

CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Deer Creek Alternative Practice
Proposed Implementation Date:	October 2018
Proponent:	Brett Haines
Location:	Section 20 Township 17 North Range 15 West
County:	Missoula

I. TYPE AND PURPOSE OF ACTION

Brett Haines has applied for a Streamside Management Zone (SMZ) Alternative Practice for approximately 100 feet on one side of Deer Creek and along one side of approximately 500 feet of an unnamed Class 3 side channel creek. The applicant seeks an Alternative Practice to remove approximately five merchantable trees from within the Class 1 SMZ and to remove some submerchantable trees and brush in select locations to facilitate felling and skidding operations in the Class 3 SMZ.

The primary purpose of this action is to protect the integrity and flow of the Class 1 stream channel from blockage. Equipment use and brush and/or submerchantable tree removal has occurred in two 100-foot stretches of Class 3 SMZ and approximately five merchantable trees have been placed in one 100-foot stretch of a Class 1 SMZ. During normal falling operations approximately five lodgepole pine trees were cut and accidentally felled towards the stream channel resulting in tops being placed over Deer Creek. This Alternative Practice will address the removal of these trees and any associated slash from the SMZ channel. This Alternative Practice will also address a way to minimize impacts to submerchantable trees and brush associated with logging and yarding operations in the Class 3 segment.

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 public scoping was involved regarding this Alternative Practice on private land.

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

None.

3. ALTERNATIVES CONSIDERED:

Scope of Analysis and Definition of Project Area: The following document describes conditions within and near Deer Creek. However, the project area is defined as the portion of the Deer Creek SMZ on which Brett Haines has requested and Alternative Practice. Potential effects analyzed under the action and no action alternatives are limited this project area. Ongoing forest operations exclusive of the Alternative Practice request are considered part of base line conditions.

No Action Alternative: Timber harvest would likely occur and meet all SMZ rules. No merchantable trees within the SMZ would be harvested. During the commercial harvest shrubs and submerchantable trees would be protected and equipment operation would follow rule 36.11.304.

Action Alternative: Under this alternative, an Alternative Practice to felled trees within the SMZ would be granted. The primary purpose of this Alternative Practice is to remove only the felled trees negatively impacting

the SMZ. Mitigations would be a part of the alternative practice, they are noted within the Water Quality, Quantity, and Distribution section of the analysis.

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.

Soils in the project area are gravelly ashy silt loams on slopes ranging from approximately 0 – 4 percent. Generally, these soils are resistant to compaction. They have a varying rutting hazard ranging from slight to severe. Numerous adjacent wetlands exist within the project area and it is these areas that are most susceptible to adverse soil impacts. Under either alternative, operations would only take place under dry or winter conditions. Under the action alternative any disturbed areas would be grass seeded and installation of erosion control measures such as slash-filter windrows would be required. Considering the operation restrictions and mitigation measures, minimal direct, indirect or cumulative impacts would be expected under either alternative.

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?

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

Existing Condition

In the project area, Deer Creek flows across a floodplain ranging in steepness from 0 – 5 percent. Numerous large trees and understory shrubs are found along the creek.

In the project area, the forest adjacent to the creek contains a large amount of mature lodgepole pine and Engelmann spruce trees. Forest health in the area is suffering due to overstocking, mountain pine beetle, and spruce budworm defoliation. Downstream from the project area Deer Creek flows directly into Seeley Lake.

Potential Environmental Effects

No Action Alternative: The SMZ law would be followed during commercial activities. This would leave the felled trees in the SMZ channel and adversely affect the natural flow of the creek and potentially threaten the stream channel and bank integrity.

Action Alternative:

Under the action alternative an Alternative Practice would be granted to allow the removal of the five felled commercial trees from the stream channel. Additionally, because no trees would be cut within the Class 1 SMZ, there would be no increase in water yield on Deer Creek. Harvest of trees in the Class 3 SMZ would commence as allowed by the SMZ law. The operator would be required to follow mitigation measures outlined in this document.

- The ability of the SMZ to act as an effective sediment filter would be maintained as no additional ground disturbance would be expected beyond the no-action alternative.

-The ability of the Class 1 SMZ to provide shade would be maintained. This is due to the exclusion of harvesting commercial trees within the Class 1 SMZ. Removal of trees within the Class 3 SMZ would conform normal forest tree retention requirements with an emphasis on leaving more trees within 20 feet of the channel.

-The ability of the SMZ to promote floodplain stability would remain as full suspension removal techniques are required while removing the existing trees from Deer Creek. SMZ tree removal shall be done during dry conditions only.

-Any tree removal in the Class 3 SMZ would be done in a manner as to minimize damage to submerchantable trees and existing brush. Some damage is expected to occur to submerchantable trees and brush from normal skidding operations, but it would be concentrated to the outer stretches of the Class 3 SMZ.

-No trees or material may enter or be skidded across the Class 3 SMZ. Leaning trees facing the SMZ shall be left as to not risk felling them across the channel.

-Any slash or material placed in any stream channel must be removed immediately.

-Mitigation measures would provide protection of the stream channel and banks at the same levels as the no action alternative.

-SMZ boundaries shall be flagged by the operator and inspected by DNRC personnel prior to operations.

-Any exposed soils within the SMZ must be revegetated with grass seed upon the first soaking rain event.

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.

Slash created from the project would need to be disposed of in accordance with all applicable laws. Impacts would be the same under either alternative and would be expected to be minor.

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.

Existing Condition

The SMZ is a heavily stocked forest with mostly mature lodgepole pine and Engelmann spruce. Many lodgepole pine were killed by the recent bark beetle epidemic, fortunately this infestation has subsided. There is not a huge brush or submerchantable tree component, but they do remain scattered in the understory.

Potential Environmental Effects

No Action: Harvest would follow the SMZ law. It is likely the first 20 feet of merchantable trees would be harvested from within portions of the Class 3 stream. Non-merchantable material would be retained regardless of tree health or vigor.

Action Alternative: In the Class 1 SMZ only the five identified trees would be removed from the stream channel. No submerchantable timber or brush is expected to be damaged during this operation. No roots shall be disturbed as to retain bank stability. Work shall be done under dry or frozen conditions. Throughout the SMZ all understory shrubs and herbaceous plants would be retained. In the Class 3 SMZ, some or all of the

merchantable trees would be allowed to be harvested. A small portion of submerchantable trees and brush are expected to be removed in about 15 locations as to facilitate skidding operations. The remaining submerchantable trees and brush would be protected to the extent practicable.

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.

Terrestrial and Avian Life and Habitats:

The SMZ law would be followed and no impacts to fish, wildlife or birds would be expected.

Aquatic life and habitats: Harvest would occur within an SMZ alternative practice and salvage tree retention requirements of the SMZ law would be met.

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.

Effects would not likely differ substantially under either alternative.

There are isolated and adjacent wetlands in the project area. Within these wetlands, no deviation from standard forestry BMP's or the SMZ law is requested under either alternative. Effects to wetlands would be expected to be minor under either alternative.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

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

No cultural resources have been identified within the project area. No impacts would be expected under either alternative.

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.

Impacts to aesthetics would be the same under either alternative and would be perceived differently by different people. However, the treatment would be similar to other treatments that have recently taken place nearby and would be considered minimal to moderate by most people.

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.

Under either alternative the project would be expected to provide 10 or fewer short-term jobs.

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.

The project area is private property and public use is controlled by the landowner. No effects would be expected under either alternative.

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:

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: Brad French	Date: 9/26/2018
	Title: Service Forester	

V. FINDING

25. ALTERNATIVE SELECTED:

Following a review of the document as well as the corresponding Department policies and rules, the Action Alternative has been selected because it meets the intent of the project objectives outlined in Section I – Type and Purpose of Action. This includes but is not limited to the need to remove trees that are negatively impacting the Class 1 SMZ and the management of the Class 3 SMZ.

26. SIGNIFICANCE OF POTENTIAL IMPACTS

I find that the Action Alternative would not have significant impacts for the following reasons:

- The Action Alternative is in compliance with the existing laws, rules, policies, and standards applicable to this type of proposed action.
- Appropriate mitigations have been proposed to minimize potential impacts to resources such as vegetation, soil, and water quality.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

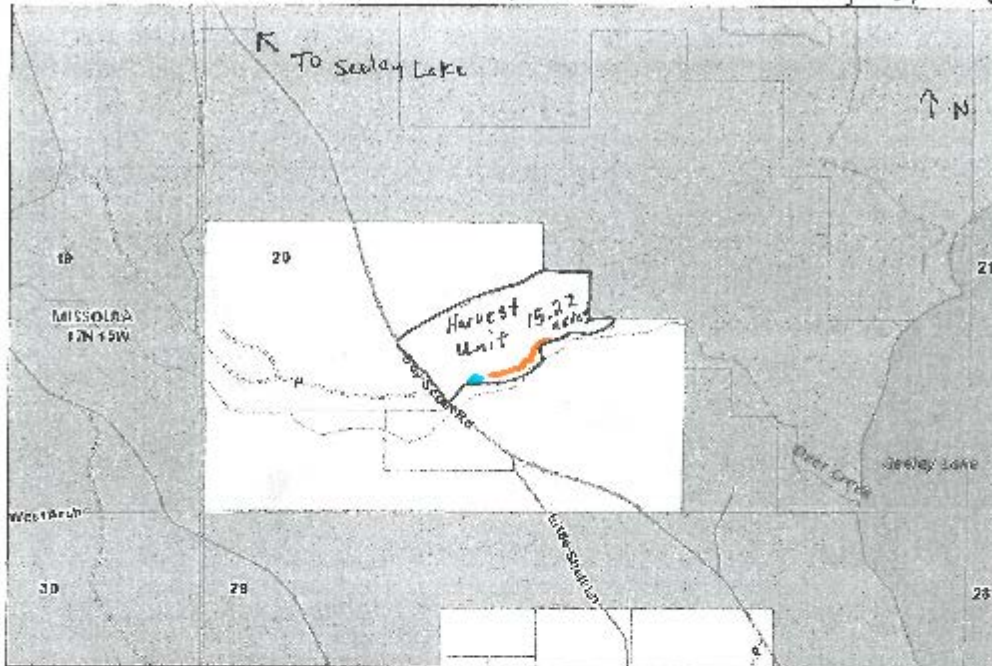
EIS

More Detailed EA

No Further Analysis

EA Checklist Approved By:	Name: Kristen Baker-Dickinson Title: Unit Manager, Clearwater
Signature: /s/ <i>K. Baker-Dickinson</i>	Date: 9/26/2018

July 25, 2018



- class 1 segment
Deer Creek 100'
- class 3 segment
500'