February 11, 2010

Ref: Bear Line Logging/ USFS Lease Beetle Salvage SMZ AP

Dear Mr. Griffith

This letter is in reference to a request made by Dean Griffith, of Bear Line Logging, to the Department of Natural Resource and Conservation for an Alternative Practice. This AP is located in Section 14, T5N, R14W. After review of the Checklist Environmental Assessment prepared for this request, the Alternative Practice to allow equipment operations within the SMZ is approved, subject to the following conditions:

1) The mechanized harvest inside the SMZ buffer will occur no closer than 25 feet from the Georgetown Lake ordinary high water mark.
2) Harvested trees will be set outside of the 50 foot SMZ for skidding.
3) Operation of equipment inside the SMZ will only take place on slopes less that 35%.
4) In Portion 1 of the AP, all infested lodgepole pine can be removed.
5) In Portion 2 of the AP, minimum retention standards will still apply. (10 trees > 8 inches per 100 lineal feet)
6) Operations will only occur during frozen and snow covered ground conditions.
7) Operation of harvesting equipment inside the SMZ will occur in a "straight-in and straight-out" manner.

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.

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

February 11, 2010

ALTERNATIVE PRACTICE RESPONSIBILTY AFFIDAVIT

Bear Line Logging Forest Service Lease AP

In consideration of DNRC's approval of the alternative practice(s) in Sec. 14 T5N, R14W, Tract "C", Lots-6, 7 & 9. 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.

/s/ Dean Griffith

Signature of Responsible Party **Date**

CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Bearline Logging-USFS Lease Beetle Salvage
Proposed Implementation Date:	Upon Approval
Proponent:	Dean Griffith
Location:	S14 T5N R14W
County:	Granite

I. TYPE AND PURPOSE OF ACTION

Bear Line Logging, Inc. has been hired to remove mountain pine beetle infested lodgepole pine from an area adjacent to Georgetown Lake. The land is owned by the Forest Service, but leased to cabin owners on the lots. As per the lease agreement, the lease holders are required to remove hazard trees. The harvest would require operation of a feller buncher inside the fifty foot SMZ buffer zone, but no closer than twenty-five feet to Georgetown Lake. Feller buncher would access trees in a straight-in and straight-out manner. There are two portions to the Alternative Practice. Portion 1 would allow lodgepole pine to be removed to below minimum retention standards. Portion 2 would not be harvested below minimum retention standards, but would still allow operation of a feller-buncher inside the fifty foot SMZ. Operations would only occur during frozen and snow covered ground conditions. All non-sawlog sized lodgepole pine, quaking aspen, Engelmann spruce and Douglas-fir 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.

Dean Griffith, the MTDNRC, the Forest Service and the lease holders.

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

The Forest Service has been contacted to verify lease permit holders have permission to remove trees from the lease ground.

3. ALTERNATIVES CONSIDERED:

Alternative A –No Action. This alternative would not mechanically harvest trees inside the fifty foot buffer. It would not reduce retention trees below minimum standard, nor would hazard trees or brood trees be addressed.

Alternative B – Action. Bear Line Logging, Inc. would remove mountain pine beetle infested lodgepole pine from an area adjacent to Georgetown Lake. The harvest would operate a feller buncher inside the fifty foot SMZ buffer zone, but no closer than twenty-five feet to Georgetown Lake. Feller buncher would access trees in a straight-in and straight-out manner. There are two portions to the Alternative Practice. Portion 1 would allow lodgepole pine to be removed to below minimum retention standards. Portion 2 would not be harvested below minimum retention standards, but would still allow operation of a feller-buncher inside the fifty foot SMZ. Operations would only occur during frozen and snow covered ground conditions. All non-sawlog sized lodgepole pine, quaking aspen, Engelmann spruce and Douglas-fir would be retained. Operations would only occur during frozen and snow covered ground conditions and no later than March 1st, 2010.

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.

A query of the Web Soil Survey listed the soils in the Alternative Practice area as "moderately suited" for timber harvest. However, operation of equipment inside the SMZ would be on slopes less than 35% and on frozen and snow covered ground. Due to these restrictions, no unacceptable impacts are anticipated.

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.

The operating restrictions outlined under GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE heading, in addition to the level nature of the banks, would prevent run-off from reaching Georgetown Lake. A twenty-five foot buffer would be adequate distance from Georgetown Lake in this situation.

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.

The understory vegetation is grasses, the overstory is lodgepole pine. All lodgepole pine showing signs of mountain pine beetle infestation would be removed in Portion 1 of the AP. In Portion 2, ten dead lodgepole pine would be retained per 100 foot segment of SMZ. All other tree species would be retained and protected, including un-infested lodgepole pine. Frozen and snow covered ground conditions would prevent disturbance to ground vegetation. No unacceptable impacts are anticipated with the action alternative.

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.

This AP lies between Lakeshore Road and Georgetown Lake. Due to the proximity to houses, the area does not contain substantial habitat value for wildlife. The removal of trees below minimum retention standards in Portion 1 would reduce shading to Georgetown Lake. In Portion 2, 10 retention trees would be retained per 100 foot segment. With the implementation of recommended operating conditions, no unacceptable impacts are anticipated.

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 grey wolf, Canada lynx and wolverine. The proximity of this AP segment to recreational area, the local access road and

houses significantly reduces its suitability for habitat. Georgetown Lake does not contain bull trout or Westslope cutthroat trout. Removal of lodgepole pine below minimum retention standards would increase sunlight that reaches Georgetown Lake in Portion 1, however, those trees pose a significant hazard to the homes. Minimum retention standards would be met on Portion 2 to provide shading and bank stabilization. No unacceptable impacts are anticipated.

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

None were identified.

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 diminished aesthetics would be perceived by travelers on Lakeshore Road, recreationists on the lake and the lease holders.

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.

N/A

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.

The harvest is related to the safety of the lease holders. The dead lodgepole pine would pose a risk to the lease holders if no action is taken.

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.

Two people would be employed during the harvest.

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 tax revenue would be generated through this harvest.

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.

N/A

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:** 2/10/2010
	Title: Service Forester	

V. FINDING

25. ALTERNATIVE SELECTED:

Alternative B – Action Alternative

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

No unacceptable impacts are anticipated.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

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

EA Checklist Approved By:	**Name:** /S/ Fred Staedler **Title: Unit Manager Anaconda Unit 2/11/10**

Signature:	**Date**:

Bear Line Logging AP

210 105 0 210 Feet

N

Haul Roads, Log Landings, and Soil Rutting on Forestland

This table can help forestland owners or managers plan the use of soils for wood crops. Interpretive ratings are given for the soils according to the limitations that affect various aspects of forestland management. The ratings are both verbal and numerical.

Numerical ratings in the table 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 paragraphs that follow indicate the soil properties considered in rating the soils. More detailed information about the criteria used in the ratings is available in the "National Forestry Manual," which is available in local offices of the Natural Resources Conservation Service or on the Internet.

For *limitations affecting construction of haul roads and log landings,* the ratings are based on slope, flooding, permafrost, plasticity index, the hazard of soil slippage, content of sand, the Unified classification, rock fragments on or below the surface, depth to a restrictive layer that is indurated, depth to a water table, and ponding. The limitations are described as slight, moderate, or severe. A rating of *slight* indicates that no significant limitations affect construction activities, *moderate* indicates that one or more limitations can cause some difficulty in construction, and *severe* indicates that one or more limitations can make construction very difficult or very costly.

The ratings of *suitability for log landings* are based on slope, rock fragments on the surface, plasticity index, content of sand, the Unified classification, depth to a water table, ponding, flooding, and the hazard of soil slippage. The soils are described as well suited, moderately suited, or poorly suited to use as log landings. *Well suited* indicates that the soil has features that are favorable for log landings 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 log landings. 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 log landings. Overcoming the unfavorable properties requires special design, extra maintenance, and costly alteration.

Ratings in the column *soil rutting hazard* are based on depth to a water table, rock fragments on or below the surface, the Unified classification, depth to a restrictive layer, and slope. Ruts form as a result of the operation of forestland equipment. The hazard is described as slight, moderate, or severe. A rating of *slight* indicates that the soil is subject to little or no rutting, *moderate* indicates that rutting is likely, and *severe* indicates that ruts form readily.

Reference:
United States Department of Agriculture, Natural Resources Conservation Service, National forestry manual.

Report—Haul Roads, Log Landings, and Soil Rutting on Forestland

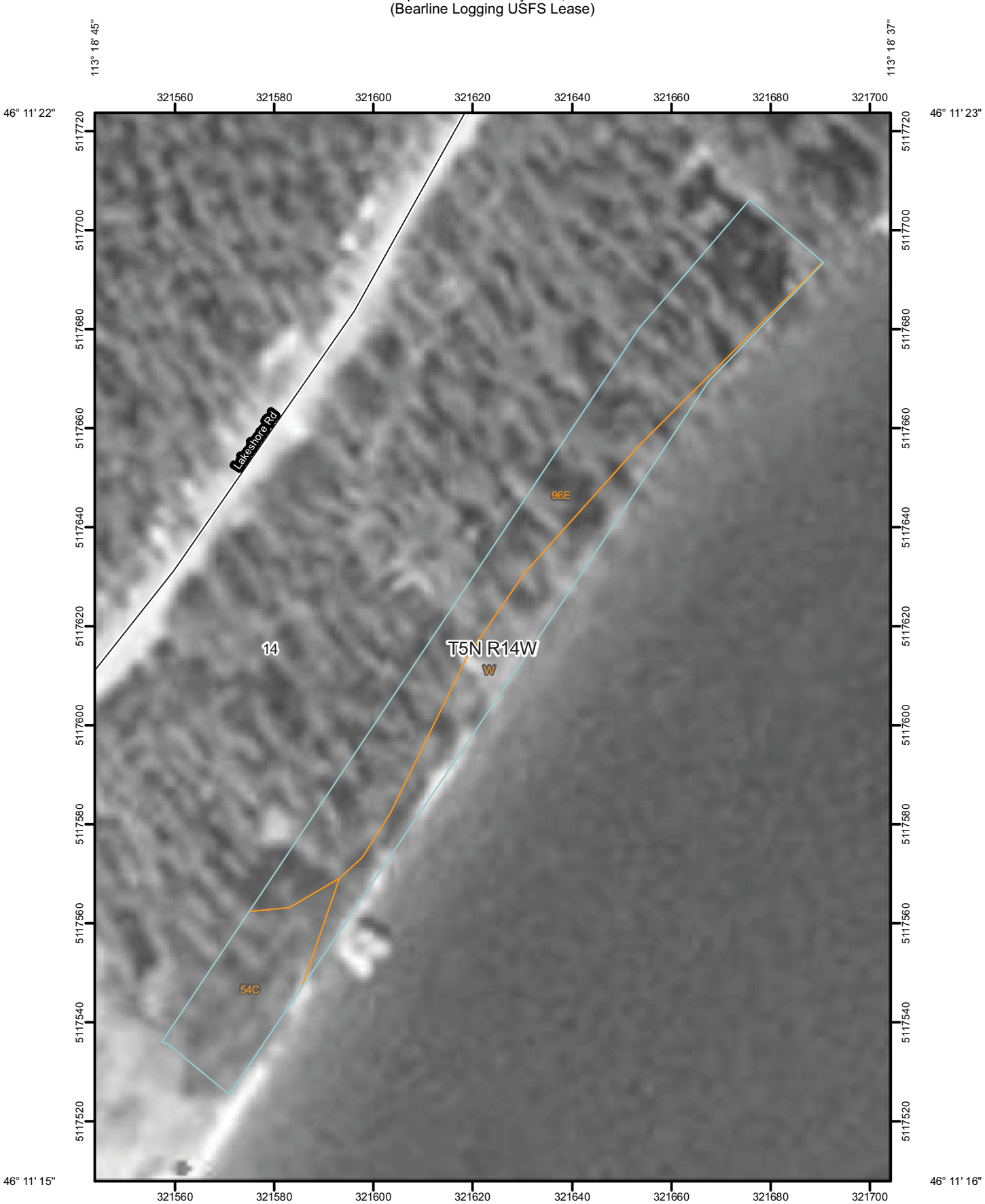
[Onsite investigation may be needed to validate the interpretations in this table and to confirm the identity of the soil on a given site. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. The table shows only the top five limitations for any given soil. The soil may have additional limitations]

Haul Roads, Log Landings, and Soil Rutting on Forestland– Granite County Area, Montana							
Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings		Suitability for log landings		Soil rutting hazard	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
54C—Libeg channery loam, 4 to 8 percent slopes							
Libeg	85	Slight		Moderately suited		Slight	
				Slope	0.50	Strength	0.10
96E—Worock gravelly loam, cool, 15 to 35 percent slopes							
Worock	85	Moderate		Poorly suited		Slight	
		Slope	0.50	Slope	1.00	Strength	0.10
W—Water							
Water	100	Not rated		Not rated		Not rated	

Data Source Information

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

Soil Map—Granite County Area, Montana
(Bearline Logging USFS Lease)



MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Units

Special Point Features

Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill

Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

Spoil Area

Stony Spot

Very Stony Spot

Wet Spot

Other

Special Line Features

Gully

Short Steep Slope

Other

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: 1:1,030 if printed on A size (8.5" × 11") sheet.

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

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: 8/1/1995

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.

Map Unit Legend

Granite County Area, Montana (MT621)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
54C	Libeg channery loam, 4 to 8 percent slopes	0.2	17.6%
96E	Worock gravelly loam, cool, 15 to 35 percent slopes	0.5	57.4%
W	Water	0.2	25.0%
Totals for Area of Interest		**0.9**	**100.0%**

Animal Species of Concern

8 Species of Concern
3 Potential Species of Concern
Filtered by the following criteria:
Township = 5 N Range = 14 W

Species List Last Updated **02/01/2010**

MONTANA Natural Heritage Program

A program of the University of Montana and Natural Resource Information Systems, Montana State Library

Species of Concern

8 Species
Filtered by the following criteria:
Township = 5 N Range = 14 W

MAMMALS (MAMMALIA)

4 SPECIES
FILTERED BY THE FOLLOWING CRITERIA:
TOWNSHIP = 5 N RANGE = 14 W

SCIENTIFIC NAME COMMON NAME	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
Canis lupus Gray Wolf	**Canidae** Wolves / Coyotes / Foxes	G4	S3	DM	SENSITIVE	SENSITIVE	1	1%	32%	Generalist
		Species verified in these Counties: Beaverhead, Broadwater, Carbon, Cascade, Deer Lodge, Flathead, Gallatin, Glacier, Golden Valley, Granite, Jefferson, Judith Basin, Lake, Lewis and Clark, Lincoln, Madison, Meagher, Mineral, Missoula, Park, Pondera, Powell, Ravalli, Sanders, Silver Bow, Stillwater, Sweet Grass, Teton, Wheatland								
Gulo gulo Wolverine	**Mustelidae** Weasels	G4	S3		SENSITIVE	SENSITIVE	2	0%	37%	Conifer forest
		Species verified in these Counties: Beaverhead, Broadwater, Carbon, Cascade, Deer Lodge, Flathead, Gallatin, Glacier, Granite, Jefferson, Judith Basin, Lake, Lewis and Clark, Lincoln, Madison, Meagher, Mineral, Missoula, Park, Pondera, Powell, Ravalli, Sanders, Silver Bow, Stillwater, Sweet Grass, Teton, Wheatland								
Lynx canadensis Canada Lynx	**Felidae** Cats	G5	S3	LT	THREATENED	SPECIAL STATUS	1	1%	40%	Subalpine conifer forest
		Species verified in these Counties: Beaverhead, Broadwater, Carbon, Cascade, Deer Lodge, Flathead, Gallatin, Glacier, Granite, Jefferson, Judith Basin, Lake, Lewis and Clark, Lincoln, Madison, Meagher, Mineral, Missoula, Park, Pondera, Powell, Ravalli, Sanders, Silver Bow, Stillwater, Sweet Grass, Teton, Wheatland								
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								

BIRDS (AVES)

2 SPECIES
FILTERED BY THE FOLLOWING CRITERIA:
TOWNSHIP = 5 N RANGE = 14 W

SCIENTIFIC NAME COMMON NAME	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
Aquila chrysaetos Golden Eagle	**Accipitridae** Hawks / Eagles	G5	S3			SENSITIVE	2	3%	100%	Grasslands
		Species verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Chouteau, Custer, Daniels, Dawson, Deer Lodge, Fallon, Fergus, Flathead, Gallatin, Garfield, Glacier, Golden Valley, Granite, Hill, Jefferson, Judith Basin, Lake, Lewis and Clark, Liberty, Lincoln, Madison, McCone, Meagher, Mineral, Missoula, Musselshell, Park, Petroleum, Phillips, Pondera, Powder River, Powell, Prairie, Ravalli, Richland, Roosevelt, Rosebud, Sanders, Sheridan, Silver Bow, Stillwater, Sweet Grass, Teton, Toole, Treasure, Valley, Wheatland, Wibaux, Yellowstone								
Ardea herodias Great Blue Heron	**Ardeidae** Herons	G5	S3				3	3%	100%	Riparian forest
		Species verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Chouteau, Custer, Dawson, Deer Lodge, Fallon, Fergus, Flathead, Gallatin, Garfield, Glacier, Golden Valley, Granite, Hill, Jefferson, Judith Basin, Lake, Lewis and Clark, Liberty, Lincoln, Madison, McCone, Meagher, Mineral, Missoula, Musselshell, Park, Petroleum, Phillips, Pondera, Powder River, Powell, Prairie, Ravalli, Richland, Roosevelt, Rosebud, Sanders, Sheridan, Silver Bow, Stillwater, Sweet Grass, Teton, Toole, Treasure, Valley, Wheatland, Wibaux, Yellowstone								

FISH (ACTINOPTERYGII)

2 SPECIES

FILTERED BY THE FOLLOWING CRITERIA:
TOWNSHIP = 5 N RANGE = 14 W

SCIENTIFIC NAME COMMON NAME	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
Oncorhynchus clarkii lewisi Westslope Cutthroat Trout	**Salmonidae** Trout	G4T3	S2		SENSITIVE	SENSITIVE	1		34%	Mountain streams, rivers, lakes
		Species verified in these Counties: Beaverhead, Broadwater, Cascade, Chouteau, Deer Lodge, Fergus, Flathead, Gallatin, Glacier, Granite, Jefferson, Judith Basin, Lake, Lewis and Clark, Lincoln, Madison, Meagher, Mineral, Missoula, Park, Pondera, Powell, Ravalli, Sanders, Silver Bow, Teton								
Salvelinus confluentus Bull Trout	**Salmonidae** Trout	G3	S2	LT	THREATENED	SPECIAL STATUS	1		18%	Mountain streams, rivers, lakes
		Species verified in these Counties: Deer Lodge, Flathead, Glacier, Granite, Lake, Lewis and Clark, Lincoln, Mineral, Missoula, Powell, Ravalli, Sanders								

Plant Species of Concern

4 Species of Concern
1 Potential Species of Concern
Filtered by the following criteria:
Township = 5 N Range = 14 W

Species List Last Updated **09/16/2009**

MONTANA Natural Heritage Program

A program of the University of Montana and Natural Resource Information Systems, Montana State Library

Species of Concern

4 Species
Filtered by the following criteria:
Township = 5 N Range = 14 W

FERNS AND FERN ALLIES (PTERIDOPHYTA)

2 SPECIES
FILTERED BY THE FOLLOWING CRITERIA:
TOWNSHIP = 5 N RANGE = 14 W

SCIENTIFIC NAME COMMON NAME	OTHER NAMES	FAMILY (SCIENTIFIC) FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	MNPS THREAT CATEGORY
Botrychium crenulatum Wavy Moonwort	**Botrychium dusenii**	**Ophioglossaceae** Adder's-Tongue / Moonworts	G3	S2S3		SENSITIVE		2
			Species verified in these Counties: Flathead, Glacier, Granite, Lake, Lincoln, Missoula, Sanders					
Botrychium paradoxum Peculiar Moonwort		**Ophioglossaceae** Adder's-Tongue / Moonworts	G2	S2		SENSITIVE	SENSITIVE	2
			Species verified in these Counties: Deer Lodge, Flathead, Glacier, Granite, Jefferson, Lincoln, Pondera, Powell, Teton					

FLOWERING PLANTS - DICOTS (MAGNOLIOPSIDA)

2 SPECIES
FILTERED BY THE FOLLOWING CRITERIA:
TOWNSHIP = 5 N RANGE = 14 W

SCIENTIFIC NAME COMMON NAME	OTHER NAMES	FAMILY (SCIENTIFIC) FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	MNPS THREAT CATEGORY
Phlox kelseyi var. missoulensis Missoula Phlox	**Phlox missoulensis**	**Polemoniaceae** Phlox Family	G2G3	S2S3		SENSITIVE	SENSITIVE	2
			Species verified in these Counties: Cascade, Granite, Judith Basin, Lewis and Clark, Meagher, Missoula, Powell					
Ranunculus orthorhynchus Straightbeak Buttercup		**Ranunculaceae** Buttercup Family	G5	S1				1
			Species verified in these Counties: Deer Lodge, Granite, Mineral					