

## CHECKLIST ENVIRONMENTAL ASSESSMENT

<b>Project Name:</b>	SML/Nowak Alternative Practice
<b>Proposed Implementation Date:</b>	Upon Approval
<b>Proponent:</b>	Sun Mountain Lumber
<b>Location:</b>	S1,T5N,R16W
<b>County:</b>	Granite

### I. TYPE AND PURPOSE OF ACTION

The purpose of this Alternative Practice is to remove beetle killed or infested lodgepole pine inside the Streamside Management Zone on private property in Section 1 of Township 5 North, Range 16 West (See Attached Map). According to MCA 77-5-301 through 307, DNRC is authorized to administer and enforce the provisions of the SMZ Law. This Law was developed to protect the public interest of water quality and quantity within forested areas; provide for standards, oversights and penalties to ensure forest practices conserve the integrity of SMZ's; provide guidelines for wildlife management within SMZ's; and allow operators necessary flexibility to use practices appropriate to site-specific conditions in the SMZ. ARM 36.11.301 through 313 further specify the design of SMZ boundaries, allowable activities and prohibitions within the SMZ, penalties and other related provisions. According to MCA 77-5-304 and ARM 36.11.310, DNRC may approve alternative practices that are different from practices required by the SMZ Law only if such practices would be otherwise lawful and continue to conserve or not significantly diminish the integrity and function of the SMZ. This AP would allow the operation of logging equipment inside the 100 foot SMZ buffer on this Class 2 stream. Treatments would be limited to operation of logging equipment inside the 100 foot SMZ, but no closer than 50 feet to the ordinary high water mark (OHWM) of the stream. This treatment would be conducted on slopes less than 30% and would allow removal of lodgepole pine to below minimum retention standards as identified under Rules 4 and 5 in the *Montana Guide to the Streamside Zone Law and Rules 2006* (ARM 36.11.310-313). Additional stipulations of this request would include:

- Operation of the logging equipment inside the SMZ would be in a straight-in and straight-out manner to minimize disturbance inside the 100 foot boundary.
- Operation would only occur during periods of frozen ground to a depth of four inches and snow to a depth of six inches, or periods when ground moisture is less than 20%.
- If operations take place during periods of dry ground conditions, mitigation measures would include grass seeding and slash filter windrows placed on disturbed areas to prevent run-off from reaching water.
- Small, un-infested lodgepole pine, in addition to other species of trees such as Douglas-fir, Engelmann spruce and quaking aspen, would be retained.

### II. PROJECT DEVELOPMENT

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

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

MT DNRC and Sun Mountain Lumber.

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

N/A

#### 3. ALTERNATIVES CONSIDERED:

Alternative A –No Action. This alternative would not operate machinery inside the 100 foot buffer. Beetle-killed trees would be hand-felled to minimum retention standards, left standing or removed in a non-commercial manner, such as by an arborist. In instances when the trees are removed non-commercially, the DNRC has no jurisdiction over operations.

Alternative B – Action. Please see *Type and Purpose of Action* for a full description of this alternative.

### 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.*

##### Alternative A - No Action

No equipment operation would be allowed inside the 100 foot SMZ. Minimum retention standards would be recognized. This would mean leaving a representative stand that includes dead lodgepole pine. Trees would be hand-felled and skidded by cable through the SMZ.

##### Alternative B – Action

Equipment operation would be limited to soils that are described as "moderately or well suited" for timber harvest in the Web Soil Survey. Soils in the area of the AP are described as Moderately Suited. Equipment operation would be limited to areas where slope is less than 30%. Mitigation measures would include operating season restrictions that require frozen ground to a depth of four inches, snow depth of six inches or ground moisture of 20% or less; and operation of logging equipment in a "straight in and straight out manner". In addition, grass-seeding and installation of a slash-filter windrow on any disturbed area upon completion of activity would be required. Minimal impacts to soil stability and compaction are anticipated due to the soil rating, operating restrictions and mitigation measures.

#### 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.*

##### Alternative A - No Action

No equipment operation would be allowed inside the 100 foot SMZ. Minimum retention standards would be recognized. Trees would be hand-felled and skidded by cable through the SMZ or left standing.

##### Alternative B – Action

The harvest activities within the 100 foot SMZ may introduce low levels of sediment delivery to adjacent waterbodies. Increases in sedimentation would be expected to be minimal and temporary due to operations only occurring on slopes less than 30%, no equipment inside the 50 SMZ and application of mitigation measures. Only the lodgepole pine will be targeted and those trees make up about 75% of the trees inside the SMZ. Other species present include Douglas-fir, quaking aspen and Engelmann spruce. Mitigation measures include imposing seasonal operating restrictions that require frozen ground to a depth of four inches, snow depth of six inches or ground moisture of 20% or less; and requiring grass seeding and installation of a slash-filter windrow on any disturbed area upon completion of operations.

#### 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.*

N/A

#### 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.*

##### Alternative A - No Action

Trees may be hand-felled to minimum retention standards.

## Alternative B – Action

Vegetative communities would be affected to the extent that lodgepole pine would be reduced to below minimum retention standards as outlined in Rule 5 of the *Montana Guide to the Streamside Management Zone Law and Rules* handbook. Other species of trees such as Douglas-fir, Engelmann spruce and quaking aspen would be retained where present and understory vegetation would be protected to the greatest extent possible. Removal of the dead overstory would expedite natural regeneration and cumulative effects would decrease over time. Due to operating restrictions and mitigation measures, no unacceptable impacts are anticipated with the action alternative.

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### **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.*

Due to the areas being heavily used for recreation and their proximity to roads and cabins, the suitability of the proposed AP site is currently reduced for terrestrial and avian habitat. Operating restrictions and mitigation measures would preserve the integrity of fish habitat if present. No unacceptable impacts are anticipated with the Action Alternative.

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### **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.*

A query of the Montana Natural Heritage Program identifies the area as being possible habitat for Canada lynx, wolverine and fisher. Due to the proximity of heavy recreational activities and access to cabin sites, this area is not ideal habitat for Canada lynx, wolverine or fisher. If a sighting of any of the listed species of concern (or evidence such as tracks, dens etc...) occurs, operations would be halted, or not allowed, until further assessment can take place. In addition, the un-named tributary does not support fish. With the implementation of recommended operating procedures, no unacceptable impacts are anticipated.

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### **10. HISTORICAL AND ARCHAEOLOGICAL SITES:**

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

Although no cultural or paleontologic resources are known to exist in the project APE, a systematic inventory of such resources has not occurred. Because none of the projects are located on state land, the DNRC has no jurisdiction to require private landholders to conduct professional level inventories to identify, or develop treatment plans for, privately owned National Register eligible properties.

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### **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.*

The aesthetics would have the potential of being affected and may be perceived by the landowner. The removal of beetle killed lodgepole pine would look unsightly in the short term, but would encourage regeneration. This regeneration would eventually soften and replace aesthetic quality damaged by mountain pine beetle infestation. In addition, and more importantly, the harvest will improve safety by removing the beetle killed trees.

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### **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.*

N/A

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**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.*

N/A

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IV. IMPACTS ON THE HUMAN POPULATION
<ul style="list-style-type: none"><li>• RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.</li><li>• Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.</li><li>• Enter "NONE" if no impacts are identified or the resource is not present.</li></ul>

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**14. HUMAN HEALTH AND SAFETY:**

*Identify any health and safety risks posed by the project.*

The removal of beetle killed trees would improve safety to those that use the area for recreation. Cabins and recreational sites would become unsafe as beetle killed trees begin to fall over and improvements such as culverts and bridges would be put in jeopardy as falling trees impede water movement.

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**15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:**

*Identify how the project would add to or alter these activities.*

N/A

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**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.*

This project would provide employment for a three man crew for approximately one month. In addition this project would provide raw material for local mill operations.

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**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.*

Negligible amounts.

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**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*

N/A

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**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.*

NA

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**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.*

N/A

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**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.*

N/A

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**22. SOCIAL STRUCTURES AND MORES:**

*Identify potential disruption of native or traditional lifestyles or communities.*

N/A

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**23. CULTURAL UNIQUENESS AND DIVERSITY:**

*How would the action affect any unique quality of the area?*

N/A

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**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.*

N/A

<b>EA Checklist Prepared By:</b>	<b>Name:</b> Sean Steinebach	<b>Date:</b> 12/27/11
	<b>Title:</b> Service Forester	

**V. FINDING**

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**25. ALTERNATIVE SELECTED:**

Alternative B – Action Alternative.

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**26. SIGNIFICANCE OF POTENTIAL IMPACTS:**

No significant impacts to the integrity and function of the SMZ will occur with the implementation of operating restrictions and mitigation measures.

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**27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:**

EIS

More Detailed EA

No Further Analysis

<b>EA Checklist Approved By:</b>	<b>Name:</b> Brian Robbins
	<b>Title:</b> Trust Lands Forester
<b>Signature:</b>	<b>Date:</b> 12/28/11

December 28, 2011

Ref: SML – Nowak Timber Salvage SMZ AP

Dear Mr. Krueger

This letter is in reference to a request made by Dave Krueger of Sun Mountain Lumber to the Department of Natural Resource and Conservation for an Alternative Practice (AP). This AP is located in the Section 1, T5N, R16W (see attached map). After review of the Checklist Environmental Assessment prepared for this request, the Alternative Practice to allow salvage of beetle-killed or infested lodgepole pine to below minimum retention standards as defined in the *Montana Guide To The Streamside Management Zone Law and Rules* is approved. Approval is subject to the following conditions:

- 1) Equipment operation inside the 100 foot Streamside Management Zone (SMZ) buffer will be done in a straight-in and straight-out manner.
- 2) Equipment will operate no closer than 50 feet to the ordinary high water mark and only on slopes less than 30%.
- 3) All trees other than lodgepole pine will be retained inside the SMZ.
- 4) Operations only occur when ground is frozen to four inches or snow covered to six inches.
- 5) Disturbed areas inside the SMZ will be grass seeded, water barred or slash-filter windrowed as needed.
- 6) All SMZ's will be marked prior to harvest.

Approved Alternative Practices, including any additional conditions required 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 77-5-305, MCA, to the same extent as such standards.

It is your responsibility to ensure that your operators understand that an Alternative Practice has been issued for their operations in this area, and that these conditions must be fully met to achieve compliance with the SMZ Law.

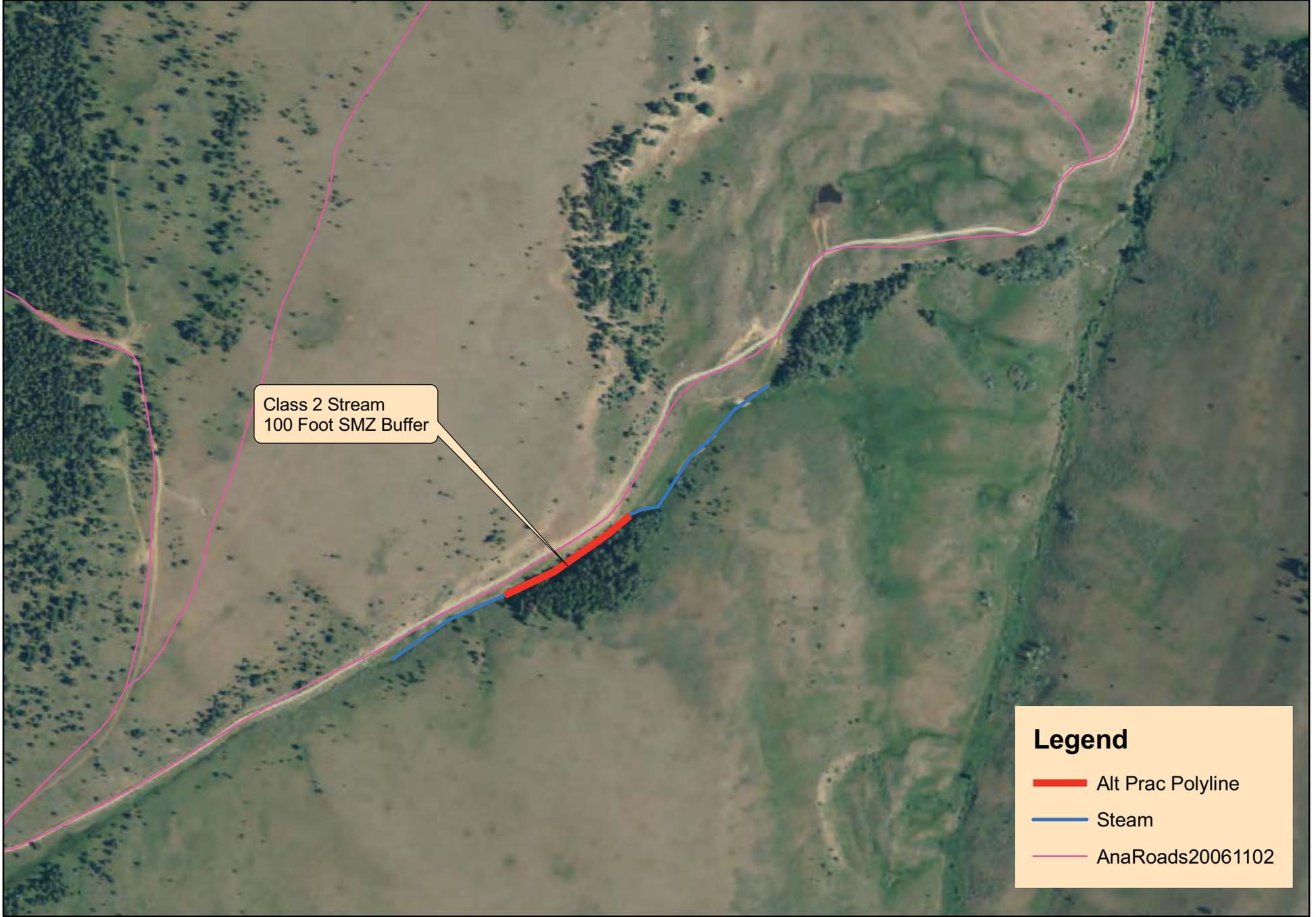
This approval is contingent upon your execution and return of the attached statement to the DNRC Anaconda Unit Office.

Thank you for your cooperation in this matter. Please call me if you have any questions.

Sincerely,

Sean Steinebach  
Service Forester

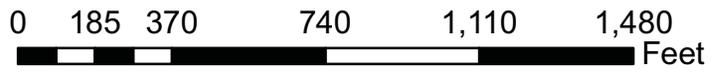
cc: HRA file, Landowner, Applicant,  
Unit Office, Land Office,  
Service Forestry Bureau



Class 2 Stream  
100 Foot SMZ Buffer

**Legend**

- Alt Prac Polyline
- Steam
- AnaRoads20061102



Un-named trib to Rock Creek

December 28, 2011

ALTERNATIVE PRACTICE RESPONSIBILITY AFFIDAVIT

Sun Mountain Lumber – Nowak Alternative Practice

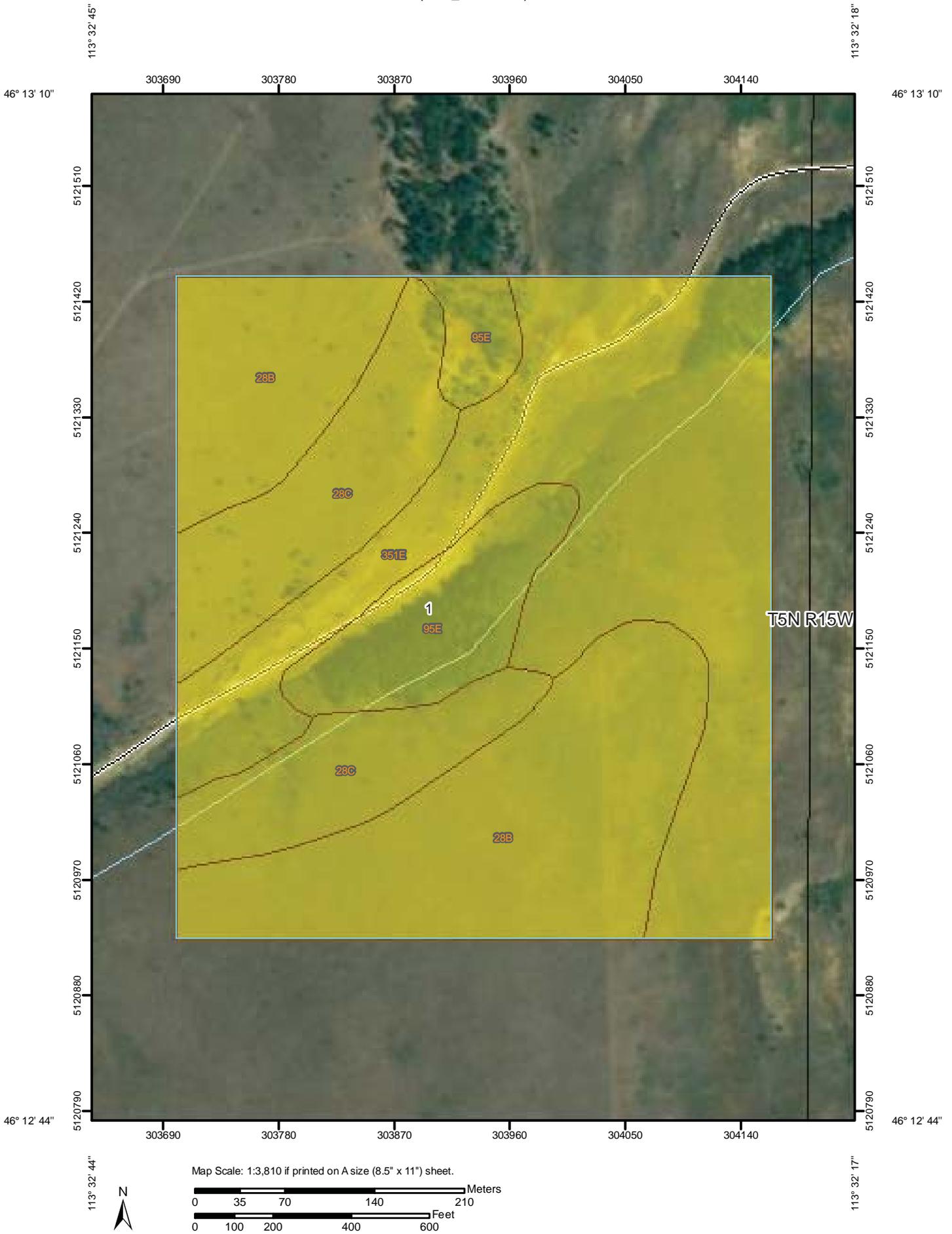
In consideration of DNRC's approval of the alternative practice in Section 1, T5N, R16W, I hereby certify that I, or by written contract the legal entity I represent, am responsible for the compliance with the Montana Streamside Management Zone Law. I understand that failure to implement any of the mitigation measures required by the DNRC will be considered a violation of the SMZ Law (77-5-301 et. Seq.), and may result in penalties assessed against me or the legal entity I represent.

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**Signature of Responsible Party**

**Date**

Harvest Equipment Operability—Granite County Area, Montana  
(SML\_Nowak AP)



## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

 Soil Map Units

### Soil Ratings

 Poorly suited

 Moderately suited

 Well suited

 Not rated or not available

### Political Features

 Cities

 PLSS Township and Range

 PLSS Section

### Water Features

 Streams and Canals

### Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

## MAP INFORMATION

Map Scale: 1:3,810 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
Coordinate System: UTM Zone 12N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Granite County Area, Montana  
Survey Area Data: Version 11, Dec 2, 2009

Date(s) aerial images were photographed: 8/20/2005

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Harvest Equipment Operability

Harvest Equipment Operability— Summary by Map Unit — Granite County Area, Montana (MT621)						
Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
28B	Donald loam, 2 to 4 percent slopes	Moderately suited	Donald (85%)	Low strength (0.50)	19.2	32.5%
			Julius (5%)	Low strength (0.50)		
			Baggs (5%)	Low strength (0.50)		
28C	Donald loam, 4 to 8 percent slopes	Moderately suited	Donald (85%)	Low strength (0.50)	11.2	18.9%
			Baggs (5%)	Low strength (0.50)		
			Julius (5%)	Low strength (0.50)		
95E	Yreka gravelly loam, 15 to 35 percent slopes	Moderately suited	Yreka (85%)	Slope (0.50)	6.2	10.4%
			Bignell (5%)	Low strength (0.50)		
				Slope (0.50)		
			Winkler (4%)	Slope (0.50)		
			Whitlash (3%)	Slope (0.50)		
			Crow (3%)	Low strength (0.50)		
Slope (0.50)						
351E	Roy-Shawmut-Danvers complex, 15 to 35 percent slopes	Moderately suited	Roy (35%)	Low strength (0.50)	22.5	38.1%
				Slope (0.50)		
			Shawmut (25%)	Slope (0.50)		
			Danvers (25%)	Slope (0.50)		
			Shanley (5%)	Low strength (0.50)		
				Slope (0.50)		
			Fergus (5%)	Low strength (0.50)		
				Slope (0.50)		
Braziel (5%)	Low strength (0.50)					
	Slope (0.50)					
<b>Totals for Area of Interest</b>					<b>59.1</b>	<b>100.0%</b>

Harvest Equipment Operability— Summary by Rating Value		
Rating	Acres in AOI	Percent of AOI
Moderately suited	59.1	100.0%
<b>Totals for Area of Interest</b>	<b>59.1</b>	<b>100.0%</b>

## Description

Ratings for this interpretation indicate the suitability for use of forestland harvesting equipment. The ratings are based on slope, rock fragments on the surface, plasticity index, content of sand, the Unified classification of the soil, depth to a water table, and ponding. Standard rubber-tire skidders and bulldozers are assumed to be used for ground-based harvesting and transport.

The ratings are both verbal and numerical. Rating class terms indicate the degree to which the soils are suited to this aspect of forestland management. "Well suited" indicates that the soil has features that are favorable for the specified management aspect and has no limitations. Good performance can be expected, and little or no maintenance is needed. "Moderately suited" indicates that the soil has features that are moderately favorable for the specified management aspect. One or more soil properties are less than desirable, and fair performance can be expected. Some maintenance is needed. "Poorly suited" indicates that the soil has one or more properties that are unfavorable for the specified management aspect. Overcoming the unfavorable properties requires special design, extra maintenance, and costly alteration.

Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the specified aspect of forestland management (1.00) and the point at which the soil feature is not a limitation (0.00).

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

## Rating Options

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Higher