SITE SPECIFIC ALTERNATIVE PRACTICE
CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Mike McFerrin, Blue Timber Ranch, ~ Salvage Project
Proposed Implementation Date:	11/15/2012
Proponent:	Mike McFerrin
Location:	Sections 14, T12N, R7W
County:	Lewis & Clark County
Land Owner:	BLUE TIMBER RANCH LLC PO BOX 2342 RCHO SANTA FE, CA 92067-2342
HRA #:	

I. TYPE AND PURPOSE OF ACTION

A. **Type of Action: SMZ Alternative Practice:**

Proponent is requesting an SMZ Alternative Practice to Rule 4:(36.11.304) *Equipment Operation in the SMZ* and, Rule 5:(36.11.305), *Retention of Trees in the SMZ/Clearcutting in the SMZ.*

Mike McFerrin is planning a hazard tree removal project on property owned by Blue Timber Ranch, LLC. located in section 14, T12N, R7W near Helena, Montana. Western Spruce Budworm (WSBW) infested Douglas-fir as well as dead lodgepole pine (mountain pine beetle) would be removed by small, low-ground pressure logging equipment. Proponent would like to remove trees below the SMZ retention requirements for salvage to reduce potential damage and increase safety along this travel route.

To reduce possible risk and increase safety, the proponent would like to:

1. Remove WSBW infested Douglas-fir and dead lodgepole pine below the 10-tree retention minimum as specified under salvage logging for a Class-1 stream. Only trees 1-tree height from the road that is at risk of falling onto the road would be cut if going below the 10 tree minimum. Trees removed below minimum would only occur on one side of the creek. Sub-merchantable trees and brush would be retained.

2. Operation of low-ground pressure logging equipment on an existing trail adjacent to a fence line. This trail comes no closer than 24' from the stream bank.

3. Harvest operation would take place during snow covered, frozen ground conditions to prevent soil rutting.

4. If soil displacement would happen, the area in question would be grass seeded immediately following the harvest in the spring to reestablish vegetation.

B. **Purpose of Action: Timber Harvest**

Proponent has put forth a salvage timber harvest to mitigate impacts to property as a result of damage caused by WSBW and mountain pine beetle. This action should also increase forest health and vigor as well as provide a source of income to the landowner.

II. PROJECT DEVELOPMENT

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

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

No other agencies, groups or individuals have been contacted by the DNRC as part of this proposed Alternative Practice. Proponent would be responsible for contacting appropriate agencies to obtain other necessary permits, if necessary.

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

Other required permits are the responsibility of the proponent.

3. ALTERNATIVES CONSIDERED:

3.1 Alternative "A": Not approve Alternative Practice (No Action)

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

3.2 Alternative "B": Alternative as Proposed

Allow SMZ Alternative Practices as proposed with additional mitigation measures.

Tree Retention: Douglas-fir and lodgepole pine found throughout the proposed harvest area has been severely damaged and therefore meets the definition of "salvage", as stated in Rule1 (36.11.312(23)), *Definitions*, which says:

> "Salvage" means the harvesting of trees that have been killed or damaged, or are in imminent danger of being killed or damaged by injurious agents other than competition between trees.
>
> Salvage logging, as a pre-approved alternative may take place provided trees meet the definition of salvage under Rule 5: (36.11.305), subsection (5) which states:
>
> Trees retained pursuant to this rule may be salvaged only under the following conditions:
>
> (a) Trees to be harvested meet the definition of salvage found at ARM 36.11.312(23); and
> (b) The minimum tree retention requirements of section (2) are met by standing live trees or by dead or fallen trees where sufficient standing live trees are not available.
>
> Under subsection (2), Rule 5:(36.11.305), In order to provide large woody debris, stream shading, water filtering effects, and to protect stream channels and banks, merchantable and sub-merchantable trees must be retained in the first 50 feet of the SMZ beyond the ordinary high water mark and in the entire SMZ where the SMZ is extended for wetlands under ARM 36.11.302(2) (a) on each side of streams, and along lakes and other bodies of water as follows:
>
> (a) On each side of class 1 stream segments and lakes retain 50% of the trees greater than or equal to 8 inches dbh, or 10 trees greater than or equal to 8 inches dbh in each 100 lineal feet of the SMZ, whichever is greater.
>
> (i) If less than 10 trees greater than or equal to 8 inches dbh are present in any 100 lineal foot segment of the SMZ, then a ***minimum of 10 trees*** of the largest diameter available must be retained in that segment;

(ii) Trees retained must be representative of the species and size of trees in the pre-harvest stand; and

(iii) Shrubs and sub-merchantable trees must be protected and retained in the entire SMZ to the fullest extent possible when conducting forest practices in the SMZ.

Due to safety concerns, ***an Alternative Practice*** to remove Douglas-fir and lodgepole pine below the 10-tree retention minimum would be allowed. This exclusion would only be permissible in the SMZ for a distance of 1 tree-length adjacent to the road. In addition, low-ground pressure logging equipment would be allowed to operate on an existing trail adjacent the fence line within the SMZ.

Equipment Operation: Harvested timber will be removed with low-ground pressure logging equipment.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.

Harvest operations would be done during snow-covered, frozen ground conditions to prevent rutting. Degradation to the soil should be minimal due to the relatively small amount of forest products being harvested in the SMZ and the fact that the wood will be skid to landing areas using low-ground pressure logging equipment. Mitigation measures such as grass seeding exposed soil areas should reduce the potential of sediment runoff into stream.

5. WATER QUALITY, QUANTITY AND DISTRIBUTION:

Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.

Is it possible that implementing this Alternative Practice would impact the integrity of the SMZ and these specific functions?

1. Ability to act as an effective sediment filter.
2. Ability to provide shade to regulate stream temperature.
3. Protection of stream channel and banks.
4. Ability to provide large woody debris for eventual recruitment into the stream to maintain riffles, pools and other elements of channel stability.
5. Promotes floodplain stability.

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

1. Harvest operation would take place during snow covered, frozen ground conditions to prevent soil rutting. Because of this, the small amount of wood being harvested, and the use of low-ground pressure logging equipment to skid logs to landing areas, minimal disturbance to the soil is expected. If soil displacement would happen, the area in question would be grass seeded immediately following the harvest in the spring to reestablish vegetation.

2. Tree retention would drop below the salvage minimum in the SMZ for 1 tree-length within the SMZ along road.

3. Ample tree volume shall be maintained in the SMZ as a whole along the stream to provide future woody recruitment into the stream.

4. Grass seeding disturbed soil locations should provide ample floodplain stability.

6. AIR QUALITY:

What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.

None.

7. VEGETATION COVER, QUANTITY AND QUALITY:

What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.

Implementation of these alternatives practices with proposed mitigation measures should not dramatically impact any vegetative communities within the SMZ.

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:

Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.

Would implementing this Alternative Practice impact the ability of the SMZ to support diverse and productive aquatic and terrestrial habitats?

WSBW is prominent in Douglas-fir, and mountain pine beetle in lodgepole pine found throughout this landscape. The declining forested stand should give way to a flush of new regeneration after harvest, changing terrestrial habitats. Implementation of this alternative practice in and of itself should not dramatically impact aquatic and terrestrial habitats.

9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:

Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.

None.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

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

None.

11. AESTHETICS:
Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.

None.

12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:
Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.

None.

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:
List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

None.

IV. IMPACTS ON THE HUMAN POPULATION

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

14. HUMAN HEALTH AND SAFETY:
Identify any health and safety risks posed by the project.

None.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:
Identify how the project would add to or alter these activities.

None.

16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:
Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.

None.

17. LOCAL AND STATE TAX BASE AND TAX REVENUES:
Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.

None.

18. DEMAND FOR GOVERNMENT SERVICES:
Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services.

None.

19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:
List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.

None.

20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:
Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.

None.

21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:
Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.

None.

22. SOCIAL STRUCTURES AND MORES:
Identify potential disruption of native or traditional lifestyles or communities.

None.

23. CULTURAL UNIQUENESS AND DIVERSITY:
How would the action affect any unique quality of the area?

None.

24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:
Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.

None.

EA Checklist Prepared By:	**Name:**	Shawn P. Morgan	**Date:**	11/15/2012
	Title:	Helena Unit Forester		

V. FINDING

25. ALTERNATIVE SELECTED:

ALTERNATIVE AS MITIGATED: Approve alternative practice to allow the removal of WSBW infested Douglas-fir below the 10-tree retention requirements along a Class-1 stream.

The following mitigation measures shall be implemented:

1. Remove WSBW infested Douglas-fir and dead lodgepole pine below the 10-tree retention minimum as specified under salvage logging for a Class-1 stream. Only trees 1-tree height from the road that are at risk of falling onto the road would be cut if going below the 10 tree minimum. Trees removed below minimum would only occur on one side of the creek. Sub-merchantable trees and brush would be retained.

2. Operation of low-ground pressure logging equipment on an existing trail adjacent to a fence line. This trail comes no closer than 24' from the stream bank.

3. Harvest operation would take place during snow covered, frozen ground conditions to prevent soil rutting.

4. If soil displacement would happen, the area in question would be grass seeded immediately following the harvest in the spring to reestablish vegetation.

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

As proposed, with mitigations, I do not anticipate any significant direct, indirect or cumulative effects from the implementation of the selected alternative.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

		EIS		More Detailed EA	X	No Further Analysis

EA Checklist Approved By:	**Name:**	D.J. Bakken		
	Title:	DNRC, Helena Unit Manager		
Signature:			**Date**:	11/15/2012

ATTACHMENTS

SMZ Alternative Practice Map

McFerrin AP

Legend
Blue_Timber_Ranch
powerline
fence
McFerrin_points
002
003
15
14
12N 7W
N
0 0.045 0.09 0.18 0.27 0.36
Miles