CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	K&C Lodgepole Pine Salvage
Proposed Implementation Date:	Upon Signature
Proponent:	Joe Kanduch of Kanduch Logging Inc.
Location:	E2NE4,T5N, R16W, S26; SE4, T5N, R16W, S23
County:	Granite

I. TYPE AND PURPOSE OF ACTION

Joe Kanduch of Kanduch Logging Inc., LLC, is requesting an Alternative Practice to allow the salvage of mountain pine beetle infested lodgepole pine along Ross's Fork Creek (see attached map). 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 roads, 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 roads and recreation areas has created safety issues that will require treatments outside of the allowances of the SMZ law. Treatments would include operation of equipment inside the 50 foot SMZ buffer of Ross's Fork and designated areas in the adjacent wetlands and Class 2 segments of the overflow channel. When ground conditions are frozen to a depth of four inches, covered with eight inches of snow, or dry to less than 20% moisture content, the feller-buncher would be allowed to travel to within 15 feet of the ordinary high water mark (OHWM). These treatments would be conducted on slopes less than 15% 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). Steeper slopes would require hand-falling. Additional stipulations of this request would include:

- Operation of the feller-buncher would be allowed inside the SMZ on Ross's Fork. Operation would be allowed up to 15 feet from the OHWM. Operation would be in a "straight in and straight out" manner.

- Operation of equipment would be allowed, at locations designated by DNRC, on areas of the overflow channel that are considered adjacent wetlands and Class 2 stream segments.

- Operation would only occur during periods when soil disturbance can be minimized under conditions of frozen ground to a depth of four inches, snow to a depth of eight 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 and sediment from reaching water.

- Except for areas designated along Class 2 segments of the overflow channel, buncher felled trees would be placed outside of the 50 foot SMZ boundary of Ross's Fork for skidding.

- Small, un-infested lodgepole pine, in addition to other species of trees such as Douglas-fir, Engelmann spruce, quaking aspen and all brush species, would be retained and protected to the greatest extent possible.

- Within the SMZ, the feller buncher will be operated in a “straight in and straight out” manner with harvested trees being placed outside the SMZ for skidding. Where adjacent wetlands are wider than 50 foot SMZ harvested trees will be placed on trail that feller buncher uses for ingress.

II. PROJECT DEVELOPMENT

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

Discussions have been conducted on the ground and by phone by MT DNRC Anaconda Unit Service Forester, DNRC Forest Practices Section Supervisor, USFS Pintler Ranger District, Robyn Bauer, Bill Gallagher and Joe Kanduch.

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 fifty 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 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

- *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 50 foot SMZ. Minimum retention standards would be recognized. 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 (see attached Web Soils Survey). Equipment operation inside the SMZ 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, snow depth of eight inches or ground moisture of 20% or less. 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.

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. Minimum retention standards would be recognized. 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 Ross's Fork. 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 within the first 15 feet of the SMZ's may introduce low levels of sediment delivery to Ross's Fork. However, the 15 foot equipment exclusion zone would be expected to provide adequate filtration for any displaced soils or increased runoff due to compacted soils in the 15 to 50 foot AP zone. Increases in sedimentation would be expected to be minimal and temporary due to equipment 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, snow depth of eight inches or ground moisture of 20% or less; and requiring grass seeding and installation of erosion control measures such as a slash-filter windrow on any disturbed area upon completion of operations. 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.

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

If no action is taken the dead trees will fall over, potentially causing damage to improvements and people. Trees may be hand-felled to minimum retention standards, but it would be expected that as retention trees fell the landowner would remove them anyway. 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

A query of the Montana Natural Heritage Program showed no plant species of concern for T5N, R16W. 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 trees would expedite natural regeneration and cumulative effects to vegetative communities would decrease as trees regenerate and replace those that are harvested.

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

Minimum retention standards would be adhered to as well as equipment restrictions. Due to the area being heavily used for recreation and its proximity to roads, houses and other improvements the suitability of the proposed site would continue to be marginal for fisher habitat. Dead lodgepole pine would eventually fall over and/or be removed in a non-commercial manner.

Alternative B – Action

A query of the Montana Natural Heritage Program lists bull trout and fisher as species of concern in this area. Due to the area being heavily used for recreation and its proximity to roads and other improvements, the suitability of the proposed site would continue to be marginal for fisher habitat. Operating restrictions and mitigation measures would minimize sedimentation impacts to fish habitat. The AP would reduce recruitable woody debris in this bull trout stream. Stream shading would be reduced and peak seasonal stream temperatures may see an increase in July and August. All species of trees (other than lodgepole pine) and brush would be retained and protected to the greatest extent possible. Cumulative impacts would be expected to be minimal and short term.

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 fisher and bull trout. Due to the proximity of houses, roads and other improvements this area would continue to be marginal habitat for 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 recreational activities, roads and houses this area would continue to be marginal habitat for fisher. The AP would reduce recruitable woody debris in this bull trout stream. 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. Cumulative impacts would be expected to be minimal and short term.

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 this project is not 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.

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

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. Aesthetics would be degraded as green trees transitioned to red and eventually fell over.

Alternative B - Action

Potential impacts may be perceived as adverse by recreationists, landowners and travelers. 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.

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

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 multiple 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. A 310 permit has been issued for a nearby ford crossing (see attached).

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.

Alternative A – No Action
Road travel 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.

Alternative B - Action
The removal of beetle killed trees would improve safety to the landowner and others that use the area for recreation. Removal of dead trees would reduce the potential for obstruction of bridges and culverts.

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.

Harvest of trees covered by this AP may generate 10 mbf 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 the Granite County 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

23. CULTURAL UNIQUENESS AND DIVERSITY:

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

N/A

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

EA Checklist Prepared By:	**Name:**	Sean Steinebach	**Date:**	4/2/12
	Title:	Service Forester		

V. FINDING

25. ALTERNATIVE SELECTED:

Alternative B - Action

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

The no action alternative would involve removal of dead and dying trees with little or no mitigation measures being implemented. The landowner has categorically stated the he wants all dead and dying lodgepole pine to be removed in order to facilitate reselling the property. He has the option of doing tree removal within the SMZ, as long as those trees which are removed are not sold commercially. There is a permit required under State law, SB 310, for any actions which would occur from high water mark to high water mark on perennial streams.

Under the action alternative, the same trees would be harvested, but with mitigation measures in place to prevent or reduce potential sediment transportation to the Ross's Fork of Rock Creek. These mitigation measures include:
-Restrictions on equipment operations during periods of high soil moisture content or when the soil is protected by snow depth and/or frozen conditions.
-Limits on skidding pattern.

-Installation of slash filter windrows under certain conditions.
-Retention of species other than lodgepole pine.

Visual impacts would be the same under both alternatives.

My finding is that no significant impacts to the integrity and function of the SMZ will occur with the implementation of the operating restrictions and mitigation measures. I select the action alternative for implementation.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

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

EA Checklist Approved By:	**Name:**	Fred Staedler
	Title:	Anaconda Unit Manager
Signature: /S/ Fred Staedler Jr.		**Date**: 4/4/12

April 4, 2012

Kanduch Logging Inc.
48 Woodland Lane
Philipsburg, MT 59858

Ref: K&C Holdings 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 along Ross's Fork of Rock Creek in T5N, R16W, Secs. 23 & 26 (see attached map) in Granite County. After a visit to the proposed Alternative Practice site by Roger Ziesak and Sean Steinebach, this request has been approved. Approval is subject to the following conditions:

- Operation of the feller-buncher would be allowed inside the 50 foot SMZ buffer on the Ross's Fork in a "straight in and straight out" manner. Operation would be allowed up to 15 feet from the OHWM.

-Equipment operation would be allowed in and across Class 2 segments of the wetlands at locations designated by DNRC.

-Skidding across wetlands would be allowed at locations designated by DNRC.

- Operation would only occur during periods when soil disturbance can be minimized under conditions of frozen ground to a depth of four inches, snow to a depth of eight 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 and sediment from reaching water.

- Buncher felled trees would be placed outside of the 50 foot SMZ boundary of Ross's Fork for skidding.

- Small, un-infested lodgepole pine, in addition to other species of trees such as Douglas-fir, Engelmann spruce, quaking aspen and all brush species, would be retained and protected to the greatest extent possible.

Approved Alternative Practices, including any additional conditions required by DNRC, shall have the same force and authority as the standards contained in77-5-303, 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

April 4, 2012

Kanduch/K&C Timber Salvage AP

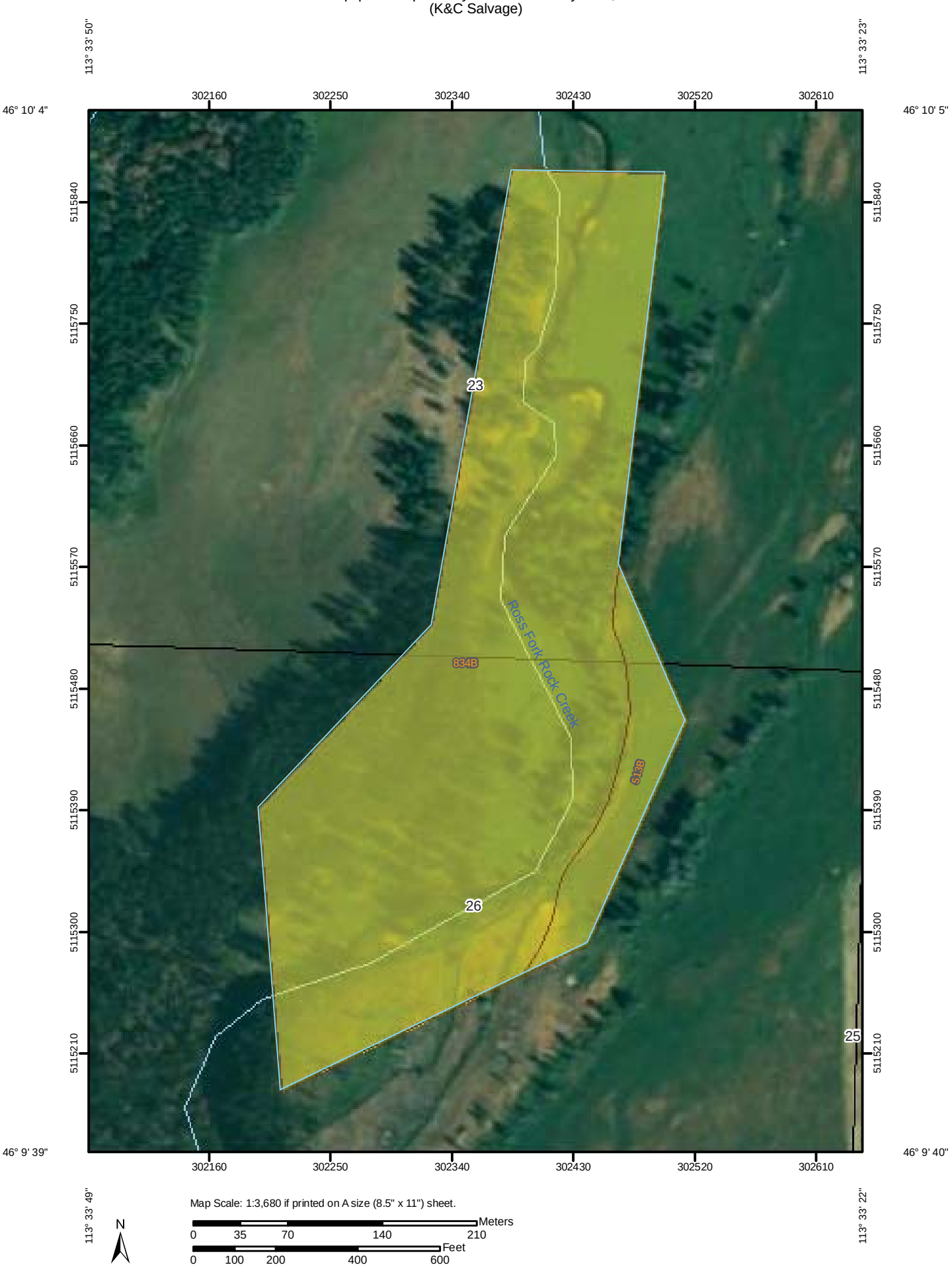
ALTERNATIVE PRACTICE RESPONSIBILTY AFFIDAVIT

In consideration of DNRC's approval of the alternative practice(s) in T5N, R16W, Secs. 23 & 26, 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.

Signature of Responsible Party **Date**

Kanduch - K&C Holdings AP

Harvest Equipment Operability—Granite County Area, Montana
(K&C Salvage)



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: 1:3,680 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 12, Jan 9, 2012

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**
513B	Windlass-Nirling complex, cool, 0 to 4 percent slopes	Moderately suited	Windlass (65%)	Low strength (0.50)	2.2	8.0%
			Gregson (4%)	Low strength (0.50)		
			Bandy (4%)	Low strength (0.50)		
			Kleinschmidt (4%)	Low strength (0.50)		
			Cetrack (3%)	Low strength (0.50)		
834B	Blossberg loam, 0 to 4 percent slopes, rarely flooded	Moderately suited	Blossberg (85%)	Low strength (0.50)	25.7	92.0%
			Bandy (3%)	Low strength (0.50)		
			Mannixlee (3%)	Low strength (0.50)		
			Flintcreek (3%)	Low strength (0.50)		
			Gregson (3%)	Low strength (0.50)		
Totals for Area of Interest					**28.0**	**100.0%**

Harvest Equipment Operability— Summary by Rating Value		
Rating	**Acres in AOI**	**Percent of AOI**
Moderately suited	28.0	100.0%
Totals for Area of Interest	**28.0**	**100.0%**

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

Plant Species of Concern

1 Potential Species of Concern
Filtered by the following criteria:
Township = 5 N Range = 16 W

Species List Last Updated **03/12/2012**

MONTANA Natural Heritage Program

A program of the Montana State Library's Natural Resource Information System operated by the University of Montana.

Species of Concern

0 Species
Filtered by the following criteria:
Township = 5 N Range = 16 W

Animal Species of Concern

2 Species of Concern
Filtered by the following criteria:
Township = 5 N Range = 16 W

Species List Last Updated **07/19/2011**

MONTANA Natural Heritage Program

A program of the Montana State Library's Natural Resource Information System operated by the University of Montana.

Species of Concern
2 Species
Filtered by the following criteria:
Township = 5 N Range = 16 W

MAMMALS (MAMMALIA)

1 SPECIES
FILTERED BY THE FOLLOWING CRITERIA:
TOWNSHIP = 5 N RANGE = 16 W

SCIENTIFIC NAME COMMON NAME TAXA SORT	FAMILY (SCIENTIFIC) FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	CFWCS TIER ID	% OF GLOBAL BREEDING RANGE IN MT	% OF MT THAT IS BREEDING RANGE	HABITAT
Martes pennanti Fisher	**Mustelidae** Weasels	G5	S3		SENSITIVE	SENSITIVE	2	1%	31%	Mixed conifer forests
		Species verified in these Counties: Beaverhead, Deer Lodge, Flathead, Glacier, Granite, Lake, Lewis and Clark, Lincoln, Mineral, Missoula, Pondera, Powell, Ravalli, Sanders, Teton								

FISH (ACTINOPTERYGII)

1 SPECIES
FILTERED BY THE FOLLOWING CRITERIA:
TOWNSHIP = 5 N RANGE = 16 W

SCIENTIFIC NAME COMMON NAME TAXA SORT	FAMILY (SCIENTIFIC) FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	CFWCS TIER ID	% OF GLOBAL BREEDING RANGE IN MT	% OF MT THAT IS BREEDING RANGE	HABITAT
Salvelinus confluentus Bull Trout	**Salmonidae** Trout	G3	S2	LT	THREATENED	SPECIAL STATUS	1	5%	18%	Mountain streams, rivers, lakes
		Species verified in these Counties: Deer Lodge, Flathead, Glacier, Granite, Lake, Lewis and Clark, Lincoln, Mineral, Missoula, Phillips, Powell, Ravalli, Sanders								