

Appendix E — Comments and Responses on the Final Environmental Impact Statement

Response to Agency and Organization Comments

The last section of this appendix presents copies of letters with substantive comments on the Final EIS and Section 4(f) Statement that were received from federal agencies, state agencies, local governments and organizations. Beside each reproduced letter is FHWA's response to those comments. Letters from the following federal, state, and local agencies and organizations are included in this appendix:

- Letter 1—U.S. Environmental Protection Agency
- Letter 2—Wyoming Office of Federal Land Policy
- Letter 3—Wyoming State Historic Preservation Office
- Letter 4—Wyoming Game and Fish Department
- Letter 5—American Wildlands
- Letter 6—Greater Yellowstone Coalition

Responses to Individual Comments

After Final EIS issuance, the FHWA received 15 letters from individuals. Each document was reviewed and each substantive comment was coded using the four-digit numbering system used in the Final EIS.

Comments are considered substantive if they:

- Question, with reasonable basis, the accuracy of the information in the document
- Question, with reasonable basis, the adequacy of the environmental analysis
- Present reasonable alternatives other than those presented in the environmental impact statement
- Cause changes or revisions in the proposal
- Provide new or additional information relevant to the analysis

The comment code numbers are not sequential because not all comment codes created for the DEIS were needed to respond to comments on the Final EIS and Record of Decision. Each commentor and their comment are listed below. A response by comment code follows.

Commenters and Response Codes

Joshua Atz (Glastonbury, CN)

- 1001—Believes existing road meets purpose and need
- 2300—Concerns about changes to the existing roadway alignment
- 3000—Concerns about overall environmental impacts
- 3200—Concerns about changes to roadway character and historic qualities
- 3401—Concerns about impacts to alpine vegetation
- 3901—Concerns about speed

Jim Currie (MT)

- 2206—Supports roadway width proposed in FEIS, Preferred Alternative
- 3603—Concerns about visitor safety from a too narrow roadway

Gene Ball (Cody, WY)

- 1001—Believes existing road meets purpose and need
- 2200—Concerns about the proposed roadway width
- 2202—Supports 28-ft road (12' and 2' or 10' and 4')
- 2300—Concerns about changes to the existing roadway alignment
- 2410—Comment in support of Alternative 1
- 3000—Concerns about overall environmental impacts
- 3200—Concerns about changes to roadway character and historic qualities
- 3401—Concerns about impacts to alpine vegetation

Richard Davis (Oliver Springs, TN)

- 2300—Concerns about changes to the existing roadway alignment
- 2310—Supports existing alignment at the Beartooth Ravine; realignment is unnecessary
- 2601—Consider 20-to 24-foot roadway
- 3200—Concerns about changes to roadway character and historic qualities
- 3401—Concerns about impacts to alpine vegetation

Erryl Eyster (Bellville, OH)

- 1001—Believes existing road meets purpose and need
- 2200—Concerns about the proposed roadway width
- 2300—Concerns about changes to the existing roadway alignment

- 2310—Supports existing alignment at the Beartooth Ravine; realignment is unnecessary
- 3200—Concerns about changes to roadway character and historic qualities
- 3901—Concerns about speed

Glen Galt (unknown)

- 2206—Supports roadway width proposed in FEIS, preferred alternative
- 3603—Concerns about visitor safety from a too narrow roadway

Vicky Galt (Helena, MT)

- 2206—Supports roadway width proposed in FEIS, preferred alternative
- 3603—Concerns about visitor safety from a too narrow roadway

Dr. and Mrs. John L. Graham (Hillsborough, CA)

- 2601—Consider 20-to 24-foot roadway

Margaret Hart (Cooke City, MT)

- 2010—Concerns about the cost of reconstruction
- 2310—Supports existing alignment at Beartooth Ravine; realignment is unnecessary
- 3901—Concerns about speed

Tom Hughes (unknown)

- 1304—Concerns that narrow shoulders do not accommodate bicycling
- 2206—Supports roadway width proposed in FEIS, preferred alternative
- 3603—Concerns about visitor safety from a too narrow roadway

John Jensen (Lewistown, MT)

- 2206—Supports roadway width proposed in FEIS, preferred alternative
- 3603—Concerns about visitor safety from a too narrow roadway

Joseph Malin (Helena, MT)

- 2206—Supports roadway width proposed in FEIS, preferred alternative
- 3603—Concerns about visitor safety from a too narrow roadway

John L. Oldemeyer (Silver Gate, MT)

- 2201— Concerns about the shoulder width
- 2202— Supports 28-ft road (12' and 2' or 10' and 4')
- 2300—Concerns about changes to the existing roadway alignment
- 2310—Supports existing alignment at the Beartooth Ravine; realignment is unnecessary
- 3300—Concerns about changes to the area's wildlife resources
- 3601— Concerns about number, type, size, and location of turnouts/pullouts

Les and Pat Szewczyk (Rochelle, IL)

- 1001—Believes existing road meets purpose and need
- 2200—Concerns about the proposed roadway width
- 2300—Concerns about changes to the existing roadway alignment
- 3200—Concerns about changes to roadway character and historic qualities
- 3901—Concerns about speed
- 3902—Concerns about the size of vehicles using the road following reconstruction

Kaylie Utter (Bozeman, MT)

- 2206—Supports roadway width proposed in FEIS, preferred alternative
- 3603—Concerns about visitor safety from a too narrow roadway

Comment codes and responses are listed below only for comments recorded for letters regarding the Final EIS. A complete list of comment codes and responses can be found in Appendix A, DEIS.

1000—Purpose and Need—General

Comment 1001: Believes existing road meets purpose and need

Response 1001: The three needs sections of Chapter 1 discuss the deficiencies associated with the existing road. The existing road does not accommodate current or future vehicle types and volumes, is not reasonably maintainable, and does not support the SNF's land management goals. The DEIS was modified to include additional information on the need for the project.

1100—Needs Associated with Accommodating Projected Traffic

Comment 1101: Believes narrower travel lanes than proposed would accommodate all needs associated with projected traffic

Response 1101: Appendix C of the Final EIS discusses in detail the selection of the travel lane and shoulder widths. Section 2.6, *Options Considered But Eliminated* of the Final EIS describe reasons for not selecting narrower travel lanes. The Final EIS indicates that although a shoulder 1.2-m (4-ft.) or wider is preferred to accommodate anticipated uses, the SEE team recommended a 0.9-m (3-ft.) shoulder between the Clay Butte Lookout turnoff and the road closure gate to minimize impact. A 0.9 m (3-ft.) shoulder adequately provides for the anticipated uses. Alternatives that would have shoulders narrower than 0.9 m (3 ft.) wide between the Clay Butte Lookout turnoff and the road closure gate would not fulfill the purpose and need.

1300—Needs Associated with Management

Comment 1304: Concerns that narrow shoulders do not accommodate bicycling

Response 1304: The shoulder width of the reconstructed highway will be 3-feet west of the road closure gate and 2-feet east of the road closure gate. Currently, bicyclists must ride in the travel lane because there are no shoulders. Wider travel lanes coupled with shoulders will provide much improved safety for bicyclists.

2000—Alternatives—General

Comment 2010: Concerns about the cost of reconstruction

Response 2010: The estimated total cost of the selected alternative estimated at \$47.8 million. This expenditure is needed to reconstruct a road that meets the purpose and need for the project. The proposed project will include items not typically associated with a road project, such as extensive revegetation, reuse of stone masonry, and limits on construction activities, such as nighttime construction.

2200—Roadway Width

Comment 2200: Concerns about the proposed roadway width

Response 2200: The Final EIS discusses the need for the proposed roadway width. Chapter 1 includes additional information on the need for the proposed roadway width. Also see *Response 1101*.

Comment 2201: Concerns about the shoulder width

Response 2201: The selected alternative was modified in the Final EIS to have a shoulder width of 1.2 m (4 ft.) from the project start to the Clay Butte Lookout access road, a 0.9 m (3 ft.) shoulder to the road closure gate and a 0.6 m (2 ft.) shoulder to the project end. The selected alternative balances environmental impacts with design standards by varying the shoulder width. Narrower shoulder width would not support recreational uses.

Section 2.6, *Options Considered But Eliminated* of the Final EIS discusses narrower and wider shoulder widths.

Comment 2202: Supports 28-ft road (12' and 2' or 10' and 4')

Response 2202: Travel lanes less than 3.6 m (12 ft.) would not accommodate projected traffic. Shoulders less than 0.9 m (3 ft.) west of the road closure gate would not support existing and anticipated recreational uses.

Comment 2206: Supports roadway width proposed in FEIS, preferred alternative

Response 2206: Thank you for your comment. Chapter 1 of the Final EIS and this Record of Decision includes additional information on the need for the proposed roadway width.

2300—Alignment Options

Comment 2300: Concerns about changes to the existing road alignment

Response 2300: All build alternatives would closely follow the existing alignment over 80 percent of the project length. Changes to the existing roadway alignment are proposed to improve visitor safety and to minimize environmental impacts. In the selected alternative, the longest realignment length will be in the Top of the World Store area. The Top of the World Store realignment is designed to minimize wetland and riparian impacts and to restore wetland areas presently filled by the existing road. The Top of the World Store realignment also will be more curvilinear and has lower operating speeds more consist with adjoining sections than the existing alignment.

2310—Beartooth Ravine Realignment

Comment 2310: Supports existing alignment at Beartooth Ravine; realignment is unnecessary

Response 2310: The Beartooth Ravine is the location along Segment 4 with the highest accident rate. Studies have shown that high accident locations occur when changes in operating speeds are more than 16 km/h (10 mph). Two build alternatives, Alternative 2 and 3, would closely follow the existing alignment in the Beartooth Ravine. These two alternatives would have changes in operating speeds more than 16 km/h (10 mph) and would continue the current unsafe conditions. The bridge option is a component of the selected alternative because it will have a change in operating speeds less than 16 km/h (10 mph) and will be a safer option. The safety improvement will come from a design speed more consistent with the adjoining segments.

2410—No Action

Comment 2410: Comment in support of Alternative 1

Response 2410: The No Action Alternative would not accommodate current or future vehicle types and traffic volumes, would not support SNF's management goals, and would result in a road that is not reasonably maintainable.

2600—Suggested Alternatives

Comment 2601: Consider 20- to 24-foot roadway

Response 2601: Section 2.6, Options Considered But Eliminated of the Final EIS includes additional discussion of these two roadway widths and why they were eliminated from detailed analysis. Shoulders less than 0.9 m (3 ft.) west of the road closure gate would not support existing and anticipated recreational uses.

Three options for a 24-foot roadway were analyzed in detail in the Final EIS. The options having 3.6-m (12-ft.) travel lanes with no shoulders or 3.3-m (11-ft.) travel lanes and 0.3-m (1-ft.) shoulders would not meet the functional needs for the road and would not be considered safe for the current and projected vehicle types on the road and the projected level of traffic. The inadequate shoulders would not accommodate existing and anticipated recreational uses. Because these options would not fulfill the project's purpose and need, they are not practicable alternatives and were eliminated from detailed analysis.

The other 7.2-m (24-ft.) option would use 3.0-m (10-ft.) travel lanes and 0.6-m (2-ft.) shoulders. The travel lanes would be only slightly wider than the existing road and would not accommodate current and projected vehicle types or traffic volumes. A 0.6-m (2-ft.) shoulder would not accommodate existing and anticipated recreational uses west of the road closure gate. Accommodating current and projected vehicle types throughout the project and traffic volumes as well as the existing and anticipated recreational uses west of the road closure gate is part of the project's purpose and need. Because this option would not fulfill the project's purpose and need, it is not a practicable alternative and was eliminated from further consideration.

3000—Chapter 3, Affected Environment, Environmental Consequences

Comment 3000: Concerns about overall environmental impacts

Response 3000: In the selected alternative, the FHWA minimized environmental impacts by reducing shoulder width from the Clay Butte Lookout turnoff to the road closure gate, and is committed to investigating options for minimizing

environmental impacts during final design. In the selected alternative, the road cannot be narrowed further and still fulfill the purpose and need for the project. Also see the *Techniques to Avoid and Minimize Impacts* section 2.5 of the Final EIS.

3200—Cultural Resources

Comment 3200: Concerns about changes to roadway character and historic qualities

Response 3200: The FHWA recognizes the importance of the roadway's historic qualities, which is reflected in one of the purpose and need statements. Construction of any build alternative would adversely affect Segment 4 of the road, and four historic bridges. All build alternatives would adversely affect the footprint and location of the road. The Record of Decision includes the proposed mitigation for the effects of the selected alternative. The Final EIS discusses that the build alternatives, however, will closely follow the existing alignment over 80 percent of the project length. Stone masonry or similar stone will be used on proposed bridges and some culvert headwalls. The overall character of the road will be preserved by retaining the switchbacks that convey the engineering accomplishments and preserving the overall characteristics of setting, feeling, association, and location.

3300—Wildlife

Comment 3300: Concerns about changes to the area's wildlife resources

Response 3300: The FHWA has worked closely with the SNF and USFWS to avoid and minimize impacts to wildlife. Field reviews during July and August 2002 with these two agencies evaluated ways of avoiding impacts to wildlife and the corridors they use. In addition, narrowing the width of the preferred alternative in the Final EIS

from 9.6 m (32 ft.) to 9.0 m (30 ft.) from the Clay Butte Lookout turnoff to the road closure gate reduced the amount of habitat affected.

3400—Vegetation, Timber, and Old Growth

Comment 3401: Concerns about impacts to alpine vegetation

Response 3401: The selected alternative has an 8.4-m (28-ft.) roadway width in the upper section to minimize impacts. The FHWA is committed to investigating options for minimizing environmental impacts during final design. These techniques are described in the *Techniques to Avoid and Minimize Impacts* section of the Final EIS. As described in the Final EIS, test plot studies to analyze the success of alpine revegetation techniques are underway at three high alpine sites along Segment 4. Areas temporarily disturbed by road reconstruction activities will be revegetated using the most successful revegetation techniques of the test plots. In addition, the FHWA is committed to revegetating some areas disturbed during previous (1930s to 1970s) roadwork activities.

3600—Recreation Resources

Comment 3601: Concerns about number, type, size, and location of turnouts/pullouts

Response 3601: As described in the Final EIS, pullouts will allow a safe mix of recreation uses. Pullouts also will create additional impact areas, so a balance of impacts and benefits is necessary. The FHWA tried to find this balance for the selected alternative by keeping the most strategic and popular pullouts, and eliminating those that will result in unacceptable environmental impacts (for example, pullouts in wildlife crossing areas).

Comment 3603: Concerns about visitor safety from a too narrow roadway

Response 3603: The FHWA believes that the selected alternative will greatly improve the safety of the traveling public on the road. Increased lane width and added shoulders, additional drainage features, and improved sight distances will provide a safer roadway.

3900—Transportation

Comment 3901: Concerns about speed

Response 3901: As discussed in the Final EIS, all build alternatives were designed to match existing alignment as much as possible. Consequently, operating speeds should be similar. In the selected alternative, the road will remain a two-lane road, and will have 12-ft lanes and 2- or 3-ft shoulders. Operating speeds may increase by about 8 km/h (5 mph) due to increased perception of safety by the driver from the wider roadway and shoulders. There are two major transition areas in Segment 4, where it is especially important for curves to tighten gradually because of driver expectations. At the Beartooth Ravine, traveling both east and west, drivers have come through a section with relatively shallow curves, and do not expect the sharp reduction in speed necessary to negotiate the existing curves. By constructing a bridge, the reduction in operating speeds will be less, reducing the accident risk at this location. The second major transition is the Albright Curve, where drivers traveling west have come through a flat section of gentle curves. The selected alignment design speed of 40 km/h (25 mph) will be a less dramatic speed reduction than the existing alignment option 30 km/h (19 mph). The selected option at the Top of the World Store will slow speeds in this area by incorporating a more curvilinear alignment.

Comment 3902: Concerns about increases in size of vehicles using the road following reconstruction

Response 3902: Currently, large pickup trucks pulling trailers, large recreational vehicles, and tour buses use the road. Use of the highway by large vehicles is likely to continue. Because the Beartooth Highway is designated as an approach road to Yellowstone National Park, the road should accommodate visitors to the park, which typically include large recreational vehicles. No limitation on vehicle size is currently planned for the road.

Comment

Letter 1

Response



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8
999 18TH STREET - SUITE 300
DENVER, CO 80202-2466
Phone 800-227-8917
http://www.epa.gov/region08

Ref: 8 EPR- EP

OCT 28 2003

Chandler Peter
U.S. Army Corps of Engineers
222 Dell Range Blvd., Suite 210
Cheyenne, Wyoming 82009

Richard J. Cushing (HFHD-16)
Federal Highway Administration
Central Federal Lands Highway Administration
555 Zang Street, Room 259
Lakewood, Colorado 80228

Re: Beartooth Highway, Wyoming Forest Hwy. 4
404 Permit Public Notice - 199840159
FEIS Review - 030411

Dear Messrs. Peter and Cushing:

The Region 8 Office of the Environmental Protection Agency (EPA) has reviewed the Public Notice for the Clean Water Act Section 404 permit and the Final Environmental Impact Statement (FEIS) for Segment 4 (18 miles) of the Beartooth Highway, in Wyoming. The highway crosses the Beartooth Mountains from Red Lodge, MT through Cooke City, MT to Yellowstone National Park (YNP). EPA's reviews were conducted following the Section 404 (b)(1) Guidelines for the Clean Water Act (CWA) and in accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act.

1-1

We appreciate Federal Highway Administration (FHWA) coordination with EPA on this project. Through the NEPA process the environmental impacts of the proposed highway improvement have been reduced. However, under EPA's review of the CWA Section 404 permit application, the preferred alternative does not appear to be the least damaging practicable alternative. Although changes have been made to the design to reduce environmental impacts, the overall project still has significant, adverse environmental impacts in highly valued, fragile ecosystems.

1-2

Despite our continuing concerns, we do want to acknowledge the improvements made to the preferred alternative. Although the width of the highway cross-section (pavement, road base, ditches, etc.) will generally still double, in the preferred alternative, the proposed roadway width has been reduced from 32 feet to 30 feet for most of the lower half of the road segment. There

1-3



Response to comment 1-1

Thank you for your comments.

Response to comment 1-2

The FHWA respectfully disagrees. The FHWA submitted an alternatives analysis that accompanied its 404 permit application to the Corps of Engineers. FHWA's analysis indicated that the selected alternative (Alternative 6) is the least environmentally damaging practicable alternative. The Corps will determine if the selected alternative is the least environmentally damaging practicable alternative. The selected alternative best balances adverse environmental impacts with meeting the purpose and needs of the project. The Corps may provide additional responses to comments received on the public notice for FHWA's 404 permit application.

Response to comment 1-3

Thank you for your comment. As the Record of Decision indicates, impacts will continue to be minimized using the techniques described in the Techniques to Avoid and Minimize Impacts section of the Final EIS. These include:

- Shifting alignment to affect only one side of the road
Using existing disturbed areas
Reducing shoulder widths
Using design criteria exceptions
Using paved ditches
Using retaining walls
Using slope exceptions
Reducing foreslope widths
Adjusting pullouts and parking area locations

Comment

Letter 1 continued

Response

have also been several modifications to the preferred alternative that will avoid additional wetlands resources by selecting the bridge option at Little Bear Lake fen and refinements of the road alignment at Long Lake (page 76). As described on page 63 in the FEIS, FHWA has also made some modifications to the standard road bed construction practices to reduce the amount of disturbance and associated environmental impacts.

1-4

The preferred alternative will directly disturb 249 acres. The areas of significant environmental impacts are: 66 acres of alpine meadow (tundra), 4.8 acres of jurisdictional wetlands [COE PN, 5.0 in FEIS], 0.1 acres of lakes and 1.5 acres of non-jurisdictional wetlands, 8 acres of wet meadow, 42 acres of mountain meadow, 33 acres of forest, and 28 acres of shrub grassland. EPA, therefore, continues to recommend that the design be adjusted to further reduce the cross-section of the road, thereby reducing environmental impacts to these valuable ecosystems and enhancing the scenic byway nature of the road.

404 (b)(1) Guidelines

1-5

For evaluation of 404 (b)(1) Guidelines compliance, the Corps of Engineers (Corps) needs to consider a fundamental "overall" and "basic" project purpose that may result in alternatives that have less impacts to "waters of the United States." This is especially critical since the proposed project is clearly not "water dependent" and therefore, practicable alternatives that do not involve special aquatic sites are presumed to be available unless clearly demonstrated otherwise.

1-6

Based on the information in the FEIS, the proposed 28, 30 and 32 foot wide road alternative does not appear to be the least environmentally damaging practicable alternative(s). For compliance with sections 40 CFR 230.10 (a) "...no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic eco-system, so long as the alternative does not have other significant adverse environmental consequences.", 230.10 (c) "...no discharge of dredged or fill material shall be permitted which will cause or contribute to significant degradation of the waters of the United States. Under these Guidelines, effects contributing to significant degradation considered individually or collectively include: (1) Significant adverse effects of the discharge ...on fish, shellfish, wildlife, and special aquatic sites", and 230.10 (d) "...no discharge of dredged or fill material shall be permitted unless appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem." The Corps and FHWA are requested to evaluate additional design alternatives which avoid impacts by further minimizing the footprint of the road and construction disturbance. An additional alternative, which warrants consideration is the road design applied to Yellowstone National Park.

Purpose and Need

1-7

A focus of previous discussions on reducing the cross-section of the highway has been on the purpose and need of the road and the functional classification. As EPA has pointed out in previous letters (July 29, 2002 and May 13, 2003), the road is primarily used as a scenic byway, with tourists going slowly and stopping in the many pullouts along the route. There is also an existing alternative route accommodating vehicles that want to avoid the steep, curvy route which

Response to comment 1-4

See response to comment 1-3.

Response to comment 1-5

The Corps has been involved in project consultation and coordination since 1998 (see Appendix A of the ROD). It has reviewed the purpose and need for the project and approved the purpose and need for the project in their letter dated April 11, 2002. In its 404 permit decision, the Corps will describe the basic and overall project purpose. In its September 12, 2003 public notice, the Corps indicated the basic project purpose is road reconstruction. In the same notice, the Corps indicated the overall project purpose had three components: providing an efficient transportation link from the Montana/Wyoming state line to the Clay Butte Lookout turnoff that safely accommodates projected traffic levels through 2025, providing a roadway that can be reasonably maintained in a sustainable manner, and supporting SNF's management of Forest lands adjacent to the road. The Corps may provide additional responses to comments received on the public notice for the 404 permit application.

The FHWA acknowledges that the proposed project is not water dependent, and that practicable alternatives that do not involve special aquatic sites are assumed to be available unless clearly demonstrated otherwise. The FHWA was unable to identify any practicable alternatives that will not require discharge of dredged or fill material into special aquatic sites and still meet the overall and basic project purpose.

Response to comment 1-6

See response to comments 1-3 and 1-5. As response to comment 1-3 indicates, the FHWA will use techniques to avoid and minimize impacts during final design. Alternative 6 was selected because of the three build alternatives that fully meet all three needs for the project, it will result in the least amount of impact to wetlands and best balances safety, maintenance, land management, and traffic operation needs with avoidance and minimization of environmental impacts. As the Final EIS discussed, the road design standards used in YNP are similar to those that will be used for the selected alternative.

Response to comment 1-7

The FHWA agrees that the road is used primarily as a scenic byway. However, according to the Origin and Destination Study completed in 1999, only 9% of the motorists surveyed indicated that they would make multiple stops in the project vicinity during the day. This indicates that 91% of the traffic is through traffic or has a specific destination. Contrary to your claim that primary traffic is "tourists going slowly and stopping", the Final EIS points out that the 85th percentile operating speed near Top of the World Store and Long Lake exceed 70 km/h (44 mph).

Comment

Letter 1 continued

is open during the eight months the Beartooth road is closed each year. On July 29, 2002, we recommended the road be 20 and 24 feet wide. However, this was not acceptable to FHWA and the two agencies felt additional meetings to discuss this issue was in order. After several meetings with EPA, FHWA and the Corps, on May 13, 2003, it was agreed that a 28 foot road width for the complete distance of Segment 4, would be used in order to minimize impacts to these highly valued, fragile ecosystems, including unique high altitude wetlands.

1-8

In addition to reducing the footprint of the proposed project, EPA encourages use of site specific designs that reduce aquatic impacts. The USDA/FHWA publication "Managing Road for Wet Meadow Ecosystem Recovery" (FHWA-FLP-96-016) provides examples of such designs and emphasizes the critical importance of maintaining and/or restoring the natural hydrology (surface water and ground water) of these valuable systems.

Wetland Mitigation

1-9

The FEIS and accompanying Conceptual Wetland Mitigation Plan outline the potential wetland mitigation alternatives including locations, likelihood of successful mitigation, constraints to on-site mitigation, etc.. The wetland mitigation analysis identified potential restoration sites and high-priority and low-priority creation sites. From our review of the analysis, we concur that the low priority creation sites will not provide good mitigation. In this situation, off-site mitigation should be developed because of the difficulty in establishing wetlands in high altitude areas. Of the known off-site locations, two locations have been reviewed, which are located between Segment 4 and YNP. Both wetland complexes are located along the south side of the Park entrance road and along Soda Butte Creek. The first one located behind the Church and the other a short distance west toward the Park entrance (Duffy's Meadow). However, because these are out-of-kind and off-site mitigation, the Corps and FHWA should be required to evaluate mitigation ratios to offset the impacts.

1-10

(see next
pg)

Off-site wetland mitigation, for this project is recommended to be a 10:1 mitigation ratio due to the mitigation being predominantly for preservation, several miles off-site, and out-of-kind. The off-site wetlands are all together different (willow car) from the high altitude wetlands (tundra, mountain meadows) and will be performing different functions at a much lower elevation.

1-11

(see next
pg)

EPA continues to have concerns about the success of revegetating for this project. Revegetating these sites will prove to be a difficult task taking many years, if vegetation is ever established in these fragile communities. We recommend that the record of decision or maintenance agreement include on going maintenance for re-vegetating areas.

1-12

(see next pg)

1-13

(see next
pg)

We request the Corps require a wildlife conservation easement be placed on all off-site mitigation sites. These easements should carry the most stringent protection controls possible.

We appreciate changes made to the FEIS in response to our DEIS comments. In conclusion, while we acknowledge the efforts to reduce the adverse impacts of the proposed project, EPA continues to believe that the preferred alternative is not the least damaging

Response

The Beartooth Highway serves dual functions; as a throughway to access Yellowstone National Park, as well as a destination unto itself. As an approach road to the Park, the road should accommodate visitors to the park, which typically includes larger recreational vehicles. Under current conditions, two large vehicles cannot pass each other without one stopping and/or pulling unsafely off the highway. The road also provides non-recreational access from Cooke City and the upper Clarks Fork valley to Red Lodge and Billings, Montana.

The FHWA does not agree with EPA's characterization of what occurred on May 13, 2003. On May 13, 2003, the EPA sent FHWA a letter that indicated that EPA revisited its recommendation of July 29, 2002 regarding 20 and 24-foot wide alternatives based on additional information provided at two coordination meetings between FHWA, EPA and the USFWS. In the May 13, 2003 letter, EPA stated "we can accept that a 28-foot road width for the full length of the project will meet the purpose and needs of the project. Based on the preceding discussions, EPA is prepared to accept a road design width of 12-foot lanes with 2-foot shoulders." FHWA did not agree to a 28-foot width for the entire project and has consistently maintained that a 28-foot alternative in the western section does not meet the purpose and need for the project. The Final EIS and 404 permit application discuss this issue extensively.

Response to comment 1-8

The FHWA agrees with the EPA's comments on this matter. The FHWA has developed site-specific designs at the Top of the World Store restoration area, as well as special design criteria for areas where the road adjoins a wetland. As the Final EIS and 404 permit application discusses, the FHWA thoroughly evaluated potential direct and indirect impacts to ensure the project will not affect supportive hydrology for special aquatic sites. This information was submitted to the EPA on June 4, 2003 in the Final Wetlands Hydrology Report. Monitoring wells also were used to evaluate potential indirect wetland impacts. Under Alternative 6, four wetlands filled by the existing road near Top of the World Store will be restored.

Response to comment 1-9

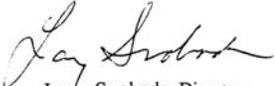
The FHWA suggested mitigation ratios in its permit application. The FHWA believes the proposed wetland mitigation offsets all unavoidable impacts to wetlands by the selected alternative. In its decision on the application, the Corps will determine the appropriate mitigation ratio.

The proposed off-site wetland mitigation will provide replacement for the same wetland types that will be affected by the project. Most of the wetland impacted on the Beartooth Highway are classified according to Brinson as Riverine, and according to Cowardin et al. as Palustrine scrub/shrub, and Palustrine persistent emergent. The

Comment

Letter 1 continued

practicable alternative and therefore additional design alternatives need to be evaluated that meet both the original intent of a scenic park access road and of the CWA Section 404 (b)(1) Guidelines. Therefore, we recommend denial of the 404 permit, for the project as currently proposed. We would be pleased to meet with both FHWA and the Corps to further discuss our concerns as stated above. Please contact Rex Fletcher (303) 312- 6702 or Dana Allen at (303) 312-6870.



Larry Svoboda, Director
NEPA Program

Sincerely,



Christine S. Lehnertz
Ecosystems Protection Program Director

Response

proposed off-site wetland mitigation site(s) contain the same wetland types as those that will be affected by the project.

As stated in the Final EIS and 404 permit application, the wetland functions (as defined in the Montana Method) that most commonly will be impacted under the selected alternative are: ground water discharge/recharge, production export and food chain support, and dynamic surface water storage. Other functions that will be lost include: general wildlife habitat, general fish/aquatic habitat, sediment and shoreline stabilization, flood attenuation and storage, and sediment/nutrient/toxicant removal.

The proposed off-site wetland mitigation site(s) received high ratings for the following functions: general wildlife habitat, general fish/aquatic habitat, sediment/nutrient/toxicant removal, ground water discharge/recharge, flood attenuation and storage, and production export/food chain support.

Response to comment 1-10

See response to comment 1-9. The FHWA does not believe a mitigation ratio of 1:10 for off-site mitigation is appropriate, given the high quality nature of the off-site wetlands. In its decision on the application, the Corps will determine the appropriate mitigation ratio.

Response to comment 1-11

During initial project development, the FHWA and other SEE Team members expressed similar concerns about revegetation. In response, the FHWA conducted revegetation tests at three different locations along the alpine section of the road. The longest test has been 4 years and will be nearly 6 years when construction begins in 2005. These tests indicate that with appropriate topsoil management, mulch, seeding, and other revegetation techniques developed using test plot results, with slopes flat enough to sustain vegetation, areas that will be disturbed by the project can be revegetated successfully. Revegetation monitoring will continue in accordance with NPDES permit requirements. The FHWA will transfer responsibility for the permit after construction is completed.

Response to comment 1-12

In its 404 permit decision, the Corps will decide the controls necessary for any off-site mitigation sites. Because the FHWA will not own property, the FHWA anticipates a land-managing agency will be the property owner and that adequate controls to ensure the property's perpetual conservation will be implemented.

Response to comment 1-13

Thank you for your comment. See response to comments 1-2, 1-5 and 1-7. The Corps will make a decision independent of FHWA's decision documented in the Record of Decision.

Comment

Letter 2

Response

DAVE FREUDENTHAL
GOVERNOR



STATE CAPITOL
CHEYENNE, WY 82002

Office of the Governor

October 10, 2003



Mr. Richard Cushing
Environmental Planning Engineer
Federal Highway Administration
Central Federal Lands Highway Division
Attn: Environment (WY - 04)
555 Zang Street
Room 259
Lakewood, CO 80228

Re: Beartooth Highway FEIS (98-094)

Dear Mr. Cushing:

This office has reviewed the referenced FEIS on behalf of the State of Wyoming. This Office also distributed the referenced document to all affected state agencies for their review, in accordance with State Clearinghouse procedures. Attached are comments from the Wyoming Game and Fish Department and the State Historic Preservation Office.

At this office will offer no State position. However, we do ask that the attached State agency comments receive your due consideration in consideration to those provided by Wyoming Department of Transportation.

Thank you for the opportunity to comment.

Sincerely,

Mary Flanderka
Policy Analyst

MEF
Enclosures: (2)

Wyoming Game and Fish Department
State Historic Preservation Office

TTY: 777-7860

PHONE: (307) 777-7434

FAX: (307) 632-3909

Response to comment 2-1

Thank you for your comment.

Response to comment 2-2

The attached state comments have been considered in making a decision on the project. See letters 3 and 4.

2-1

2-2

Comment

Letter 3

WYOMING
GAME AND FISH DEPARTMENT



2003 SEP 29 P 2:06 "Conserving Wildlife - Serving People"

GOVERNOR'S
PLANNING OFFICE September 29, 2003

WER 9028
Federal Highway Administration
Wyoming Department of Transportation
Final Environmental Impact Statement
Final Section 4(f) Statement
Wyoming Forest Highway 4
The Beartooth Highway (US 212)
State Identifier Number: 98-094
Park County

Kyndra Miller
Wyoming State Clearinghouse
Office of the Governor
Herschler Building, 1 East
Cheyenne, WY 82002-0600

Dear Ms. Miller:

The staff of the Wyoming Game and Fish Department has reviewed the Final Environmental Impact Statement for Wyoming Forest Highway 4, the Beartooth Highway (US 212) in Park County. We offer the following comments.

3-1

Our previous comments indicated that a small acreage of whitebark pine would be removed by construction. Because of the declining nature of whitebark pine in this region, and its relative importance to grizzly bears, we reiterate our suggestion that off-site planting of whitebark pine be used as mitigation.

Sincerely,

GREG ARTHUR
INTERIM DIRECTOR

GA:TC:as

Headquarters: 5400 Bishop Boulevard, Cheyenne, WY 82006-0001
Fax: (307) 777-4610 Web Site: <http://gf.state.wy.us>

Response

Response to comment 3-1

The clearing of whitebark pine forest will remove a food source used by grizzly bears. However, whitebark pine forests impacted during project implementation are located in close proximity to the existing road. Because whitebark pine grows slowly and does not produce seed crops used by grizzly bears for up to 80 years, all impacts to whitebark pine as a result of the proposed project are considered permanent. The proposed action will permanently impact 5 ha (14 ac) of whitebark pine. It is unlikely that the loss of whitebark pine forest will substantially reduce food source availability in the late summer and fall. Some of the affected whitebark pine forest in the project area is located in rocky subalpine habitat (and in Management Situation 3) where seed production and habitat value are low. The loss will potentially result in the indirect take on an unquantifiable number of grizzly bears as a result of the loss of feeding habitat. The USFWS issued the FHWA an incidental take permit. Part of the incidental take will be in the form of harm or harassment as a consequence of mature whitebark pine trees being removed during the Segment 4 reconstruction.

As mitigation, whitebark pine seedlings will be included in the plantings in forested areas. The FHWA also will avoid construction activities in certain areas during seasonally high concentrations of bear activity. Nighttime construction limitations are planned between midnight and 6:00 am from September 1 to winter shutdown from the project start to after Wildlife Crossing 7 (KP 45). Nighttime construction activities in this area (from the Project Start to after Wildlife Crossing 7) will be limited to cleanup of blasting and drilling activities. These limitations are planned to reduce the displacement of bears feeding on whitebark pine seed middens during nocturnal forays. Also see the BO (Appendix C) for additional terms and conditions to which the FHWA has committed.

Comment

Letter 4



Wyoming Department of State Parks and Cultural Resources
State Historic Preservation Office

RECEIVED

GOVERNOR'S
PLANNING OFFICE

Richard L. Currit, SHPO
2301 Central Avenue
Barrett Building, 3rd Floor
Cheyenne, WY 82002
Phone (307) 777-7697
FAX (307) 777-6421

October 3, 2003

Richard Cushing, Environmental Planning Engineer (HFHD-16)
Federal Highway Administration
Central Federal Lands Highway Division
555 Zang Street, Room 259
Lakewood, Colorado 80228
through:
Kyndra Miller, Director
State Planning Coordinator's Office
Wyoming State Clearinghouse
Herschler Building, 1 East
Cheyenne, Wyoming 82002-0600

RE: SPC Project #: 1998-094. FHWA Project: WY HPP-4-1(0), Beartooth Highway (Wyoming Highway 4, U.S. 212, Park County) Reconstruction. Final Environmental Impact Statement (FEIS)/Final Section 4(F) Statement (FHWA-FPWY-EIS-02-1-F). (SHPO File # 0598KLK042)

Dear Mr. Cushing:

We have reviewed the above FEIS, as requested by Bert J. McCauley's (FHWA Project Manager) transmittal letter of September 8, 2003. Thank you for the opportunity to comment.

4-1

This office cannot be enthusiastic about the FHWA's finding, that the Beartooth Highway Reconstruction cannot be accomplished without adversely affecting this unique and historically significant road (re: Section 106 of the National Historic Preservation Act [NHPA], 36CFR800 procedures). One of this office's most important (arguably our most important) missions is to work with agencies to ensure that their projects, if at all feasible, are accomplished while preserving Wyoming's and the Nation's historically significant properties. In this case, this was only partially achieved. The FHWA had a difficult charge and we have appreciated their willingness to accomplish necessary historic/archaeology studies and involve our office in this effort over the last several years.

4-2

We reluctantly concur with the FHWA's "Adverse Effect" determination. Relative to completion of the 36CFR800 compliance process, we will continue to work with the FHWA, and other cooperating/ participating federal and state agencies, to finalize the Memorandum of Agreement (re: FEIS pp 127-130), to mitigate this undertaking's effects on the Beartooth Highway Historic Property with associated, significant, components (e.g., bridges).

Please refer to the above SHPO project control number (0598KLK042) in future communications dealing with this project. If you have questions, please do not hesitate to contact Robert York at 307-742-3054, or me at 307-777-5497.



Response

Response to comment 4-1

The FHWA strives to work with SHPOs to preserve historically significant properties through avoidance or minimization of impacts where possible and feasible. The Record of Decision indicates that there were no feasible and prudent alternatives to adversely affecting the resources eligible for listing in the National Register of Historic Places. As mitigation, the FHWA will incorporate all stipulations described in the Memorandum of Agreement among the FHWA, the USFS (SNF), the NPS (YNP), and the Wyoming SHPO concerning cultural resources. The Memorandum of Agreement is presented in Appendix B of this Record of Decision.

Response to comment 4-2

The Memorandum of Agreement has been finalized and is presented in Appendix B of this Record of Decision. The FHWA appreciates your continued working relationship with us on this project.

Comment

Letter 4 continued

0598KLLK042
(10-3-2003)

Response

Sincerely,



Richard L. Currit
State Historic Preservation Officer

For

Comment



American Wildlands

"Science-based conservation for the Northern Rockies."

Richard Cushing
Federal Highway Administration
CFLHD, Environment (ATTN Environment Wyoming 04)
555 Zang Street, Room 259
Lakewood, CO 80228



5-1

Dear Mr. Cushing:
I am submitting these comments in regards to the Beartooth Highway FEIS for the proposed reconstruction of Segment 4. In general, we are very concerned about the proposed widening and straightening of this roadway. American Wildlands would like to see a much more modest reconstruction project proposed for this highway that is compatible with the resources in this area. American Wildlands believes that the proposed expansion would result in significant disturbance to a wild sub-alpine and alpine environment, significant wildlife impacts, impact high altitude wetlands, increased speed that could result in serious accidents and possible enforcement needs, and decrease visitor experience to this wild area.

Wildlife Crossing Areas:

5-2

We are glad to see that the FHWA has taken the time to identify possible wildlife crossing areas as they pertain to Segment 4. The FEIS states that these were identified on field reviews with the SNF, USFWS and FHWA. We were curious if these field reviews were combined with existing road-kill data or other wildlife data (species presence, collared animal movement, herd numbers and movement). Were these wildlife crossing areas specific to one type of species? Or are they sensitive to the grizzly bear or forest carnivores? There was no GIS modeling used to help identify these potential wildlife crossing areas? GIS models have become very helpful to identify the wildlife habitat that has the highest quality habitat and potential for wildlife crossing. Usually these models are based on road density, vegetation, edge to cover ratio and habitat needs for particular wildlife species. American Wildlands/Lance Craighead have developed one that works very well for highways (Craighead, 2001). While you have already tentatively committed to the wildlife crossing areas identified in the FEIS, it might be very beneficial to consider conducting a GIS modeling project that validates the findings have from the field review.

5-3

(see next pg)

Is there an understanding of how many wildlife-vehicle collisions are happening at this time along Segment 4? Are there records kept that record this information? This is very important information to have since it will help you determine the impacts prior to construction and post-construction.

5-4

(see next pg)

We are very concerned about the lack of mitigation to deal with these identified wildlife crossing areas. Through out the wildlife section in the FEIS it was apparent that wildlife are getting the short end of the stick with this project. The proposed mitigation measures will do little to deal with the proposed impacts from the widening, increased speeds and

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Response

Response to comment 5-1

The selected alternative balances the conflicting needs with respect to safety, maintenance, land management, traffic operations, and avoidance and minimization of environmental impacts. While the selected alternative will reduce the sharpness of some of the curves, no curves will be eliminated. Instead, curves will be added, specifically at the Top of the World Store. The selected alternative will minimize the need for subsequent disturbances in sub alpine and alpine environments from maintenance practices, and also will restore other areas impacted by the original and subsequent construction activities. The FHWA will implement the USFWS' terms and conditions of the Biological Opinion (Appendix C) to mitigate for adverse effects on threatened or endangered species. Other environmental commitments will mitigate for impacts to wetlands and vegetation communities affected by the project. The Beartooth Ravine is the highest accident location along Segment 4. The selected alternative will improve the horizontal alignment. The proposed bridge also will provide wildlife crossing and minimize wildlife/vehicle conflicts. Projected increases in operating speed will be relatively low, about 8 km/h (5 mph) on average. The Top of the World Store realignment will reduce average vehicle operating speeds.

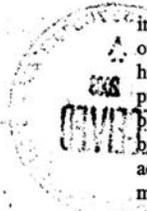
Response to comment 5-2

With respect to the identification of the wildlife crossing areas, sources of information other than just field reviews were used, including Wyoming Game and Fish species movement corridors. Collared grizzly bear data was also used, but currently no grizzly bear home ranges overlap Segment 4. The wildlife crossing areas provide passage for many species, including ungulates and forest carnivores such as wolf and bear. Small mammals have much smaller home ranges and are not easily tracked. SNF and FWS specialists identified the crossing areas by observing evidence of animal presence such as scat, prints, and worn paths. According to the USFWS's Biological Opinion, there are no known vehicle collisions with the grizzly bear or lynx in the project area or in the reconstructed road segments adjacent to Segment 4. FHWA's mitigation will reduce the risk of mortality from wildlife/vehicle collisions. Field investigations were completed by the SNF and FWS personnel experienced with wildlife movement in the area. Modeling was completed to assess the quality of grizzly bear habitat adjacent to the roadway, and is presented in the Final EIS (see page 137). Also, see response to comment 5-10.

Comment

Letter 5 continued

Response



increased traffic that will occur on this highway. Revegetation treatments, fill slopes, and other mitigation measures (that you have not described in the FEIS) appear to have little hope of reducing the increased wildlife-vehicle collisions that this expansion/widening project will bring. The fundamental issue that must be examined is, what elements of the basic road design could be altered to improve wildlife movement? How could this road be designed differently to allow for the lynx and grizzly bear populations to easily move across this highway? These questions were not considered. Nor were adequate mitigation measures considered (underpasses, elevated spans...)

5-5 The section "Effects of the Build Alternatives – habitat types and general wildlife" does a good job of summarizing our concerns (which we feel have not been adequately mitigated. These include- road widening will lead to 1) direct loss of suitable foraging, nesting and denning habitat for wildlife, 2) habitat fragmentation and connectivity. I would add in the fact that a wider road allows for increased speeds, which leads to increased direct mortality.. Due to this fairly significant list of impacts, it seems that you need to examine ways to decrease the proposed width of this roadway in order to reduce impacts.

5-6 Another issue that needs to be examined in further detail is the proposed new retaining walls that may pose a barrier to wildlife movement in four areas- Beartooth Ravine, Top of the World Store, Little Bear Creek Bridge #1, Long Lake Bridge and West Summit Switchbacks. While we understand that retaining walls are critical for safety, is there a way to make them permeable to wildlife species? This seems like it is a critically important issue to examine considering the Beartooth Ravine area is been identified as having a great potential of negatively impacting lynx movement. Maybe the construction of bridges as proposed in Alternative 4, 5, and 6 would aid in this decreasing the impacts upon wildlife.

5-7 (see next pg) One potential set impacts that was not adequately analyzed was the indirect impacts that will occur along the road corridor from increased traffic/increase recreational use in the area. This could end up being fairly significant if there is significant increased use in the area.

5-8 (see next pg) Please send us a copy of the Biological Assessment that has a more detailed analysis of the seven wildlife crossing areas. In addition, once the FWS has finalized the Biological Opinion, please send us a copy.

5-9 (see next pg) Operating Speeds within the wildlife crossing assessment area is around 42 mph. What will it be able to go to with the proposed project? It seems that the FEIS is making an assumption that the speeds are going to be lower or stay a the current level. The chance of wildlife being hit by a vehicle is most likely going to increase, due to the fact that speeds will most likely be faster (even if you state that they will not, the widening of a road allows for drivers to be more comfortable going fast). In addition, we are very concerned increase use on this road. How can the FEIS state that it is estimated that the traffic will only increase to 1,972 by the year 2025? With this new expanded road both

Response to comment 5-3

According to the USFWS's Biological Opinion, there are no known vehicle collisions with the grizzly bear or lynx in the project area or in the reconstructed road segments adjacent to Segment 4.

Response to comment 5-4

Proposed mitigation will reduce potential impacts to wildlife movement. Design components in wildlife crossing areas were considered, and components such as guardrail and retaining walls that pose a wildlife barrier were eliminated. Site-specific landscape plans, including revegetation and placement of cover, have been designed for each crossing area. FWS and SNF personnel reviewed the design in the field. The details of these treatments are beyond the scope of the Final EIS and are contained in the BA. As stated in the USFWS' Biological Opinion, a substantial increase in grizzly bear mortality from vehicle collisions is unlikely because of low vehicle speeds and relatively low project traffic levels, particularly at dawn and dusk when bears are most active. In addition, the FHWA has proposed the following measures to minimize risk from vehicle collisions: (1) keeping curvature of the existing road to minimize average vehicle speeds, (2) increasing sight distance for driver response, (3) providing shoulders to increase driver maneuverability, (4) adding cautionary signage in wildlife crossing areas, (5) adding advisory speed signs in all wildlife crossing areas, (6) adding interpretive signage informing public of animal/vehicle collision risk, and (7) using non-palatable species for re-vegetation to prevent grizzly bears from feeding near the road. Also see the proposed mitigation on pages 154 through 156 in the Final EIS, and terms and conditions in the Biological Opinion. Also see response to comment 5-6.

Response to comment 5-5

The FHWA has designed the roadway to accommodate animal crossings and to alert visitors to the potential for animal-vehicle collisions. These mitigation measures, as well as those listed in the reasonable and prudent measures and terms and conditions in the Biological Opinion, will reduce impacts from a wider road. Also see response to comment 5-4.

Response to comment 5-6

The FHWA has carefully reviewed the location of retaining walls. In coordination with SNF and FWS, all walls that presented a wildlife barrier were eliminated or redesigned. In addition, all bridges for the project have been designed to facilitate dry land passage for wildlife.

Comment

Letter 5 continued

Response

here and in the other segments of the Beartooth Highway isn't likely that this will increase significantly

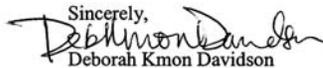
5-10

Grizzly bear- The grizzly bear section states that the "design modifications at the wildlife crossing areas would help minimize grizzly bear impacts". There is no validation as to how this is going to occur. While the FEIS lists numerous impacts that the highway will have on the grizzly bear population, the one that we are most concerned about is population connectivity and the ability for individual bears to continue to cross the highway (during the open/summer season). It does not seem that this has been adequately addressed at all- through mitigation measures or road design. Again, what is the baseline data that you have on bear-vehicle collisions? Is there a sense that this will increase- the FEIS states that it is possible- but what data do you have to base it on if the current condition is not known. Finally, we are concerned that the FHWA has only looked at the impacts that the "paved roadway" will have on the bear. The impacts to the broader landscape need to be examined in relation to grizzly bear populations (specifically the habitat connectivity issue).

5-11

Lynx- The FEIS makes it clear that there is a very important travel corridor for lynx located between KP 39.5 and Little Bear Creek bridge at KP 45. Yet there is no planned mitigation to ensure that lynx are able to continue to cross from one side of the road to the other in this FEIS.

Thank you for taking the time to read our comments. Please keep us on the mailing list for any future documents associated with this project.

Sincerely,

Deborah Kmon Davidson

cc: Kim Barber, Shoshone National Forest

Craighead, A., F.L. Craighead, E. Roberts. 2001. Bozeman Pass Wildlife Linkage and Highway Safety Study. Proceedings from the Proceedings of the International Conference on Ecology and Transportation, Keystone, CO, September 24-28, 2001. Raleigh, NC: Center for Transportation and the Environment, NC State University (March 2002). pp. 397-405.

Response to comment 5-7

Please see page 147 (general wildlife, indirect impacts) and page 150 (indirect impacts to grizzly bear) of the Final EIS. Traffic is projected to increase by about 3% annually regardless of whether the road is reconstructed or not. Increased recreation is not expected to adversely affect wildlife.

Response to comment 5-8

A copy of the Biological Assessment and Biological Opinion was sent.

Response to comment 5-9

As described in the Final EIS (pages 25 to 26), the roadway was designed to match current operating speeds and road curvature. The FHWA expects traffic to increase by about 3% with or without the reconstruction. Development of this growth factor is explained on page 17 of the Final EIS. Operating speeds may increase by about 8 km/h (5 mph) due to the increase perception of safety by the driver from the wider roadway and shoulders. Also see response to comment 5-4.

Response to comment 5-10

Wildlife crossing areas are described in more detail in the Biological Opinion. As noted on page 137 of the Final EIS and in the USFWS' Biological Opinion, no bear/vehicle collisions have been documented in the project area, or within the Bear Management Unit (see Figure 38 in the Final EIS). Roads that are considered to be barriers to wildlife movement have much higher traffic levels and traffic speeds than Segment 4. The USFWS has issued the FHWA an incidental take permit for the possible loss of one grizzly bear primarily associated with bear/vehicle collisions. Also see response to comment 5-4.

The Beartooth highway was completed in 1936. The highway has been established as part of the existing landscape for nearly 70 years, and grizzly bears are present in the area (between 1975 and 2000, 22 different radio-collared bears were monitored using habitats in Crandall/Sunlight subunit 1, and 42 radio-collared bears were monitored in Crandall/Sunlight subunit 2). It can be reasonably assumed that bears in the area have established home ranges that are adapted to the road. The USFS cumulative effects model (CEM) results indicated no major change to grizzly bear habitat values and effectiveness due to reconstruction (see Final EIS).

Response to comment 5-11

As noted in the Final EIS and Biological Opinion, mitigation measures to benefit the grizzly bear will also benefit the lynx, especially in the wildlife crossing assessment area. Wildlife crossing landscape plans will provide security cover for most species using the crossings.



Greater Yellowstone Coalition

13 South Willson, Suite 2 • P.O. Box 1874 • Bozeman, Montana 59771 • phone: (406) 586-1593
 fax: (406) 586-0851 • email: gyc@greateryellowstone.org • web: www.greateryellowstone.org



Mr. Richard J. Cushing (HFHD-16)
 Federal Highway Administration
 555 Zang Street, Room 259
 Lakewood, Colorado 80228

Re: Beartooth Highway FEIS Review

Dear Mr. Cushing:

6-1

These comments are submitted on behalf of the Greater Yellowstone Coalition. We have previously commented on the DEIS (7/23/02) and have attended field tours and public meetings regarding the project. We continue to support a reconstruction project that recognizes the unique attributes of the road corridor and the recreational expectations of the Beartooth Highway traveler. We do not believe that the preferred alternative (Blended Alternative, #6) and rationale of "state standards" for a "rural arterial" is appropriate for this remarkable scenic corridor.

Our comments will first address selected comments in Appendix A, and FHWA response:

- ENVIRONMENTAL PROTECTION AGENCY

6-2

We agree, in comment 4-1 with the EPA recommendation of reducing the width of the highway disturbance. Despite your response indicating Preferred Alternative modifications to reduce impacts, Figure 2. of the FEIS depicts the "Proposed Project Typical Section" of having a disturbed area 97.5' wide. The "Existing Roadway" is shown at 21' wide. Further examples of the disturbance width are shown in Figures 4, 19 - 24 and finally in Figure 30.

6-3

We agree, with comment 4-2, which states in part: *"Although this segment of the Beartooth Highway is narrow and has curves and grades not up to current highway standards, the road functions quite well as a scenic highway and park approach."* You state in response that the though accident rate is lower than surrounding segments, *"...the severity index is higher"*; yet I can't find a "severity index" in the EIS to substantiate your claims. One must ask, what is severe, and what constitutes the "index"?

6-4

In comment 4-3 the EPA states that *"...with this exceptional location, highway design should be altered to conform to the land and minimize damage to the ecosystems."* You state that the road is being reconstructed to guidelines adopted by the FHWA and WYDOT. These guidelines are those applied to a "Rural Arterial". The AASHTO Green Book defines the function of an Arterial to *"Provide the highest level of service at the greatest speed for the longest uninterrupted distance with some degree of access control."* The design exceptions you have made are insignificant in the context of this corridor, and the fact remains that this road does not require the level of function dictated by its purpose, level of service or the rare environment through which it passes.

Idaho Office: 162 North Woodruff Avenue, Idaho Falls, Idaho 83401 • phone: (208) 522-7927 • fax: (208) 522-1048
 Wyoming Office: 330 East Snow King, P.O. Box 4857, Jackson, Wyoming 83001 • phone: (307) 734-6004 • fax: (307) 734-6019

Response to comment 6-1

Thank you for your comments.

Response to comment 6-2

In the selected alternative (Alternative 6), the new paved roadway will be 9.6 m (32 ft.) from the project start to the Clay Butte Lookout turnoff, 9.0 m (30 ft.) from the Clay Butte Lookout turnoff to the road closure gate, and 8.4 m (28 ft.) from the road closure gate to the project end. Except for an asphalt taper, the remaining portion will be revegetated. Application of the techniques to avoid and minimize impacts during final design may reduce impacts further. Please note that the construction disturbance widths depicted are "worst case scenarios" and that FHWA is committed to reducing impacts both during final design and during construction. In regard to the existing roadway width, it is important to note that it has been 70 years since the road was originally constructed, and the entire construction disturbance is no longer visible in most locations. A valid comparison would review the original construction limits with the proposed construction limits, rather than comparing the current roadway width to the proposed construction limits.

Response to comment 6-3

The purpose and need for the project is discussed in Chapter 1 of the Draft EIS and the Final EIS. The purpose and need indicates that the road does not function well. Two large vehicles cannot pass each other without one stopping and/or pulling unsafely off the highway. During field reviews, many locations were noted where glass from mirrors hitting is along the roadside. Accident severity refers to the type of accident: property damage only, personal injury crashes, fatal crashes or a combination of the three. The Severity Index (SI) uses criteria established by the National Safety Council to weight crashes with regard to the four types. Crashes involving a fatality are considered more severe than personal injury crashes, which are considered more severe than property damage only crashes. The Severity Index is in the 1994 FHWA Needs Study.

Response to comment 6-4

The industry accepted definition of a minor rural arterial is provided in Appendix C, page C-3 of the Final EIS. This definition differs significantly from the definition for an arterial that you provide in your letter. Also see the Final EIS for considerations that are context sensitive.

Comment

Letter 6 continued

6-5 The EPA Detail Comments at 4-8, correctly identifies that: the proposed 28' and or 32' wide road alternatives may not be the "least environmentally damaging practicable". And, that "FHWA should evaluate additional alternatives which avoid impacts by further minimizing the footprint of the road and construction." FHWA responds: "Based on purpose and need discussed in Chapter 1, alternatives with roadway widths narrower than the Preferred Alternative is not practicable because they do not fulfill the project purpose and need." We believe that the reality of the current and future road function and design justifies reexamination of the purpose and need statement and the FHWA response. For instance, FHWA has rigidly determined that the highway must be designed to AASHTO Rural Arterial Standards, so that the ownership and maintenance can be assumed by the State of Wyoming, and has not considered a design that would be compatible with designated National Parkway purpose and need. While Yellowstone National Park has stated they would prefer that Wyoming assume responsibility for the highway, they also reiterate in their comments that: "The National Park Service has been very consistent and feel if we operated the road that we would want it to be a Parkway (or something similar) and that it be funded without hindering other existing NPS funding." The possibility of this eventuality was not considered in the purpose and need statement.

6-6 EPA Comment 4-14 states: "That the overall issue of maintenance and ownership of the Beartooth Highway will be determined primarily through political and financial decision, not road design. The main problem with maintenance is heavy snowfall, mountain terrain remoteness and lack of funding. A newly constructed road of any design will not solve these problems. Improvements which will make maintenance easier with little environmental impact should be incorporated into the design. However, design criteria which generate major disturbances/environmental impacts should be reevaluated." We disagree with the FHWA response, and wonder again since the road design was based on Wyoming standards, then why not an additional alternative (design) that would conform to NPS standards were this highway to be designation a National Parkway, as suggested by the NPS. Please note that the Wyoming Department of Transportation concurs with the federal ownership in a non-related press release issued 7/28/03 from District 5, which states in part: "...WYDOT does not have jurisdiction on US 212 (The Beartooth Highway.) Ownership of the of the highway right-of-way and maintenance responsibilities remain with the federal government..."

• YELLOWSTONE NATIONAL PARK

6-7 The National Park Service, represented by comments from Yellowstone National Park (Frank Walker, Asst. Superintendent) made this statement in comment 5-1: "It is Yellowstone National Park's preference that WYDOT obtain adequate funding and take of the maintenance and plowing of the road. If that were not possible, the NPS would consider the continued maintenance of the road, but only if adequate funding were available. The National Park Service has been very consistent and feel if we operated the road that we would want it to be a Parkway (or something similar) and that it be funded without hindering other existing NPS funding." Response: "Resolution of the road's ownership is beyond the scope of this EIS." We believe resolution of the road's ownership is easily determined under 16 U.S.C. § 8(a), and are puzzled why the FHWA has not taken the opportunity of this comprehensive environmental review process, to settle this question. Ownership transfer to WYDOT is only possible upon reconstruction to state standards. (Appendix B, excerpt of 10/14/98 WY Transportation Commission Minutes,), therefor FHWA must give equal consideration to alternatives that

Response

Response to comment 6-5

The FHWA, in cooperation with the land management agency (SNF) and current maintaining agency (NPS) selected a functional roadway classification based on current uses of the roadway as defined in the three needs for the project (also developed with the two agencies mentioned above). Please refer to the detailed discussion of the purpose and need in Chapter 1 of the Final EIS, pages 3-14. Needs associated with maintenance are required regardless of who is the eventual maintaining agency. As discussed in the Final EIS, the road design standards used by YNP are similar to those used for the selected alternative. As a result, the selected alternative could be considered a Parkway. Minimum park road standards are for a 28-foot road, and the YNP standard is 30 feet. (Also see response to comment 6-6)

Response to comment 6-6

As stated in Chapter 1 of the Final EIS, FHWA regulations (23 CFR 625) require that federally-funded roads not on the National Highway System be designed, constructed, and maintained to the standards of the state in which they are located. It is outside of the jurisdiction of FHWA to suspend this regulation. However, if this highway were located in YNP, FHWA would design the reconstruction project based on YNP standards, which are a 30-ft wide roadway (11-ft lanes and 4-ft shoulders). As discussed in the Final EIS, the selected alternative is less than YNP standards in the portion of roadway east of the road closure gate.

Response to comment 6-7

The FHWA is required to follow 23 CFR 625.3, which requires state standards be used in the design of the proposed project. WYDOT probably would not consider ownership and maintenance of a road not reconstructed to state standards. FHWA understands NPS's preference about road maintenance. Resolution of the road's ownership and maintenance is not needed to make an informed decision about reconstruction of Segment 4. (Also see response to comment 6-6.)

Comment

Letter 6 continued

conform to National Park Transportation standards and guidelines. Further, Wyoming has neither the funding nor economic justification to assume maintenance for this isolated highway. Additionally we believe that the reconstruction of the Beartooth Highway is not a "federal-aid" project, and thus is not bound by 23 C.F.R. § 265.3.

• GREATER YELLOWSTONE COALITION

6-8

The Greater Yellowstone Coalition appreciates your review of our comments; specifically the clarifying information in response to comments 12-9, 12-10, 12-23, 12-35, 12-55, 12-69 and the fiscal portion of 12-34. A number of the remaining FHWA responses do not substantively address the requested information. Most FHWA responses reiterate what has already been published in the DEIS, or suggest mitigation that is clearly insubstantial. We will not repeat our comments from the DEIS, but will expand selected comments and submit new substantive comments based on new information presented in the EIS or obtained from other sources.

• INDIVIDUAL COMMENTS

6-9

According to the Beartooth Highway Newsletter (September 2003), the FHWA received comments from 338 individuals from 47 states plus Canada and the UK. These combined substantive comments totaled of 110 separate topics. (Substantive as defined by FHWA in Appendix A) The vast majority of these comments expressed concerns over such issues as excessive width, revegetation, operating speeds, roadway character, and alignments. An additional 40 individuals more recently expressed concerns about the project. FHWA most substantive FEIS design modification (i.e. reduction of paved surface by 2' along one stretch) did little to change the outcome of the FEIS from the original proposal and alternative preference. For example the EIS continues to show elements which are cause for these concerns:

- Construction disturbance width is shown for a typical road cross section as 97' in contrast to the 21' - 29' existing widths shown as comparison;
- Revegetation success claims which are unsubstantiated;
- Operating speeds will increase beyond the calculations of FHWA (ask anyone who frequently drives this road, or Wyoming 296 which is built to State Standards);
- And FHWA preferred alignments are unchanged.

G.Y.C. COMMENTS ON FINAL ENVIRONMENTAL IMPACT STATEMENT

6-10

1.1 Pg. 1 Proposed Project: *"(23 CFR 625) regulations require that federally funded roads not on the National Highway System, such as the Beartooth Highway (US 212) be designed, constructed and maintained to the standards of the state in which they are located."* We disagree that such design, construction and maintenance standards are applicable to the Beartooth Highway. See 23 U.S.C. §§ 101, 103.

6-11

1.1 Pg. 3 Purpose: We disagree with the wording (efficient transportation link) in the 2nd purpose. This verbiage seems to be driving design and standards that require designation of the Beartooth Highway as a rural arterial. We note that a letter to Mr. Larry Smith, CFLHD District Engineer from Suzanne Lewis, Yellowstone National Park Superintendent on

3

Response

Response to comment 6-8

The FHWA feels that the Final EIS and its accompanying volume of appendices is very comprehensive and complete. All cooperating agencies have reviewed and provided comments on the Final EIS, and all agencies have indicated they consider it to be inclusive.

Response to comment 6-9

The FHWA, the SNF, NPS, and USFWS have worked collaboratively to develop a selected alternative acceptable to all agencies. Regarding speed increases, the selected alternative (Alternative 6) was designed to match the existing design speeds as much as possible by staying on the existing alignment and adding curves at the Top of the World Store. Operating speeds may increase due to the increased perception of safety by the driver from the wider roadway and shoulders. The realignment at the Top of the World Store will likely slow traffic below existing operating speeds due to its curvilinear nature. See responses to comments 6-2, 6-19, and 6-22. It is untrue that the FHWA selected alignment options are unchanged. At the Little Bear Lake Fen, the new selected alignment is the bridge option instead of the retaining wall option, which will allow for approximately 0.2 ha (0.4 ac.) of wetland restoration. In addition, modifications and adjustments to the design between the Final EIS and 404 permit application resulted in a reduction in jurisdictional wetland impacts from 5.0 acres (2.0 ha) to 4.8 acres (1.9 ha), and further reductions in impacts are expected as design progresses following issuance of the ROD.

Response to comment 6-10

See response to comment 6-6. 23 USC 101 and 103 is the enabling legislation for the park approach road. These laws establish the Department of the Interior as responsible for maintenance of the Beartooth Highway. The Beartooth Highway is not on the National Highway System; consequently 23 CFR 625.2 is applicable.

Response to comment 6-11

The FHWA and NPS worked together to revise the purpose and need in response to the NPS' request. The NPS agreed that the first purpose and need statement, maintaining the Scenic Byway/All American Road qualities, adequately addressed their concerns. The NPS also requested that the concept of sustainability be added to the third purpose and need statement.

Comment

Letter 6 continued

Response

February 14, 2003 states: *"(The) National Park Service makes the following suggestions for the purpose and need section of the document to further clarify the character and historical significance of the road. We feel that a primary purpose and need statement should include the following: Preserve the engineering character, cultural values of the Beartooth Highway as a high elevation, unique transportation resource and visitor experience." (ed. emphasis)*
 We note that FHWA did not honor that request.

6-12

1.1 Pg. 4 Needs Associated with Land Management Goals. We acknowledge that the reduction of the 4' shoulder to a 3' shoulder design is progress toward a narrowed roadway. However, this reduction in pavement by 2' does not address the excessive width (97') mostly created by elements of the developed construction zone. How much will this width be reduced to address the concerns of "excessive width"?

6-13

Pg. 5 There is no evidence that it is legal to operate a snowmobile on a roadway that is open to motor vehicle travel. Encouraging this illegal activity is no justification for providing wider shoulders and road construction. Please show how snowmobiles are authorized to mix with full sized vehicles. Also show where in the Shoshone National Forest Plan that management goals for recreation in a rural roaded setting provide for the mixed use of "snowcraft with full sized vehicles".

6-14

Pg. 6 Needs associated with Accommodating Projected Traffic. We believe that existing deficiencies can be remedied by alternatives other than Alternative 6, thus not affecting the Red Lodge and Carbon County economy. **Pg. 11 Needs Associated with Maintenance.** The Beartooth Highway Steering Group in The Executive Summary submitted to Representative Rick Hill (Montana) on February 5, 1999 concludes in part (while addressing long term maintenance) that *"They (FHWA) therefor must obtain an agreement with another entity for maintenance of a highway as a condition of proceeding with construction"* The State of Wyoming stated in the same summary: *"When the entire section within Wyoming is reconstructed to current standards, Wyoming will consider assuming ownership of US 212 in Northwestern Wyoming. Because of the time from required to accomplish the reconstruction, Wyoming will not make a definite commitment that encumbers future transportation commissions and could possible encumber a different governor."* The Forest Service has been handed the leadership role in the short term using the \$12 million from the Crown Butte Settlement and states: *"This role is temporary until the funding is gone. Until the States agree to make it (Segments 1 & 4) a part of the Montana/Wyoming public road systems the long term responsibility remains with the National Park Service."*

6-14
(combined
w/ above)

Pg. 14 Federal Ownership: *"If Wyoming and Montana do not agree to assume responsibility for the highway, federal ownership, responsibility and funding need to be clarified.* In the DEIS and also in the recent (August 8) FWHA Alternatives Analysis submitted to the U.S. Army Corps of engineers as a supplement for the 404 Permit Application, under this title: "Federal Ownership", a similar, statement is made: *"If Wyoming and Montana do not agree to assume responsibility for the highway, then legislation should be considered (emphasis added) to determine federal ownership, responsibility and funding."* We concur, and have asked that a Congressional Research Service Study be initiated to help determine the course to take in resolving this question. We ask that the FHWA not issue a Record of Decision at this time pending resolution of this question.

6-15

1.2 Existing and Future Road Use and Condition.
Pg. 17 Traffic Volumes, Speeds and Accidents: Table 1 indicates a Seasonal Average Daily Traffic Volume of 1,972, up from the 98-2000 SADT of 942. The methodology for determining this figure is shown to include traffic volume at the Northeast Entrance of Yellowstone National Park, which allegedly increased by 3.8% annually from 1985 and

Response to comment 6-12

The FHWA will continue to incorporate many techniques to avoid and minimize impacts during final design (section 2.5 of the Final EIS). Also see response to comment 6-2.

Response to comment 6-13

Page 5 of Final EIS refers to snowmobile activities that take place *adjacent* to the road, not on the road.

Response to comment 6-14

The NPS currently is the maintaining agency for the road. When the entire section within Wyoming is reconstructed to current standards, Wyoming will consider assuming ownership of U.S. 212 in northwestern Wyoming. The Beartooth Highway Steering Committee is aware of Wyoming's position. The FHWA plans to proceed with the ROD as scheduled.

Response to comment 6-15

For segment 4, CFLHD used a different method to arrive at the estimated 3% growth rate than WFLHD did for Segment 1. Visitation to YNP was only one of the variables used to estimate future traffic volumes. As noted in the Final EIS and in prior responses to comments presented in the Final EIS, future growth rates of 2 to 4% will require the same design standards as those selected for the project.

In addition, the FHWA agrees that construction on Segments 1 and 4 of the Beartooth Highway and YNP east entrance construction may lead to temporary avoidance of this route. However, highways are designed for 20-year predicted traffic levels, and it is unlikely that short-term road construction activities will affect the SADT in 2025. It is important to note that the traffic counts in 1998 take into account the impacts of the North Fork Road construction, which began in 1995-1996 and was completed in 2001.

2001. The following quote is from the Executive Summary: Reevaluation of the Beartooth Environmental Assessment; June 6, 2002 - Western Federal Lands Highway Division: "The amended EA utilized traffic information from the early to mid 1990. A 1994 traffic count of 490 was inflated at 3.4% annually to 1999 (579 ADT) and then inflated at 3.4% to 2019 (1130 ADT). The resultant ADT utilizing this method was then doubled to established a Seasonal ADT (SADT) of 2260. The SADT was used for roadway design purposes because the Beartooth Highway is open from May to November and the SADT is more representative of the traffic load during that period. A portion of Segment 1 [(from YNP Boundary through Cooke City (MP 0.0 - M.P. 4.0)] is open year around, but traffic volumes are much lower through the winter months. A review of subsequent traffic count data from the MDT and YNP in or near Segment 1 for the past seven years indicates a lower ADT and SADT than originally projected. This trend indicates that traffic growth has slowed in this part of the Beartooth Highway. The lower growth rate has resulted in a substantially lower SADT volume projected into the design year 2020. An SADT of 1180 has now been determined to be the design SADT on Segment 1". It appears that the figure of 1,972 SADT for Segment 4 may be an over-estimation based upon this new information. It is interesting to note that the traffic growth decline for this segment of the Beartooth Highway coincided in part with the construction period of the North Fork Road (US 12/14/20 East Entrance). The East Entrance construction project within YNP begins in 2004 and continues for several years. Delays in will be substantial. Note that Beartooth Highway Segment 1 will be under construction during the same period, and extending into at least 06. The segment 4 construction schedule will be from 2005 through 2011, possibly longer. Travelers may elect to use other YNP entrances and avoid the East and NE Entrances altogether. The cumulative effect of the East Entrance Road reconstruction should be examined. Additionally the methodology used to determine SADT should be modified, to account for avoidance of Segment 4 during the long upcoming construction period. The evidence is clear that a linear 3% growth rate between 2000 and 2025 is wrong. Please revise the SADT figures and recalculate accident rates.

6-16

2.1 Major Issues. Pg. 23: In general, the major issues are well presented. However the "Changes in Maintenance Costs and Responsibility of Segment 4" states "...that unless the road the road is reconstructed to a condition that can be reasonably maintained in a sustainable manner, the present uncertainty about jurisdiction and maintenance will continue for all segments that are within the state of Wyoming." This is an inaccurate assessment of the situation. The issue of jurisdiction is clear: the highway is maintained by the National Park Service under the Approach Road Act previously cited. Wyoming is not fiscally able, or politically willing to assume the costs of maintenance that would require annual expenditure and facility capitalization and additional equipment and personnel. Yellowstone National Park would like to shift their maintenance responsibility because of funding issues. YNP would continue to maintain the road if it were designated as "...a Parkway (or something) similar and that it be funded without hindering other existing NPS funding." (Comment Letter 5 - FEIS Appendix A)

6-17

Pg. 26: Design Criteria Options: We understand the logic in determining design criteria. However we strongly disagree with their application to this project and your conclusion that the Beartooth Highway should be functionally classified as a rural minor arterial, the FHWA in the publication "Flexibility in Highway Design" suggests options to resolve design issues, one of which is: "Consider developing alternative standards for each state, especially for scenic roads". While there are some design exemptions, this project is obviously designed to conform to Wyoming State standards, even though those standards do not account for scenic roads, nor is there any assurance that Wyoming will accept the road into its highway system.

Response to comment 6-16

See response to comment 6-14.

Response to comment 6-17

See response to comments 6-4 and 6-5. In addition, FHWA will continue to incorporate many techniques to avoid and minimize impacts during final design.

The example provided for the State of Washington has been taken out of context when applied to the Beartooth Highway. The Washington example for 3R is based on a response to changing land use, i.e. farmland to suburban residential subdivisions. In addition, the reasons the Beartooth Highway is not a suitable candidate for 3R are discussed in detail in the Final EIS.

Thus, the design criteria selected for this project is not "*The least environmentally damaging practicable*". There are other options. In the same publication, an example is given from the State of Washington that shows the relationship between Functional Class and Design Criteria (Table 3.4). In Washington, a minor arterial can accommodate a 3R design criteria as opposed to New Construction or Reconstruction Standards planned for the Beartooth Highway. There is reason to believe that a 3R treatment in some locations of segment 4, could be implemented as suggested by the EPA in their comments.

6-18

- 2.7 Reasonable Foreseeable Activities. Pg. 99:** This section examines actions and activities independent of the reconstruction project that could result in cumulative effects. FHWA has identified in the Purpose and Needs section that maintenance activities will continue on the Beartooth Highway. It is reasonable and foreseeable that either Wyoming or the National Park Service will continue to perform these duties. FHWA has chosen not to address the agency determination in the EIS, and fails to recognize that it is reasonable and foreseeable that this road will continue to be maintained for the public by one or the other agency. Should the National Park Service continue as the maintaining agency (which is not only "reasonable and foreseeable" but highly likely) the FHWA would not feel obligated to reconstruct the highway to Wyoming State Standards. Should Beartooth Highway maintenance responsibilities fall to the National Park Service they would fulfill the responsibility with funding exclusive of Yellowstone National Park in a legislatively designated park unit, such as a National Parkway. Thus, the EIS should reevaluate the Purpose and Need Statement to identify these two agencies as potential maintenance providers. Then the Purpose and Need Statement will be properly formulated and the potential for inclusion of a "least environmentally damaging" alternative will be realized. The FHWA should also include the following statement from YNP Superintendent Lewis as previously cited. *"(The National Park Service makes the following suggestions for the purpose and need section of the document to further clarify the character and historical significance of the road. We feel that a primary purpose and need statement should include the following: Preserve the engineering character, cultural values of the Beartooth Highway as a high elevation, unique transportation resource and visitor experience."* The formulated alternative(s) would also satisfy this Purpose that has been omitted from the current EIS despite the request from Yellowstone National Park (a "cooperating agency") for inclusion.

6-19

- 3.1 Pg. 102 Short-term and Long-term Effects.** We disagree that revegetation (lack of?) can be characterized as a "Short-term Effect." We also disagree with the statement on Pg. 165 which says *"Plant cover in revegetated area would be similar to adjacent undisturbed areas after about 5 years, but development of comparable vegetation density and species composition would take 10 or more years"*. The ERO revegetation plots were established in September, 1999. On October 3, 2003 I visited the plot described by ERO in their report of late 2001. I found that plant cover was comparable to the adjacent area, but was dominated by Achillea Sp. (Yarrow) which is a weedy opportunistic (possibly native) plant with a showy white flower cluster that is not on the plant or seed list. Plots at the Gardner Headwall and West Summit show some survival (less at the Gardner Headwall), but not comparable cover. There is one more year to go before monitoring to determine the short term effect of the revegetation of these experimental disturbed areas. These intensely developed study plots amount to less than an acre of disturbance. The preferred alternative will disturb 66 acres of alpine meadow with countless micro-habitats. The EIS is unable to document any probability of satisfactory revegetation of the disturbed alpine meadow ecosystem.

6-20

- 3.3 Wetlands and Other Waters of the U.S.; Pg. 114 Mitigation Strategy.** Our comments submitted in review of the DEIS continue to serve as our primary concerns regarding

6

Response to comment 6-18

See response to 6-6. The proposed reconstruction meets the NPS standards throughout the length of the project. Considering a difference in maintaining agencies in the cumulative impacts section is not necessary, because the standards are essentially the same.

Response to comment 6-19

The Montana revegetation plots were established in 1999, with one of the purposes being to test very high seeding rates. The Gardner Headwall plots were established in 2000, and the various West Summit plots were established in 2000 and 2001. Both Gardner Headwall and West Summit plots were established to study "worst case" conditions, including low seeding rates and lack of soil amendments and topsoil. Plant cover and species composition at the various test plots vary not only by date of establishment and by local conditions, but also by the study variables (seeding rate, soil amendments, mulch, and topsoil). The West Summit and Gardner Headwall test plots are located in areas with harsh environmental conditions. These plots were chosen to represent difficult conditions for revegetation. The FHWA has conducted revegetation test plots to test variables involved in revegetation. The intent of many of these plots was to test the worst conditions and to explore the practicality and cost of revegetation methods, not necessarily to prove that revegetation is possible. The Final EIS also stated, "In more exposed locations, especially those in which snow covers the soil well into the growing season such as the Bar Drift or the west summit, revegetation may be a slow process. Initial revegetation efforts may not succeed in these or other locations, and revegetation monitoring in the period following reconstruction may conclude that additional revegetation efforts would be necessary."

The yarrow that occurs on the Beartooth Plateau is thought to be native. Yarrow is a pioneer species common to the Beartooth Plateau and is a natural part of succession. This plant occurs near the Montana revegetation plots, and therefore provides a natural seed source.

Response to comment 6-20

No alpine wetland restoration/mitigation is proposed due to the fragile alpine environment. The location of the off-site wetland mitigation, if necessary, will be presented in the Final Wetland Mitigation Plan, which will be developed as part of final design. Most wetland mitigation will occur near the Top of the World Store in the Little Bear Creek valley where climate and moisture conditions are favorable. Success factors have been applied to the wetland mitigation sites (see Final EIS page 114; see Table 10 for the application of success factors). The FHWA, as well as the Corps, disagree with the assertion that restoration of wetlands cannot be used for mitigation. Also see response to comment 1-9.

Comment

Letter 6 continued

wetlands, especially the absence of demonstrable alpine and subalpine wetland restoration success. We are pleased that off site mitigation includes a stream/wetlands that flow into YNP. The location of that area should be included in the ROD. We hope other mitigation sites are considered in the Greater Yellowstone Area. We dispute the contention that wetlands once disturbed by the road can be restored to their natural integrity if the road is realigned away from those locations. Counting these once disturbed wetlands and mitigation against newly disturbed wetlands based on this assumption is not acceptable. Additional wetland mitigation must be displayed. We support the mitigation strategy of avoidance. We are please that FHWA acknowledges that "...*minimizing impacts on fens and alpine wetlands was a priority because these wetland are extremely sensitive and mitigation opportunities are limited.*" We are concerned that overarching design imperatives will negate this avoidance priority; state standards trump wetland impacts.

6-21

3.4 Cultural Resources and Traditional Cultural Properties. We are pleased that the entire Beartooth Highway will be nominated to the National Register of Historic Places. One highway-related resource that was not surveyed, and should have been, is the historic NPS Maintenance Facility located below the Pilot Ck. Overlook. The complex includes an NPS vernacular log office with porch and other structures reflecting the functionality of the facility including a bunkhouse, (and probably kitchen/dinning hall) garage bays and supervisory family quarters. This "highway camp" is an increasingly rare example of the isolated equipment and personnel bases that were so vital in keeping the nation's early highway network open and maintained.

6-22

Reconstruction faithful to the original alignment is the most important mitigation for the damage done by segment 4 widening, so as to preserve the remarkable concept, survey and engineering skills of the original design and construction team. Realignment at the Bar Drift, Lower West Summit switchbacks and Frozen Lake curve will alter these historic achievements. Realignment at the Top of the World meadows will eliminated the closing panorama west bound motorists see of the Beartooth Butte edging framed above the meadows, between the uplands and the old growth forest. Instead, the west bound motorists will be faced with the glaring contrast of the Top of the World campground and parking area as they round the modern bend of the road to the east-of the complex.

6-23

Likewise, the widening of the Beartooth Ravine will replace a shelf road on grade with a high-speed bridge structure over a dry talus slope. This is an expensive and unnecessary exercise of the modern engineers craft. Motorists can see example of modern bridges all over the US; we don't need to build one here to accomplish this project, or show mountain bridge building skills.

6-24

Using the original stone masonry of the bridges and culverts for the new structures as is appropriate. These stone construction techniques should be interpreted at a pullout. There is one of the glacial erratic boulders about 250' south of Little Bear Creek Bridge, that was a source of granitic stone. One, or more pieces of stone were quarried out of this boulder, probably by broaching and wedging, or maybe freezing water given the altitude and climate of this area. This boulder could be moved to an interpretive site for display to show the process and use.

6-25

Documentation as a mitigation for loss of historic structures with significant cultural history may also include oral histories from persons who were involved in the construction, and documentary films of the achievements using old footage and photographs along with

Response

Response to comment 6-21

The Memorandum of Agreement among the FHWA, the USFS, the NPS, and the Wyoming SHPO concerning cultural resources is presented in Appendix C of this Record of Decision. In the agreement, the FHWA agreed to assist in the nomination of the road corridor to the National Register of Historic Places. The FHWA has completed a cultural resource inventory of the NPS maintenance facility. It will be included in the nomination form as a contributing element of the road corridor. The NPS maintenance facility will not be affected by reconstruction of Segment 4.

Response to comment 6-22

The selected alternative (Alternative 6) closely follows the existing alignment at Bar Drift, Frozen Lakes, and the switchbacks. Very minor alignment shifts will occur to accommodate the wider road width and to ensure consistent curvature. The realignment at Top of the World Store will make this section more curvilinear, have slower operating speeds than the existing alignment, and provide a more scenic driving experience. At the request of the NPS, the FHWA has also added a small parking area east of the Top of the World Store to provide an interpretive site for the Beartooth Butte.

Response to comment 6-23

The primary reason for a bridge at Beartooth Ravine is to improve safety. Additionally, the bridge will provide for animal movement. The ravine is the location along Segment 4 with the highest number of accidents. This issue is discussed on page 60 of the Final EIS.

Response to comment 6-24

Stones likely used in original bridge construction have been noted by FHWA during field reviews. These remnants will be used in bridge interpretation at the Beartooth Lake Outlet bridge.

Response to comment 6-25

The Memorandum of Agreement among the FHWA, the USFS, the NPS, and the Wyoming SHPO concerning cultural resources is presented in Appendix C of this Record of Decision. In the agreement, the FHWA agreed to conduct research that documents the ethnohistory (including obtaining oral histories, if available) of the Beartooth Highway and all four bridges on Segment 4.

narrative and interviews. This form of documentation, funded by FHWA, should be considered for the Beartooth Highway. I believe there are persons in Red Lodge who could guide such documentation:

6-26

3.5 Wildlife. Wildlife is affected by road through direct mortality and fragmentation of habitat by the barrier (lack of cover and human/vehicle presence) effect. The current road is narrow for vehicles, and importantly in the forested section has mature vegetation to the road edge. This vegetation gives opportunity for wildlife to quickly break cover, cross and be hidden again. The widening of the disturbance area (97' for the average road cross section, see Figure 2) eliminates this favorable crossing feature. Furthermore, the revegetation of the disturbed area by grass while restricting tree growth in the future will serve to tempt wildlife out of cover and act as a food attractant, especially to the ungulates. Direct mortality to wildlife (and property damage to vehicles and possible injury to occupants) will increase with the higher operating speeds. The preferred alternative will increase wildlife impacts by a broader disturbed area and higher speeds. A more modest construction zone and a lower speed road design will mitigate the affects to wildlife from increased traffic. Though the mitigation list includes limits of the construction zone, there is no indication that this will take precedence over the state standards, and for the few design exceptions cited none have a wildlife justification.

6-26
(combined
with above)

Direct habitat destruction, especially of old growth forest and white bark pine trees will adversely impact wildlife, though with out any occupancy data on wildlife in the EIS, this will be hard to quantify. Habitat destruction to wetlands will also impact small mammals, birds and other creatures. Revegetation of wetlands and other type vegetation is problematic, and restoration to a degree suitable to wildlife use will be hard to quantify. Avoiding habitat destruction is the only sure way of mitigating wildlife impacts of a reconstructed highway.

6-27

3.6 Vegetation, Timber and Old Growth Forest. Landscaping and Revegetation Plan.

We disagree with FWHA which (pg. 167) "...anticipates most areas would become finally stabilized within 5 years after completing revegetation." We do agree with FWHA when you say: "In more exposed locations, ...revegetation may be a slow process." The 'exposed locations' are defined as those in which snow covers the soil well into the growing season such as Bar Drift or the west summit. A few published excerpts (not from the FHWA) are appropriate to this discussion: "Limitations on distribution of alpine ecosystems include short growing seasons, cold temperatures during the growing season, great diurnal variation in temperatures and often high winds" Continuing: "The alpine belts have a harsh environment where ecosystems are delicately balanced, slow growing, highly susceptible to damage and where recovery from disturbance varies from slow to impossible." ...And a discussion about soils: "Soils are almost always thin, cold and old; soil formation processes are slow to very slow. Coarse fragment content is high to very high and often dominant; the nature of the fine textured portion of the soil is often unimportant relative to the nature of the coarse fragment portion." Continuing: "Alpine soils have low fertility, largely because of low soil and air temperatures and the effective drought situation (little water available in liquid form to plants, even though most alpine soils have high proportions of organic matter." ...And revegetation: "Getting seeds to establish in the alpine is difficult..." "Brown and Johnston(1979) have a summary of plant material available for alpine revegetation, but the site preparation methods they show and discuss as being required (the use of heavy equipment, especially) violate their own principles against disturbance of alpine soils. Revegetation without such unacceptable disturbances is often very difficult. ...And

Response to comment 6-26

As discussed in the Final EIS on page 131, the FHWA, SNF and USFWS identified wildlife crossings and the FHWA developed site-specific revegetation plans for these areas. The USFWS has suggested stacking downed trees outside the clear zone to provide cover while planted and seeded revegetation plant material establishes and matures. Non-palatable revegetation species will be used in all seed mixtures and plantings. Page 131 in the Final EIS also discusses operating speeds and animal/vehicle collisions. Many of the techniques to avoid and minimize impacts (pp 64-67; Figures 19-25 of the Final EIS) will benefit wildlife directly. The FHWA recognizes the importance of avoidance, particularly with wetland and riparian habitat, and the selected alternative will avoid and minimize impacts to the greatest extent possible.

Additionally, safety is compromised when mature vegetation is allowed to grow to the road edge, both in terms of tree fall and accident avoidance when a vehicle crosses into the oncoming lane of traffic. In wildlife crossing locations, vegetation is planned close to the road and outside of the clear zone. The disturbance area is much less than 97 feet in most areas. Most animal movement occurs between dusk and dawn, when traffic is usually less than 10 vehicles/hour and often zero.

Response to comment 6-27

See response to comment 6-19. Using the NPS standard of 9.0 m (30 ft.) throughout the corridor will increase rather than decrease impacts.

Comment

Letter 6 continued

Response

finally: "The time needed for rehabilitation is at least very long. In many alpine areas, especially wet areas, dry areas and steep slopes, revegetation following soil baring disturbances may not be possible in any time frame short of geologic time." These informative observations and admonishments are from "USDA Forest Service Technical Report R-2-RR-2001-01"; Berry Johnson, GMUG NF and Laurie Huckaby, RMES. "Ecological Types of the Upper Gunnison Basin".

Christian Körner in his publication: "Alpine Plant Life - Functional Plan Ecology of High Alpine Ecosystems" (1999), states (pg. 293), in reference to alpine land use construction such as transportation routes: "Unfortunately, the insight that sustainable re-vegetation of machine graded terrain above the climatic treeline is almost impossible, is rather recent. ...Rather sophisticated (and expensive) revegetation procedures may help in places, but will not reestablish the stability of naturally evolved, deeply rooted soil and require sustained care."

6-27
(see
previous
page)

From this discussion it is clear that the entirety of the alpine meadow vegetation community is by definition, in an exposed location. Shallow soils containing coarse fragments can not be effectively stockpiled, to be replaced once foreslope, clear zone and construction zone areas are graded to specification. One only has to look at existing road cuts along the highway to observe the cross section of the thin soil mantle mostly made up of organic material and coarse fragments. Alpine soils have low fertility and depend upon microorganisms for much of their survival. Removal of vegetation and soil cover will destroy those organisms or render their functions unavailable for the species introduced (native or not) as revegetation.

Disturbance to of this magnitude to the rare alpine ecosystem is unacceptable. The assumption that the highway must be developed to conform to Wyoming standards, ignores the probability that perpetual operation and maintenance will continue under the jurisdiction of the National Park Service. A National Parkway designation and development of a sensitive reconstruction alternative that respects this sensitive environment, must be examined prior to the commitment of this damaging preferred alternative.

3.7 Land use: The 1986 Forest Plan is well behind schedule for revision. R-2 Forest Plan Revisions have substantially changed plan documentation delineation from prescription-based to category-based. Thus "Rural and Roaded Recreational Opportunities", may be defined and applied differently under SNF revision. While the BTH project is reasoned (under purpose and need to reconstruct Segment 4) "...to support management of National Forest Lands adjacent to the road...", the management direction of those adjacent lands will be defined differently in the revised planning document. For example, R-2 Management Area Category 4.23 is applied to scenic byways, scenic areas, vistas or travel corridors. Such a category did not exist at the time of the 1986 SNF Forest Plan and will now be applied to the Beartooth Highway. The 1986 Forest Plan does not even recognize the EO 5949 withdrawal corridor. Forest wide standards and guidelines may change in the interim and revised planning rules could alter forest management implementation. The SNF should carefully consider the guidance given by TR R-2 RR-2001-01 (previously cited) which applies to all Region 2 National Forests including the SNF. The 1992 Rocky Mountain Regional Goals include protection of "basic soil, air, water and land resources (and) provide for a variety of life through management of biologically diverse systems". The system-wide Forest Service 1997 Strategic Plan lists as one of the three main goals "ensuring sustainable ecosystems". The FHWA has let the State Standard alternatives rule this EIS and

6-28

Response to comment 6-28

Many of these comments are better directed to the SNF as it revises its Forest Plan. In developing the project, the FHWA used the most current, approved Forest Plan, as well as the guidance of SNF staff. The FHWA has neither the knowledge nor the authority to predict and apply the contents of future SNF planning documents.

As stated in the Final EIS, the FHWA is required by regulation to reconstruct the road according to guidelines adopted by the FHWA and the WYDOT (23 CFR 625.3).

Comment

Letter 6 continued

Response

has neglected to look at other alternatives that would satisfy these goals that the Forest Service has developed after the 1986 SNF Plan.

6-29

Summary and Conclusion: The Greater Yellowstone Coalition believes that the Federal Highway Administration has displayed and selected reconstruction alternatives under the assumption that the Wyoming Department of Transportation will provide operation and maintenance services for the Beartooth Highway. This assumption is made even though the State of Wyoming has not committed to this responsibility. The National Park Service, Yellowstone National Park, has stated their continuing maintenance obligation would be contingent upon assurance of separate funding allocation. FHWA has elected to ignore the probability that such funding could be obtained, especially under designation of a separate unit of the National Park System. This unit would logically be a National Parkway, incorporating the existing 500' wide corridor, which was withdrawn for approach road purposes at the time of construction, except where narrowed by private property. By basing the alternative display on the single notion of State Highway Standards are a necessary constraint to design parameters, the FHWA has ignored less environmentally damaging alternatives which would be acceptable by the National Park Service and their transportation standards and guidelines.

Therefore, the Greater Yellowstone Coalition asks the Federal Highway Administration to take these following actions:

6-30

- Delay issuing a Record of Decision.

6-31

- Revise purpose and need to include the Park Service statement requested by YNP on 2/14/03 and eliminate the "efficient transportation link" statement.

6-32

- Analyze one or more alternatives that recognize continued National Park Service jurisdiction. The EPA in comment 4-8 of their 7/29 has listed such alternatives.

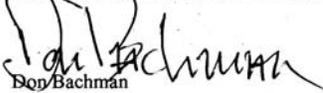
6-33

- Prepare and release a supplemental EIS.

6-34

- Settle the matter of operation and maintenance prior to selection of a preferred alternative.

Thank you for consideration and response to these comments,



Don Bachman
Greater Yellowstone Coalition

cc: USFS, NPS, COE

Response to comment 6-29

The FHWA has not assumed that the State of Wyoming will assume jurisdiction of the road. The road is being reconstructed so it can be reasonably maintained in a sustainable manner by *any* maintaining agency. The NPS currently is the maintaining agency for the road. When the entire section within Wyoming is reconstructed to current standards, Wyoming will consider assuming ownership of U.S. 212 in northwestern Wyoming.

Response to comment 6-30

The Record of Decision was delayed beyond the 30-day minimum requirement to allow for additional consultation and coordination with the SEE Team members, the EPA and the Wyoming SHPO.

Response to comment 6-31

See response to comment 6-11.

Response to comment 6-32

All build alternatives analyzed in the Final EIS and the selected alternative (Alternative 6) recognize that the NPS is the maintaining agency. The selected alternative (Alternative 6) will provide a roadway that can be maintained in a sustainable manner by a maintaining agency, and is supported by all cooperating agencies.

Response to comment 6-33

A supplemental EIS will not be issued. The FHWA has not made substantial changes to the proposed action that are relevant to environmental concerns. The FHWA is not aware of any significant new circumstances or information relevant to environmental concerns and bearing on the proposed action.

Response to comment 6-34

See response to comments 6-14 and 6-29. The NPS currently is the maintaining agency for the road. When the entire section within Wyoming is reconstructed to current standards, Wyoming will consider assuming ownership of U.S. 212 in northwestern Wyoming.