

## Environmental Assessment Checklist

**Project Name: Washoe Projects EA**  
**Proposed Implementation Date: 2019-2023**  
**Proponent: Missoula Unit, Southwest Land Office, Montana DNRC**  
**County: Missoula**

### Type and Purpose of Action

**Description of Proposed Action:**

The Missoula Unit of the Montana Department of Natural Resources and Conservation (DNRC) is proposing the Washoe Projects EA. These projects are located SE of Potomac, MT. (refer to vicinity & project maps in Attachment A) and include the following sections:

Beneficiary	Legal Description	Total Acres	Treated Acres
Common Schools	<b>Section 36 T13N R15W</b>	<b>640</b>	<b>*325</b>
Public Buildings			
MSU 2 <sup>nd</sup> Grant			
MSU Morrill			
Eastern College-MSU/Western College-U of M			
Montana Tech			
University of Montana			
School for the Deaf and Blind			
Pine Hills School			
Veterans Home			
Public Land Trust			
Acquired Land			

*\*The 91 acres of proposed harvest is within the 122 acre planting unit. Those acres were only counted once.*

Objectives of the projects include:

-Pre-Commercial Thinning

- Increase growth and vigor of the stand(s),
- Achieve a more uniform stem distribution,
- Concentrate growth on fewer trees in order to attain merchantable size in a shorter time frame.
- Increased vigor in leave trees to reduce the threat of insect and disease infestation.

-Tree Planting

- Plant ponderosa pine and western larch in areas not naturally regenerated following the last harvest.

**-Commercial Timber Harvest**

- Remove Douglas-fir to prepare the site for planting seral species by:
  - Reducing competition for limited water and nutrients
  - Creating more space to plant seedlings
- Remove overstory trees that contain high amounts of defect.
- Generate revenue for the Common Schools Trust.

Proposed activities include:

Action	Quantity
<b>Proposed Harvest Activities</b>	
Clearcut	
Seed Tree	
Shelterwood	
Selection	
Commercial Thinning	
Salvage	
Sanitation	91
<b>Total Treatment Acres</b>	<b>91</b>
<b>Proposed Forest Improvement Treatment</b>	
Pre-commercial Thinning	203
Planting	122
<b>Proposed Road Activities</b>	
New permanent road construction	
New temporary road construction	
Road maintenance	
Road reconstruction	
Road abandoned	
Road reclaimed	
<b>Other Activities</b>	

<b>Duration of Activities:</b>	4 years- Not continuous activity
<b>Implementation Period:</b>	2019-2023

The lands involved in this proposed project are held in trust by the State of Montana. (Enabling Act of February 22, 1889; 1972 Montana Constitution, Article X, Section 11). The Board of Land Commissioners and the DNRC are required by law to administer these trust lands to produce the largest measure of reasonable and legitimate return over the long run for the beneficiary institutions (Section 77-1-202, MCA).

The DNRC would manage lands involved in this project in accordance with:

- The State Forest Land Management Plan (DNRC 1996),
- Administrative Rules for Forest Management (ARM 36.11.401 through 471),
- The Montana DNRC Forested State Trust Lands Habitat Conservation Plan (HCP) (DNRC 2010)
- all other applicable state and federal laws.

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## Project Development

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### SCOPING:

DNRC specialists were consulted, including: Andrea Stanley-Hydrologist, Soil Scientist, Garrett Schairer-Wildlife Biologist, & Patrick Rennie-Archeologist

Issues and concerns were incorporated into project planning and design and would be implemented in associated contracts.

### OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS

**NEEDED:** (*Conservation Easements, Army Corps of Engineers, road use permits, etc.*)

- **Montana Department of Environmental Quality (DEQ)-** DNRC is classified as a major open burner by DEQ and is issued a permit from DEQ to conduct burning activities on state lands managed by DNRC. As a major open-burning permit holder, DNRC agrees to comply with the limitations and conditions of the permit.
- **Montana/Idaho Airshed Group-** The DNRC is a member of the Montana/Idaho Airshed Group which was formed to minimize or prevent smoke impacts while using fire to accomplish land management objectives and/or fuel hazard reduction (Montana/Idaho Airshed Group 2006). The Group determines the delineation of airsheds and impact zones throughout Idaho and Montana. Airsheds describe those geographical areas that have similar atmospheric conditions, while impact zones describe any area in Montana or Idaho that the Group deems smoke sensitive and/or having an existing air quality problem (Montana/Idaho Airshed Group 2006). As a member of the Airshed Group, DNRC agrees to burn only on days approved for good smoke dispersion as determined by the Smoke Management Unit.
- **United States Fish & Wildlife Service-** DNRC is managing the habitats of threatened and endangered species on this project by implementing the Montana DNRC Forested Trust Lands HCP and the associated Incidental Take Permit that was issued by the United States Fish & Wildlife Service (USFWS) in February of 2012 under Section 10 of the Endangered Species Act. The HCP identifies specific conservation strategies for managing the habitats of grizzly bear, Canada lynx, and three fish species: bull trout, westslope cutthroat trout, and Columbia redband trout. This project complies with the HCP. The HCP can be found at [www.dnrc.mt.gov/HCP](http://www.dnrc.mt.gov/HCP).

### ALTERNATIVES CONSIDERED:

**No-Action:** The proposed pre-commercial thinning, tree planting and commercial timber harvest would not occur. The submerchantable stands would remain at overstocked levels with low production rates. The residual overstory stand would continue to decline and mortality rates would increase. Natural regeneration would occur over time.

### Action Alternative (Provide a brief description of all proposed activities):

#### **Washya doin PCT:**

**(203 acres)** DNRC would thin to an approximate 14' spacing. Preferred leave trees would be (in order of preference) western larch (WL), ponderosa pine (PP), Douglas-fir (DF), and

lodgepole pine (LPP). Residual stand densities after thinning would be 200-225 trees per acre (TPA). Approximately 1000-1500 (depending on current stocking) TPA would be removed. The stand is currently overstocked and the post thin spacing would support more optimum conifer growth and health. The unit would be hand thinned and would include all road cut slopes within the units. Slash would be lopped and scattered with a maximum lop height of 18 inches. Trees 24" tall and less would be left to meet lynx habitat requirements. In addition, 22 acres would not be thinned within a PCT unit to meet Lynx Management Area requirements.

**Washoe Tree Planting:**

**(122 acres)** Ponderosa pine and western larch would be planted on a 12 X 12 foot spacing. When natural regeneration or overstory trees are present, seedlings would be spaced off of them. Spot applications of herbicide may be used to kill the grass around the seedlings.

**Wash Up Timber Permit:**

**(91 acres)** DNRC would harvest Douglas-fir overstory trees that contain one or more of the following: have been infested by insects, infected by disease, forked tops, crook, fading crowns, sweep or bole damage. Timber would be harvested using ground-based methods. Trees would be processed in the woods. Unmerchantable portions of the butt ends of felled trees (longbutting) would be left in harvest units to retain large woody debris onsite. All ponderosa pine and western larch would be left. Post harvest, the stand would contain 2 snags and 2 snag recruits per acre.

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## Impacts on the Physical Environment

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Evaluation of the impacts of the No-Action and Action Alternatives including **direct, secondary, and cumulative** impacts on the Physical Environment.

**VEGETATION:**

**Vegetation Existing Conditions:**

**Washya Doin PCT:**

**(203 acres)** are dominated by Douglas-fir. According to the DNRC Stand Level Inventory, there are approximately 300-1100 trees per acre, existing in large clumps (up to 1 or 2 acres in size) with scattered openings. The clumps are heavily stocked with Douglas-fir, lodgepole pine, western larch, ponderosa pine and an occasional subalpine fir. Some areas within these stands were planted following harvests in the 1990's. Trees range in size from <1"-5" dbh with heights of 5-15 feet tall.

**Washoe Tree Planting:**

**(122 acres)** No natural regeneration has become established following the 2012 Washoe Timber Sale. Grass has created a thick mat along the forest floor. Little to no natural regeneration is present in the 122 acre planting unit.

**Wash Up Timber Permit:**

**(91 acres)** DNRC finished harvesting this area in June of 2015. The area is currently dominated by Douglas-fir 16-28" dbh on a 20-40 foot spacing. Many of these trees contain defects in the crown or boles and 10-15% of the overstory is experiencing mortality. There are occasional ponderosa pine, but overall it represents less than 5% of the stand composition. No

natural regeneration has been observed. Grass competition has become well established on the forest floor.

There is no Old Growth in the treatment area.

Knapweed and Canadian thistle is common in the area, especially along roads. Houndstongue can also be found along portions of the roads in the project area.

No rare plants were identified during field reconnaissance or within the Montana Natural Heritage Program dataset.

Vegetation	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
<b>No-Action</b>														
Noxious Weeds		X				X				X				
Rare Plants	X				X				X					
Vegetative community		X				X				X				2
Old Growth	X				X				X					
<b>Action</b>														
Noxious Weeds		X				X				X			y	1
Rare Plants	x				x				X					
Vegetative community	x				x				X					
Old Growth	x				x				X					

**Comments:**

- Existing weeds, mainly knapweed, Canadian thistle and houndstongue are common in the Potomac Valley, especially along roads and within disturbed areas. Increased activity in the project areas, as well as a more open canopy, can lead to an increased risk of noxious weeds.
- Competition among conifers would be reduced, allowing the remaining stands to capture more water, sunlight and nutrients, thereby having a positive direct, secondary and cumulative impact. Seedlings would be planted to initiate conifer growth in the harvest unit that is currently not occurring.

**Vegetation Mitigations:**

- DNRC systematically completes roadside spraying on its ownership in the Potomac Valley, yet noxious weeds continue to occur, spread by disturbance, equipment operations, animals and wind. Project areas would be monitored for noxious weeds after implementation and herbicide may be applied as funding allows.
- Equipment would be washed prior to harvest activities.
- Seedlings would be ordered the fall of 2019/spring 2020 to plant in the timber permit area.

**SOIL DISTURBANCE AND PRODUCTIVITY:**

**Soil Disturbance and Productivity Existing Conditions:**

The proposed project area is located in the Garnet Range southeast of Potomac, Montana. The terrain is moderate with slopes not exceeding 45% within proposed harvest units. The majority of the project area occurs on northwest facing slopes that drain to Washoe Creek. Parent materials are a mixture of shallow to deep, gravelly residual soils derived from mixed bedrocks of limestone, argillite and quartzite with surface deposit of tertiary clay along the access road and some mid-slope terrain. Elevations range between 4,800 and 6,000 feet. No unstable or unique geologic sites have been identified in the project area. Soils are mainly gravelly loams that are well drained.

Soil Disturbance and Productivity	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
<b>No-Action</b>														
Physical Disturbance (Compaction and Displacement)	X				X				X					
Erosion	X				X				X					
Nutrient Cycling	X				X				X					
Slope Stability	X				X				X					
Soil Productivity	X				X				X					
<b>Action</b>														
Physical Disturbance (Compaction and Displacement)			X								X		yes	1
Erosion			X								X		yes	1
Nutrient Cycling		X			X					X			yes	2
Slope Stability	X				X				X					
Soil Productivity		X			X					X			yes	2

**Comments:**

1. Soils within the project area would be protected from physical disturbance and erosion by the application of mitigation measures listed below including limiting operations to dry or frozen soil conditions and restricting yarding/skidding operations to shallow slopes.
2. Nutrient cycling and soil productivity would be maintained and protected by the retention of biomass to the site by in-woods timber harvest processing and the limiting of soil disturbance and erosion.

**Soil Mitigations:**

- To prevent soil compaction, ground-based mechanical felling and yarding would be restricted to one or more of the following conditions:
  - Soil moisture content at 4-inch depth less than 20% oven-dry weight.
  - Minimum frost depth of 4 inches.

- Minimum snow depth of 18 inches of loose snow or 12 inches packed snow.
- Ground-based equipment would be operated on slopes 0 to 45% except for short stretches of steeper slopes and would avoid crossing or running up and down topographic draws.
- A portion of coarse woody debris (CWD) would be retained and well-distributed in harvest and skidding areas. This would increase available nutrients from decomposing organic matter, protect soil resources from wind and water erosion, increase localized soil moisture retention, and would moderate localized soil temperatures. At the completion of harvesting, a minimum concentration of 5-10 tons/acre of fine and coarse woody debris would be well distributed within harvest, skidding, and landing areas.

**WATER QUALITY AND QUANTITY:**

**Water Quality and Quantity Existing Conditions:**

The proposed project area is located in the Washoe Creek watershed. Washoe Creek is tributary to Union Creek which flows to the Blackfoot River. Washoe Creek is classified as a B-1 stream listed as impaired for several causes including sedimentation-siltation and chlorophyll-a which are partially attributed to silviculture harvesting.

The project section includes classified streams, however proposed harvest and PCT units do not cross these features and would maintain distances that meet DNRC HCP RMZ commitments. Harvesting would be completed by in woods processing with the scattering of coarse and fine woody debris on site with no use of fire to dispose of slash. Slopes do not exceed 45% within proposed harvest units.

Water Quality & Quantity	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
<b>No-Action</b>														
Water Quality		X				x				X				
Water Quantity		X				X				X				
<b>Action</b>														
Water Quality		X				X				X			yes	1, 2
Water Quantity		X				X				X			no	3

**Comments:**

1. The distance between the project and the nearest surface waters, combined with soil mitigation measures listed earlier in this analysis, result in a low risk of a direct effect of the project on water quality.
2. The maintenance and improvement of existing road Best Management Practices (BMPs) would minimize the risk of direct, secondary, and cumulative impacts of the project by increased travel and hauling on the existing roads accessing the project areas.

3. The project has a low potential to increase runoff from decreased interception and transpiration from removed or masticated vegetation. The project involves a small area of the existing watershed and any potential change would not be measurable.

**Water Quality & Quantity Mitigations:**

- The Montana Administrative Rules for Forest Management; Watershed Management and watershed RMS would be implemented. BMP's and Streamside Management Zone (SMZ's) would be implemented. Unit boundaries were all buffered to exclude the SMZ's.

**FISHERIES:**

**Fisheries Existing Conditions:**

Washoe Creek and Union Creek support and have documented presence of westslope cutthroat trout (MT FWP, 2019). Washoe and Union Creeks provide spawning and rearing habitat for these fish and are not known to support bull trout. Existing fisheries-related impairments on Washoe Creek include excessive livestock access to stream banks and lack of instream complexity (MTFWP, 2002; MTDEQ, 2009).

The proposed project would include the use and maintenance of existing access roads. The harvest units would not cross stream features and would maintain equipment and harvest boundary distances that meet DNRC HCP Riparian Management Zone (RMZ) commitments.

Fisheries	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
<b>Action</b>														
Sediment		X			X					X			yes	1
Flow Regimes		X			X					X			no	2
Woody Debris	X				X				X					
Stream Shading	X				X				X					
Stream Temperature	X				X				X					
Connectivity	X				X				X					
Populations	X				X				X					
<b>No-Action</b>														
Sediment		X			X					X			yes	1
Flow Regimes		X			X					X			no	2
Woody Debris	X				X				X					
Stream Shading	X				X				X					
Stream Temperature	X				X				X					
Connectivity	X				X				X					
Populations	X				X				X					

**Comments:**

1. No fisheries streams occur within the proposed units. Existing roads would meet BMPs.
2. The project has a low potential to increase runoff from decreased interception and transpiration from removed or masticated vegetation. The project involves a small area of the existing watershed and any potential change would not be measurable.

***Fisheries Mitigations:***

- BMP's would be implemented on all DNRC-managed roads accessing the project area and within the unit. Slash or chips created during the thinning process would be left in the unit.

***Fisheries References:***

Montana Fish Wildlife and Parks (MFWP), 2002. The Blackfoot River Fisheries Inventory, Restoration and Monitoring Progress Report for 2001; March, 2002, 81p.

Montana Department of Environmental Quality (MTDEQ), 2009. Lower Blackfoot Total Maximum Daily Loads and Water Quality Improvement Plan; C03-TMDL-03. December 2009, 380P.

**WILDLIFE:**

**Existing Conditions:** The project area contains a variety of Douglas-fir, western larch/Douglas-fir stands with minor components of mixed conifer and ponderosa pine stands. Grizzly bears have been documented in the vicinity of the project area in the past; the project area is outside of the grizzly bear recovery zone and the 'non-recovery occupied habitat' as mapped by grizzly bear researchers and managers to address increased sightings and encounters of grizzly bears in habitats outside of recovery zones. Much of the project area (336 acres) is outside of Canada lynx habitats, but suitable Canada lynx habitats exist in the project area; the project area includes other suitable habitats (179 acres), winter foraging habitats (93 acres), and temporary non-lynx habitats (33 acres). The project area is within the Garnet Lynx Management Unit, where roughly 86% of the potential habitats on DNRC-managed parcels is suitable, 14% of potential lynx habitats are temporarily non-suitable, and slightly more than 41% of the available habitats are in winter foraging habitats. Potential habitat exists for fisher, flammulated owls, and pileated woodpeckers in the project area. Several gray wolf packs have been in the vicinity in the past, including the Union Peak, Chamberlain, and Potomac packs, and portions of the project area have been included in some of their annual home ranges. No winter range exists in the project area; summer use by deer and elk likely occurs. Hiding cover occurs in many of the stands in the project area. Portions of the project area likely contributes to a larger block of big game security habitat in the vicinity.

**No-Action:** Existing stands would continue to persist and grow from the existing condition in a density similar to today's density. Stand growth and maturation would continue at relatively slow speeds, which would delay usefulness of these stands longer into the future for a variety of wildlife that use larger diameter forested conditions. No further potential for disturbance to any wildlife species would be anticipated. Continued wildlife use at levels similar to present conditions would be anticipated.

**Action Alternative (see Wildlife table below):**

Wildlife	Impact								Can Impact be Mitigated?	Comment Number	
	Direct and Indirect				Cumulative						
	No	Low	Mod	High	No	Low	Mod	High			
<b>Threatened and Endangered Species</b>											
<b>Grizzly bear</b> <i>(Ursus arctos)</i> Habitat: Recovery areas, security from human activity		X				X				Y	1
<b>Canada lynx</b> <i>(Felix lynx)</i> Habitat: Subalpine fir habitat types, dense sapling, old forest, deep snow zone		X				X				Y	2
<b>Yellow-Billed Cuckoo</b> <i>(Coccyzus americanus)</i> Habitat: Deciduous forest stands of 25 acres or more with dense understories and in Montana these areas are generally found in large river bottoms	X				X						3
<b>Sensitive Species</b>											
<b>Bald eagle</b> <i>(Haliaeetus leucocephalus)</i> Habitat: Late-successional forest more than 1 mile from open water	X				X						3
<b>Black-backed woodpecker</b> <i>(Picoides arcticus)</i> Habitat: Mature to old burned or beetle-infested forest	X				X						3
<b>Coeur d'Alene salamander</b> <i>(Plethodon idahoensis)</i> Habitat: Waterfall spray zones, talus	X				X						3

Wildlife	Impact								Can Impact be Mitigated?	Comment Number
	Direct and Indirect				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High		
near cascading streams										
<b>Columbian sharp-tailed grouse</b> <i>(Tymppanuchus Phasianellus columbianus)</i> Habitat: Grassland, shrubland, riparian, agriculture	X				X					3
<b>Common loon</b> <i>(Gavia immer)</i> Habitat: Cold mountain lakes, nest in emergent vegetation	X				X					3
<b>Fisher</b> <i>(Martes pennanti)</i> Habitat: Dense mature to old forest less than 6,000 feet in elevation and riparian		X				X			Y	4
<b>Flammulated owl</b> <i>(Otus flammeolus)</i> Habitat: Late-successional ponderosa pine and Douglas-fir forest		X				X			Y	5
<b>Gray Wolf</b> <i>(Canis lupus)</i> Habitat: Ample big game populations, security from human activities		X				X			Y	6
<b>Harlequin duck</b> <i>(Histrionicus histrionicus)</i> Habitat: White-water streams, boulder and cobble substrates	X				X					3
<b>Northern bog lemming</b> <i>(Synaptomys borealis)</i> Habitat: Sphagnum meadows, bogs,	X				X					3

Wildlife	Impact								Can Impact be Mitigated?	Comment Number
	Direct and Indirect				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High		
fens with thick moss mats										
<b>Mountain plover</b> ( <i>Charadrius montanus</i> ) Habitat: short-grass prairie & prairie dog towns	X				X					3
<b>Peregrine falcon</b> ( <i>Falco peregrinus</i> ) Habitat: Cliff features near open foraging areas and/or wetlands	X				X					3
<b>Pileated woodpecker</b> ( <i>Dryocopus pileatus</i> ) Habitat: Late-successional ponderosa pine and larch-fir forest		X				X				7
<b>Townsend's big-eared bat</b> ( <i>Plecotus townsendii</i> ) Habitat: Caves, caverns, old mines	X				X					3
<b>Wolverine</b> ( <i>Gulo gulo</i> )	X				X					3
<b>Big Game Species</b>										
<b>Elk</b>		X				X			Y	8
<b>Whitetail</b>		X				X			Y	8
<b>Mule Deer</b>		X				X			Y	8
<b>Bighorn Sheep</b>	X				X					
<b>Other</b>										

**Comments:**

1. The project area is outside of the grizzly bear recovery zone and the 'non-recovery occupied habitat' as mapped by grizzly bear researchers and managers to address increased sightings and encounters of grizzly bears in habitats outside of recovery zones. Occasional use by grizzly bears could occur as bears continue moving out of the recovery zone to the north of the project area and grizzly bears have been documented in the vicinity in the past. Activities would occur during the non-denning period, thus disturbance to grizzly bears could occur. Negligible changes to grizzly bear habitats would occur. No changes to open road

densities, security habitats, or human-related food, garbage, or other unnatural grizzly bear attractants would occur.

2. Roughly 59% of the proposed units do not contain potential lynx habitats, however approximately 118 acres of Canada lynx habitats exist in the proposed thinning units. These potential habitats are largely Other Suitable habitats (109 acres) with smaller amounts of temp non-suitable habitats (6 acres) and winter foraging habitats (3 acres). Following proposed treatments, there would be roughly 111 acres of Other Suitable habitats (2.5 acres increase) and 6 acres of temporary non-suitable habitats (0.5 acre increase) in the proposed units, which would largely result from the loss of 3 acres of winter foraging and some minor modifications to the amounts of other suitable and temporary non lynx habitats. Thus, negligible changes in availability of the various lynx habitat classes would occur and overall, a slight increase in the total amount of temporary non-suitable habitat would occur. Overall roughly 94% of lynx habitats in the project area would be suitable following proposed activities. No changes in connectivity of habitats would occur with the proposed activities. Proposed planting would improve lynx habitats in the project area by creating structure near the forest floor where lynx and hares require structure and is currently lacking within most of the acres proposed for planting. Within the Garnet Lynx Management Unit, no appreciable changes to the amount of suitable (86%), temporary non-suitable habitats (14%), or winter foraging habitats would occur. Within proposed units, small shade tolerant trees (such as sub-alpine fir and spruce) would be retained where possible to provide potential habitat structure for snowshoe hares by increasing the levels of horizontal cover and accelerating the development of multi-storied stands. Additionally, roughly 22 acres would not be pre-commercially thinned to provide potential habitats for Canada lynx and snowshoe hares. These retained areas would occur at the upper elevations of the project area where increasing representation of subalpine fir, spruce, and lodgepole pine exists, which would be more likely to be used by lynx.
3. The project area is either out of the range of the normal distribution for this species or suitable habitat is not present. Thus, no direct, indirect, or cumulative effects would be anticipated.
4. Within the project area, there are roughly 98 acres of potential fisher habitats and another 199 acres of preferred fisher covertypes that presently lack structural attributes to be used by fisher. A minor amount of fisher habitats (2 acres) would be pre-commercially thinned while roughly 163 acres of preferred covertypes would be largely be pre-commercially thinned, but a small amount (7 acres) would be commercially harvested. Collectively, the proposed activities would remove structure from a small amount of preferred covertypes, which would likely render these habitats too open to be used extensively by fisher. Proposed pre-commercial thinning activities in the fisher habitats and preferred covertypes could improve tree growth, which could facilitate development of attributes that would enable fisher use of these stands sooner than if left untreated. Overall a negligible decrease in availability of upland fisher habitats would occur with the reductions in tree densities.
5. Roughly 172 acres of flammulated owl habitats would be thinned and or harvested, which would further open the canopy while favoring western larch, ponderosa pine, and Douglas-fir. The more open stand conditions, the retention of fire adapted tree species, and the maintenance of snags would move the proposed project area toward historical conditions, which is preferred flammulated owl habitat. Proposed activities could occur during the flammulated owl nesting season, which could introduce some disturbance of nesting owls, but proposed activities would not affect nesting structures.

6. Gray wolves are in the vicinity and could be using the project area for hunting, breeding, or other life requirements. Proposed activities could occur during the spring when wolves are most sensitive at den or rendezvous sites, but mitigations would be included that would limit potential disturbance should a den or rendezvous site were identified within 1 mile of proposed activities. No big game winter range exists in the project area (see comment 8). Minor changes to existing big game hiding cover would be anticipated, but no appreciable change in big game use would be anticipated, thus limited effects to wolf prey species would be anticipated.
7. A relatively small amount of pileated woodpecker habitats (97 acres) exist in the project area. Roughly 5 acres would be pre-commercially thinned, which would be expected to have negligible effects on the ability of the project area or larger cumulative effects analysis area to support pileated woodpeckers. Disturbance to pileated woodpeckers could occur if proposed activities occur during the nesting period. Use would likely continue at roughly existing levels following proposed treatments. Proposed pre-commercial thinning and planting could increase growth rates that could expedite the return of these stands into potential pileated woodpecker habitats. Elements of the forest structure important for nesting pileated woodpeckers, including snags, coarse woody debris, numerous leave trees, and snag recruits would be retained in the proposed harvest areas. Since pileated woodpecker density is positively correlated with the amount of dead and/or dying wood in a stand (McClelland 1979), pileated woodpecker densities in the project area would be expected to be reduced on 91 acres.
8. Elk and deer likely use the project area much of the non-winter period. No big game winter range exists in the project area. Minor reductions to summer range and hiding cover would be anticipated with the proposed activities. Proposed planting could increase hiding cover in portions of the project area in the near term. Negligible changes to security habitat would occur, but no changes to open roads or motorized human access would occur.

**Wildlife Mitigations:**

- A DNRC biologist will be consulted if a threatened or endangered species is encountered to determine if additional mitigations that are consistent with the administrative rules for managing threatened and endangered species (ARM 36.11.428 through 36.11.435) are needed.
- Motorized public access would be restricted at all times on restricted roads that are opened for harvesting and thinning activities.
- Snags, snag recruits, and coarse woody debris would be managed according to *ARM 36.11.411* through *36.11.414*, particularly favoring western larch and ponderosa pine. Clumps of existing snags could be maintained where they exist to offset areas without sufficient snags. Coarse woody debris retention would emphasize retention of downed logs of 15-inch diameter or larger.
- Contractors and purchasers conducting contract operations would be prohibited from carrying firearms while on duty.
- Food, garbage, and other attractants would be stored in a bear-resistant manner.

- Retention of patches of advanced regeneration of shade-tolerant trees, such as sub-alpine-fir and spruce, in units in lynx habitats would break-up sight distances, provide horizontal cover, and provide forest structural attributes preferred by snowshoe hares and lynx.
- In pre-commercial thinning units, retain small shade tolerant trees (such as sub-alpine fire and spruce to provide potential habitat structure for snowshoe hares by increasing the levels of horizontal cover and accelerating the development of multi-storied stands.
- Retain a minimum of 22 acres of lynx habitats in the pre-commercial thinning units unthinned to provide denser stands for snowshoe hares, targeting stands with higher existing densities and higher percentages of subalpine fir, spruce, and lodgepole pine.

**Wildlife References:**

McClelland, B.R. 1979. The pileated woodpecker in forests of the Northern Rocky Mountains. Pages 283-299 in Role of insectivorous birds in forest ecosystems. Academic Press.

**AIR QUALITY:**

Air Quality	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
<b>No-Action</b>														
Smoke	X				x				X					
Dust	x				X				X					
<b>Action</b>														
Smoke	X				X				x				y	1
Dust		X			x				X				y	2

**Comments:**

Under the Action Alternative, slash piles consisting of tree limbs and tops and other vegetative debris would be created throughout the project area during harvesting. These slash piles would ultimately be burned after harvesting operations have been completed.

Dust may be produced along the haul route if wood is hauled during summer months.

**Air Quality Mitigations:**

- In woods processing would be used during harvest operations therefore there would be no slash to burn.
- The DNRC, as a member of the Montana/Idaho Airshed Group, would burn only on approved days.
- Because of the small project area, hauling would be short in duration.

- The Forest Officer may impose speed restrictions to limit dust along the haul route behind the gate as needed.

Will the No-Action or Action Alternatives result in potential impacts to:	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
<b>No-Action</b>														
Historical or Archaeological Sites	X				X				x					
Aesthetics		X			X				X					
Demands on Environmental Resources of Land, Water, or Energy	X				x				X					
<b>Action</b>														
Historical or Archaeological Sites	X				X				X					
Aesthetics		X			X					X			Y	1
Demands on Environmental Resources of Land, Water, or Energy	X				X				X					

**Comments:**

- Lop-and-scattered slash from hand thinned units is often noticeable for 1-2 years post-treatment.

**Mitigations:**

- If a thinning unit is lop-and-scattered, slash will usually settle after 1-2 years of snowload. As the slash settles and decomposes it becomes less noticeable.

**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.*

- Washoe Creek January 2011

## Impacts on the Human Population

Evaluation of the impacts on the proposed action including **direct, secondary, and cumulative** impacts on the Human Population.

Will the No-Action or Action Alternatives result in potential impacts to:	Impact												Can Impact Be Mitigated?	Comment Number	
	Direct				Secondary				Cumulative						
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High			
<b>No-Action</b>															
Health and Human Safety	x				X				X						
Industrial, Commercial and Agricultural Activities and Production	x				X				X						
Quantity and Distribution of Employment	x				X				X						
Local Tax Base and Tax Revenues	X				X				X						
Demand for Government Services	X				X				X						
Access To and Quality of Recreational and Wilderness Activities	X				X				X						
Density and Distribution of population and housing	X				X				X						
Social Structures and Mores	X				X				X						
Cultural Uniqueness and Diversity	X				X				X						
<b>Action</b>															
Health and Human Safety	X				X				X						
Industrial, Commercial and Agricultural Activities and Production	x				X				X						
Quantity and Distribution of Employment		X			X				X					N/A	1
Local Tax Base and Tax Revenues	X				X				X						
Demand for Government Services	X				X				X						
Access To and Quality of Recreational and Wilderness Activities	X				X				X						
Density and Distribution of population and housing	X				X				X						
Social Structures and Mores	X				X				X						

Will the No-Action or Action Alternatives result in potential impacts to:	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
Cultural Uniqueness and Diversity	X				X				x					

**Comments:**

The project size is of a scale that would not have a large effect on local employment; however each unit may provide a private contractor with 1-3 months of employment for his/herself and his/her employees.

**Mitigations:**

N/A

**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

**Other Appropriate Social and Economic Circumstances:**

**No Action:** The No Action Alternative would generate no cost to the trust at this time, existing forest conditions would persist.

**Action:**

**Washya doin PCT**

The proposed pre-commercial thinning would initially create a cost to the trust; however, this would be a long-term investment in increased productivity for the stand. This increased productivity should result in increased volume, available at an earlier date than would be available without treatment.

Direct Costs associated with this project are estimated to be \$50,750. This figure was determined by multiplying the estimated number of acres (203) by the estimated cost per acre (\$250). These cost estimates were typical for previous projects similar to the proposed project.

**Washoe Planting**

The proposed tree planting would initially create a cost to the trust; however, this would be a long-term investment in increased productivity for the stand.

Direct Costs associated with this project are estimated to be \$23,790. This figure was determined by multiplying the estimated number of acres (122) by the estimated cost per acre (\$195). Seedlings cost approximately \$.65/tree x 300 trees/acre.

**Wash Up Timber Permit**

Commercial harvest would generate approximately \$16,800 for the Common Schools Trust. An additional Forest Improvement Fee would be charged on a per ton basis for all sawlog loads.

## References

DNRC 1996. State forest land management plan: final environmental impact statement (and appendixes). Montana Department of Natural Resources and Conservation, Forest Management Bureau, Missoula, Montana.

DNRC. 2010. Montana Department of Natural Resources and Conservation Forested State Trust Lands Habitat Conservation Plan: Final EIS, Volume II, Forest Management Bureau, Missoula, Montana.

**Does the proposed action involve potential risks or adverse effects that are uncertain but extremely harmful if they were to occur?**

NO

**Does the proposed action have impacts that are individually minor, but cumulatively significant or potentially significant?**

NO

## Environmental Assessment Checklist Prepared By:

**Name: Amy Helena**  
**Title: Forest Management Supervisor**  
**Date: 10/3/2019**

## Finding

### Alternative Selected

The Action Alternative

### Significance of Potential Impacts

- A. The Action Alternative meets the specific Objectives of the Proposed Action as described on page 1 of the EA. The Action Alternative is likely to produce an economic return to the Common Schools Trust in the long run, while providing a mechanism whereby the existing timber stands would be moved towards conditions more like those which existed historically.
- B. The analysis of identified issues did not disclose any reason compelling the DNRC to not implement this pre-commercial thinning project.
- C. The Action Alternative includes mitigation activities to address environmental concerns identified during the project analysis.

### Need for Further Environmental Analysis

EIS

More Detailed EA

No Further Analysis

**Environmental Assessment Checklist Approved By:**

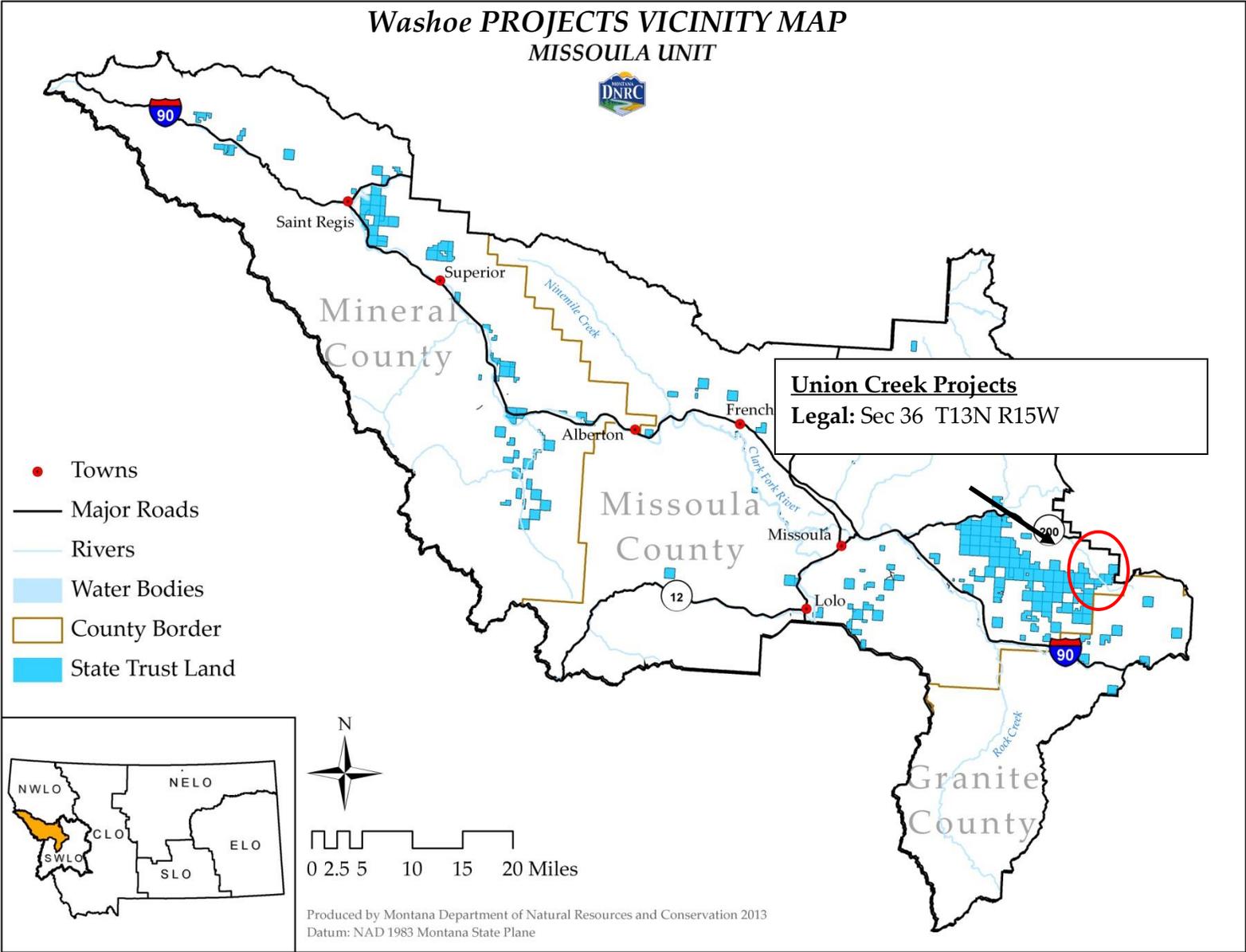
**Name: Jonathan Hansen**

**Title: Missoula Unit Manager**

**Date: 10/22/19**

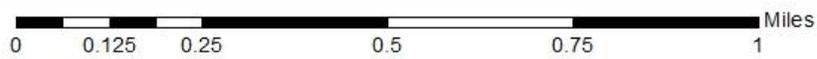
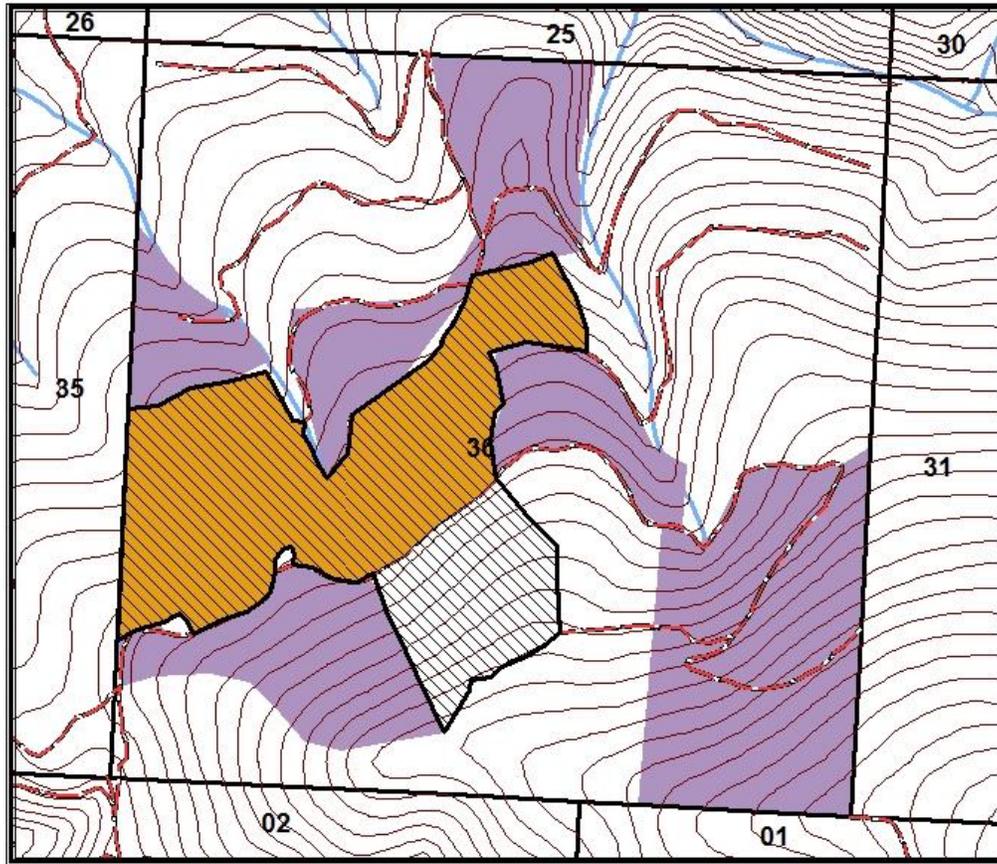
**Signature: /s/ *Jonathan Hansen***

## **Attachment A- Maps**

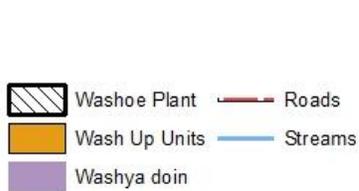




Washoe Projects  
Section 36 T13N R15W  
Missoula Unit



Wash Up Timber Permit: 91 acres  
Washya Doin PCT: 203 acres  
Washoe Tree Planting: 122 acres



A. Helena  
2/6/2019