

## CHECKLIST ENVIRONMENTAL ASSESSMENT

<b>Project Name:</b>	Jumping Creek Hazard Tree Removal
<b>Proposed Implementation Date:</b>	Upon Signature
<b>Proponent:</b>	Lewis and Clark National Forest – White Sulphur Springs Ranger District
<b>Location:</b>	Section 36 Township 12 North Range 7 East (see map)
<b>County:</b>	Meagher

### I. TYPE AND PURPOSE OF ACTION

The Lewis and Clark National Forest – White Sulphur Springs Ranger District is applying for an Alternative Practice (AP) to harvest hazard trees on Forest Service land located along power lines in the Jumping Creek Campground. Hazard trees are defined as trees that are leaning due to windthrow or mechanical means, or may present a falling or other hazard to the camp ground. The project would take place along approximately 2300 feet of Sheep Creek, and possibly a short section of Jumping Creek. This area has been heavily affected by insects and disease causing the trees to become a safety hazard, to the extent that the Forest Service has closed the Campground. This Alternative Practice would facilitate the removal of hazard trees that have become a safety hazard.

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 hazard trees to campground has created significant safety issues that may require treatments outside of the allowances of the SMZ law. Treatment would be limited to operation of a feller-buncher inside the 50 foot SMZ, but no closer than 15 feet to the ordinary high water mark (OHWM) unless equipment is operating while on an existing road. This treatment would be conducted on slopes less than 15% and would allow removal of lodgepole, Douglas-fir, and Engelmann spruce to below minimum retention standards for short stretches as identified under Rules 4 and 5 in the *Montana Guide to the Streamside Zone Law and Rules 2006* (ARM 36.11.310-313). Additional mitigations and stipulations pertinent to this request will include:

- Only operation of feller buncher type machine inside the 50 foot SMZ would be allowed, no closer than 15 feet to the ordinary high water mark (OHWM) on slopes that are less than 15%. Operation would occur in a straight in and straight out manner.
- Trees and slash would be placed outside of the 50 foot buffer, or in an existing roadway for skidding.
- All piling of woody material for grinding would occur outside of the 50 foot buffer.
- Operation would only occur during periods when soil disturbance can be minimized under conditions of frozen ground to four inches and/or snow covered to eight inches.
- No trees shall be felled in to or across the stream. Any debris from falling or skidding operations that enters the stream must be removed immediately.

- Mitigation measures would include grass seeding and slash filter windrows placed on disturbed areas to prevent run-off and sediment from reaching stream segments.
- Small, healthy trees and brush species, would be retained and protected to the greatest extent possible.
- Reduce the stocking level below the retention tree requirement for Engelmann spruce.

## II. PROJECT DEVELOPMENT

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

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

Montana DNRC (Devin Healy), US Forest Service (Sharon Scott), public scoping done through forest service NEPA documentation.

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

DNRC is not aware of other agencies besides the proponent with jurisdiction. DNRC is not aware of other permits needed to complete this project. There are no planned alterations to the existing shape and form of any stream, banks or tributaries a 124 permit is not needed.

### 3. ALTERNATIVES CONSIDERED:

Alternative A –No Action: No operation of machinery inside the fifty foot buffer. Retention tree requirements would be observed.

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 cable skidded out of the SMZ. Harvest equipment would operate on soils described as moderately to timber harvest equipment operation, and with a slight erosion hazard (Off-Road/Trail) by USDA Web Soil Survey, outside of the 50 foot SMZ buffer.

Alternative B – Action: *Harvest equipment would operate on soils described as moderately to timber harvest equipment operation, and with a slight erosion hazard (Off-Road/Trail) by USDA Web Soil Survey, inside of the 50 foot SMZ buffer, but no closer than 15 feet from the OHWM (see attached soil survey). The SMZ is comprised of the soil type Mooseflat-Foxgulfch-Redfish families, complex, 2 to 12 percent slopes, occasionally flooded. Mitigation measures would include operating season restrictions that require snow covered to eight inches and/or frozen to six inches. Equipment would be required to operate in a straight in and out manner. In addition, grass-seeding and installation of erosion control measures such as a slash-filter windrow on any disturbed area upon completion of activity would be required. Minimal direct, indirect or cumulative impacts to soil stability and compaction are anticipated due to the operation restrictions and mitigation measures.*

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## 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. Hand-felling operations may introduce low levels of sediment delivery to adjacent waterbodies. Slash and down woody debris could end up in the stream course.

Alternative B – Action: The regulated operation of harvest equipment within the first 15 feet of the SMZ (50'-25' from OHWM) may introduce very low levels of sediment delivery to the stream. The 15 foot equipment exclusion zone, with mitigation measures properly installed, would be expected to provide suitable 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 very minimal and temporary due to operations only occurring on slopes less than 15% and application of mitigation measures. Mitigation measures include imposing seasonal operating restrictions that require ground to be snow covered to eight inches and/or frozen to six inches; 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.

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## 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.*

The project is located in Montana State Airshed 8b, Meagher County Montana. Under either the Action Alternative or the No Action Alternative the USFS plans to burn slash piles.

Alternative A – Minor Temporary impacts due to increased particulate matter from burning slash piles. USFS is part of the Montana Idaho Airshed Group that requires burning be done when dispersion conditions provide for sufficient ventilation.

Alternative B – Minor Temporary impacts due to increased particulate matter from burning slash piles. USFS is part of the Montana Idaho Airshed Group that requires burning be done when dispersion conditions provide for sufficient ventilation. No direct, indirect, or cumulative impacts are anticipated to occur.

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## 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: : Vegetative communities would be affected to the extent that Douglas-fir, lodgepole pine, Engelmann spruce would not 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.

Alternative B – Action: Vegetative communities would be affected to the extent Douglas-fir, lodgepole pine, Engelmann spruce 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 tree species unless identified as hazardous would be retained where present and understory vegetation would be protected to the greatest extent possible. Impacts would also be localized due to the short length stream the Action Alternative applies to.

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**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: No direct, indirect, or cumulative impacts will occur. Hazard tree removal will likely still take place.

Alternative B – Action: Operating restrictions and mitigation measures would minimize sedimentation impacts to fish habitat. In areas of reduced below retention tree requirements, stream shading would be minimally reduced and peak seasonal stream temperatures may see an increase in July and August. Submerchantable trees and brush would be retained and protected to the greatest extent possible. Minimal direct, indirect or cumulative impacts to aesthetics are anticipated due to the length of the stream segment, location of stream segment, operation restrictions and mitigation measures. (See attached list for *Species of Concern*)

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**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: No direct, indirect, or cumulative impacts will occur. (See attached list for *Species of Concern*)

Alternative B – Action: If a sighting of any of the listed species of concern (or evidence such as nests, dens, etc.) occurs, operations would be halted, or not allowed, until further assessment can take place. (See attached list for *Species of Concern*)

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**10. HISTORICAL AND ARCHAEOLOGICAL SITES:**

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

A systematic inventory of such resources has not occurred. Because the project is not located on state land, the DNRC has no jurisdiction to require landholders to conduct professional level inventories to identify, or develop treatment plans for National Register eligible properties.

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**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 and equipment restrictions would be adhered to.

Alternative B – Action: Potential impacts may be perceived as adverse by recreationists, landowners and travelers. The removal hazard trees could look unsightly in the short term, Impacts would also be localized due to the short length stream the Action Alternative applies to. Minimal direct, indirect or cumulative impacts to aesthetics are anticipated due to the length of the stream segment, location of stream segment, operation restrictions and mitigation measures. Currently the area is closed and people are unable to recreate there due to safety concerns.

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**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.*

Alternative A- No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B- Action: No direct, indirect, or cumulative impacts are anticipated to occur.

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**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.*

Alternative A- No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B Action: No direct, indirect, or cumulative impacts are anticipated to occur.

#### 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: Hazards trees would remain on site, posing an elevated risk to the public if campground were to reopen.

Alternative B – Action: The mechanical removal of hazard trees would improve the safety for recreationalists who want to use the campground, though it is currently closed to level of risk posed by hazard trees.

#### 15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:

*Identify how the project would add to or alter these activities.*

Alternative A- No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B- Action: No direct, indirect, or cumulative impacts are anticipated to occur.

#### 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.*

Alternative A – No Action: Project would continue without mechanical removal of trees inside SMZ with negligible impact to employment.

Alternative B – Action: Negligible

#### 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.*

Alternative A- No Action: Negligible amounts.

Alternative B- Action: 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*

Alternative A- No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B- Action: No direct, indirect, or cumulative impacts are anticipated to occur.

#### 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.*

Alternative A- No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B- Action: No direct, indirect, or cumulative impacts are anticipated to occur.

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**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.*

Alternative A- No Action: Continued and prolonged closure of recreational campground limiting options for recreationalists in the area.

Alternative B- Action: Recreational opportunities would be improved with the opening of the campground while providing for a safer experience.

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**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.*

Alternative A- No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B- Action: No direct, indirect, or cumulative impacts are anticipated occur.

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**22. SOCIAL STRUCTURES AND MORES:**

*Identify potential disruption of native or traditional lifestyles or communities.*

Alternative A- No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B- Action: No direct, indirect, or cumulative impacts are anticipated to occur.

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**23. CULTURAL UNIQUENESS AND DIVERSITY:**

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

Alternative A- No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B- Action: No direct, indirect, or cumulative impacts are anticipated to occur.

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**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.*

Alternative A- No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B- Action: No direct, indirect, or cumulative impacts are anticipated to occur.

<b>EA Checklist Prepared By:</b>	<b>Name:</b> Devin Healy	<b>Date:</b> 8/17/15
	<b>Title:</b> Helena Unit Forester	

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**V. FINDING**

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**25. ALTERNATIVE SELECTED:**

Alternative B - Action: Allow SMZ Alternative Practices as proposed with additional mitigation measures.

Treatment would be limited to operation of a feller-buncher inside the 50 foot SMZ, but no closer than 15 feet to the ordinary high water mark (OHWM) unless equipment is operating while on an existing road. This treatment would be conducted on slopes less than 15% and would allow removal of lodgepole, Douglas-fir, and Engelmann spruce to below minimum retention standards for short stretches as identified under Rules 4 and 5 in the *Montana Guide to the Streamside Zone Law and Rules 2006* (ARM 36.11.310-313). Additional mitigations and stipulations pertinent to this request will include:

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- Mitigation measures would include grass seeding and slash filter windrows placed on disturbed areas to prevent run-off and sediment from reaching stream segments.
- Small, healthy trees and brush species would be retained and protected to the greatest extent possible.
- Reduce the stocking level below the retention tree requirement for Engelmann spruce.

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**26. SIGNIFICANCE OF POTENTIAL IMPACTS:**

No significant impacts to the integrity and function of the SMZ will occur with the implementation of operating restrictions and mitigation measures. As proposed, with mitigations, I do not anticipate any significant direct, indirect or cumulative effects from the implementation of the selected alternative. See Section 25 of this document to review mitigation measures.

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**27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:**

EIS                     
  More Detailed EA                     
  No Further Analysis

<b>EA Checklist Approved By:</b>	<b>Name:</b> Andy Burgoyne
	<b>Title:</b> Helena Unit
<b>Signature:</b>	<b>Date:</b> August, 24 <sup>th</sup> 2015

# Custom Soil Resource Report Soil Map

