CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	BLM/Nez Perce Gulch Alternative Practice
Proposed Implementation Date:	Summer 2010
Proponent:	Bureau of Land Management (BLM)
Location:	Section 9-T1S-R10W
County:	Beaverhead
Land Owner:	BLM
HRA#:	N/A

I. TYPE AND PURPOSE OF ACTION

The BLM, Butte Field Office, is requesting a SMZ Alternative Practice to Rule 6: (36.11.306), *Road Construction in the SMZ*. Proponent proposes to reconstruct approximately 1950 feet of existing road within the Nez Perce Gulch SMZ in Section 9-T1S-R10W. Road reconstruction would involve minimal excavation necessary to shape, level and widen the existing road prism.

The purpose of the action would be to facilitate various vegetative treatments and the safe operation of vehicles, log trucks and equipment, the restoration of wildlife habitat, and improve forest health and vigor.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

Provide a brief chronology of the scoping and ongoing involvement for this project.

A field review was conducted on January 29, 2010 by BLM forester M. Zimmerman, et al and DNRC forester C. Barone.

Other contacts:

Montana Natural Heritage Program/NRIS

Montana Fisheries Information System

2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

The Montana DEQ and Beaverhead County Conservation District have jurisdiction within the stream prism. The Proponent would be responsible for contacting appropriate agencies to obtain necessary permits.

3. ALTERNATIVES CONSIDERED:

No Action Alternative: Not approve the Alternative Practice.

Action Alternative: Implementation of Alternative Practice as proposed with additional mitigation measures.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:
Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.

The proposed activities would occur during periods when soils are dry (less than 20% soil moisture), frozen or snow covered (12 inches packed or 18 inches unconsolidated) to minimize soil compaction, rutting, vegetative disturbance and maintain adequate drainage features. Implement Best Management Practices (BMP's) and any recommended mitigations measures. No impacts to soils are expected.

5. WATER QUALITY, QUANTITY AND DISTRIBUTION:
Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.

Is it possible that implementing this Alternative Practice would impact the integrity of the SMZ and these specific functions?

1. Ability to act as an effective sediment filter.
2. Ability to provide shade to regulate stream temperature.
3. Protection of stream channel and banks.
4. Ability to provide large, woody debris for eventual recruitment into the stream to maintain riffles pools and other elements of channel structure.
5. Promotes floodplain stability.

1. The existing road currently has no drainage features. Implementation of mitigation measures such as installation of rolling dips and grass seeding of all disturbed soils would reduce erosion and improve sediment filtration. All materials (soil, rock, etc) from the existing roadbed would be cast off the road bed to the uphill side away from the stream and riparian zone to prevent them from entering the stream. Barriers would be installed as needed on the downhill side of the road to catch materials and prevent them from entering the streamside zone. Minimal vegetation between the road and stream would be disturbed or removed during road activities, existing riparian vegetation would persist. Impacts to act as an effective sediment filter are not expected.

2. The road reconstruction would have minimal affect on the existing vegetation. Vegetation adjacent to the existing road is sparse and presently affords minimal shade to the stream. Shade to regulate stream temperature would continue to be provided by the existing vegetation below the road prism. Impacts to the ability to provide shade to regulate stream temperature s are not expected.

3. The road reconstruction and vegetative treatments would not occur in close enough proximity to affect the stream channel or banks. Adverse impacts to stream channel and banks are not expected.

4. No harvest of large trees (≥8" dbh) is proposed within the SMZ. The road reconstruction, road use and vegetative treatments would not affect the recruitment of large, woody debris into the stream. Impacts to provide large, woody debris for eventual recruitment into the stream are not expected.

5. Proposed improvements to the existing road would improve floodplain stability. Grass seeding disturbed soil locations and maintaining large trees (≥8" dbh) would also provide additional floodplain stability. Impacts to floodplain stability are not expected.

6. AIR QUALITY:
What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.

None.

7. VEGETATION COVER, QUANTITY AND QUALITY:
What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.

No rare plants or cover types are present within the proposed project area.

Due to the size of the proposed project and additional mitigation measures, the implementation of this alternative practice should not dramatically impact any vegetative communities within the SMZ.

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:
Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.
Would implementing this Alternative Practice impact the ability of the SMZ to support diverse and productive aquatic and terrestrial habitats?

The proposed action would occur within the SMZ of Nez Perce Gulch, an intermittent Class 3 stream with little or no aquatic habitat. Implementation of this alternative practice in and of itself should not dramatically impact aquatic and terrestrial habitats. The proposed removal of submerchantable conifers should encourage the reestablishment of a more diverse riparian plant community and consequently support more and diverse productive aquatic and terrestrial habitats. No impacts are expected to aquatic and terrestrial habitats.

9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:
Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.

The proposed project is located approximately one mile from the Big Hole River on Nez Perce Gulch. Arctic Grayling are found in the Big Hole River.

The proposed project area is located in potential Gray Wolf, Wolverine and Canada Lynx habitats. Occasional or transient use within the project area could occur.

A plant species of concern, Sapphire Rockcress, has been identified within the proposed project area.

Due to the size, duration and location of the proposed project, no adverse impacts to the fisheries, threatened or endangered species or other species of concern within this watershed are expected from the proposed action.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:
Identify and determine effects to historical, archaeological or paleontological resources.

None are known to occur within the proposed project area.

11. AESTHETICS:
Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.

None.

12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:
Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.

None.

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:
List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

None.

IV. IMPACTS ON THE HUMAN POPULATION

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

14. HUMAN HEALTH AND SAFETY:
Identify any health and safety risks posed by the project.

None.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:
Identify how the project would add to or alter these activities.

None.

16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:
Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.

None.

17. LOCAL AND STATE TAX BASE AND TAX REVENUES:
Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.

None.

18. DEMAND FOR GOVERNMENT SERVICES:
Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services.

None.

19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:
List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.

None.

20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:
Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.

None.

21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:
Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.

None.

22. SOCIAL STRUCTURES AND MORES:
Identify potential disruption of native or traditional lifestyles or communities.

None.

23. CULTURAL UNIQUENESS AND DIVERSITY:
How would the action affect any unique quality of the area?

None.

24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:
Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.

None.

EA Checklist Prepared By:	**Name:** Chuck Barone	**Date:** March 26, 2010
	Title: Dillon Unit Forester	

V. FINDING

25. ALTERNATIVE SELECTED:

Action Alternative: Implementation of Alternative Practice as proposed with additional mitigation measures.

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

PROPONENT PLANNED MITIGATION MEASURES:

- All materials (soil, rock, etc) from the existing roadbed will be cast off the road bed to the uphill side away from the stream and riparian zone to prevent them from entering the stream.
- Barriers will be installed as needed on the downhill side of the road to catch materials and prevent them from entering the streamside zone.
- Minimal trees and/or shrubs between the road and stream will be removed during this process, existing riparian vegetation will persist.
- The roadbed will be seeded after the completion of the project. Roads above the culvert will be closed to motorized use.
- The existing (non-functioning) culvert will be replaced and the stream will be rerouted into the adjacent ditch on the lower section of road.

ADDITIONAL MEASURES RECOMMENDED TO MITIGATE POTENTIAL IMPACTS:

1) Limit equipment operations to periods when soils are dry (less than 20% soil moisture), frozen or snow covered (12 inches packed or 18 inches unconsolidated) to minimize soil compaction, rutting, vegetative disturbance.
2) Establish/maintain adequate drainage features (rolling dips) along the entire length of the reconstruction and the lower "established" road.
3) Utilize a slash filter windrow at the toe of the fill of the reconstruction.
4) No sidecasting of road material into the stream prism.
5) All disturbed soils would be grass seeded immediately to re-establish vegetation.
6) Should a "310" permit be required, Proponent would comply with all the requirements of the permit. Adherence to mitigation measures stated in the Alternative Practice. Implement Forestry Best Management Practices and be in compliance with the Stream Management Zone Law and Rules.
7) Should any of the six functions of the SMZ be significantly diminished, all activities would cease until a DNRC Forest Practices representative is notified and can assess the situation.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

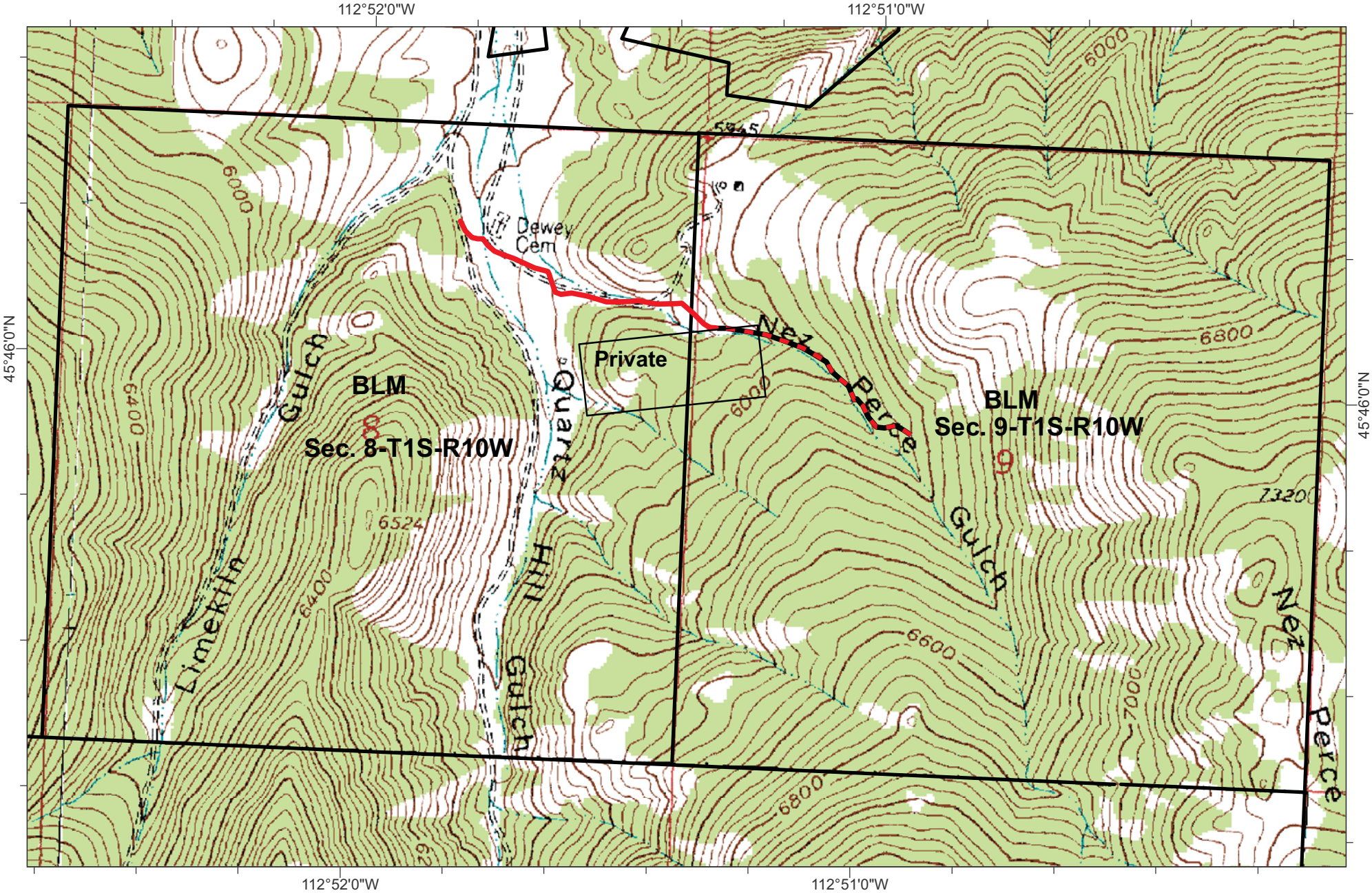
[ ] EIS [ ] More Detailed EA [X] No Further Analysis

EA Checklist Approved By:	**Name:**	Tim Egan
	Title:	Dillon Unit Manager
Signature: /S/ Timothy Egan		**Date:** 3/26/2010

ATTACHMENTS

Alternative Practice Request w/Attachments
ATTACHMENT A - Site Map

ATTACHMENT A
BLM/Nez Perce Gulch Alternative Practice
Sec. 8/9-T1S-R10W, Beaverhead County



0 0.1 0.2 0.4 Miles

1:13,250

Existing (Established) Road

Existing Road (Reconstruction) Alternative Practice

State of Montana Department of Natural Resources and Conservation (DNRC)

APPLICATION FOR SMZ ALTERNATIVE PRACTICE

Landowner: Bureau of Land Management (BLM), Butte Field Office

Address: 106 N Parkmont Drive, Butte, MT 59701 **Phone Number**: 406-533-7667

Contractor: The BLM has partnered with the Rocky Mountain Elk Foundation (RMEF) to oversee and implement the Wise River Habitat Improvement Project under a Stewardship Agreement. The RMEF will act as the BLM's agent to bid and hire a contractor. At this time the name of the contractor to be selected is unknown.
Contact: Al Christophersen, RMEF Director of Stewardship Services
Phone: 800-225-5355 Ext. 478 (800-CALL ELK)

Person Legally Responsible for Compliance with SMZ Law:

Hazard Reduction Agreement (HRA) Number: none, not applicable

Site Specific Alternative Practice Requested: The BLM would like to use an existing old road which lies in the bottom of Nez Perce Gulch to facilitate vegetation treatments associated with the Wise River Habitat Restoration Project. This old road is within 50 feet of a class 3 stream, and therefore is considered to be within the SMZ. The BLM would like to improve the road to facilitate running mechanized equipment and log trucks over its surface. This road would allow access to vegetation treatment units uphill and would allow products to be removed and transported off site. No commercial products would be taken from the SMZ. Planned improvement activities include blading the road and establishing rolling drain dips.

Additionally, one hardened water crossing is planned. This is to facilitate accessing an existing road system uphill on the west side of the gulch. A culvert will be installed, and a length of road will be constructed to connect the old road in the bottom of the gulch with the old road up the hillside to the west. The BLM is in the process of applying for a "124 Permit" with the State of Montana for this water crossing.

Other Alternatives Considered and Justification for Proposed Alternative Practice:
Other Alternatives Considered: Originally the BLM planned on using helicopters on the steep slopes above the gulch. This type of system would have eliminated the need to use the road in the bottom of the gulch. Given the decline of the timber market and the increased amount of low quality dead material in the uphill units, this scenario is no longer feasible. The BLM originally planned on using a road at the toeslope which crossed private property to access the treatment units uphill to the west of Nez Perce Gulch. However, it was discovered that the private property was actually in a different location (property was incorrectly located and mapped). As a result a new plan for accessing the treatment areas uphill was developed which involved going around the block of private property by crossing the stream and using the existing road in the gulch.

Justification for Proposed Alternative Practice: The existing old road is in good shape, improving it for use would involve far less disturbance to the area than constructing a new road.

Planned Mitigation Measures: The following measures will be taken during road improvement operations to prevent negative impacts to the stream and riparian zone:

- All materials (soil, rock, etc) from the existing roadbed will be cast off the road bed to the uphill side away from the stream and riparian zone to prevent them from entering the stream.
- Barriers will be installed as needed on the downhill side of the road to catch materials and prevent them from entering the streamside zone.
- No trees and/or shrubs between the road and stream will be removed during this process, existing riparian vegetation will persist.
- The roadbed will be seeded after the completion of the project. Roads above the culvert will be closed to motorized use.
- The existing (non-functioning) culvert will be replaced and the stream will be rerouted into the adjacent ditch on the lower section of road, above Dewey Cemetery. Currently the stream runs down the middle of the roadbed during wet months,

Include a topographic map showing the logging unit boundaries, alternative practice site, streams, wetlands, and existing and/or proposed roads. Also include a plan-view map of the alternative practice site, including location and distance to stream, SMZ boundary, location of mitigation measures, and extent of activity requiring an alternative practice.

Approved alternative practices, including any additional conditions approved by DNRC, shall have the same force and authority as the standards contained in 77-5-303, MCA, and shall be enforceable by DNRC under 77-5-3-305, MCA, to the same extent as such standards.

cc: Applicant, Unit Office, Land Office, Service Forestry Bureau Land Office

Starting Date: Summer 2010 **Completion Date**: 2015 (multi-year implementation of project activities)

Legal Description: Sections: 8 & 9, T ~~14~~ 3, R 10 W, County: Beaverhead

Lineal Extent Along Stream: approximately ½ to ¾ of a mile, **SMZ Width**: 50 feet or less.

Stream Class (circle one): One Two **Three**

Wetlands Present ___Yes _X__No

Application for Streamside Management Zone Alternative Practice
Wise River Habitat Improvement Project
Nez Perce Gulch
Existing road within the SMA – Improvement and Use

Resource Specialist Analysis
I have reviewed the stipulations and conditions for improving and using the existing road within the Nez Perce Gulch streamside management zone (SMZ) for the Wise River Habitat Improvement Project. Rule 10 (36.11.310) Section 2 identifies 6 functions of an SMZ that must not be significantly diminished (MCA 77-5-301). The following is an account of how the site-specific stipulations and conditions meet each of these functions.

Background
The BLM proposes to make improvements to an existing road within the Nez Perce Gulch. These improvements would be made to facilitate the road being used by log trucks and mechanized equipment related to vegetation treatment activities (thinning, masticating, etc.) for the Wise River Habitat Restoration Project. The stream associated with this SMZ is a Class 3; it is an ephemeral, interrupted stream that does not reach the Big Hole River. The BLM has entered into a partnership with RMEF to implement this project. It is expected that the RMEF will contract with a private entity (yet to be determined) to complete work along the existing road and work within the project area. See Attachments for project details (EA, maps, etc.)

2a) To act as an effective sediment filter to maintain water quality.
Best Management Practices and design features will be utilized to prevent road improvement activities and road use from impacting the SMZ and the stream. The existing road template is well established and stable. It will be bladed and have drainage features installed to improve it for hauling activities. Planned improvement activities include blading the road and establishing rolling drain dips. The following measures will be taken during road improvement operations to prevent negative impacts to the stream and riparian zone: All materials (soil, rock, etc) from the existing roadbed will be cast off the road bed to the uphill side away from the stream and riparian zone to prevent them from entering the stream. Barriers will be installed as needed on the downhill side of the road to catch materials and prevent them from entering the streamside zone. No trees and shrubs between the road and stream will be removed during this process, existing riparian vegetation will persist.

2b) To provide shade to regulate stream temperature.
The existing road has not been overgrown with shrubs or trees, it does not currently supply shade to the stream. Improvement activities to the road surface are not expected to impact stream shade. One large spruce tree will be removed at the site of the culvert installation to facilitate a protected water crossing.

2c) To support diverse and productive aquatic and terrestrial riparian habitats.

Road improvement activities will be planned using Best Management Practices to prevent sedimentation entering the SMZ. Additionally this is a Class 3, interrupted, ephemeral stream with little to no aquatic habitat. The planned crossing is located in a drier spot on this system.

2d) To protect stream channel and banks.

The existing road lies on a stable bench above the stream. One water crossing is planned. The design is for a 24 inch culvert to be placed at a designated location across the stream. A gentle curved approach to this culvert is planned to facilitate log truck traffic. This crossing is being designed to protect the stream channel and bank. One large spruce tree in the SMZ will be removed to facilitate constructing this crossing. No change in channel or bank stability is expected as a result of road improvement activities. Although this culvert will be left in place after the project activities are completed, the road above it will be 'closed' to full-sized vehicle traffic. Above the culvert it will be open for ATV use, which occurs there now. The road below the culvert will be reseeded and treated for weeds.

2***e) To provide large woody debris that is eventually recruited into a stream to maintain riffles, pools, and other elements of stream structure.***

Road improvement activities and road use will not impede this process from naturally occurring.

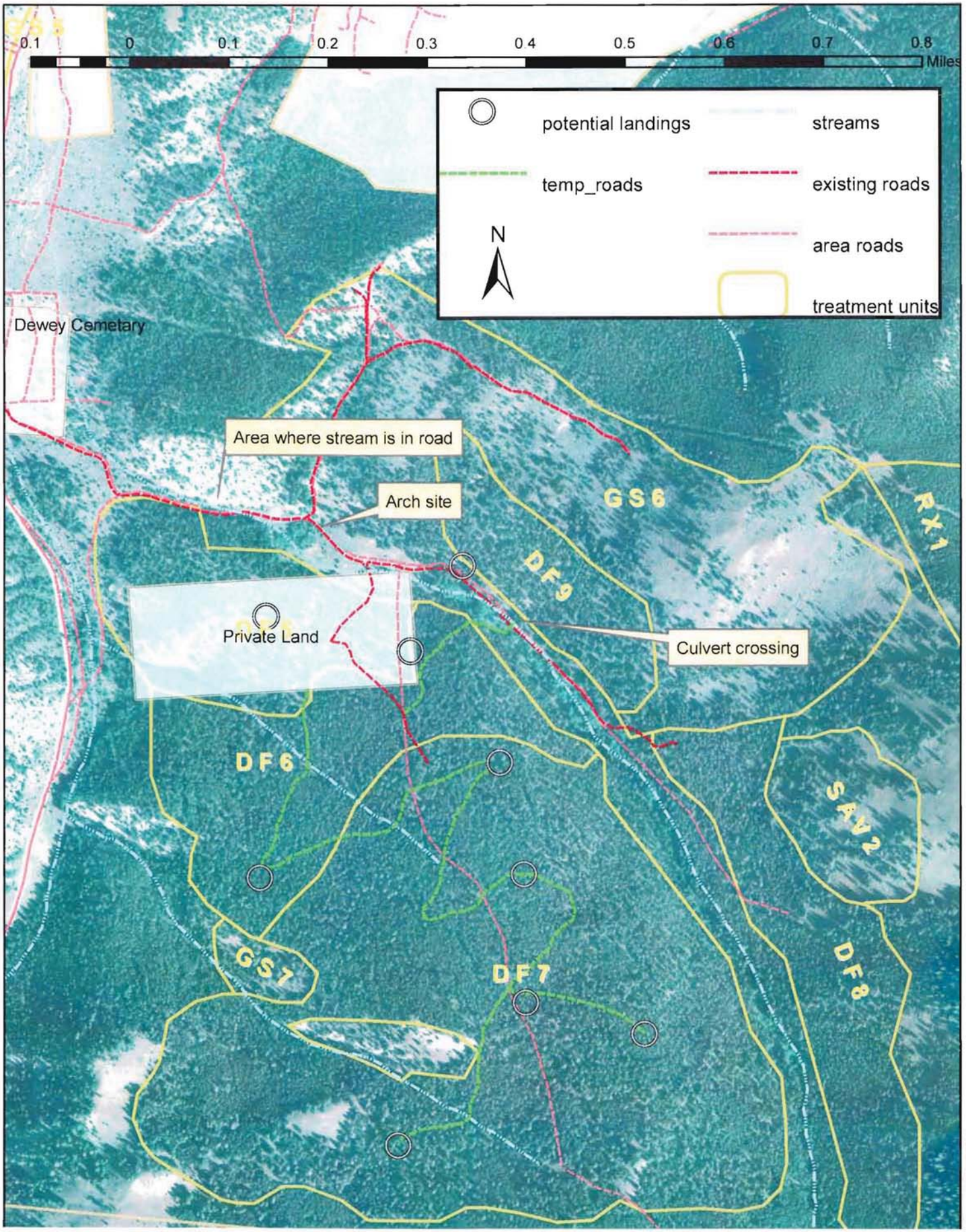
2f) To promote floodplain stability.

Floodplain stability is expected to improve as a result of road improvement activities. Currently, just above the Dewey Cemetery, the stream flows in the roadbed during wet periods in the spring/summer. This section of road will be rebuilt to reroute the stream off of the roadbed, and put it back into the nearby ditch. The current culvert will be upsized to a 24-inch size to facilitate keeping the flow off of the roadbed and to reduce the downstream sedimentation that is currently occurring under the existing scenario.

Corey Meier, Hydrologist
BLM Butte Field Office

Sherri K. Lionberger

Sherri Lionberger, Forest Engineer/Asst. Field Office Manger, Non-renewables
BLM Butte Field Office

03/2010

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