

Environmental Assessment Checklist

Project Name: 909 Pre-Commercial Thinning

Proposed Implementation Date: November 15, 2016

Proponent: Stillwater Unit, Northwest Land Office, Montana DNRC

County: Flathead

Type and Purpose of Action

Description of Proposed Action:

The Stillwater Unit of the Montana Department of Natural Resources and Conservation (DNRC) is proposing the 909 Pre-Commercial Thinning (PCT) Project. The project is located approximately 6 miles southwest of the town of Polebridge in the Coal Creek State Forest (refer to Attachments A-1 Vicinity Map and A-2 Project Map) and includes the following sections:

Beneficiary	Legal Description	Total Acres	Treated Acres
Common Schools	T34N R21W sec.36	385	33
Public Buildings	T34N R21W sec.28,34,35	983	234
MSU 2 nd Grant	T34N R21W sec.33	23	0
MSU Morrill			
Eastern College-MSU/Western College-U of M	T34N R21W sec.26	184	61
Montana Tech	T34N R21W sec.22,27	1112	268
University of Montana			
School for the Deaf and Blind	T34N R21W sec.21 W2	319	0
Pine Hills School	T34N R21W sec.21 E2	317	37
Veterans Home			
Public Land Trust			
Acquired Land			

Objectives of the project include:

- The purpose of the thinning is to reduce stand density in order to increase growth, vigor, and health of the remaining trees. Healthy vigorous trees would be more resistant to potential attack by mountain pine beetle and mortality from wildfire. The proposed activity would contribute to the DNRC's sustained yield as mandated by state statute 77-5-222 based on the above mentioned benefits.

Project Development

SCOPING:

- DATE:
 - June 16, 2016: 30 days
- PUBLIC SCOPED:
 - The scoping notice was posted on the DNRC Website at: <http://dnrc.mt.gov/PublicInterest/Notices/Default.asp>
 - Adjacent landowners (North Fork Interlocal Group)
 - Legals Ad in Daily Interlake and Hungry Horse News newspapers
- AGENCIES SCOPED:
 - Montana Fish, Wildlife & Parks
 - USFS – Flathead National Forest
 - All Montana Tribal Organizations
- COMMENTS RECEIVED:
 - How many: 0 comments
 - Concerns: 0 concerns
 - Results (how were concerns addressed): N/A

DNRC specialists were consulted, including:

- Project Leader: Brad French
- Archeologist: Patrick Rennie
- Wildlife Biologist: Leah Breidinger
- Hydrologist and Soils: Tony Nelson

Internal concerns were incorporated into project planning and design and will be implemented in associated contracts. Initial reconnaissance and development of the project was started in the Spring of 2016. A site visit was made by the DNRC wildlife biologist to assess potential impacts to wildlife habitat.

OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS

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

- **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.

- **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.

ALTERNATIVES CONSIDERED:

No-Action Alternative: No pre-commercial thinning would occur.

Action Alternative: Pre-commercial thin of 633 acres would occur.

Impacts on the Physical Environment

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

VEGETATION:

Vegetation Existing Conditions:

All stands in the project area were burned in the 2001 Moose Fire. 367 acres amongst 10 stands were salvaged following the fire, which is predominately composed of Engelmann spruce and sub-alpine fir, with a variety of other tree species mixed in. The fire salvage consisted of retaining snags, any live western larch, and replanting them with western larch. Unit 16 was harvested prior the Moose Fire. After the fire consumed the logging slash, western larch was also planted in this unit.

The majority of the proposed thinning units are currently composed of single-storied, over-stocked lodgepole pine, western larch, and Douglas-fir with some scattered mature timber interspersed throughout the area. The 18 units can be classified into two groups "dense" and "less dense." The 8 dense units (Units 6, 9, 11, 14, 15, 16, 17 and 18) have current average tree densities of 1,000-2,000 trees per acre with diameter-at-breast-heights in the 1"-3" range and an average height of 10 feet. The 10 less dense (Units 1, 2, 3, 4, 5, 7, 8, 10, 12, and 13) have current average tree densities of 800-1,200 trees per acre with diameter-at-breast-heights in the 2"-3" range and an average height of 12 feet. Parts of stands bordering water and wet areas contain higher concentrations of subalpine fir and Engelmann spruce. The proposed

thinning treatment would reduce tree densities to approximately 540-890 trees per acre (9-foot by 9-foot average spacing or tighter) with species preference targeting the desired future condition (DFC) of the particular stand. Stands currently not containing enough densities of species types to meet the particular desired future condition would be thinned to favor these species. In this case, a mix of western larch, Douglas-fir, and lodgepole pine would be left, and when appropriate, Engelmann spruce, sub-alpine fir, and western white pine would be retained as well.

Western white pine has been planted in Units 2 and 18, and is found scattered throughout these two units. These units currently have a DFC of western white pine, and current levels of western white pine would be maintained to keep up this DFC.

Vegetation	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
No-Action														
Noxious Weeds	x				x				x					
Rare Plants	x				x				x					
Vegetative community		x				x				x			No	1
Old Growth	x				x				x					
Action														
Noxious Weeds	x				x				x					
Rare Plants		x			X				x				Yes	2
Vegetative community		x				x				x			No	3
Old Growth	x				x				x					

Comments:

- Under the No-Action Alternative no thinning would occur. Growth of trees in the proposed units would be expected to slow, competition for resources would hinder growth, and lodgepole pine trees in the proposed units may be at higher risk to bark beetle attack and fire effects due to competition from high stand stocking levels.
- Several plant species of concern are listed with the Montana Natural Heritage Program as being found in the general vicinity of the project area. These species of concern include: Arctic Sweet Coltsfoot (*Petasites frigidus var. frigidus*), Beck water-marigold (*Bidens beckii*), Crested shieldfern (*Dryopteris cristata*), Adder's Tongue (*Ophioglossum pusillum*) and Pod Grass (*Scheuchzeria palustris*). Although none of these species are known to currently exist within any of the proposed units, there is a remote possibility of finding the non-wetland related species within the proposed units.
- Under the Action Alternative in the 8 dense units, an average of 1,486 trees per acre would be cut; in the 10 remaining units, an average of 478 trees per acre would be cut to reduce competition and maintain growth and vigor. After thinning, the dense units would retain approximately 889 trees per acre, and in the remaining units approximately 538 trees per acre would remain. Long term effects expected from the thinning would be increased growth and vigor from an increase of available sunlight, water, and nutrients. After trees have matured to sawtimber size, the stand could benefit from a reduced risk of insect and disease attack and increased fire resistance with decreased tree densities and fuel loading.

Vegetation Mitigations:

If any plant species of concern are identified within the units, the instance would be recorded with the Montana Natural Heritage Program and measures would be taken to protect the plants from damage from thinning activities.

SOIL DISTURBANCE AND PRODUCTIVITY:

Soil Disturbance and Productivity Existing Conditions: Landtypes present in the project area are listed as 26C-8, 26C-9, 27-7, 57-9, and 21-9 in the *Soil Survey of Flathead National Forest Area, Montana*. Soil texture in units ranges from very gravelly silt loam to extremely cobbly loam sand. All landtypes are considered to have a moderate erosion hazard. Existing lands are well vegetated with grasses, forbs, shrubs and trees.

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		
No-Action														
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					
Action														
Physical Disturbance (Compaction and Displacement)		X				X				x			yes	1
Erosion	X				X				X					
Nutrient Cycling		X				X			x					
Slope Stability	X				X				X					
Soil Productivity	x				x				X					

Comments:

1. Units 12, 13, 14, 15, 16, and 17 were analyzed for mechanical operation in areas with slopes less than 40%.

Soil Mitigations: Most of the units must be completed by hand felling. If used, limit heavy equipment operations to periods when soils are relatively dry, (less than 20 percent oven-dried weight), frozen, or snow-covered in order to minimize soil compaction and rutting, and maintain drainage features. Check soil moisture conditions prior to equipment start-up.

WATER QUALITY AND QUANTITY:

Water Quality and Quantity Existing Conditions: The proposed action would not take place within the Streamside Management Zone of a Class 1, 2 or 3 stream or Riparian Management Zones. Additionally, the proposed method would result in little to minimal soil disturbance because the work would be completed by hand or heavy equipment during select conditions (see *Soil Mitigations*). All stands would remain fully stocked post treatment resulting in no measureable water yield increase. Thinning prescriptions have no net effect on water quantity because the vegetation removed leads to increased growth and vigor of the remaining trees.

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		
No-Action														
Water Quality	X				X				X					
Water Quantity	X				X				X					
Action														
Water Quality	X				X				X					
Water Quantity	X				X				X					

FISHERIES:

Fisheries Existing Conditions: No fish bearing streams are within 100 feet of the proposed project.

No-Action: No direct or indirect impacts would occur to affected fish species or fisheries resources. Cumulative effects (other related past and present factors; other future, related actions) would continue to occur.

Action Alternative (see Fisheries table below):

Fisheries	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
No-Action														
Sediment	X				X				X					
Flow Regimes	X				X				X					
Woody Debris	X				X				X					
Stream Shading	X				X				X					
Stream Temperature	X				X				X					
Connectivity	X				X				X					
Populations	X				X				X					
Action														
Sediment	X				X				X					
Flow Regimes	X				X				X					
Woody Debris	X				X				X					

Fisheries	Impact												Can Impact Be Mitigated?	Comment Number	
	Direct				Secondary				Cumulative						
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High			
Stream Shading	X				X				X						
Stream Temperature	X				X				X						
Connectivity	X				X				X						
Populations	X				X				X						

Comments: N/A

Fisheries Mitigations: N/A

WILDLIFE:

No-Action: None of the proposed activities would occur. In the short-term, no changes to the amounts, quality, or spatial arrangement of dense sapling and pole timber stands would occur. In the long-term and in the absence of natural disturbance, habitat availability would increase for species preferring dense timber stands.

Action Alternative (see Wildlife table below):

Wildlife	Impact												Can Impact be Mitigated?	Comment Number	
	Direct				Secondary				Cumulative						
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High			
Threatened and Endangered Species															
Grizzly bear <i>(Ursus arctos)</i> Habitat: Recovery areas, security from human activity		X				X				X				Y	1
Canada lynx <i>(Felix lynx)</i> Habitat: Subalpine fir habitat types, dense sapling, old forest, deep snow zone		X				X				X				Y	2
Sensitive Species															
Bald eagle <i>(Haliaeetus leucocephalus)</i> Habitat: Late-successional forest within 1 mile of open water	X				X					X					3
Black-backed woodpecker <i>(Picoides arcticus)</i> Habitat: Mature to	X				X					X					

Wildlife	Impact												Can Impact be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
old burned or beetle-infested forest														
Coeur d'Alene salamander <i>(Plethodon idahoensis)</i> Habitat: Waterfall spray zones, talus near cascading streams	X				X				X					
Columbian sharp-tailed grouse <i>(Tympanuchus Phasianellus columbianus)</i> Habitat: Grassland, shrubland, riparian, agriculture	X				X				X					
Common loon <i>(Gavia immer)</i> Habitat: Cold mountain lakes, nest in emergent vegetation	X				X				X					4
Fisher <i>(Martes pennanti)</i> Habitat: Dense mature to old forest less than 6,000 feet in elevation and riparian		X				X			X				Y	5
Flammulated owl <i>(Otus flammeolus)</i> Habitat: Late-successional ponderosa pine and Douglas-fir forest	X				X				X					
Gray Wolf <i>(Canis lupus)</i> Habitat: Ample big game populations, security from human activities	X				X				X					
Harlequin duck <i>(Histrionicus histrionicus)</i> Habitat: White-water streams, boulder and cobble	X				X				X					

Wildlife	Impact												Can Impact be Mitigated?	Comment Number	
	Direct				Secondary				Cumulative						
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High			
substrates															
Northern bog lemming (<i>Synaptomys borealis</i>) Habitat: Sphagnum meadows, bogs, fens with thick moss mats	X				X					X					
Peregrine falcon (<i>Falco peregrinus</i>) Habitat: Cliff features near open foraging areas and/or wetlands	X				X					X					
Pileated woodpecker (<i>Dryocopus pileatus</i>) Habitat: Late-successional ponderosa pine and larch-fir forest	X				X					X					
Townsend's big-eared bat (<i>Plecotus townsendii</i>) Habitat: Caves, caverns, old mines	X				X					X					
Wolverine (<i>Gulo gulo</i>) Habitat: Alpine tundra and high-elevation forests that maintain snow into late spring	X				X					X					
Big Game Species															
Elk		X				X				X				Y	6
Whitetail	X				X					X					
Mule Deer		X				X				X				Y	6
Other	X				X					X					

Comments:

1. Grizzly bear - The project area is located in the State Coal Cyclone Subunit of recovery zone habitat associated with the Northern Continental Divide Ecosystem (*USFWS 1993*). The proposed activities would focus on thinning crop trees to an average of 10-14 foot spacing in the western larch/Douglas-fir stands and 9-12 foot spacing in the lodgepole pine stands. Visual screening along open and seasonal roads would be retained where it occurs. Additionally, trees

≤ 3 feet tall and pockets of grand fir, brush, and hardwoods that do not compete with crop trees would be retained. The proposed activities would occur periodically over a 5-year period. Motorized activities would be restricted from April 1-June 30 in units located adjacent to roads with spring timing restrictions. Considering that visual screening along open roads and within the units would be retained, negligible adverse direct, indirect, or cumulative effects affects to grizzly bears would be anticipated.

2. Canada lynx - The proposed activities would occur in 456 acres of suitable lynx habitat. All of these acres would remain suitable for lynx use post-harvest based on stand characteristics. However, post-harvest 134 acres summer foraging habitat consisting of dense young sapling stands would be categorized as other suitable habitat, which is considered to contain minimal vegetation attributes necessary for lynx use (*USFWS and DNRC 2010*) after the project is completed. Considering that sapling density would be reduced, these stands would likely support fewer snowshoe hares, the primary prey of lynx. To reduce adverse effect to lynx, six patches totaling 146 acres of lynx summer forage habitat would be retained un-thinned until the stands reach the sawtimber size class (≥ 9 inches dbh). Additionally, all shade tolerant trees that do not interfere with desired crop trees would be retained. Connectivity of lynx habitat would not be affected by the proposed activities considering that none of the thinned stands would become unsuitable for lynx use according to habitat standards.

3. Bald eagle - The project area is located within the former home range of bald eagles that nested on Cyclone Lake, and eagles are often documented using the lake. However, nesting bald eagles have not been documented in the vicinity of Cyclone Lake since 2005. If nesting is documented during the contract period, timing restrictions would apply within ½ mile of the nest.

4. Common loon - Loon nesting activity has been documented on Cyclone Lake. However, considering that the nearest harvest unit to the lake is approximately ½ mile away, loons are not likely to be disturbed by the proposed activities.

5. Fisher – The proposed activities would occur in 40 acres of fisher habitat; however, this stand is disconnected from other stands that may provide fisher habitat, and it contains a low density of mature (>9 inch diameter) trees thus is likely only capable of providing minimally suitable fisher habitat. Riparian habitat would not be affected and mature trees would not be affected. To reduce potential adverse effects on fishers, at least 2 large snags and 2 large snag recruitment trees per acre (>21 inches dbh) would be retained (*ARM 36.11.411*).

6. Big game – The project area contains mule deer and elk winter range (*DFWP 2008*). The proposed pre-commercial thin would reduce crop tree spacing to an average of 10-14 feet in the western larch/Douglas-fir stands and 9-12 feet in the lodgepole pine stands. Visual screening would be retained between units and open and seasonal roads. Additionally, trees ≤ 3 feet tall and pockets of grand fir, brush, and hardwoods that do not compete with crop trees would be retained within mixed conifer stands. Thermal cover would not be affected by the proposed activities and the proposed activities would not occur in the winter. Thus, negligible adverse direct, indirect or cumulative effects to big game are anticipated.

Wildlife Mitigations:

- If a threatened or endangered species is encountered, consult a DNRC biologist immediately. Similarly, if undocumented nesting raptors or wolf dens are encountered within one mile of the Project Area, contact a DNRC biologist.
- Prohibit contractors and purchasers conducting contract operations from carrying firearms while on duty as per *ARM 36.11.444(2)* and *GB-PR2 (USFWS and DNRC 2010)*.

- Contractors would adhere to food storage and sanitation requirements as described in the timber sale contract. Ensure that all attractants such as food, garbage, and petroleum products are stored in a bear-resistant manner.
- Follow the Stillwater Block Transportation Plan (GB-ST1) to provide seasonal security for grizzly bears (*USFWS and DNRC 2010*). Prohibit motorized activities from April 1- June 30 in all units within 500 feet of a closed road. Affects Units 1, 2, 3, 4, 5, 6, 7, 8, 9, 11 and 17.
- Within Canada lynx winter foraging habitat, retain shade-tolerant trees (grand fir, subalpine fir, and spruce) <3 feet tall that do not pose competition risks to crop trees as per LY-HB4 (*USFWS and DNRC 2010*).
- Retain visual screening between open roads and harvest units to increase security for grizzly bears and big game.
- Restrict public access at all times on any restricted roads that are opened for the project.
- Retain all snags and consider creating scattered brush piles to increase habitat quality for snowshoe hares.

Literature Cited:

DFWP. 2008. Maps of moose, elk, mule deer, and white-tailed deer distribution in Montana. Individual GIS data layers. Available online at:
<http://fwp.mt.gov/gisData/imageFiles/distributionElk.jpg>
<http://fwp.mt.gov/gisData/imageFiles/distributionMoose.jpg>
<http://fwp.mt.gov/gisData/imageFiles/distributionMuleDeer.jpg>
<http://fwp.mt.gov/gisData/imageFiles/distributionWhiteTailedDeer.jpg>

USFWS. 1993. Grizzly bear recovery plan. Missoula, MT.

USFWS and DNRC. 2010. Montana Department of Natural Resources and Conservation Forested Trust Lands Habitat Conservation Plan, Final Environmental Impact Statement, Volumes I and II. U.S. Department of Interior, Fish and Wildlife Service, Region 6, Denver, Colorado, and Montana Department of Natural Resources and Conservation, Missoula, MT. September 2010.

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		
No-Action														
Smoke	X				X				X					
Dust	X				X				X					
Action														
Smoke		X				X			X				Yes	1
Dust	X				X				X					

Comments:

1. Slash from approximately 10 acres would be hand piled and burned. Smoke from a minimal number of piles would not be expected to have an adverse effect.

Air Quality Mitigations:

The project is located in Airshed 2. Burning within the project area would be short in duration and would be conducted on days when conditions favor good to excellent ventilation and smoke dispersion as determined by the Montana Department of Environmental Quality and approved for burning by the Montana/Idaho Airshed Group.

ARCHAEOLOGICAL SITES / AESTHETICS / DEMANDS ON ENVIRONMENTAL RESOURCES:

Will Alternative 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		
No-Action														
Historical or Archaeological Sites	X				X				X					
Aesthetics	x				X				X					
Demands on Environmental Resources of Land, Water, or Energy	x				X				X					
Action														
Historical or Archaeological Sites	X				X				X					1
Aesthetics		x				X				x			Yes	2
Demands on Environmental Resources of Land, Water, or Energy	x				x				X					

Comments:

1. A Class III cultural and paleontological resources inventory was conducted of much of the area of potential effect on state land. Segments of the Chison Trail (24FH960) are located in sections 27, 28, 34, 35, and 36 (T34N R21W). A possible historic sheep camp locality (24FH959) is in section 34 (T34N R21W). A fire lookout (24H967) is located in section 36 (T34N R21W). The proposed project would have *No Effect* to *Antiquities* as defined under the Montana State Antiquities Act. A formal report of findings has been prepared and is on file with the DNRC and the Montana State Historic Preservation Officer.

2. Tree cutting and resulting slash within the units would be noticeable from open roads. The change to the visual aesthetic would be very minor. The slash produced from thinning would start to break down and decompose within a few years.

Mitigations:

1. If the location of the historic camp or lookout is identified during thinning activities, work at the site would cease until the Contract Liaison could inspect and document the site. Work could resume after a site specific plan were developed to continue thinning without damaging the site.

2. Damaged and diseased trees would be targeted for cutting, generally leaving healthy, more aesthetically pleasing trees. Slash would be piled within 100 feet of private land. Throughout all units slash would be bucked and lopped to within 18 inches of the ground to ensure rapid decomposition.

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.*

- Moran Cyclone Timber Sale Checklist Environmental Assessment March 2014
- Coal Ridge Timber Sale Checklist Environmental Assessment April 2011
- Coal Ridge Blowdown Categorical Exclusion September 2016

Impacts on the Human Population

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

Will Alternative 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		
No-Action														
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					

Will Alternative 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		
Action														
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					

Comments: N/A

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.

- N/A

Other Appropriate Social and Economic Circumstances:

No immediate return to the Trusts would result from either alternative. No other potential uses of the Trusts other than current uses have been identified at this time.

References:

DNRC 1996. State forest land management plan: final environmental impact statement (and appendices). 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.

Martinson, A. H. and W. J. Basko. 1998. Soil Survey of Flathead National Forest Area, Montana. USDA Forest Service, Flathead National Forest, Kalispell, Montana.

Montana Natural Heritage Program (MTNHP). 2013. Plant species of concern report. Available online at: <http://mtnhp.org/SpeciesOfConcern/>. Last accessed August 24, 2016.

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: Brad French
Title: Management Forester
Date: October 6, 2016

Finding

Alternative Selected

Two alternatives are presented and were fully analyzed in the EA:

- The *No-Action Alternative* allows for existing activities, but does not include pre – commercial thinning.
- The *Action Alternative* involves pre-commercially thinning 18 units in the Coal Creek State Forest to nine by nine foot spacing on approximately 633 acres. All thinning would be done by hand or possibly by heavy equipment in dry or frozen conditions where appropriate.

On behalf of the DNRC I have selected the Action Alternative.

Significance of Potential Impacts

For the following reasons, I find that the Action Alternative will not have significant impacts on the human environment, as:

- no impacts are regarded as severe, geographically widespread, or frequent;
- the quantity and quality of various resources, including any that may be considered unique or fragile, will not be adversely affected to a significant degree;

- there is no precedent for future actions that would cause significant impacts; and
- there is no conflict with local, State, or Federal laws, requirements, or formal plans.

In summary, I find that the identified adverse impacts will be avoided, controlled, or mitigated by the design of the project to the extent that the impacts are not significant.

Need for Further Environmental Analysis

EIS

More Detailed EA

No Further Analysis

Environmental Assessment Checklist Approved By:

Name: Dave Ring

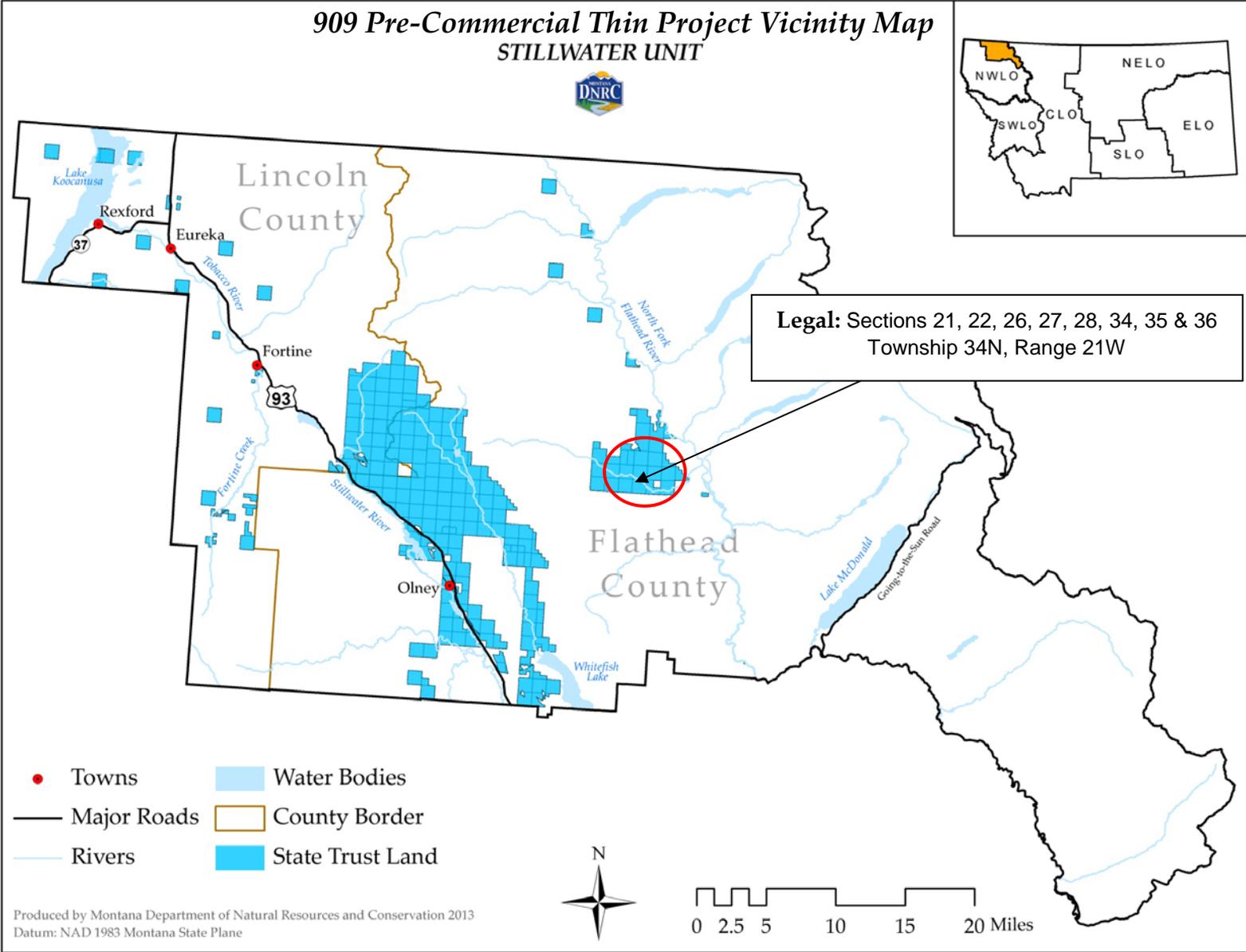
Title: Forest Management Supervisor

Date: 11/10/2016

Signature: */s/ David A. Ring*

Attachment A- Maps

A-1: 909 Pre-Commercial Thin Vicinity Map



A-2: 909 Pre-Commercial Thinning Harvest Units

**909 Pre-Commercial Thinning
Sections 21, 22, 26, 27, 28, 34, 35, and 36
Township 34N, Range 21W**

