Environmental Assessment Checklist

Project Name: Ewing Face Pre-Commercial Thinning
Proposed Implementation Date: Summer/Fall - 2020
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 Ewing Face Pre-Commercial Thinning (PCT) project. The project is located 7.5 miles northwest of the town of Olney, in the Stillwater 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	**T33N R24W Sec. 2,3,11,12 T33N R23W Sec. 7**	**1,459**	**193**
Public Buildings			
MSU 2nd 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			

Objectives of the project include:

- The purpose of the thinning is to reduce stand density to increase growth, vigor, and health of the remaining trees. Healthy vigorous trees would be more resistant insect outbreaks, mortality from wildfire, and competition induced mortality. 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.

Proposed activities include:

Action	Quantity
Proposed Forest Improvement Treatment	# Acres
Pre-commercial Thinning	**193**

Duration of Activities:	5 years
Implementation Period:	07/2019-7/2024

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)
- and all other applicable state and federal laws.

Project Development

SCOPING:

- DATE:
  - February 20, 2019: 30 days
- PUBLIC SCOPED:
  - The scoping notice was posted on the DNRC Website at: http://dnrc.mt.gov/PublicInterest/Notices/Default.asp
  - Legal ad in The Whitefish Pilot, Daily Inter lake, and Tobacco Valley News.

- AGENCIES SCOPED:
  - USFS – Flathead National Forest & Kootenai National Forest

- COMMENTS RECEIVED:
  - How many: 0 comments
  - Concerns: 0 concerns
  - Results (how were concerns addressed): N/A

DNRC specialists were consulted, including:

- Project Leader: Jeremy Akin
- Archeologist: Patrick Rennie
- Wildlife Biologist: Leah Breidinger
- Hydrologist and Soils: Marc Vessar

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 185 acres and post-and-pole removal of 8 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:

The treatable acres, as identified by the proposed Ewing Face PCT, originated through prior timber management in the last 40 years. There are 14 stands identified across the 1,459-acre project area. These stands have three different desired future conditions (DFC), these include; lodgepole pine 6 acres (3%), mixed conifer 22 acres (11%), and western larch/Douglas-fir 165 acres (86%).

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. Units 1,3 ,6, 9, 10, 11, 12, 13 current trees per acre (TPA) range from 400-800 and units 2, 4, 5, 7, 8, 14 range from 800-2,000 TPA. Across these stands the average diameter at breast height (DBH) varies widely, from 1-5 inches DBH and tree heights of 5-25 feet tall. The proposed thinning treatment would reduce tree densities to approximately 222-360 TPA (11 to 14-foot spacing) on average. Tighter tree spacing will be applied to species such as lodgepole pine and wider tree spacing to species such as western larch. Species preference would be to target the DFC of the stand. Stands currently not containing enough densities of species type to meet the DFC, would be thinned to favor these species.

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**	**V-1**
Old Growth	**x**				**x**				**x**					
Action														
Noxious Weeds	**x**				**x**				**x**					
Rare Plants		**x**			**x**				**x**				**Yes**	**V-2**
Vegetative community		**x**				**x**				**x**			**No**	**V-3**
Old Growth	**x**				**x**				**x**					

Comments:

V-1: Under the No-Action Alternative no thinning would occur. Growth of trees in the proposed units would be expected to slow, competition for resources and canopy closure would hinder growth, and potential fire effects would increase due to high density stand stocking levels.

V-2: Several plant species of concern are listed within the Montana natural Heritage Program as being found in the general vicinity of the project area. These species of concern include: Moonworts (*Botrychium*), Crested shieldfern (*Dryopteris cristata*), Adder's Tongue (*Ophioglossum pusillum*), Whitebark pine (*Pinus albicaulis*), Beck water – marigold (*Bidens beckii*), Kalm's Lobelia (*Lobelia kalmii*), Coville's Rush (*Juncus covillei*), Pod

Grass (*Scheuchzeria palustris*), and a Scorpidium moss (*Scorpidium scorpioides*). 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 unit.

V-3: Under the Action Alternative 193 acres would be thinned to an average 222-360 TPA dependent upon species present. Thinning activities would focus on improving growth of desired seral species. Long term effects anticipated from the thinning would be increased tree growth and vigor from an increase in available growing space, sunlight, 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 loadings.

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 caused via thinning activities.
- Thinning activities would protect and retain vigorous growing non-seral, shade tolerant species <3' tall that are not in competition with crop trees, as per LY-HB4 (*USFWS and DNRC 2010*).

SOIL DISTURBANCE AND PRODUCTIVITY:

Soil Disturbance and Productivity Existing Conditions:

The inventoried soils in the proposed precommercial thinning units are included in landtypes 23-8, 26C-8, 26C-9 and 78 of the Soil Survey of Flathead National Forest Area, Montana (Martinson and Basko 1998). These landtypes have a moderate erosion rate.

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**				**S-1**
Erosion	**X**				**X**					**X**				**S-1**
Nutrient Cycling	**X**				**X**					**X**				**S-2**
Slope Stability	**X**				**X**				**X**					
Soil Productivity	**X**				**X**					**X**				**S-3**
Action														
Physical Disturbance (Compaction and Displacement)		**X**				**X**				**X**				**S-1**
Erosion		**X**				**X**				**X**				**S-1**
Nutrient Cycling	**X**				**X**					**X**				**S-2**
Slope Stability	**X**				**X**				**X**					
Soil Productivity		**X**				**X**				**X**				**S-3**

Comments:
S-1: The proposed units have all been harvested in the past 40 years; skid trails and landings resulted in disturbed soils. Approximately 8 acres of the proposed PCT units may be completed using equipment other than chainsaws. While this would be done during dry conditions which would minimize the risk of compaction, some displacement may occur. Due to the limited use of heavy equipment (8 acres of 193), cumulative impacts from erosion, compaction and displacement would be low.

S-2: Nutrient cycling from past harvesting was impacted by removing some of the fine and coarse materials from the harvest unit, however the past impact is considered low as evidenced by the need to pre-commercial thin. The proposed thinning would leave all material in the units and result in no impacts to nutrient cycling.

S-3: Soil productivity would be maintained at its current levels by leaving all coarse and fine woody material on site, minimizing the use of equipment and following all Forestry Best Management Practices.

Soil Mitigations: Follow all Forestry Best Management Practices.

WATER QUALITY AND QUANTITY:

Potential cumulative impacts will be assessed by reviewing the proximity and intensity of actions near surface water as well as reviewing the existing beneficial uses.

Water Quality and Quantity Existing Conditions: The project area is included in two 6th code HUC watersheds: Dog Creek and Stillwater River-Hellroaring Creek. These watersheds are 8,561 acres and 22,673 acres, respectively. Streams nearest the proposed harvest units are generally either perennial and discontinuous or are intermittent. A more detailed discussion about surface water features and conditions can be found in the *Ewing Central Timber Sale Checklist Environmental Assessment* (DNRC 2013).

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**				**W-1**
Water Quantity	**X**				**X**					**X**				**W-2**
Action														
Water Quality	**X**				**X**					**X**				**W-1**
Water Quantity	**X**				**X**					**X**				**W-2**

Comments:
W-1: This proposal would not thin within SMZs (Streamside Management Zones) or RMZs (Riparian Management Zones). Disturbance would be minimal because most work would be completed by hand.

W-2: The proposed precommercial thinning would retain a fully stocked stand. Any changes to annual water yield would be very low and, likely, unmeasurable. Cumulative annual water yield increases are low as shown in the Ewing Central Timber Sale EA.

Water Quality & Quantity Mitigations: Follow all Forestry BMPs.

FISHERIES:

Fisheries Existing Conditions: A thorough discussion of fisheries presence/absence and habitat characteristics can be found in the *Ewing Central Timber Sale Checklist Environmental Assessment* (DNRC 2013).

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

Action Alternative:

The proposed precommercial thinning –including 8 acres of post-and-pole thinning—would be located outside of all SMZs. Additionally, precommercial thinning would not reduce shade or recruitable woody debris for streams. Therefore, no adverse direct, indirect or cumulative impacts would result from the implementation of this alternative.

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 *(Ursus arctos)* Habitat: Recovery areas, security from human activity		**X**				**X**				**X**			**Y**	**WI-1**
Canada lynx (*Felix lynx)* Habitat: Subalpine fir habitat types, dense sapling, old forest, deep snow zone		**X**				**X**				**X**			**Y**	**WI-2**
Sensitive Species														
Bald eagle	**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		
(Haliaeetus leucocephalus) Habitat: Late-successional forest within 1 mile of open water														
Black-backed woodpecker *(Picoides arcticus)* Habitat: Mature to old burned or beetle-infested forest	**X**				**X**				**X**					
Coeur d'Alene salamander *(Plethodon idahoensis)* Habitat: Waterfall spray zones, talus near cascading streams	**X**				**X**				**X**					
Columbian sharp-tailed grouse *(Tympanuchus Phasianellus columbianus)* Habitat: Grassland, shrubland, riparian, agriculture	**X**				**X**				**X**					
Common loon *(Gavia immer)* Habitat: Cold mountain lakes, nest in emergent vegetation	**X**				**X**				**X**					
Fisher *(Martes pennanti)* Habitat: Dense mature to old forest less than 6,000 feet in elevation and riparian		**X**				**X**			**X**				**Y**	**WI-3**
Flammulated owl *(Otus flammeolus)* Habitat: Late-successional ponderosa pine and Douglas-fir forest	**X**				**X**				**X**					
Gray Wolf *(Canis lupus)*		**X**				**X**			**X**				**Y**	**WI-4**

Wildlife	Impact												Can Impact be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
Habitat: Ample big game populations, security from human activities														
Harlequin duck *(Histrionicus histrionicus)* Habitat: White-water streams, boulder and cobble substrates	**X**				**X**				**X**					
Northern bog lemming *(Synaptomys borealis)* Habitat: Sphagnum meadows, bogs, fens with thick moss mats	**X**				**X**				**X**					
Peregrine falcon *(Falco peregrinus)* Habitat: Cliff features near open foraging areas and/or wetlands	**X**				**X**				**X**					
Pileated woodpecker *(Dryocopus pileatus)* Habitat: Late-successional ponderosa pine and larch-fir forest	**X**				**X**				**X**					
Townsend's big-eared bat *(Plecotus townsendii)* Habitat: Caves, caverns, old mines	**X**				**X**				**X**					
Wolverine *(Gulo gulo)* Habitat: Alpine tundra and high-elevation forests that maintain snow into late spring	**X**				**X**				**X**					
Big Game Species														
Elk		**X**				**X**			**X**				**Y**	**WI-5**
Whitetail	**X**				**X**				**X**				**Y**	**WI-5**

Wildlife	Impact												Can Impact be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
Mule Deer		**X**				**X**			**X**					**WI-5**
Other	**X**				**X**				**X**					

Comments:

WI-1 Grizzly bear – The project area is located in the Stryker Subunit of recovery zone habitat associated with the Northern Continental Divide Ecosystem (*USFWS 1993*). The proposed activities would include a pre-commercial thinning to reduce the spacing of trees to an average of 11-14-foot in 187 acres favoring western white pine, western larch, and Douglas-fir for retention. Visual screening along open roads would not be impacted. Additionally, trees <3 feet tall, brush, and hardwoods that do not compete with crop trees would be retained. Post and poles would be removed from an additional 8 acres reducing the availability of hiding cover in this area. The proposed activities would occur periodically between July 1 – November 1 and could cause some displacement of bears. Pre-commercial thinning and post and pole harvest would be restricted from April 1-June 30 to protect bears when they may be nutritionally stressed after hibernation. Considering the proposed activities would be brief and are not likely to impact the quality of bear habitat, minor adverse direct, indirect, or cumulative effects affects to grizzly bears would be anticipated.

WI-2 Canada lynx – The proposed activities would occur in 172 acres of suitable lynx habitat that contain a high density of saplings (up to 2,000 TPA) and are classified as suitable for summer foraging (47 acres), winter foraging (23 acres), and as other suitable habitat (102 acres). Other suitable habitat contains minimal vegetation attributes necessary for lynx use and may provide connectivity and lower quality foraging habitat (*USFWS and DNRC 2010*). Approximately 8 acres of stands treated with a post and pole treatment would not be suitable for lynx use post-harvest due to reductions in conifer cover. The remaining acres would remain suitable for lynx use post-thinning, but the density of saplings would be too low to continue providing high quality summer foraging habitat. After thinning, 47 acres of summer foraging habitat would be categorized as other suitable habitat. There would be no change to habitat class (i.e., winter foraging, other suitable) in the remaining acres proposed for thinning. 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, one patch totaling 48 acres of lynx summer forage habitat would be retained un-thinned until the stands reaches 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.

WI-3 Fisher – The proposed activities would occur in 19 acres of potential fisher habitat; however, the proposed thinning would only affect sapling-sized trees and removal of these trees is not likely to impact the suitability of these acres for fisher. Riparian habitat, snags, and mature trees would not be affected.

WI-4 Gray wolves – Wolves may use habitat near the Project Area. Disturbance associated with timber sales at den and rendezvous locations can adversely affect wolves; however, timing restrictions would apply if den or rendezvous sites are documented (ARM 33.11.430(1)(a)(b)).

WI-5 Big game – The proposed pre-commercial thin would reduce the average tree spacing to approximately 12-by-12 feet in elk and mule deer winter range (DFWP 2008). However, the area proposed for thinning is not likely to receive much use by wintering animals given that most of the trees in this area are <5-inches dbh. Overstory thermal cover (trees ≥5 inches dbh) would not be affected by the proposed activities and the thinning would not occur during the winter when snowpack is high.

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 will adhere to food storage and sanitation requirements as described in the sale contract. Ensure that all attractants such as food, garbage, and petroleum products are stored in a bear-resistant manner.
- Prohibit pre-commercial thinning and post and pole harvest from April 1- June 30 in all units.
- 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*).
- Restrict public access at all times on any restricted roads that are opened for the pre-commercial thin.
- 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. *In* 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**					

Air Quality	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
Action														
Smoke	**x**				**x**				**x**					
Dust	**x**				**x**				**x**					

Comments: N/A

Air Quality Mitigations: N/A

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**					**AR-1**
Aesthetics		**x**				**x**			**x**				**Yes**	**AR-2**
Demands on Environmental Resources of Land, Water, or Energy	**x**				**x**				**x**					

Comments:

AR-1: A Class I (literature review) level review was conducted by the DNRC staff archaeologist for the area of potential effect (APE). This entailed inspection of project maps, DNRC's sites/site leads database, land use records, General Land Office Survey Plats, and control cards. The Class I search revealed that no cultural or paleontological resources have been identified in the APE. Because the area of potential effect on state land has experienced varying levels of timber harvest over the past century, because the Holocene age soils in the APE are thin, and because the local geology is not likely to produce caves, rock shelters, or sources of tool stone, no additional archaeological investigative work will be conducted in response to this proposed development. However, if previously unknown cultural or paleontological materials are identified during project related activities, all work will cease until a professional assessment of such resources can be made.

AR-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.

Archaeology/Aesthetics Mitigations:

- Thinning activities would target the poor form, decadent, and undesirable species, retaining healthy, vigorous growing, more aesthetically pleasing trees. Throughout all units, slash would be bucked and lopped to within 12 inches of the ground to ensure rapid decomposition.

OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:

- Ewing Central Timber Sale Checklist Environmental Assessment January 2013

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**					
Action														

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		
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 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.

Montana Plant Species of Concern Report. Montana Natural Heritage Program. Retrieved on 3/28/2019, from http://mtnhp.org/SpeciesOfConcern/?AorP=p

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: Jeremy Akin
Title: Management Forester
Date: May 28, 2019

Finding

Alternative Selected

Two alternatives are presented and were fully analyzed in the Environmental Assessment:

- The *No-Action Alternative* allows for existing activities but does not include pre–commercial thinning.
- The *Action Alternative* involves pre-commercially thinning 185 acres in the Stillwater State Forest to fourteen by fourteen foot spacing. An additional 8 acres of post and pole lodgepole pine would be removed. 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;
- there is no conflict with local, State, or Federal laws, requirements, or formal plans; and

- Lynx habitat areas will be protected within the pre-commercial thinning units.

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

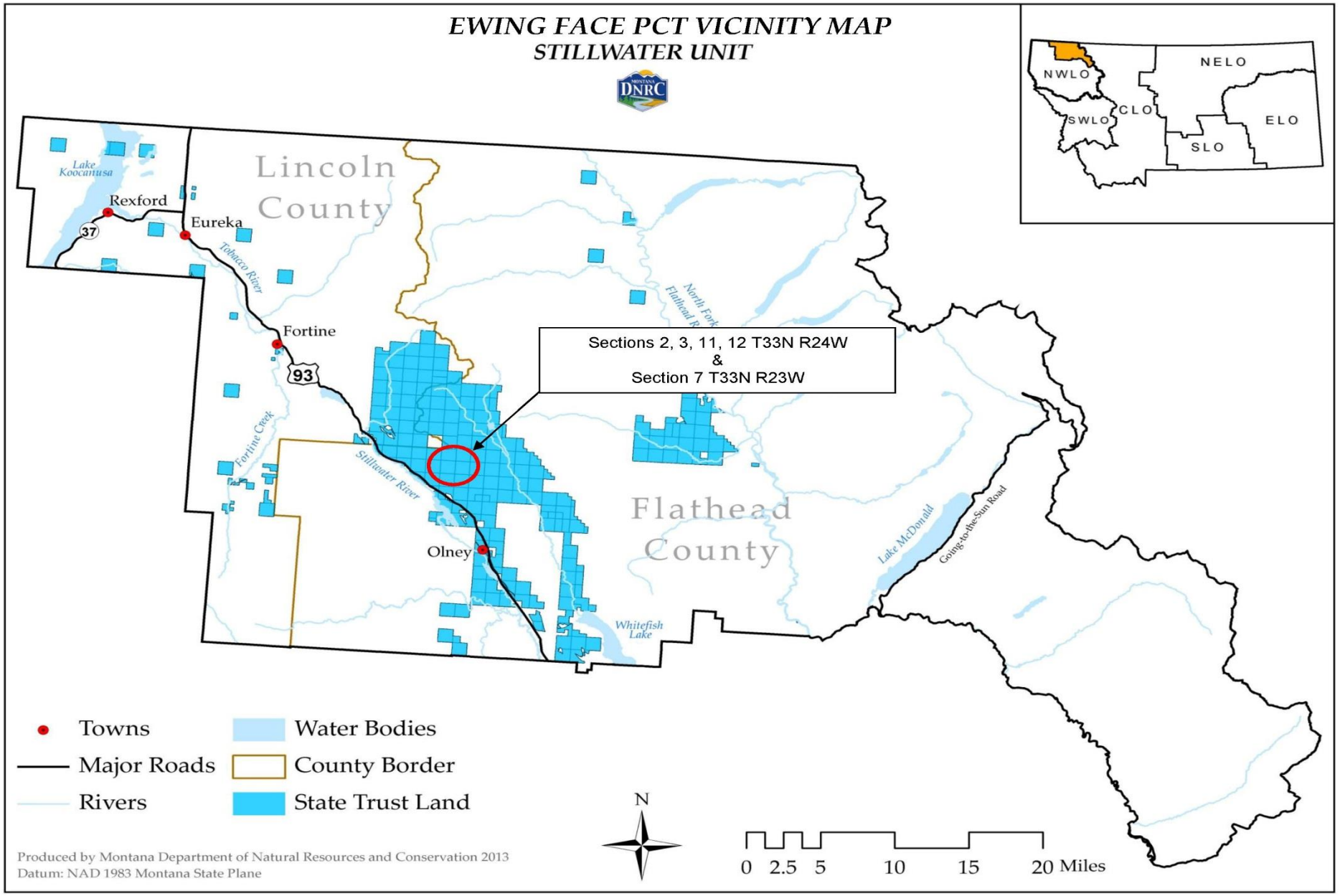
[ ]	EIS	[ ]	More Detailed EA	[X]	No Further Analysis

Environmental Assessment Checklist Approved By:

Name: Tye Sundt
Title: Forest Management Supervisor
Date: **8/19/2019**
Signature: ***/s/*** *Tye M. Sundt*

Attachment A- Maps

A-1: Timber Sale Vicinity Map



A-2: Project Map