

CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	North Fork Cottonwood Creek Streamside Management Zone Alternative Practice
Proposed Implementation Date:	September 2015
Proponent:	Andrew Oberg
Location:	E1/2NW1/4 Section 12 Township 16 North Range 14 West
County:	Missoula

I. TYPE AND PURPOSE OF ACTION

Andrew Oberg has applied for Streamside Management Zone (SMZ) Alternative Practice for approximately 1,900 feet along North Fork Cottonwood Creek, approximately eight miles east of Seeley Lake, MT. North Fork Cottonwood Creek is a class 1 perennial stream. The specific Alternative Practice requested is to deviate from the retention tree requirements outlined in 36.11.305 by removing submerchantable trees from within the SMZ.

The purpose of this treatment is to reduce the wildland fire threat to an area in which a structure will soon be built and to increase timber stand health. The trees proposed for removal are ladder fuels within the stand and have been heavily defoliated by the western spruce budworm. Removing these ladder fuels would reduce the risk of a crown fire and create a healthier timber stand.

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 the specific proposed Alternative Practices on private land.

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

None.

3. ALTERNATIVES CONSIDERED:

No Action Alternative: Salvage timber harvest would likely occur and meet all SMZ rules. Following harvest, non-commercial cutting, outside the jurisdiction of the SMZ law, could occur. Waiting for completion of commercial activities, as regulated under the SMZ law, to finish prior to commencing non-commercial activities would likely result in higher costs to the private landowner.

Action Alternative: Under this alternative, an Alternative Practice to not protect and retain submerchantable trees and shrubs to the extent practicable, would be granted. The following mitigations would be a part of the Alternative Practice.

- All merchantable and submerchantable trees providing direct stream shading would be retained
- All trees with roots in the banks of the stream would be retained.
- Healthy trees that do not create a ladder fuel problem, understory shrubs, and herbaceous plants will be retained to the extent practicable.

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 are gravelly loams and gravelly silt loams. Slopes within the SMZ are flat. Under the proposed action alternative harvest would be limited to dry (less than 20% soil moisture) or frozen ground conditions. There is an existing road that runs adjacent to the SMZ and within an adjacent riparian area. To preserve the integrity of the SMZ and riparian area all wheeled and tracked equipment will remain on this road. Effects to geology, soil quality, stability and moisture under either alternative would be negligible to none.

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

The Streamside Management Zone is heavily vegetated with mature overstory trees, submerchantable trees, and shrubs. The submerchantable trees and shrubs that currently exist would act as a ladder fuel in the event of a wildfire and a stand replacing fire would be likely. North Fork Cottonwood Creek is a perennial fish bearing stream at the project location.

Potential Environmental Effects

No Action Alternative: The SMZ law would be followed during commercial activities therefore it is unlikely there would be impacts to water quality, quantity, distribution or to the functionality of the SMZ during commercial activities. However, after commercial activities unmitigated tree cutting and equipment operation could take place.

Action Alternative:

- 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 SMZ to provide shade would be maintained. This is due to the retention of large trees as required by the SMZ law. Shrubs and submerchantable trees that provide shade would also be retained.
- Full protection of the stream channel and banks is expected to be maintained as there would be no equipment operation within the SMZ and all bank edge trees will be retained.
- The potential recruitment of large woody debris would be maintained by following salvage tree retention requirements (10 trees per 100 lineal feet of stream).

-The stream bottom shows signs of past channel migration. The only equipment operation planned in this channel migration zone is on existing roads. The ability of the SMZ to promote floodplain stability would not be impacted.

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. No impacts would be expected under either alternative.

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 Streamside Management Zone is heavily vegetated with mature overstory trees, submerchantable trees, and shrubs. The most prevalent species are spruce and subalpine fir with some lodgepole pine and other species present. Near the stream deciduous shrubs are prevalent. Trees in the area have been heavily defoliated by spruce budworm resulting in top kill and tree mortality. The submerchantable trees and shrubs that currently exist would act as a ladder fuel in the event of a wildfire and a stand replacing fire would be likely.

No Action: Harvest would follow the SMZ law. Wildland fire hazard reduction and timber and timber health improvement would be less than under the proposed action alternative.

Action Alternative: Commercial harvest and sub-merchantable thinning would take place within the SMZ. This thinning would remove many sub-merchantable trees. Those trees with limbs hanging over the stream or roots in the streambank would be retained as a mitigation measure. Merchantable trees of all species and size classes would be removed under salvage tree retention requirements outlined in SMZ rule 36.11.305 (10 trees per 100' stream segment). Overall, this treatment would remove ladder fuels and create gaps in the canopy resulting in a healthier timber stand that is less susceptible to catastrophic wildfire insects and diseases.

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.

None.

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.

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.

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
<ul style="list-style-type: none">• <i>RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.</i>• <i>Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.</i>• <i>Enter "NONE" if no impacts are identified or the resource is not present.</i>

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.

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: Neil Simpson	Date: 06/18/2013
	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 reduce the wildland fire threat to an area and to increase timber stand health.

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

- I find that the Action Alternative will 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	X No Further Analysis

EA Checklist Approved By:	Name: Kristen Baker-Dickinson	
	Title: Unit Manager, Clearwater	
Signature:	<i>/s/ K. Baker-Dickinson</i>	Date: 9/15/2015