

## CHECKLIST ENVIRONMENTAL ASSESSMENT

<b>Project Name:</b>	Cady Lodgepole Pine Salvage
<b>Proposed Implementation Date:</b>	Upon Signature
<b>Proponent:</b>	Joe Kanduch of Kanduch Logging Inc.
<b>Location:</b>	S27, T05 N, R16 W, NW1/4NW1/4
<b>County:</b>	Granite

### I. TYPE AND PURPOSE OF ACTION

Joe Kanduch of Kanduch Logging Inc., LLC, is requesting an Alternative Practice to allow operation of logging equipment inside the fifty-foot Streamside Management Zone buffer on two un-named Class 3 streams (see attached map). There is approximately 1/2 mile of streamside property in the project area. This area has been significantly affected by mountain pine beetle in the lodgepole pine stands and this Alternative Practice would facilitate safe removal of dead and dying trees that would become a safety hazard near recreational areas and other improvements.

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. The proximity of the beetle infested trees to homes, cabins, roads and recreation areas has created safety issues that will require treatments outside of the allowances of the SMZ law. Under this Alternative Practice, equipment would be allowed to operate up to the ordinary high water mark (OHWM) under frozen and/or snow covered ground conditions. These treatments would be conducted on slopes less than 15%. Additional stipulations of this request would include:

- Operation would only occur during periods when soil disturbance can be minimized under conditions of frozen ground to a depth of four inches and/or snow to a depth of eight inches.
- If soil disturbance occurs, mitigation measures would include grass seeding and slash filter windrows placed on disturbed areas to prevent run-off and sediment from reaching water.
- All other rules pertaining to timber harvest near Class 3 streams would be adhered to.
- Skid distances inside the 50 foot SMZ buffer would be kept to a minimum and perpendicular to stream channel.

### 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 Anaconda Unit Manager

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

N/A

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### 3. ALTERNATIVES CONSIDERED:

Alternative A –No Action.

This alternative would not operate machinery inside the fifty foot buffer except as allowed under the SMZ Law for class 3 streams. 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 and excessive disturbance or increased risks to safety may occur.

Alternative B – Action.

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

III. IMPACTS ON THE PHYSICAL ENVIRONMENT
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|---|
| <ul style="list-style-type: none"><li>• <i>RESOURCES</i> potentially impacted are listed on the form, followed by common issues that would be considered.</li><li>• Explain <i>POTENTIAL IMPACTS AND MITIGATIONS</i> 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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### 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 50 foot SMZ except to cross the channel every 200 feet as allowed by the SMZ Law. Trees would be hand-felled and skidded by cable through the SMZ. Felling and skidding may occur on various types of soils and on various degrees of slopes.

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. Equipment operation would be limited to areas where slope is less than 15%. Mitigation measures would include operating season restrictions that require frozen ground to a depth of four inches and/or snow depth of eight inches. In addition, grass-seeding and installation of erosion control measures such as a slash-filter windrow on any disturbed area would be required upon completion of activity. Minimal direct, indirect or cumulative impacts to soil stability and compaction are anticipated due to the soil rating restrictions, operation restrictions and mitigation measures.

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### 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 50 foot SMZ except to cross the channel every 200 feet as allowed by the SMZ Law. Trees would be hand-felled and skidded by cable through the SMZ or left standing. Hand-felling operations may introduce low levels of sediment delivery to adjacent waterbodies. Sedimentation delivery from existing roads, other land treatments and developments would continue. Minimal direct, indirect, and cumulative impacts to water quality and quantity would be expected.

Alternative B – Action

The harvest of trees to the OHWM of the SMZ may introduce low levels of sediment delivery to adjacent waterbodies. However, these two Class 3 streams flow water very infrequently and do not contribute to any other body of water. Increases in sedimentation would be expected to be minimal and temporary due to

operations only occurring on slopes less than 15% and application of mitigation measures. Mitigation measures include imposing seasonal operating restrictions that require frozen ground to a depth of four inches and/or snow depth of eight inches. If ground disturbance occurs, grass seeding and installation of erosion control measures such as a slash-filter windrow would be required. DNRC may monitor AP sites to verify effectiveness. Minimal direct, indirect, and cumulative impacts to water quality and quantity are expected due to operation restrictions and mitigation measures.

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**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

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**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

Rules pertaining to timber harvest near Class 3 streams would be adhered to as outlined in *The Montana Guide to the Streamside Management Zone Law and Rules*. All dead and dying lodgepole pine would be removed and equipment would be allowed to cross the streams at 200 foot intervals. Trees would be hand-felled. Hand-felling and skidding hand-felled trees have the potential to be more damaging to the residual stand than the directional felling of a feller buncher. This is due to trees being pulled through the residual stand with less maneuverability, potentially removing bark and pulling over the residual stand.

Alternative B – Action

Vegetative communities would be affected to the extent that equipment would be allowed to operate up to the OHWM during conditions of frozen ground to a depth of four inches and/or snow depth of eight inches. Impacts would be expected to be minimal due to operating restrictions.

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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.*

Alternative A – No Action

Equipment restrictions would be adhered to. Due to the areas being heavily used for recreation and their proximity to roads and cabins, the suitability of the proposed sites would continue to be marginal at best for terrestrial and avian habitat. Dead lodgepole pine would eventually fall over and/or be removed in a non-commercial manner.

Alternative B – Action

Due to the areas being heavily used for recreation and their proximity to roads and cabins, the suitability of the proposed sites would continue to be marginal at best for terrestrial and avian habitat. Operating restrictions and mitigation measures would minimize sedimentation impacts to fish habitat where present. In areas of pure lodgepole pine stands, stream shading would be reduced and peak seasonal stream temperatures may see an increase in July and August. All other species of trees and brush would be retained and protected to the greatest extent possible. When practical, and as directed by either the DNRC Hydrologist or DFWP Fisheries Biologist, a tree or trees would be placed across streams to provide for shading and woody debris. Cumulative impacts would be expected to be short term.

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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.*

**Alternative A – No Action**

A query of the Montana Natural Heritage Program identifies the area as being possible habitat for gray wolf, 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 grey wolf, Canada lynx, wolverine or fisher. Minimum retention standards would be adhered to as well as equipment restrictions. Dead lodgepole pine would eventually fall over and/or be removed in a non-commercial manner.

**Alternative B - Action**

Due to the proximity of heavy recreational activities and access to cabin sites, this area would continue to not be ideal habitat for gray wolf, Canada lynx, wolverine or fisher. If a sighting of any of the listed species of concern (or evidence such as nests, dens etc...) occurs, operations would be halted, or not allowed, until further assessment can take place.

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**10. HISTORICAL AND ARCHAEOLOGICAL SITES:**

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

Although no cultural or paleontological 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.*

**Alternative A – No Action**

Equipment restrictions would be adhered to. Lodgepole pine would be removed by hand-felling and cable skidding.

**Alternative B - Action**

Potential impacts may be perceived as adverse by recreationists and 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.

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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.*

There have been six SMZ AP's issued in the last two years in this area. All of them have required similar operating restrictions and mitigation measures and have proved beneficial with minimal impacts.

## 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.*

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. The removal of beetle killed trees would improve safety to homeowners and those that use the area for recreation.

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

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

N/A

### 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.*

Project would be allowed for a period of two years. Harvest of trees may generate 20 mbf per site and would employ one logging crew over the entire area. In addition this project would provide raw material for local mill operations.

### 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.

### 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

### 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.*

This project, under this Alternative Practice, would allow timber salvage in an area considered at high risk for wildfire under Granite Counties Community Wildfire Protection Plan.

### 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

### 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

### 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> 11/24/10
	<b>Title:</b> Service Forester	

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<b>V. FINDING</b>
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**25. ALTERNATIVE SELECTED:**

Alternative B - Action

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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> Fred Staedler
	<b>Title:</b> Anaconda Unit Manager
<b>Signature:</b> /S/ Fred Staedler	<b>Date:</b> 11/24/10

**November 29, 2010**

Kanduch Logging Inc.  
48 Woodland Lane  
Philipsburg, MT 59858

Ref: Cady Lodgepole Pine Salvage SMZ AP

Dear Mr. Kanduch,

This letter is in reference to a request made by Joe Kanduch of Kanduch Logging Inc. to the Department of Natural Resources and Conservation for an Alternative Practice. This AP is located on private land located in Section 27, T5N, R16W, NW1/4, NW1/4 (see attached map) in Granite County. After a visit to the proposed Alternative Practice site this request has been approved. Approval is subject to the following conditions:

- Operation would only occur during periods when soil disturbance can be minimized under conditions of frozen ground to a depth of four inches and/or snow to a depth of eight inches.
- If soil disturbance occurs, mitigation measures would include grass seeding and slash filter windrows placed on disturbed areas to prevent run-off and sediment from reaching water.
- All other rules pertaining to timber harvest near Class 3 streams would be adhered to.
- Skid distances inside the 50 foot SMZ buffer would be kept to a minimum and perpendicular to stream channel.
- 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.

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

November 29, 2010

**Kanduch – Cady Lodgepole Pine Salvage**

ALTERNATIVE PRACTICE RESPONSIBILITY AFFIDAVIT

In consideration of DNRC's approval of the alternative practice(s) in Section 27, T5N, R16W, NW1/4, NW1/4, 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.

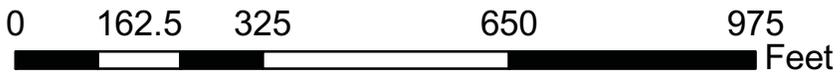
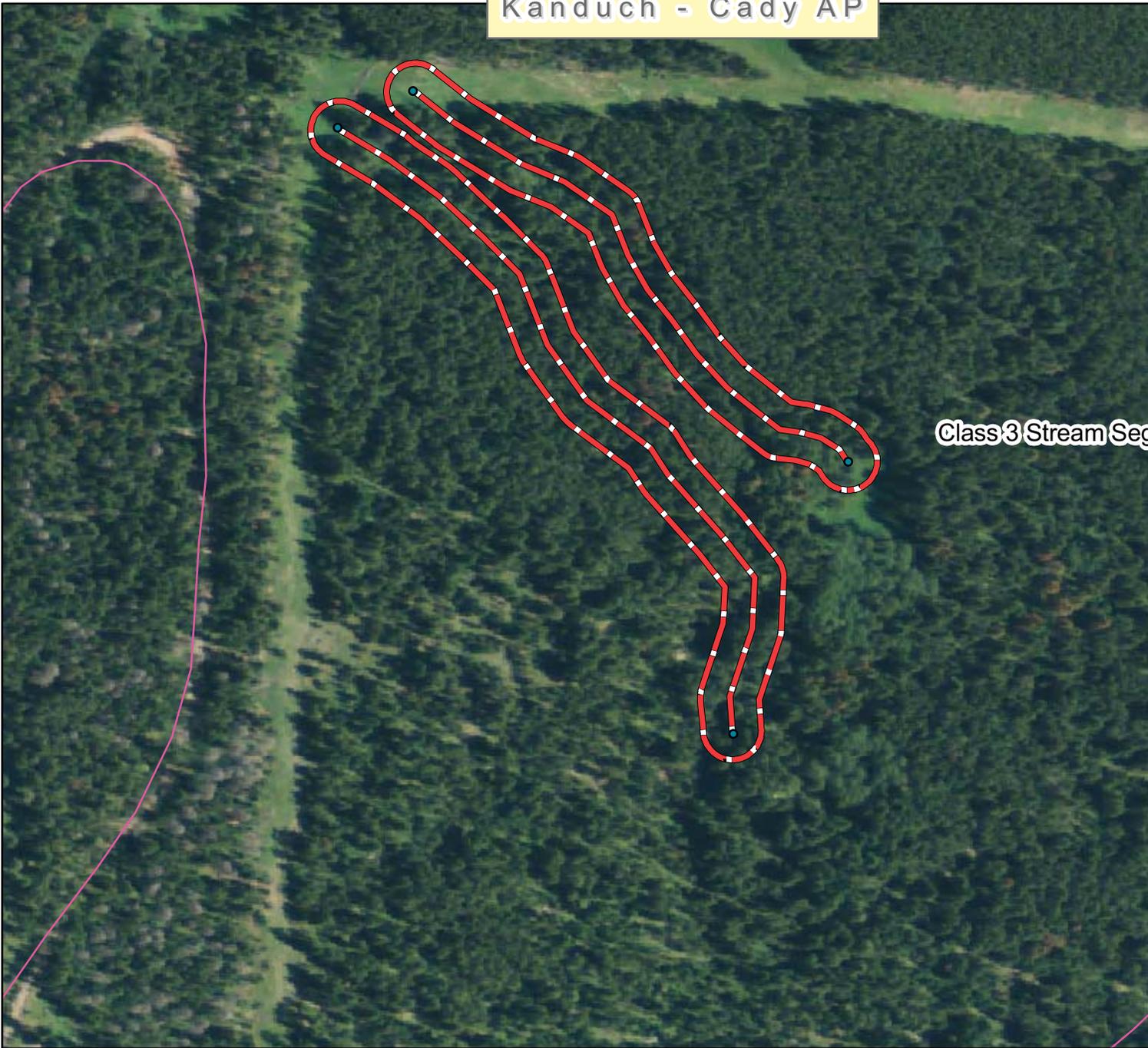
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**Signature of Responsible Party**

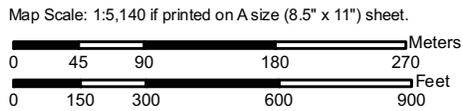
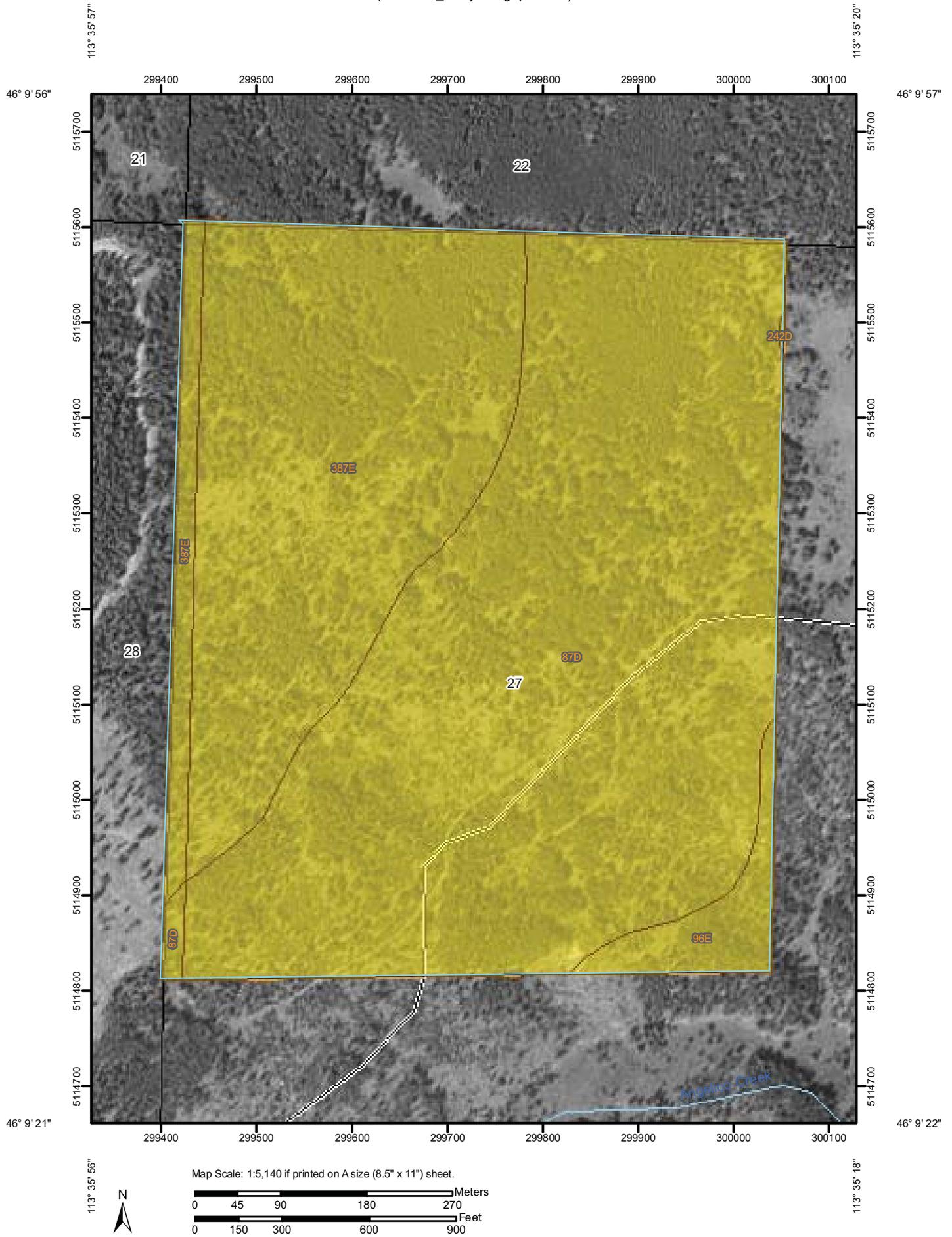
**Date**

Kanduch - Cady AP

Class 3 Stream Seg



Harvest Equipment Operability—Deer Lodge National Forest Area, Montana, and Granite County Area, Montana  
(Kanduch\_Cady Lodgepole 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

 Oceans

 Streams and Canals

### Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

## MAP INFORMATION

Map Scale: 1:5,140 if printed on A size

The soil surveys that comprise your AOI

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

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL: <http://websoilsurvey.sc.egov.usda.gov>

Coordinate System: UTM Zone 12N

This product is generated from the USDA National Cooperative Soil Survey  
the version date(s) listed below.

Soil Survey Area: Deer Lodge National Forest

Survey Area Data: Version 10, Feb 2001

Soil Survey Area: Granite County Area

Survey Area Data: Version 11, Dec 2001

Your area of interest (AOI) includes more detail than the soil survey maps. These survey areas may have been mapped for a different land use in mind, at different scales, or with different levels of detail. This may result in map unit symbols that do not completely agree with the interpretations that do not completely agree with the boundaries.

Date(s) aerial images were photographed

The orthophoto or other base map on which this map was compiled and digitized probably differs from the imagery displayed on these maps. As a result, some of map unit boundaries may be evident.



Natural Resources  
Conservation Service

Web Soil Survey  
National Cooperative Soil Survey

## Harvest Equipment Operability

Harvest Equipment Operability— Summary by Map Unit — Deer Lodge National Forest Area, Montana						
Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
87D	Danaher loam, 4 to 15 percent slopes	Moderately suited	Danaher (85%)	Low strength (0.50)	0.5	0.4%
			Foolhen (5%)	Low strength (0.50)		
			Worock (5%)	Low strength (0.50) Slope (0.50)		
387E	Danaher-Loberg complex, 15 to 35 percent slopes	Moderately suited	Danaher (55%)	Low strength (0.50) Slope (0.50)	3.8	3.1%
			Loberg (30%)	Low strength (0.50) Slope (0.50)		
			Worock (4%)	Low strength (0.50) Slope (0.50)		
			Mannixlee (3%)	Low strength (0.50)		
<b>Subtotals for Soil Survey Area</b>					<b>4.3</b>	<b>3.5%</b>
<b>Totals for Area of Interest</b>					<b>122.3</b>	<b>100.0%</b>

Harvest Equipment Operability— Summary by Map Unit — Granite County Area, Montana						
Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
87D	Danaher loam, 4 to 15 percent slopes	Moderately suited	Danaher (85%)	Low strength (0.50)	75.5	61.8%
			Foolhen (5%)	Low strength (0.50)		
			Worock (5%)	Slope (0.50)		
96E	Worock gravelly loam, cool, 15 to 35 percent slopes	Moderately suited	Worock (85%)	Slope (0.50)	3.7	3.1%
			Elve (5%)	Slope (0.50)		
			Loberg (4%)	Low strength (0.50) Slope (0.50)		
			Evaro (3%)	Low strength (0.50) Slope (0.50)		
			Danaher (3%)	Low strength (0.50) Slope (0.50)		

Harvest Equipment Operability— Summary by Map Unit — Granite County Area, Montana						
Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
242D	Braziel gravelly loam, 8 to 15 percent slopes	Moderately suited	Braziel (85%)	Low strength (0.50)	0.0	0.0%
			Shanley (5%)	Low strength (0.50)		
			Straw (5%)	Low strength (0.50)		
387E	Danaher-Loberg complex, 15 to 35 percent slopes	Moderately suited	Danaher (55%)	Low strength (0.50)	38.6	31.6%
				Slope (0.50)		
			Loberg (30%)	Low strength (0.50)		
				Slope (0.50)		
			Worock (4%)	Low strength (0.50)		
				Slope (0.50)		
			Mannixlee (3%)	Low strength (0.50)		
<b>Subtotals for Soil Survey Area</b>					<b>117.9</b>	<b>96.5%</b>
<b>Totals for Area of Interest</b>					<b>122.3</b>	<b>100.0%</b>

Harvest Equipment Operability— Summary by Rating Value		
Rating	Acres in AOI	Percent of AOI
Moderately suited	122.3	100.0%
<b>Totals for Area of Interest</b>	<b>122.3</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