

Environmental Assessment Checklist

Project Name: Oh Deer Projects EA
Proposed Implementation Date: 2020-2025
Proponent: Missoula Unit, Southwestern 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 Oh Deer Projects. These projects are located 6 air miles southeast of Missoula, Montana in the Deer Creek drainage. (refer to vicinity & project maps in Attachment A) and include the following sections:

Beneficiary	Legal Description	Total Acres	Treated Acres
Common Schools			
Public Buildings	Section 6 T12N R18W	240	*150
MSU 2 nd 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			

**Pre-commercial Thinning (PCT) and harvest acres overlap. 150 acres of harvest and 104 acres of PCT are being proposed. See attachment A.*

Objectives of the projects include:

-Pre-Commercial Thinning

- Increase growth and vigor of the stand(s).
- Target Douglas-fir impacted by dwarf mistletoe for removal.
- Achieve a more uniform stem distribution.
- Concentrate growth on fewer trees in order to attain merchantable size in a shorter time frame.
- Remove ladder fuels from the dripline of relic western larch and ponderosa pine.
- Construct a shaded fuel break along portions of Deer Creek Road.
- Increased vigor to reduce the threat of insect and disease infestation.

-Commercial Timber Harvest

- Remove overstory that contains high defect.
- Target shade tolerant species impacted by dwarf mistletoe.
- Reduce ladder fuels and overstory fuel loads.
- Reduce competition for limited water and nutrients.
- Generate revenue for the Public Buildings Trust.

Proposed activities include:

Action	Quantity
Proposed Harvest Activities	
Clearcut	
Seed Tree	
Shelterwood	
Selection	
Commercial Thinning	
Salvage	10
Sanitation	140
Total Treatment Acres	150
Proposed Forest Improvement Treatment	
Pre-commercial Thinning	104
Planting	
Proposed Road Activities	
New permanent road construction	
New temporary road construction	.5
Road maintenance	2.5 miles
Road reconstruction	
Road abandoned	
Road reclaimed	
Other Activities	

Duration of Activities:	5 years- Not continuous activity
Implementation Period:	2020-2025

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.

Project Development

In the fall of 2019, DNRC was approached by a landowner adjacent to the western section line of Section 6. He would like the landowners along Deer Creek in section 6 to collaborate on a forest management project to make skyline logging economically feasible for everyone along the road. That potential collaboration-initiated project planning for the Oh Deer forest management projects.

SCOPING:

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

Scoping Notices were sent to 16 adjacent landowners and posted on the DNRC website. Two responses were received. One telephone call and one letter.

The telephone call was to request that if/when DNRC was skyline yarding that the DNRC would tell the landowner who their contractor was so he could call them and possibly harvest his land also.

DNRC agreed to call him when/if skyline harvests were to occur and pass along the contractor information.

The letter (Attachment B of this EA) outlined 12 questions/concerns including, but not limited to, harvest prescriptions, road use and construction, wildlife, private property impacts, sound, dust control and water quality.

A response letter was sent (Attachment B-1 of this EA). One of the questions/concerns was outside the scope of this EA and will not be analyzed further. This was indicated in the response letter. This MEPA document will analyze DNRC property and the impacts associated with the proposed project. DNRC does not plan to conduct any activities on private property. DNRC may collaborate with other landowners but will not be responsible for activities on ownerships other than its own. The remaining 11 concerns will be incorporated into this EA.

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.

ALTERNATIVES CONSIDERED:

No-Action: The proposed pre-commercial thinning and commercial timber harvest would not occur. The stands would remain at overstocked levels with low production rates. Dwarf Mistletoe would continue to impact Douglas-fir of all size classes.

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

Pattee Cake PCT

(104 acres) DNRC would thin to an approximate 14' spacing (or outside the overstory dripline, whichever is greater). Preferred leave trees would be WL, PP and DF free of dwarf mistletoe. Residual stand densities would be 200-225 trees per acre (TPA). Approximately 700-1500 (depending on current stocking) TPA would be removed. The unit would be hand thinned. Slash would be lopped and scattered with a lop height of 18 inches and or piled in hand piles and burned. A shaded fuel break would be constructed along Deer Creek county road up to 2 chains (132 feet) from the edge of the road. (See attachment A-1 for proposed project location)

Oh Deer Timber Permit

(22 acres) An adjacent landowner would like the landowners along Deer Creek county road (west of Deer Creek stream) in section 6 to collaborate on a forest management project to make skyline logging economically feasible for everyone along the road. DNRC would work in conjunction with adjacent landowners to harvest overstory trees that contain one or more of the following: have been infested by insects, infected by disease, forked tops, crook, sweep or bole damage. DNRC would only be responsible for harvesting on its ownership. Seral species would be favored to leave. Trees would be either whole tree skidded, and slash would be concentrated in landing piles and burned or in some cases cut in to log lengths and slash would be left on the hillside. Longbutting would be encouraged to retain large woody debris onsite. (See attachment A-2 for proposed project location and A-4 for haul route)

Little Bit Timber Permit

(128 acres) A commercial harvest would remove overstory trees that have been impacted by insects or disease, have poor growth or vigor, contain excessive sweep, crook or have forked tops. The residual stand would be spaced 30-60 feet apart with some scattered clumps of 2-4 trees. Seral species would be favored to leave. This harvest prescription would emulate natural disturbances historically created by wildfire in the area. If markets are available, pulp material

would also be removed. Trees would be either whole tree skidded, and slash would be concentrated in landing piles and burned or in some cases cut in to log lengths and slash would be left on the hillside. Longbutting would be encouraged to retain large woody debris onsite. (See attachment A-3 for proposed project location and A-4 for haul route)

Timber Permit prescriptions

A sanitation/salvage prescription would be implemented for both permits. This means that trees impacted by insects and disease, forked tops, multiple tops, sweep, crook, excessive bole damage and fading crowns (both in color and percent crown ratio) would be targeted for removal. Sanitation would account for most of this. Dead or red and dying trees would represent the salvage component. In most instances (unless there is a safety concern) large snags would be left on site.

Impacts on the Physical Environment

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

ROADS:

Road Existing Conditions:

Deer Creek county road

Deer Creek county road is a year-round county-maintained road. It is a gravel surfaced and receives moderate to high amounts of public use, including log truck traffic. Illegal dumping is a frequent problem below the county road. It is not uncommon to find appliances, tires and other trash scattered below the road.

DNRC owned roads

DNRC roads within the proposed project area are typical “woods roads”. They are native material roads with average running surface widths of 14-16 feet. Rolling dips and other drainage features are present to meet Forestry Best Management Practices (BMPs) and DNRC internal rules and regulations. These road systems are closed to public motorized use to limit damage to road surfaces during wet conditions. Illegal dumping, bonfires, squatting and gate vandalism occur frequently at the current gate location.

Road Direct, Indirect and Cumulative Impacts

Deer Creek county road

If the collaborative project (Oh Deer timber permit) between adjacent landowners on the west side of Deer Creek were to occur, coordination with the county would have to take place. Road delays during harvest would occur if the driver was coming from Pattee Canyon. An alternate route is available, but it is longer. The road surface would be impacted on the west side if tracked yarders or other equipment were used to process logs. DNRC would not perform the maintenance or repair on a county Maintained road. However, we would work closely with the county during operations and let them know when there is project related activity on the road. Coordination with the county would allow any areas directly impacted by harvest equipment to be repaired in a timely fashion. Communication with the county would be ongoing before and during the Oh Deer project. DNRC has no control or authority over adjacent landowners or the

county road and if the project were to proceed on private property without the DNRC proposal moving forward, impacts to the county road could still occur, just not on DNRC land. The impacts described in this environmental document solely pertain to the DNRC ownership and impacts on that ownership.

The Little Bit timber permit would only use the county road for hauling, which is in line with historic and current use on the Deer Creek county road.

Log hauling would take place on the maintained county roads for both proposed projects. Given the fact that the road currently and historically receives log truck traffic, this would not be a new burden on that road system.

The proposed project is expected to have a minor effect to the county road based on the following reasons/mitigations:

- The proposed hauling is no different than the current and historic log hauling that has occurred on the road system.
- Any direct impacts to the country road as a result of harvest operations would be communicated with the county so impacts are kept minor and are repaired in a timely manner.
- Based on the proposed project acreage (no expected travel delays would be associated with Pattee Cake PCT or Little Bit timber permit), delays in travel would be short in duration and roads would be left passable on evenings and weekends.
- Hauling would occur during dry or frozen conditions to limit rutting.

DNRC owned roads

DNRC roads within the proposed project area would be maintained to the condition they are currently in. DNRC owned roads in the area are currently closed to motorized vehicle traffic, this would continue post-harvest. The gate on the north side of Deer Creek would be moved closer to the county road to try and combat vandalism, illegal dumping, illegal shooting, illegal burning and squatting by limiting available parking at the gate.

The proposed project is expected to have a minor effect to the DNRC owned road based on the following reasons/mitigations:

- Rolling dips and other drainage features would be maintained to meet Forestry Best Management Practices (BMPs) as well as DNRC internal rules and regulations.
- Road systems would continue to be closed to public motorized use to limit damage to road surfaces during wet conditions.
- The gate would be moved closer to the county road to dissuade illegal activities.
- Hauling would occur during dry or frozen conditions to limit rutting.

VEGETATION:

Vegetation Existing Conditions:

Pattee Cake PCT

(104 acres) Advanced regeneration (less than 8" dbh) exists in scattered clumps within the 104 acre proposed treatment area. Concentrations of Douglas-fir impacted by dwarf mistletoe exist under large diameter western larch, Douglas-fir and ponderosa pine. Areas along the county road also contain thick clumps of infected trees. Western larch and ponderosa pine regeneration is also present but limited to open areas created by past harvest or natural events such as root rot or insect caused mortality.

Oh Deer Timber Permit

(22 acres) A mix of western larch, ponderosa pine and Douglas-fir 8-30"+ dbh can be found scattered throughout the stand. Ponderosa pine and western larch represent the larger diameter classes (20"+), with most of the Douglas-fir being 8-19" dbh. Douglas-fir are concentrated in draws and swales with ponderosa pine and larch being present in the open hillsides. A majority (over 80%) of the Douglas-fir in the area contain mistletoe.

As mentioned in the Pattee Cake PCT existing conditions paragraph, advanced regeneration (less than 8" dbh) exists in scattered clumps. Concentrations of Douglas-fir impacted by dwarf mistletoe exist under large diameter western larch, Douglas-fir and ponderosa pine. Areas along the county road also contain thick clumps of infected trees. Western larch and ponderosa pine regeneration is also present but limited to open areas created by natural events such as root rot or insect caused mortality.

An irrigation ditch runs midslope (below the county road) through the harvest unit. The water right holders actively maintain the ditch.

Little Bit Timber Permit

(128 acres) The proposed harvest unit is a mix of previously harvested and unharvested areas. The areas that were previously harvested are dominated by ponderosa pine and western larch. However, Douglas-fir of various quality and size classes were also left. The resulting stand is more open (20-40 feet spacing) with an overstory still being impacted by dwarf mistletoe (in the Douglas-fir). Some forked tops and other defect can also be found in the overstory. Previously unharvested areas are heavily stocked (10' average spacing) with Douglas-fir 8"-16" dbh. Mistletoe is present in these stands as well. In previously harvested areas, regeneration is consistent with the existing conditions in the Pattee Cake PCT (portions of the PCT are within this harvest area). In areas that were not previously harvested closed canopy conditions have resulted in limited to no regeneration.

There is no Old Growth in the project area.

Knapweed, Common Mullein, Houndstongue and Thistle can be found in the project area.

No rare plants were identified during field reconnaissance or within the Montana Natural Heritage Program. If rare plants are discovered during implementation of the proposed projects, they will be protected.

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				2
Old Growth	X				X				X					
Action														
Noxious Weeds		X				X				X			y	1
Rare Plants	X				x				X					
Vegetative community	X				x				X					3
Old Growth	X				x				X					

Comments:

- Existing weeds are common in Deer Creek, especially along roads and 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.
- Dwarf mistletoe infected trees would be removed as well as trees impacted by other insects and diseases. Trees with bole defects, forked tops and reduced crown ratios would also be targeted for removal. Large relic ponderosa pine and western larch would be favored for retention.

Vegetation Mitigations:

- Project areas would be monitored for noxious weeds after implementation and herbicide may be applied when and if needed.
- If rare plants are discovered during project implementation they would be protected.
- Harvesting overstory trees with mistletoe will help limit the spread of mistletoe in the Douglas-fir regeneration in the area. Over time, this should reduce the levels of infection in the population.
- Large relic ponderosa pine and western larch would be favored to encourage regeneration of seral species.

SOIL DISTURBANCE AND PRODUCTIVITY:

Soil Disturbance and Productivity Existing Conditions:

The project is located on the west-facing slopes of the northern foothills of the Sapphire Mountains east of Missoula. Underlying geology is Belt Series sedimentary rocks composed mainly of argillites. These valley slopes include areas of rock scree and some glacial material including boulders, cobbles and sand composed of glacially transported material. Slopes within the proposed harvest and PCT areas are 50% or less and soils are generally Winkler loam with a high composition of gravel and sand (Missoula County NRCS Soils data).

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				NA	1
Erosion	X				X				X				NA	1
Nutrient Cycling	X				X				X				NA	1
Slope Stability	X				X				X				NA	1
Soil Productivity	X				X				X				NA	1
Action														
Physical Disturbance (Compaction and Displacement)		X				X				X			Y	2, 3, 4, 5
Erosion		X				X				X			Y	2, 3, 5
Nutrient Cycling		X				X				X			Y	4, 5, 6
Slope Stability	X				X				X					7
Soil Productivity		X				X				X			Y	4, 5, 6

Comments:

1. Implementation of the No-Action Alternative would result in no new soil resource impacts in the project area. Soil resource conditions would remain similar to those currently at the site.
2. Soil and vegetation disturbance from harvest activities may result in a temporarily increased risk of erosion.
3. Soil disturbance and erosion risk increases with slope and slopes in the project area exceed 45% in some places.
4. Direct impacts/ physical disturbance would likely occur through the use of ground-based yarding. Impacts are expected to be less than 12% and would be minimized by the use of existing roads and skid trails.

5. Applicable state plans, rules, and practices have guided project planning and would be implemented during project activities, including the Montana Code Annotated (specifically Title 77, Chapter 5), the Administrative Rules of Montana (specifically Rule Chapter 36.11), the Montana Forest Best Management Practices, and the State Forest Land Management Plan.
6. According to Graham et al. (1994), a minimum of 4.5 tons/acre of CWD would be a desired post-harvest condition to maintain forest productivity for this forest habitat type.
7. Unstable slopes were not observed on site. The project is anticipated to have no risk to slope stability.

Soil Mitigations:

- BMP's would be implemented on all roads and within the units. Slash from the lop-and-scatter thinning process would be left in the units to mitigate erosion risks.
- Ground-based logging equipment (tractors, skidders, and mechanical harvesters) would be limited to slopes less than 45%.
- The Contractor and Sale Administrator should agree to a general skidding plan prior to equipment operations. Skid trails would be mitigated following harvesting and yarding operations with water bars and/or slash.
- 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.
- A minimum of 4.5 tons/acre and up to 9 tons/acre, of coarse and fine woody debris would be maintained on site to meet the concentration for the DF/PHMA habitat type recommended by Graham et al (1994).

Soil References:

Graham, R.T., Harvey, A.E., Jorgensen, M.F., Jain, T.B., and Page-Dumrose, D.S., 1994, Managing Course Woody Debris in Forests of the Rocky Mountains. U.S., Forest Service Research Paper INT-RP-477. Intermountain Research Station. 16p.

WATER QUALITY AND QUANTITY:

Issues:

Water quality and quantity issues raised during scoping included the following:

- How will the water quality and water flow of Deer Creek be impacted by this project?

Existing conditions within the project area are described below followed with list of proposed project elements that are intended to be protective of water quality and fish habitat in streams adjacent to timber harvest activities. We conclude this analysis with our findings for risk of impacts to water quality and water quantity (flow) because of the proposed project.

Water Quality and Quantity Existing Conditions:

The project is located in the Deer Creek watershed and includes Deer Creek itself (see Fig W1 below). Deer Creek is a perennial fish-bearing Class 1 stream and is not identified as impaired on the 303d list. According to fish distribution data maintained by Montana Fish, Wildlife, and Parks (MFISH), Deer Creek supports Westslope Cutthroat Trout.

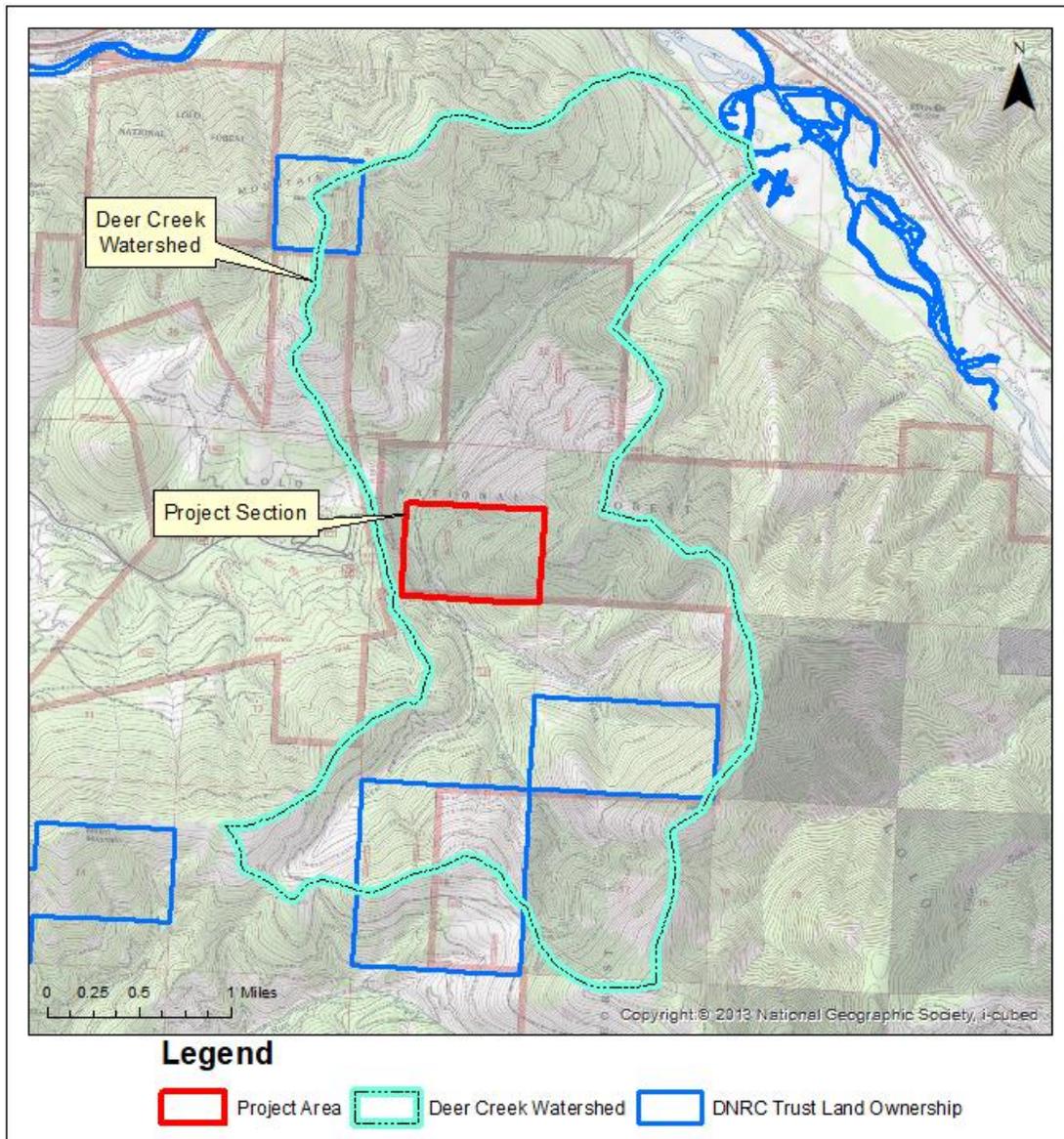


Figure W1. Location of project area within Deer Creek watershed.

The project area also includes an unnamed Class 3 stream that flows towards Deer Creek, but a channel connection between this intermittent stream and Deer Creek was not identified (see Fig W2 below).

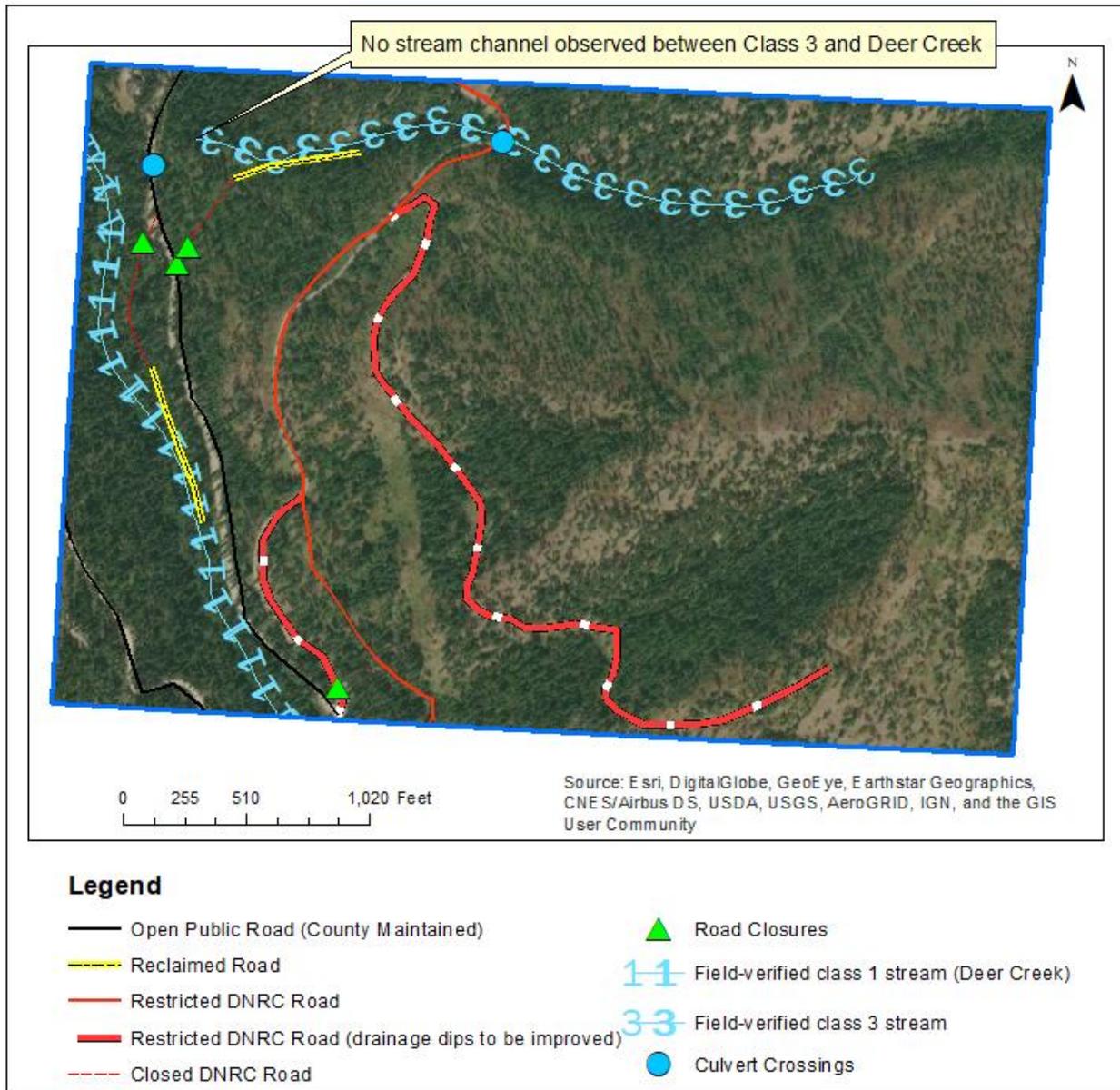


Figure W2. Detail map of project area within Section 6 of T12N R18W, including existing roads, road closures, existing stream crossings, and field-verified streams.

Existing roads under sole DNRC ownership are indicated in red in Figure W2. These roads were reviewed for Best Management Practices implementation and effectiveness. Existing road drainage (i.e., rolling dips) in some areas need improvement; however, signs of erosion or sediment delivery to streams were not observed. Some reclaimed roads are adjacent (less than 50 feet) from streams within the project area (see Figure W2) but have significant plant and tree

growth within their original prism and did not show signs of erosion or delivery to adjacent streams.

Deer Creek within the project section is a perennial stream with a combination of step-pool and cascade morphology. The banks and the adjacent floodplain of the creek are densely vegetated with shrubs, willows, and grasses. Dense shrubs appear to provide at least 50% shading of the stream during summer (this is estimated because observations were collected in late April 2020, before deciduous vegetation had leafed out). The creek was observed during spring snowmelt runoff and flows were near bankfull (see Figure W3) suggesting appropriate width/depth ratios. Within the DNRC parcel (Section 6 of T12N R18W) existing and proposed roads do not cross streams, and no anthropogenic fish barriers were identified on Deer Creek. The shape and composition of some of the woody-debris structures within Deer Creek suggest recent or historic beaver presence. Considering these field observations, the Creek is assumed to be in a stable condition (e.g., in dynamic equilibrium).



Figure W3. Deer Creek within Section 6 of T12N R18W. Orange and white stick in photo provides scale; color striping in 1-foot intervals. Photo date April 28, 2020.

Relevant design features of the proposed project near Deer Creek:

These design features are required by the Streamside Management Zone (SMZ) Law and Rules and the DNRC Habitat Conservation Plan (HCP). The Deer Creek riparian management zone (RMZ) begins 100 feet¹ from the ordinary high-water mark (OHWM) of the creek. This distance (and other buffer distance mentioned here) are measured along the slope distance perpendicular to the creek from the OHWM. Note that slopes adjacent to Deer Creek vary, with much of these slopes >35%. The box to the right summarizes how some buffer widths change, or do not change with slope.

- RMZ is 100 feet from OHWM regardless of slope.
- 50-foot no harvest zone is measured from OHWM regardless of slope.
- SMZ requirements including retention extend 50 to 100 feet from OHWM based on slope and location of topographic benches.

- The DNRC would maintain a 50-foot no-harvest and ground-based equipment exclusion zone. Below are the only two exceptions:
 - Removal of individual hazard trees within the no-harvest buffer would be allowed.
 - If a cable logging system is used, it may be necessary to create cable corridors across Deer Creek. If this is necessary, the minimum corridor spacing would be 150 feet with no more than 15 percent of the exclusion zone
- Commercial sanitation and salvage within the RMZ and outside the exclusion zone would retain shrubs and sub-merchantable trees to the fullest extent possible, and a minimum of 50 percent of the trees greater than or equal to 8 inches dbh or 10 trees per 100-foot segment, whichever is greater.
- Following commercial harvest, pre-commercial thinning may occur in the RMZ, but outside the SMZ. Thinning work would not reduce stand density below a 14x14 foot spacing.
- No excavation would occur in the RMZ.
- Reclaimed roads located within the RMZ or SMZ of streams within the project area would not be used for project hauling or skidding.

Compliance with HCP thresholds for timber harvest in RMZ

DNRC HCP commitments limit the proportion of DNRC-owned Class 1 RMZ that can be managed or harvested to a non-stock seedling-sapling stand condition to 20% within a given aquatic analysis unit (typically HUC 4 watershed). The proposed project is located in the Upper Clark Fork aquatic analysis unit, of which 30.7 acres or 6.2% have been managed (as of 2019).

Approximately 5.9 acres of RMZ is located outside the first 50-foot buffer of Deer Creek and could be selectively harvested and pre-commercially thinned per HCP commitments. If all 5.9 acres were managed with some harvest, the managed RMZ area within the Upper Clark Fork

¹ 100 feet is the 100-year site index tree height for the project area near Deer Creek.

aquatic analysis unit would increase to 36.6 acres or 7.4%, which is still well-under the 20% threshold.

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					1
Water Quantity	X				X				X					1
Action														
Water Quality		X				X				X			Y	2, 3
Water Quantity		X				X				X			Y	3, 4

Comments:

1. With no action, no timber harvesting or related activities would occur. Water quality conditions would likely continue under in their current state. Similarly, no risk of change to current fluctuations in annual water yield or stream flow would result.
2. Water quality issues due to existing conditions within the project section were not identified in the field. Specifically, existing roads located within the SMZ and RMZ of Deer Creek have been reclaimed and are not proposed for use. Considering the *Relevant Design Features of Proposed Project* listed above, the risk to water quality is low – mainly due to the distance equipment and vegetation management activities would have from Deer Creek and the unnamed Class 3 stream located in the northern portion of the project area.
3. Applicable state plans, rules, practices, and commitments have guided project planning and would be implemented during project activities, including the Montana Code Annotated (specifically Title 77, Chapter 5), the Administrative Rules of Montana (specifically Rule Chapter 36.11), the Montana Forest Best Management Practices, the DNRC Habitat Conservation Plan (2010), and the State Forest Land Management Plan.
4. Changes to steam flow hydrology (water quantity or water flow) are not expected to be detectible or significant with the Action Alternative. This conclusion is based on the following project and watershed characteristics:
 - a. The sanitation/salvage harvest combined with the proposed pre-commercial thinning would remove vegetation from the watershed and would, in the short-term (i.e., 0-5 years), locally reduce precipitation interception and evapotranspiration. These activities are considered low-intensity, meaning a substantial proportion of the existing vegetation would remain. The affected area is 240 acres located adjacent to Deer Creek near the middle of its watershed (see Figure W1). The watershed area upstream of the project is approximately 2,500 acres. The hydrologic effect of a low-intensity harvest on 10% of the watershed would likely have no detectible effect on streamflow observed in Deer Creek. Studies correlating vegetation harvest and treatment with streamflow yield have suggested approximately 15-20% of the watershed vegetation must be

harvested to have a measurable increase in water yield in similar mountain environments (Stednick, 1996; and Bosch and Hewlett, 1982).

Water Quality & Quantity Mitigations:

No additional project-specific mitigations necessary beyond the project design and commitments listed earlier in this analysis.

Water Resources References:

Bosch, J.M. and J.D. Hewlett. 1982. A review of catchment experiments to determine the effect of vegetation changes on water yield and evapotranspiration. *J. Hydrology*, 55: 3-23.

Stednick, J.D. 1996. Monitoring the effects of timber harvest on annual water yield. *J. Hydrology* 176:79-95.

FISHERIES:

Deer Creek is fish bearing with an assumed presence of Westslope Cutthroat Trout (per MFISH maintained by Montana Fish Wildlife and Parks). The project area does not include any existing or proposed road crossings on the creek.

No foreseeable direct, indirect, or cumulative effects to fisheries resources are anticipated with an action or no action alternative due to the limited scale of the proposed project activities relative to the watershed and fishbearing waterbodies within the project area would be buffered by SMZ and RMZ commitments and mitigations listed earlier in the water resource analysis.

Fisheries	Impact												Can Impact Be Mitigated?	Comment Number	
	Direct				Secondary				Cumulative						
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High			
Action															
Sediment		X			X				X					y	1
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						

Comments:

- Deer Creek is fish bearing with an assumed presence of Westslope Cutthroat Trout (per MFISH data maintained by Montana FWP). Risk of effects to fish populations and habitat would be low due to no proposed work within streams or SMZs. See water resources analysis for further specific mitigations protecting the fish Deer Creek within the project area.

Fisheries Mitigations:

No additional project-specific mitigations necessary beyond the project design and commitments listed earlier in this analysis and the water resources analysis.

WILDLIFE:

Evaluation of the impacts of the No-Action and Action Alternatives including **direct, secondary, and cumulative** impacts on Wildlife (including unique, endangered, fragile, or limited environmental resources).

Wildlife Existing Conditions: The project area is a mix of forested Douglas-fir, western larch, and ponderosa pine stands. Grizzly bears could occasionally use the vicinity of the project area. Potential habitat exists for flammulated owls and pileated woodpeckers in the project area. Some discontinuous and low-quality upland fisher habitats exist in the project area, but extensive use would not be anticipated. No big game winter range exists in the project area but summer range for deer, elk, and moose exists in the project area. Big game security habitat does not exist in the project area, but portions of the project area could contribute to potential security habitats in the cumulative effects analysis area.

No-Action: No potential for disturbance to wildlife would be anticipated. No timber management activities would be conducted, thus no appreciable changes to existing habitats would occur. Continued maturation could slowly improve pileated woodpecker habitats, upland fisher habitats, and grizzly bear hiding cover but could reduce habitat quality for flammulated owls and big game foraging habitats over the long term. Continued wildlife use at levels similar to present conditions would be anticipated. Generally, negligible direct, indirect, or cumulative effects would occur.

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					2
Yellow-Billed Cuckoo <i>(Coccyzus americanus)</i> Habitat: Deciduous forest stands of 25 acres or more with dense understories and in Montana these areas are	X				X				X					2

Wildlife	Impact												Can Impact be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
generally found in large river bottoms														
Sensitive Species														
Bald eagle <i>(Haliaeetus leucocephalus)</i> Habitat: Late-successional forest less than 1 mile from open water	X				X				X					2
Black-backed woodpecker <i>(Picooides arcticus)</i> Habitat: Mature to old burned or beetle-infested forest	X				X				X					2
Coeur d'Alene salamander <i>(Plethodon idahoensis)</i> Habitat: Waterfall spray zones, talus near cascading streams	X				X				X					2
Columbian sharp-tailed grouse <i>(Tympanuchus phasianellus columbianus)</i> Habitat: Grassland, shrubland, riparian, agriculture	X				X				X					2
Common loon <i>(Gavia immer)</i> Habitat: Cold mountain lakes, nest in emergent vegetation	X				X				X					2
Fisher <i>(Martes pennanti)</i> Habitat: Dense mature to old forest less than 6,000 feet in elevation and riparian		X				X				X				3
Flammulated owl <i>(Otus flammeolus)</i> Habitat: Late-successional		X				X				X			Y	4

Wildlife	Impact												Can Impact be Mitigated?	Comment Number	
	Direct				Secondary				Cumulative						
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High			
ponderosa pine and Douglas-fir forest															
Gray Wolf (<i>Canis lupus</i>) Habitat: Ample big game populations, security from human activities	X				X					X					2
Harlequin duck (<i>Histrionicus histrionicus</i>) Habitat: White-water streams, boulder and cobble substrates	X				X					X					2
Northern bog lemming (<i>Synaptomys borealis</i>) Habitat: Sphagnum meadows, bogs, fens with thick moss mats	X				X					X					2
Mountain plover (<i>Charadrius montanus</i>) Habitat: short-grass prairie & prairie dog towns	X				X					X					2
Peregrine falcon (<i>Falco peregrinus</i>) Habitat: Cliff features near open foraging areas and/or wetlands	X				X					X					2
Pileated woodpecker (<i>Dryocopus pileatus</i>) Habitat: Late-successional ponderosa pine and larch-fir forest		X				X					X			Y	5
Townsend's big-eared bat (<i>Plecotus townsendii</i>) Habitat: Caves, caverns, old mines	X				X					X					2

Wildlife	Impact												Can Impact be Mitigated?	Comment Number		
	Direct				Secondary				Cumulative							
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High				
Wolverine (<i>Gulo gulo</i>) Habitat: Alpine tundra and high-elevation boreal forests that maintain deep persistent snow into late spring	X				X					X						2
Big Game Species																
Elk		X				X					X				Y	6
Whitetail		X				X					X				Y	6
Mule Deer		X				X					X				Y	6
Bighorn Sheep	X				X					X						2
Other																

Comments:

1. The project area is 11 miles south of the Northern Continental Divide Ecosystem grizzly bear recovery area and is 18 miles southwest of 'occupied' grizzly bear habitat as mapped by grizzly bear researchers and managers to address increased sightings and encounters of grizzly bears in habitats outside of recovery zones (Wittinger et al. 2002). Individual animals could occasionally use the project area while dispersing or possibly foraging, and they could be displaced by project-related disturbance if they are in the area during proposed activities. 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. However, given their large home range sizes, and manner in which they use a broad range of forested and non-forested habitats, the proposed activities and alterations of forest vegetation on the project area would have negligible influence on grizzly bears.
2. 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.
3. Roughly 106 acres of potential upland fisher habitats exist in the project area that are generally low-quality and disconnected. Generally, habitats in the project area and larger cumulative effects analysis area are somewhat disconnected and interspersed with some drier and/or more open habitats than generally used by fisher, thus extensive use would not be anticipated, however some use by fisher could occur. Approximately 56 acres of potential upland habitats would receive treatments, but all activities would avoid any riparian habitats associated with Class 1 or 2 streams. Proposed treatments in upland habitats would reduce canopy closure and resultant stands would likely be too open to be used by fisher. No changes in open roads would be anticipated; trapping pressure and the potential for fisher mortality would not change.
4. Roughly 150 acres of flammulated owl habitats would be harvested and 104 acres of flammulated owl habitats would be pre-commercially thinned. The majority of the acres proposed for pre-commercial thinning would be in the area proposed for harvesting.

Collectively, on roughly 170 acres of flammulated owl habitats proposed activities would further open the canopy while favoring ponderosa pine, Douglas-fir, and western larch. 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 pre-commercial thinning could improve flammulated owl foraging habitats while improving growth of ponderosa pine, which could expedite the development of suitable nesting structures through time than if left unthinned. Proposed activities could occur during the flammulated owl nesting season, which could introduce some disturbance of nesting owls, but activities would not likely affect nesting structures.

5. Roughly 97 acres of potential pileated woodpecker habitats and another 29 acres of potential foraging habitats would receive treatments that would reduce overall canopy closure and stand density. Disturbance to pileated woodpeckers could occur if proposed activities occur during the nesting period. Harvesting would reduce forested habitats for pileated woodpeckers in the project area. Some potential continued use as foraging habitats would be possible depending on density of trees retained. No appreciable change to pileated woodpecker habitats would be anticipated given the nature of the proposed pre-commercial thinning activities; however increased growth rates could expedite the return of these stands into potential pileated woodpecker habitat. 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 150 acres.
6. Big game species exist in the project area much of the year. No deer, elk, or moose winter range exists in the project area. Activities conducted during the non-winter periods could disturb big game from seasonal ranges, but other suitable habitats are more widely available during those non-winter time periods. Proposed activities would alter canopy closure, hiding cover, and summer big game habitats, which could alter some big game use of the area. No big game security habitat exists in the project area due to the relatively small size of the project area and the presence of open roads, but habitats in the project area could contribute to security habitats in the cumulative effects analysis area. No changes to status of existing roads or open road densities would occur, thus negligible changes to big game security habitat 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 roads that are opened for harvesting activities; signs would be used during active periods and a physical closure (gate, barriers, equipment, etc.) would be used during inactive periods (nights, weekends, etc.). These roads and skid trails would be reclosed to reduce the potential for unauthorized motor vehicle use.
- 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.

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				y	1
Dust		X			x				X				y	2

Comments:

1. 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.
2. Dust may be produced along the haul route if wood is hauled during summer months.

Air Quality Mitigations:

- *Burning within the project area would be short in duration and would be conducted when conditions favored good to excellent ventilation and smoke dispersion as determined by the Montana Department of Environmental Quality and the Montana/Idaho Airshed Group.*
- *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.*
- *Deer Creek road is a county-maintained road and receives dust abatement by the county along the proposed haul route.*

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		
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			Y	2
Demands on Environmental Resources of Land, Water, or Energy	X				X				X					

Comments:

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 of the overall steep terrain (from an archaeological perspective), a lack of springs, and the lack of geology that would suggest 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.
2. Lop-and-scattered slash from hand thinned units is often noticeable for 1-2 years post-treatment.

Mitigations:

- If previously unknown cultural or paleontological materials are identified during project related activities, all work would cease until a professional assessment of such resources can be made.
- 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.*

- None

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			
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															
Health and Human Safety		X			X					X				Y	1,2
Industrial, Commercial and Agricultural Activities and Production	x				X				X						
Quantity and Distribution of Employment		X			X				X					N/A	3
Local Tax Base and Tax Revenues	X				X				X						
Demand for Government Services	X				X				X						
Access To and Quality of	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		
Recreational and Wilderness Activities														
Density and Distribution of population and housing	X				X				X					
Social Structures and Mores	X				X				X					
Cultural Uniqueness and Diversity	X				X				x					4

Comments:

3. How much increase in traffic would each phase of the project cause? How many vehicles and what kinds will be on the road for each project? How will traffic volume fluctuate throughout the lifespan of the project?
 - *Deer Creek county road currently receives high daily use by the public. Users include residents in the area as well as log truck traffic, recreationists and the general public. Part of this traffic can be attributed to the fact that this is an open road that enables travelers to get to East Missoula from Pattee Canyon without going through Missoula. Although in line with current and historical uses, these projects would cause short duration spikes in traffic.*
 - *The proposed PCT project would have (depending on who were to be awarded the contract) 2-3 pickups or vans associated with it. Depending on who is awarded the contract, it could take 1 month -2 years to complete. Work may take place at a steady pace or with different start and stop times. If snow is too deep, PCT work cannot be completed to contract specifications, so no work would take place in deep snow.*
 - *Both harvests would have initial lowboy traffic when the pieces of equipment are dropped off. There would be approximately 3-5 pieces of equipment for each proposed harvest (depending on who is awarded the contract) Oftentimes a single lowboy is used to shuttle equipment so there would not necessarily be 3-5 lowboys, just 3-5 trips to get the equipment on site. 1-3 pickups per project during the project. Log truck traffic would be associated with each project once skidding has taken place. This varies depending on who gets the contract, where the wood is going, time of year and available trucks. Wood is generally decked and then hauled once there is enough product to make hauling efficient. Throughout the life of the contract there will be spikes in log hauling. When these spikes occur, there could be 3-10 loads a day hauled. Until the EA is complete, there will not be any timber cruises in the project areas, but volume estimates based on stand level inventory allow project leaders to estimate volumes for each project. The Oh Deer EA may produce up to 180,000 bf of sawlogs, which equates to 45 loads of sawlogs. The Little Bits project may produce up to 320,000 board feet of sawlogs, which equates to 80 truckloads of sawlogs. The Oh Deer project would take approximately 2-6 weeks (Only the*

DNRC portion) to complete, but the contract would be good for 1 year. The Little Bits project would take approximately 1 month-1 year depending on who is awarded the project. This doesn't include unforeseen circumstances such as breakdowns, fire season, wet weather, etc.

4. How much noise will be generated? What are the hours of operation? What types of noise and noise levels will be generated?
 - *Hours of operation would vary depending on the season. Generally, operations don't occur on weekends or evenings. That said, if fire restrictions or other weather-related events occur, purchasers may work weekends to meet production timelines. There will be no hour of operation restrictions in the contract.*
 - *Although noise from harvesting is audible, given the proximity to the Deer Creek road and the traffic it currently receives, noise from harvest operations would be additive and would not create the only vehicle generated noise in the area. Harvest operations produce distinct sounds, and these will be noticeable if attempts are made to find the source of the sound. If kept at a safe distance from equipment, decibel levels would not be harmful to passing traffic or residents in the area. For these reasons noise generated from the project area would have a low impact for short durations to health and human safety:*
5. The proposed projects size is of a scale that would not have a large effect on local employment; however, each unit may provide a private contractor(s) with 1 month-1 year of employment for his/herself and his/her employees.

Mitigations:

- *Traffic associated with the proposed projects would be expected to follow all traffic laws and speed limits.*
- *Signs would be posted indicating harvest activities are taking place to warn people of log hauling and harvest.*

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.*

- **Wildfire Adapted Missoula (WAM)**-The purpose of the Wildfire Adapted Missoula (WAM) project is to implement the goals and objectives from the 2018 Missoula County Community Wildfire Protection Plan around the city of Missoula. Treatments will be designed to achieve the three goals of the Cohesive Strategy: resilient landscapes across all jurisdictions, fire adapted communities able to experience wildfire without loss of life or property, and coordinated wildfire response implementing practices that increase the margin of safety for first responders.

The proposed project area is within the WAM boundary. The proposed harvests would remove fuels and insect and disease impacted trees which closely relates to the WAM project.

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: The proposed pre-commercial thinning would initially generate cost to the trust; however, this would be an 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 \$26,000. This figure is achieved by multiplying the estimated number of acres 104 by estimated cost per acre \$250. This cost estimate is assumed from previous projects.

Commercial harvest would generate approximately \$33,750 for the Public Buildings 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: 5/12/20

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 Acquired Lands (Public Buildings) 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

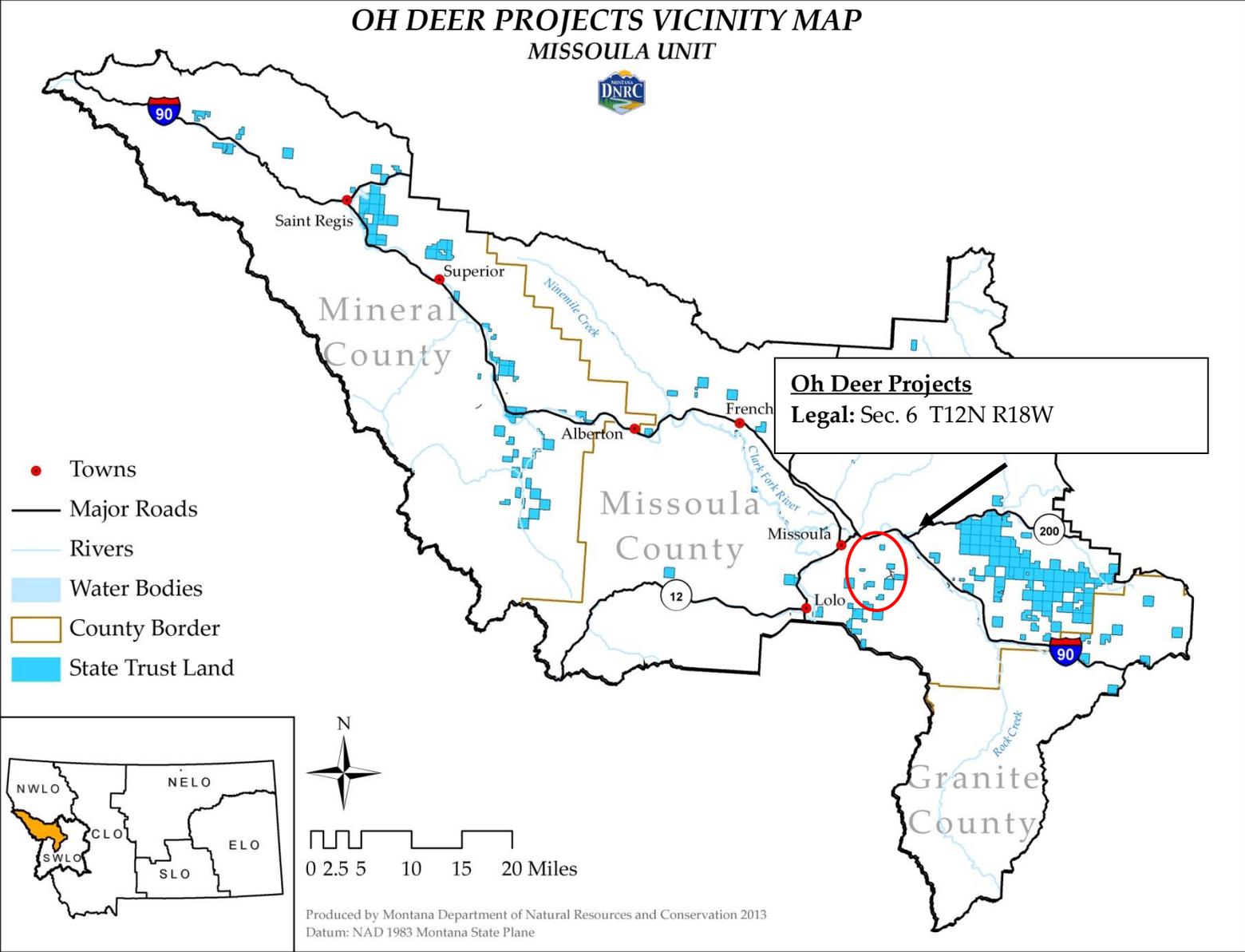
Title: Missoula Unit Manager

Date: May 13, 2020

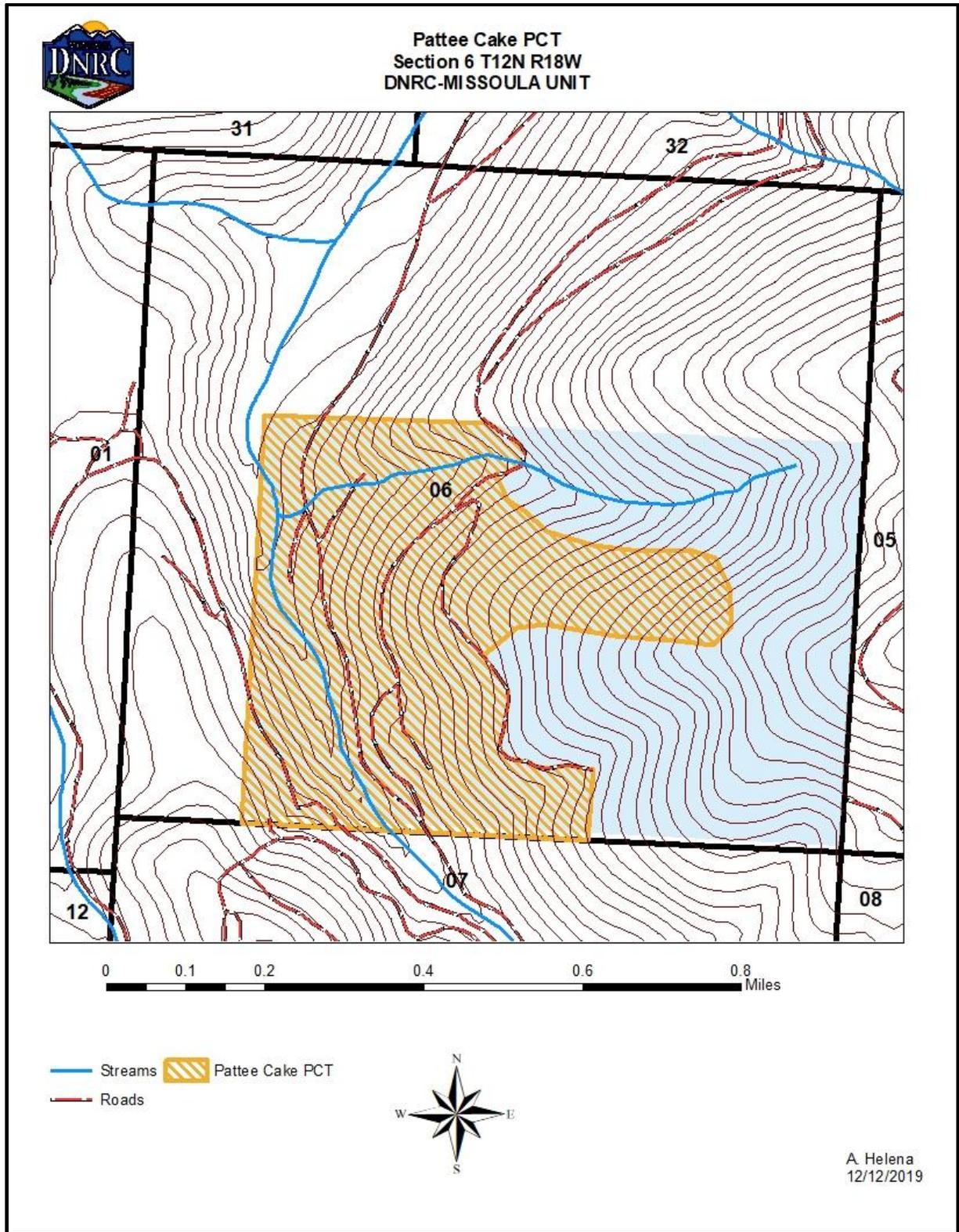
Signature: /s/ *Jonathan Hansen*

Attachment A- Maps

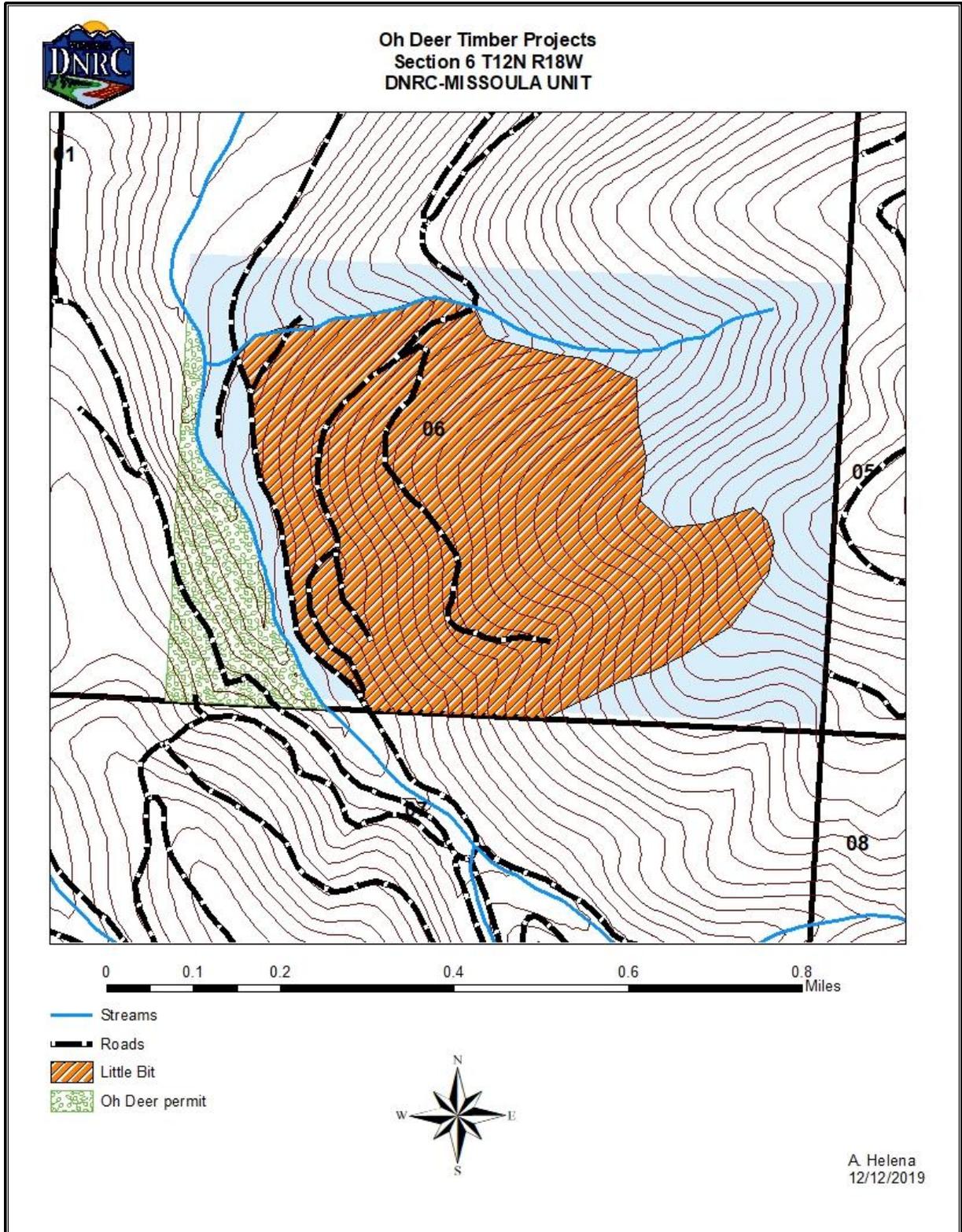
A-1: Timber Sale Vicinity Map



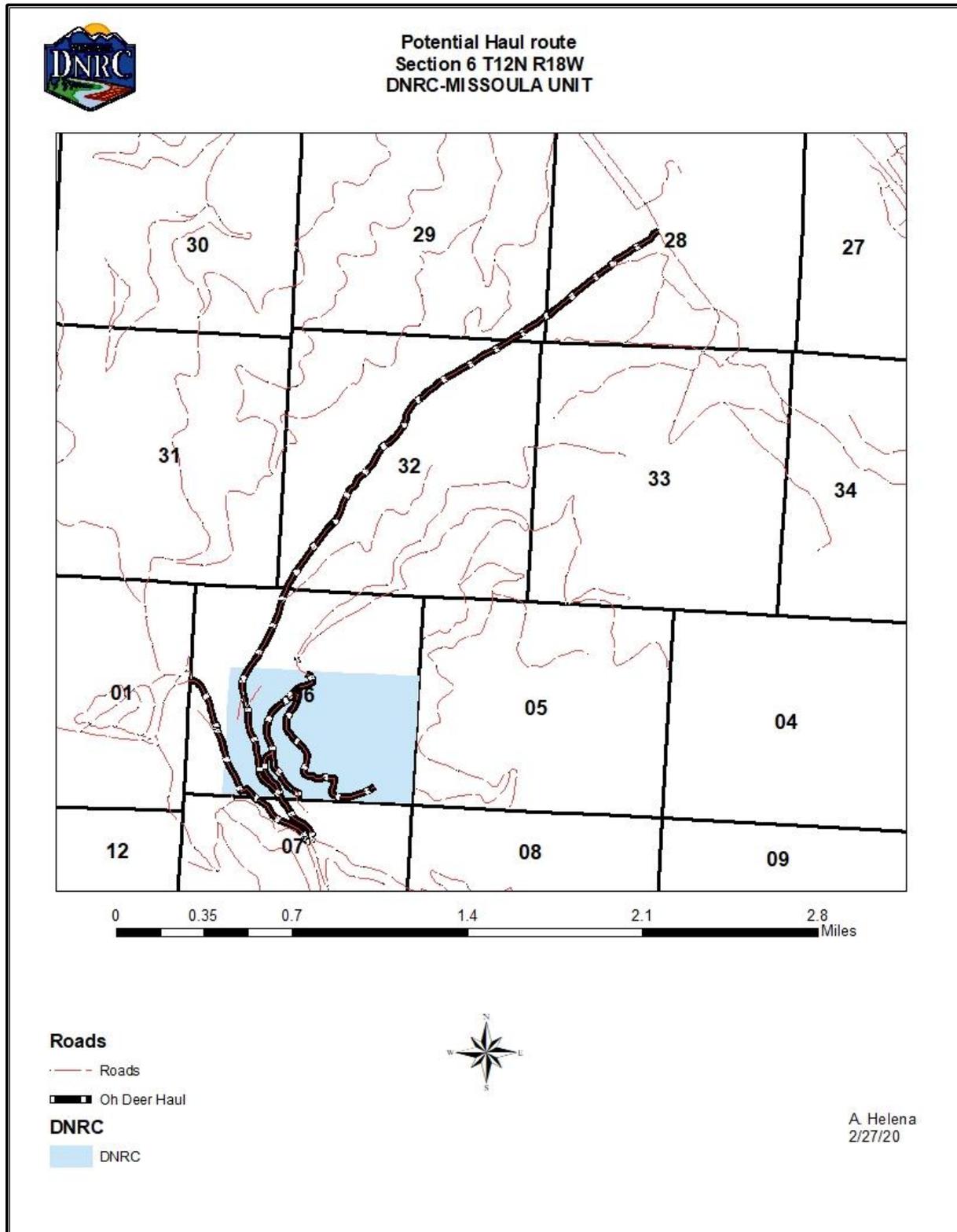
A-2: PCT Unit



A-3: Potential Harvest Projects



A-4: Potential Haul Routes



Attachment B

Attachment B

Department of Natural Resources and Conservation
Attn: Amy Helena
Missoula Unit
3206 Maverick Lane
Missoula, MT 59804

Jeff Richards and Lacey Taylor
3336 Deer Creek Road
Missoula, MT 59803

January 5, 2020

Re: Initial Proposal, Oh Deer Timber Projects, Section 6 T12N R18W

Greetings,

We received a notice regarding the Oh Deer Timber Harvest Project on Section 6 T12N R18W, which is southeast of Missoula in the Deer Creek drainage in Missoula County. Thank you for reaching out to inform us about this project!

We live at 3336 Deer Creek Road and have the following questions and concerns regarding this project:

1. Please describe what it means to use "sanitation and salvage harvest prescriptions".
2. Are there phases to this project and what are they?
3. When would the project be executed? How long is it expected to last?
4. What is the scope of the project? For example, how many vehicles, people on the ground, etc are expected throughout the project?
5. Where are the current roads that would be used to access the proposed harvest area? Would any new roads, permanent or otherwise, be made to accommodate this project?
6. Road usage along Deer Creek Road is a Major concern of ours. What is the primary route that will be used to access the proposed project area? What is the proposed increase of road usage for the project? How much increase in traffic can we expect for each phase of the project? What kinds of vehicles can we expect on the road? How will traffic volume and vehicle type fluctuate through out the life span of the project?
7. What types of road improvements to the existing road would be made?
8. Dust control, mitigation of potholes and washboard roads are major issues on our road and are currently very well managed. How would road maintenance conducted? How will those efforts be coordinated with those of the county? How will current road maintenance efforts by the county be impacted? Who will be responsible for keeping our road at the current level of maintenance or better?

Attachment B continued

9. Is there any expectation that our privately owned land/property will be impacted? For example, are we required to have thinning or harvesting performed on our land? Would we have the option to have DNRC remove trees or harvest from our land if we desired?
10. How will the water quality and water flow of Deer Creek be impacted by this project?
11. How much noise can we expect from this proposed harvest? When will be the hours of operation? Time of day? Will it include weekends? What types of noise and decibel level can we expect?
12. What are the expected impacts to the many wildlife populations in the Deer Creek drainage?

Thank you for involving us in this process. We are looking forward to being continually updated about this project and hearing your responses to our questions/concerns.

Sincerely,

Jeff Richards and Lacey Taylor

Attachment B-1

DEPARTMENT OF NATURAL RESOURCES
AND CONSERVATION

Southwestern Land Office - Missoula Unit

STEVE BULLOCK, GOVERNOR



STATE OF MONTANA

PHONE: (406) 542-4201
FAX: (406) 542-5807

1/17/2020

3206 MAVERICK LANE
MISSOULA, MT 59804

Jeff Richards & Lacey Taylor
3336 Deer Creek Road
Missoula, MT 59803

Mr. Richards & Ms. Taylor,

The Department of Natural Resources and Conservation (DNRC) received the letter regarding your concerns about the Oh Deer Timber Projects proposal. Your questions and concerns numbered 1-8 & 10-12 will be incorporated into the environmental analysis. Upon completion of the analysis I will mail you a copy.

I will take this opportunity to address your comment number 9.

“Is there any expectation that our privately-owned land/property will be impacted? For example, are we required to have thinning or harvesting performed on our land? Would we have the option to have DNRC remove trees or harvest from our land if we desired?”

This proposal is for DNRC Trust Lands only. As a land manager for DNRC Trust Lands I do not manage private property. The proposed projects and their direct effects analysis are limited to DNRC owned parcels identified during the Oh Deer Scoping letter. If you are interested in thinning or harvesting your property, DNRC has Private Assistance Foresters that can help you get started. If you would like more information on Private Assistance Forestry contact Bill Burdick at (406) 542-4313.

Thank you for taking the time to comment on the proposal.

Sincerely,

Amy Helena
Forest Management Supervisor
Missoula Unit, Montana DNRC