

**SITE SPECIFIC ALTERNATIVE PRACTICE
CHECKLIST ENVIRONMENTAL ASSESSMENT**

Project Name:	Pinnacle Salvage
Proposed Implementation Date:	August 30, 2010
Proponent:	Rich Byron, BLM Forester
Location:	Sections 14, T15N, R1W
County:	Cascade
Land Owner:	USDI Bureau of Land Management
HRA #:	N/A, Federal Timber Sale

I. TYPE AND PURPOSE OF ACTION

A. Type of Action: SMZ Alternative Practice:

Proponent is requesting an SMZ Alternative Practice to Rule 4:(36.11.304), *Operation of Equipment in the SMZ*.

BLM is proposing a salvage timber harvest on Federal Lands which are located near Cascade, Montana. Lodgepole pine damaged by mountain pine beetle (MPB) has been marked for removal.

Indicators – Mountain Pine Beetle:

Field evaluations varified increased mountain pine beetle activity. Indications of bark beetle activity include:

- Popcorn-shaped masses of resin, called "pitch tubes," on the trunk where beetle tunneling begins. Pitch tubes may be brown, pink or white.
- Boring dust in bark crevices and on the ground immediately adjacent to the tree base.
- Evidence of woodpecker feeding on trunk. Patches of bark are removed and bark flakes lie on the ground or snow below tree.
- Foliage turning yellowish to reddish throughout the entire tree crown. This usually occurs eight to 10 months after a successful Mountain Pine Beetle attack.
- Presence of live MPB (eggs, larvae, pupae and/or adults) as well as galleries under bark. This is the most certain indicator of infestation. A hatchet for removal of bark is needed to check trees correctly.
- Blue-stained sapwood. Check at more than one point around the tree's circumference.¹

To capture lost timber value, reduce fuel loading on the landscape, and to increase health and vigor of the residual Douglas-fir, the proponent would like to:

1. Operate equipment in the SMZ at two locations. The first being a forwarder trail that approaches to within 15 feet of the channel to avoid topographical features, the second being the construction of a native log mat in Spring Creek (may require a 124-Permit from Montana, Fish, Wildlife & Parks) to access additional damaged timber.

¹ D.A. Leatherman, "Mountain Pine Beetle", # 5.528, Colorado State University Cooperative Extension. Available at: <http://www.ext.colostate.edu/pubs/insect/05528.html>

B. Purpose of Action: Timber Harvest

Proponent has put forth a salvage timber harvest to mitigate impacts to Federal Lands as a result of damage caused by the MPB. This action should also increase forest health and vigor as well as provide a source of income to the BLM.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:
Provide a brief chronology of the scoping and ongoing involvement for this project.

BLM may need to obtain a 124-permit from Montana, Fish, Wildlife, and Parks to place a log mat in Spring Creek.

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

124-Permit maybe required from Montana, Fish, Wildlife, and Parks.

3. ALTERNATIVES CONSIDERED:

3.1 Alternative “A”: Not approve Alternative Practice (No Action)

Proposed SMZ Alternative Practice would not be approved. Current MPB conditions would most likely increase, resulting in significant damage to the remaining non-infested lodgepole, ponderosa pine, and spruce. The proposed forest management and harvesting actions would be abandoned.

3.2 Alternative “B”: Alternative as Proposed

Allow SMZ Alternative Practices as proposed with additional mitigation measures.

Equipment Operation: To facilitate forwarder operations being able to access the proposed salvage area, *an Alternative Practice* to operate wheeled or tracked equipment in the SMZ would be allowed under the following conditions:

1. Operating period should be during periods of dry ground conditions to prevent soil rutting.
2. Disturbed or exposed soil would be grass seeded to provide a vegetative filter to trap sediment.
3. A log mat would be used to protect the streambed and bank of Spring Creek.
4. A forwarder would be used to skid rough forest products across Spring Creek allowing for full suspension of sawlog/pulpwood material.
5. Log mat would be remove upon completion of salvage sale or prior to spring runoff.
6. If necessary, a slash-filter windrow would be constructed on each side of the stream channel at the crossing location. It would be built approximately 10’ from banks edge to reduce potential sediment from reaching Spring Creek.
7. The proponent may need to obtain a 124-Permit from Montana FWP.
8. Equipment operation, other than the log mat crossing would come no closer than 15’ of the ordinary high water mark (OHWM).

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.

Harvest operations should be done during dry ground conditions to prevent rutting. Degradation to the soil should be minimal due to the relatively small amount of forest products being cut and the use of a forwarder to transport logs through the SMZ. Mitigation measures such as grass seeding exposed soil areas should reduce the potential of sediment runoff.

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 stability.
5. Promotes floodplain stability.

The proposed project would be implemented during dry ground conditions and should not adversely impact the six functions of a SMZ, as identified in the SMZ law (77-5-301[1] MCA).

1. Harvest operation would take place during dry ground conditions to prevent soil rutting. Because of this and the small amount of wood being harvested, minimal disturbance to the soil is expected. If soil displacement would happen, the area in question would be grass seeded immediately following the harvest to reestablish vegetation.
2. Timber harvesting in the SMZ would meet salvage requirements.
3. The use of a native log mat should provide adequate protection to the streambed and banks by providing a ridged structure to cross over. The characteristically low ground-pressure tires of the forwarder should help to protect the streambed and banks as well.
4. Ample tree volume shall be maintained to provide future recruitment into stream channel to maintain riffles, pools, and other element of channel structure as no timber harvesting will take place in the SMZ.
5. Grass seeding disturbed soil locations and maintaining minimum tree retention requirements on a majority of this ownership should provide ample floodplain stability.

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.

Implementation of these alternative practices with proposed mitigation measures 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?

Mountain pine beetle is prevalent in mature lodgepole and ponderosa pine found throughout this ownership. The declining forested stand should give way to a flush of new pine regeneration after harvest, changing terrestrial habitats. Implementation of this alternative practice in and of itself should not dramatically impact 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 BLM through their scoping process and environmental review has identified any potential impacts to endangered, fragile, or limited environmental resources that would be impacted by the implementation of this project.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

Identify and determine effects to historical, archaeological or paleontological resources.

None.

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:	D.J. Bakken	Date:	12-17-08
	Title:	Helena Unit Manager		

V. FINDING

25. ALTERNATIVE SELECTED:

An **Alternative Practice** to operate wheeled or tracked equipment in the SMZ would be allowed under the following conditions:

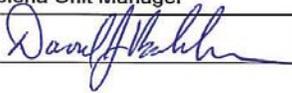
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8. Equipment operation, other than the log mat crossing would come no closer than 15' of the ordinary high water mark (OHWM).

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

Measures Recommended To Mitigate Potential Impacts: None expected. See Section 25 of this document, mitigation measures.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

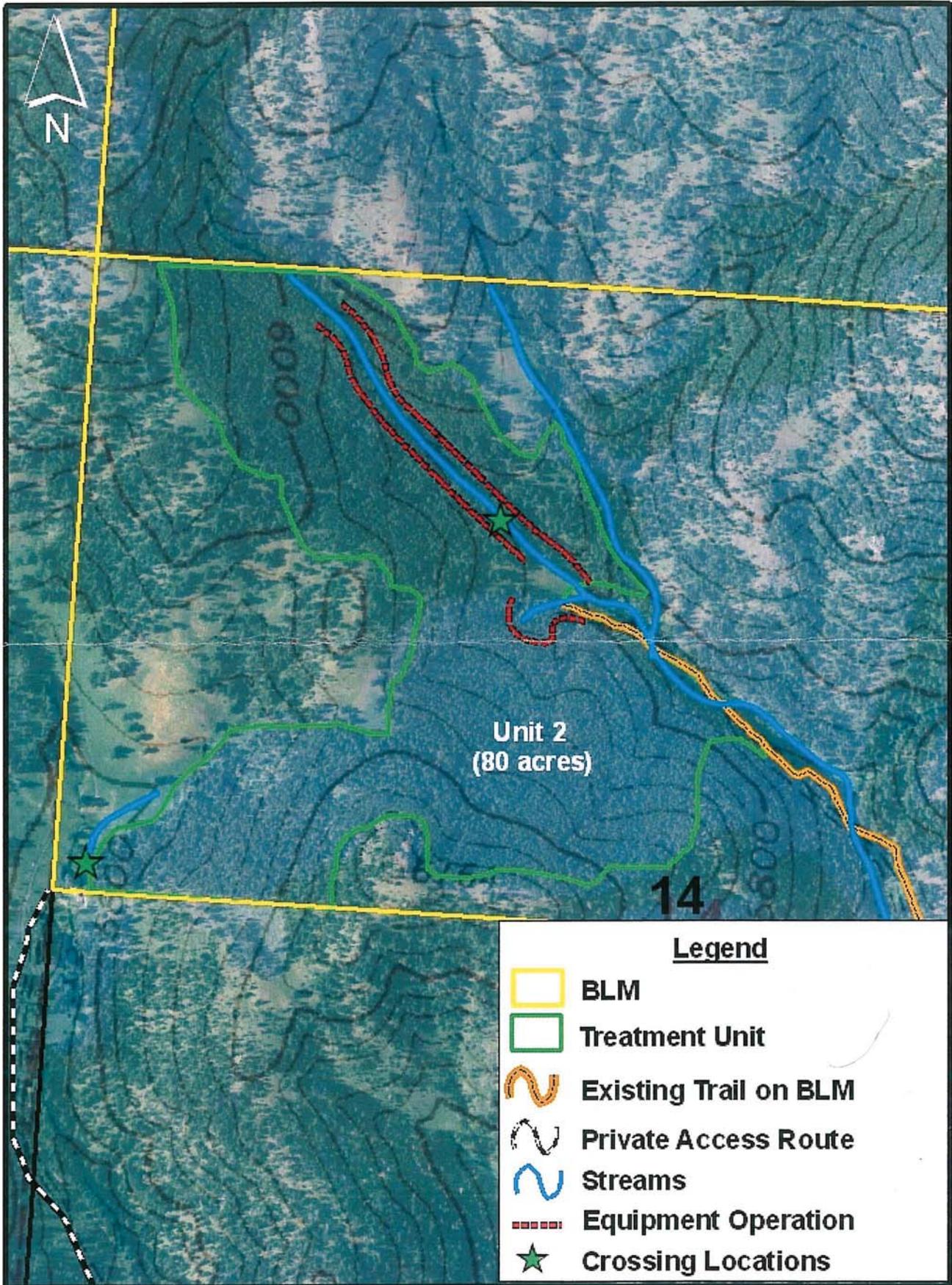
	EIS	More Detailed EA	No Further Analysis
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EA Checklist Approved By:	Name:	D.J. Bakken	
	Title:	Helena Unit Manager	
Signature:	/s/ Darrel J. Bakken		Date: 8/30/2010

ATTACHMENTS
SMZ Alternative Practice Map

Finnacle Salvage

T15N R1W Sec.10,14,22



Contour Interval- 40 feet

