line to serve the Decker/Spring Creek area?

Have the environmental, social and cultural resource impacts of the TRR construction/operation alternatives been adequately compared and evaluated against the no-action alternative, so the public and decision-maker can fully understand the differences in environmental impacts between TRR construction/operation and no action? 21 cont.

Is there an expectation that the existing BNSF rail line that presently serves this coal mining area will be downgraded or abandoned after the TRR is constructed? Are costs of downgrading and/or abandonment of the existing rail line being considered?

How much of a grade and load and fuel consumption advantage in coal transport does the TRR offer in comparison to the existing BNSF rail line?

Do the economic efficiencies and sizeable reductions in fuel consumption, locomotive emissions, train-turn-around times, maintenance and operation expenses, etc, fully justify the additional costs and environmental, social and cultural resource impacts associated with building and operating a second rail line to serve the Decker/Spring Creek coal mining area?

4. Also, it is stated (page 2-7) that some of the coal to be carried on the proposed Tongue River Railroad would serve markets in Washington. Would coal destined for Washington (i.e., a western rather than eastern destination) be more efficiently transported over the existing BNSF line rather than the proposed Tongue River Railroad? 22

5. We are pleased that the Tongue River II realignment south of Birney would shift the railroad farther away from the Tongue River, and farther away from structures and homes in the Birney are, and that Tongue River I realignment would also move the rail line farther from the valley floor (page 5-5). Rail line alignments that avoid impacts to the Tongue River valley and riparians areas should be preferred. 23

Western Alignment

6. The DSEIS Table 1-1 and Table 2-1 shows that the Western Alignment has several advantages over the Four Mile Creek Alternative. The Western Alignment is:
-shorter (17.3 miles vs. 29.4 miles);
-crosses fewer public roads (4 vs. 7 road crossings);
-displaces fewer homes (0 vs. 2);
-does not require reconstruction of State Highway 312 (Appendix D, page 54);

-affects fewer landowners (13 vs. 15);
-requires reduced right-of-way acquisition (672 acres vs. 765 acres);
-disturbs less wetlands (1.69 acres vs. 6.09 acres);
-results in lower operational emissions of air pollutants CO, NO_x, PM_{10}, SO_2, and VOC (16.85 vs. 25.84 tons/mile/year);
-affects fewer sensitive receptors to noise and vibration (1 vs. 4 during construction; and 0 vs. 5 during operation);
-reduced grade and climb for loaded trains (0.4% vs. 1.53% maximum climbing grade; and 0.93% vs. 2.31 maximum descending grade; and 64 feet vs. 694 feet of climb; helper locomotives would not be required for the Western Alignment which has an initial 2 mile climb of 0.5% and then a gradual descending grade to Miles City, App. D, page 40);
-fewer curves and increased operational safety and fewer derailments (0.32 vs. 0.55 per year);
-reduced fuel use per train (1,826 gallons vs. 2,798 gallons);
-reduced operational costs (that greatly offset increased construction costs of the Western Alignment);

These Tables also identify some disadvantages of the Western Alignment such as:
-crosses more non-perennial streams (42 vs. 40);
-involves greater amounts of earth moving (18,300-28,700 vs. 14,600-23,800 million yd^3)
-increases in sediment load to the Tongue River (6,770-10,600 vs. 3,650-6,000 tons/year);
-affects more cultural resource sites in the ROW (9 vs. 6);
-involves greater construction costs ($108.9 million vs. $95.17 million);
-involves greater impacts to irrigated farmland (11.5 acres vs. 7 acres, page 4-63);
-may involve greater potential impacts to threatened bald eagles;

Based on this comparison of advantages and disadvantages, we agree with the STB that the Western Alignment, which avoids the sensitive Tongue River Canyon, may be environmentally and operationally preferable to the Four Mile Creek Alternative, although we have concerns about potential impacts to the bald eagle (see comment # 28), and about increased sediment loads to the Tongue River, that may result from the increased earthwork associated with construction of the Western Alignment. 24

We believe it is important that rail line construction and operation avoid further degradation of 303(d) listed segments of the Tongue River. If this cannot not be accomplished with project planning and design and mitigation measures to control erosion and sediment production and transport, we believe watershed restoration measures should be proposed for control of other existing sources of sediment and other pollutant loading to the river to offset or compensate for TRR caused pollutant loads (see discussion of impacts to 303(d) listed streams and consistency with Total Maximum Daily Loads (TMDLs) and Water Quality Restoration Plans below in comment # 15). 25

7. We also want to indicate that with regard to the TRR, we believe the No Action Alternative would have a lower magnitude of environmental impact than any of the action alternatives, and would be the environmentally preferable alternative. 26

Environmental Effects and Mitigation

Multi-agency Task Force

8. We are pleased that a Multi-agency Railroad Task Force will be developed to oversee implementation and monitoring of terrestrial and aquatic mitigation measures (Mitigation Measure 14, page 4-69). Unfortunately, other program commitments and lack of resources will likely limit the ability of EPA to be involved to any great degree with this Task Force, but we would like to be included on the mailing list for Task Force written reports or findings. We also encourage the Task Force to notify EPA when and if issues within EPA's jurisdiction and authority may need to be addressed. 27

Wetlands, Riparian Areas, and 404 Permits

9. As you know railroad construction and operation are likely to involve deposition of dredged or fill material in waters of the United States, including wetlands, so that a Clean Water Act, 33 U.S.C. 1344, Section 404 permit for discharges of fill material into wetlands and other waters of the United States is likely to be needed. It is important for the STB and TRRC to ensure consultation with the Corps of Engineers to assure that 404 permit requirements for TRR construction activities in or near streams or wetlands are met, (e.g., contact Mr. Allan Steinle of Corps of Engineers Montana Office in Helena at 406-441-1375). We are pleased that the Corps of Engineers is a Cooperating Agency for the project (page 1-8). 28

   EPA considers the protection, improvement, and restoration of wetlands and riparian areas to be a high priority. Wetlands and riparian areas increase landscape and species diversity, and are critical to the protection of designated water uses. Possible effects on wetlands and riparian areas include impacts on water quality protection and improvement, habitat for aquatic and terrestrial life, channel and bank stability, flood storage, ground water recharge and discharge, sources of primary production, and aesthetics. Executive Order 11990 requires that all Federal Agencies protect wetlands. In addition national wetlands policy has established an interim goal of **No Overall Net Loss of the Nation's remaining wetlands**, and a long-term goal of increasing quantity and quality of the Nation's wetlands resource base.

   The DSEIS states that estimates of wetlands in the analysis corridor are qualitative estimates based on aerial surveys, and that wetlands have not been confirmed through quantitative methods due to inability to access the corridor (page 4-7). It is not clear to us how the wetland impacts of the Western Alignment (1.69 acres) and Four Mile Creek

Alternative (6.09 acres) can be shown to the nearest hundredth of an acre without on-site wetland delineation (Table 4-19, page 4-78). We believe it is important to conduct on-site wetland delineations and functional assessments of wetland impacts of the alternatives in order to make an appropriate comparative evaluation of wetland impacts among the alternatives. It is difficult to delineate wetlands and evaluate wetland functions and values from aerial surveys alone. On-the-ground wetland delineation and functional assessment is needed.

Wetlands in a project area should be identified and delineated consistent with the Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, January 1987, Final Report and its recent guidance on implementation. Delineation should be followed by a functional assessment to determine the extent and importance of existing wetland and aquatic resources. Identification and protection of the unique, small but exceedingly important (ecologically) sites that function as key elements of the ecosystem (i.e., springs, seeps, moss dominated wetlands, etc.) also may be important. 28 cont.

As you know, wetland mitigation will be required to assure that the project will compensate for unavoidable wetland impacts in accordance with applicable requirements under Section 404 of the Clean Water Act. Wetland impacts should be avoided and minimized, to the maximum extent practicable, and then unavoidable wetland impacts should be compensated for through wetland restoration, creation, or enhancement. Measures for avoidance and mitigation for wetlands and riparian areas need to be thoroughly discussed. The goal of wetland mitigation should be to replace the functions and values of lost wetlands in areas adjacent to or as close as possible to the area of wetlands loss.

Several options for wetland functional assessment such as the Hydrogeomorphic (HGM) Approach are available for use in determining wetland and associated aquatic resources functions and their values. EPA/Corps policy has also accepted acre-for-acre replacement of wetlands as a surrogate for replacement of functions and values when there is a lack of definitive information on functions and values, although adjustments may be necessary to reflect the expected degree of success of mitigation, and provide an adequate margin of safety to reflect anticipated success (i.e., greater than acre-for-acre replacement is suggested when impacted wetlands have high function & value and likelihood of replacement of functions is low). Construction/enhancement of wetlands to compensate for impacted wetlands should occur in advance or concurrent with activities causing wetlands impacts to reduce temporal losses of wetland functions.

The 404(b)(1) guidelines (40 CFR Part 230), which provide the substantive environmental criteria for evaluation of proposed discharges of dredged or fill material to waters of the U.S. under the Clean Water Act 404 permit program, indicate that the "least environmentally damaging practicable alternative" to satisfy the project purpose should be permitted. We appreciate the inclusion of a draft 404(b)(1) analysis in Appendix D.

Table 10 in Appendix D (404(b)(1) analysis, page 49) and Table 3 (Conceptual Habitat Plan, page 74) appear to show the TRR modified route via the Western Alignment includes 297 waters of the U.S. within the rail line right-of-way, but will only impact 38.05 of these acres along the entire 116 to 130 mile corridor. Is this correct? Do these potential impacts to waters of the U.S. include impacts from all activities, including construction staging areas and camps, roads, equipment storage areas, fill and borrow areas, etc,? 29

If the impacts to waters of the U.S. from the proposed project are completely and accurately depicted in the draft 404(b)(1) analysis, it does appear to show that the modified TRR route via the Western Alignment is less damaging to waters of the U.S., however, potential adverse impacts to the threatened bald eagle need to be more fully and accurately evaluated and compared to such impacts for the Four Mile Creek Alternative (see comment #28), to more clearly demonstrate that the Western Alignment is the least environmentally damaging practicable alternative. We understand that the USFWS may consider the lower portion of the Four Mile Creek alignment and the upper section of the Western Alignment (where S566 crosses the Tongue River) to have less impacts to wildlife and federally listed species than either the Four Mile Creek Alternative or the Western Alignment. Would such an alternative be considered "practicable" from an economic and operational standpoint (i.e., the term "practicable" means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes in accordance with 40 CFR 230.3(q))? 30

10. A Conceptual Habitat Mitigation and Monitoring Plan is included in Appendix D. The conceptual wetland mitigation plan and the list of potential mitigation sites in Appendix D does not provide adequate information on how the applicant will ensure that the mitigation sites will meet the wetland criteria of the 1987 Corps of Engineers Wetland Delineation Manual (i.e., hydric soils, hydrophytic vegetation and wetland hydrology). It is stated that mitigation alternatives will be explored during the 404 permitting process. Mitigation Measure 22 (page 4-78) that requires TRRC to adhere to "reasonable" mitigation measures identified in the Conceptual Habitat Mitigation Plan should be amended to require TRRC to develop a detailed wetlands mitigation plan that replaces lost wetland functions and values as determined by the applicable regulatory agencies. 31

We recommend that a detailed Wetland Mitigation Plan be prepared during the permitting process assure that adequate replacement of lost wetland functions and values occurs. This Plan should be approved by the appropriate agencies before implementation of the proposed project. We recommend that the Plan 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.

As mitigation site selection progresses, Section 404 permit requirements will require TRRC to provide specific information on means to maintain wetland characteristics (e.g.,

keep water on the site for adequate periods of time). These means may include plugging or breaking drain tiles, installing liners or check dams, or diverting water to the site from adjacent areas. Wetlands should have self-sustaining hydrology as much as possible rather than relying on artificial systems such as irrigation or pumping.

31 cont.

When selecting potential mitigation sites, we strongly urge TRRC to select former wetland sites that were legally altered (i.e., prior converted cropland) and can be restored to wetland. Restoring former wetlands has a much greater chance of success than trying to create wetlands where none existed previously, and only as a last resort will we consider attempts at wetland creation as acceptable mitigation. TRRC also should consider other factors in the selection process that may influence or enhance success and the functional value of the wetland upon completion of the mitigation effort. These factors include, but are not limited to, adjacency to streams, waterbodies, or other wetlands, basin morphology, landscape position, location in the watershed, and opportunities to combine the mitigation with enhancement, restoration, or preservation efforts by state or local agencies or private organizations. Hydrologic sources for mitigation wetlands should be natural instead of artificial sources (i.e. avoid use of poor quality Coal Bed Methane production water).

32

We recommend that the development of mitigation wetlands be planned so that site location, preparation and hydrologic functions and values and chemical, biological and physical characteristics of the impacted wetlands are replaced through the design of the mitigation sites and wetland types that are similar to the wetland types that are being impacted. The applicant will need to seed or plant wetland vegetation, monitor the mitigation site for planting success, and to have replanting plans in case of planting failure. Adequate details that include site preparation, plant species selection, planting densities, plans for control of alien or invasive species, or standards for measuring planting success have not been presented. As site selection progresses, the applicant must provide specific information on specific planting plans to achieve specific wetland vegetation types, measures of success, and corrective measures in the event of not achieving all required measures of success. Selected mitigation sites must also contain easements, deed restrictions, or similar measures to ensure that they will remain jurisdictional waters of the U.S. and not be altered for any purpose.

11. We also recommend consideration of a single 404 permit to cover the dredge and fill permitting for the project due to the numerous aquatic impacts. We feel this is preferred over issuance of a combination of numerous individual and nationwide permits, since it may allow for improved cumulative effects evaluation as well as to reduce paperwork and permit processing time, and assure that all necessary permits for dredge and fill activities can be obtained for the full project. Although we realize if the project is to be constructed in several segments over varying time periods it may be appropriate to permit each construction segment individually.

33

Hydrology and Water Quality

12. We should also note that the proposed project will also need to obtain appropriate Water Quality Standards certification from the Montana DEQ in accordance with Section 401 of the Clean Water Act, during the 404 permitting process (contact Jeff Ryan of MDEQ in Helena at 406-444-4626. 34

13. Table 2-1 shows that the Western Alignment crosses 42 non-perennial streams (with 40 such crossings for the Four Mile Creek Alternative), however, we could not find clear identification of the number of perennial stream crossings for the Western Alignment and Four Mile Creek Alternative, and the entire TRR. Also, we could not locate a map that clearly showed all the proposed stream crossing locations (perennial and non-perennial streams) of the proposed Western Alignment as well as other segments of the TRR. A map or maps clearly showing all stream and river crossing locations for the Western Alignment and other segments of the TRR would be helpful. Maps on the scale of Figure 4-13 (page 4-159) that show the Western Alignment stream crossings west of Tongue River Reservoir would be helpful to clearly identify locations of all stream crossings for Tongue River I , II, and III. 35

14. Railroad construction and operation, and maintenance can impact streams from erosion and sediment transport, runoff, disruption of drainage patterns, stockpiling of materials in staging areas, maintenance of construction and maintenance equipment, fuels spills, deposition of coal dust, and road and rail line maintenance. The Western Alignment would cross steeper, more rugged terrain than the Four Mile Creek Alternative, with cuts from 100 to 200 feet high and fills from 100 to 180 feet deep anticipated (page 4-101). The DSEIS states that the construction of the Western Alignment will have potential to increase sediment loads and adverse water quality impacts to the Tongue River (page 4-109). Instability in cut slopes and/or fills can lead to slope failures, which could transport significant quantities of sediment to the Tongue River, although such slope failures would be mitigated by revegetation and restoration of the slopes (page 4-102). Tables 1-1 and 4-22, show a potential increase in sediment load to the Tongue River of 6,770-10,600 tons/year vs. 3,650-6,000 tons/year from the Four Mile Creek Alternative that would increase total suspended sediment (TSS) levels by 16-37 mg/l and 8-21 mg/l, respectively. 36

    The proposed Tongue River I and II realignment would increase the amount of cut and fill, with the volume of earthwork increasing for Tongue River I from 14.2 million yds^3 to 18.6 million yds^3, and the volume of earthwork increasing for Tongue River II from 12.4 million yds^3 to 14.8 million yds^3 (page 5-13). These realignments would increase erosion potential that could cause increased sediment loads to the Tongue River (page 5-14), although the DSEIS states that with implementation of proposed mitigation measures no significant impacts would occur from proposed realignments of Tongue River I and II.

Increased sediment loads to surface waters can cause adverse effects to aquatic life, including increased turbidity in surface waters that reduce light penetration in the water column and potentially reduce productivity of streams, and deposition of sediment in stream channels that impair fish spawning areas and smother fish eggs. It is important that all possible means of avoiding and reducing sediment production and transport to surface waters are utilized.

We are pleased that the Mitigation Measures will require an MPDES permit from the Montana Dept. of Environmental Quality (MDEQ) including a Stormwater Pollution Prevention Plan, and that an Erosion Control Plan will be prepared to minimize potential stormwater runoff pollutant discharges to surface waters that may occur during construction (Mitigation Measure 36, pages 4-103, 5-15, 7-26), and are pleased that Mitigation Measures 37 through 51 would address other potential sediment sources. A comprehensive Storm Water Pollution Prevention Plan (SWPPP) and Erosion Control Plan and mitigation measures must assure that sediment loading and other potential impacts upon water quality are sufficiently controlled to maintain support for designated beneficial uses (i.e., maintain compliance with applicable State and Tribal Water Quality Standards). As discussed in comment #15 below there is also a need to avoid further degradation of 303(d) listed waters and assure that rail line construction and operation are consistent with preparation of Total Maximum Daily Loads and Water Quality Restoration Plans for listed waters.

36 cont.

15. Portions of the Tongue River, Tongue River Reservoir, Hanging Woman Creek, Otter Creek, and Pumpkin Creek were listed as water quality impaired on Montana's 1996 Clean Water Act Section 303(d) list of impaired waters. Although more recent Montana 303(d) lists have adjusted water quality impairment listings, EPA and the State of Montana have reached a Settlement Agreement with plaintiffs on water quality lawsuits and entered into a Consent Decree recently approved in Federal District Court in Missoula to prepare TMDLs for all waters on Montana's 1996 Section 303(d) list. The following table provides information on the water quality impairment listings in the 1996 Section 303(d) list for waters within the Tongue River watershed.

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Table 1. 1996 listing information for the Tongue River watershed.

Segment	Size (mi)	Impaired Uses	Probable Cause
Tongue River (WY border to Tongue River Reservoir) (Tongue River Above Reservoir)	4	Agriculture Aquatic life Coldwater fishery	Flow alteration
Tongue River Reservoir	3,500 acres	Aquatic life Coldwater fishery Swimmable	Nutrients Organic enrichment/ dissolved oxygen Suspended solids
Tongue River (TRR Dam to the confluence with Hanging Women Creek) (Upper Tongue River)	31	Aquatic life Coldwater fishery	Flow alteration