# **Environmental Assessment Checklist**

Project Name: Round Prairie Timber Sale Proposed Implementation Date: Fall 2024

**Proponent: Kalispell Unit, Northwest Land Office, Montana DNRC** 

**County: Flathead** 

# **Type and Purpose of Action**

#### **Description of Proposed Action:**

The Kalispell Unit of the Montana Department of Natural Resources and Conservation (DNRC) is proposing the Round Prairie Timber Sale. The project is located approximately 6 air miles southwest of Whitefish, MT (refer to Attachments vicinity map A-1 and project map A-2) and includes the following sections:

Beneficiary	Legal Description	Total Acres	Treated Acres
Common Schools			
Public Buildings	Section 5 30N 22W	335	5
MSU 2 <sup>nd</sup> Grant	Section 18,19 30N 22W	380	94
MSU Morrill			
Eastern College-MSU/Western College-U of M	Section 5,6,7 30N 22W	727	235
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:

- Promote a healthy, productive forest and return the area to more historic forest conditions.
- Reduce fuel loading and increase the stand's fire resiliency.
- Manage outbreaks of disease and insects in the stands.
- Generate revenue for the Public Buildings, MSU 2<sup>nd</sup> Grant, and Eastern College-MSU/Western College-U of M Trusts.

#### Proposed activities include:

Action	Quantity
Proposed Harvest Activities	# Acres
Clearcut	
Seed Tree	
Shelterwood	
Selection	194
Old Growth Maintenance/Restoration	13
Commercial Thinning	127
Salvage	
Total Treatment Acres	334
Proposed Forest Improvement Treatment	# Acres
Pre-commercial Thinning	
Site preparation/scarification	194
Planting	
Proposed Road Activities	# Miles
New permanent road construction	.3
New temporary road construction	
Road maintenance	5.3
Road reconstruction	
Road abandoned	
Road reclaimed	
Other Activities	

Duration of Activities:	2 Years
Implementation Period:	Fall 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:
  - May 1<sup>st</sup>, 2024
- PUBLIC SCOPED:
  - The scoping notice was posted on the DNRC Website: https://dnrc.mt.gov/News/scoping-notices
  - Adjacent landowners, statewide scoping list.
- AGENCIES SCOPED:
  - Montana Department of Fish, Wildlife, and Parks (MT FWP), statewide tribal agencies, and internal DNRC staff.
- COMMENTS RECEIVED:
  - o How many: 5
  - Concerns: Four adjacent landowners responded to the scoping notice with concerns. One commenter was concerned about potential effects on the groundwater levels near Tobie Creek and log truck traffic on/near private roadways. The second commenter had concerns about impacts to wildlife habitat and to the Stillwater River that runs through Section 6 within the project area. The third commenter was concerned about visual aesthetic following the harvest and requested to restrict access to the state land that borders their private property. The fourth commenter had general questions about the marking on trees and requested a copy of the scoping notice. Lastly, FWP submitted a comment about wildlife habitat and requested that FWP be kept informed as the project develops.
  - Results: DNRC employees took time to respond to the comments from each of these adjacent landowners to address their questions and concerns. DNRC addressed concerns related to hydrology and wildlife within the Environmental Assessment and informed landowners that the Streamside Management Zone Law and Habitat Conservation would be followed in the timber sale process. The DNRC also confirmed that public motorized access to the state land adjacent to the third landowner would be restricted and that the DNRC would consider options to improve the post-harvest areas aesthetics by painting over the boundary paint once the sale is closed.

DNRC specialists were consulted, including:

Patrick Rennie, Archaeologist Justin Cooper, Wildlife Biologist Josh Harris, Hydrologist

Internal and external issues and concerns were incorporated into project planning and design and will be implemented in associated contracts.

# 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 <a href="https://dnrc.mt.gov/TrustLand/about/planning-and-reports">https://dnrc.mt.gov/TrustLand/about/planning-and-reports</a>.
- 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 2010). As a member, DNRC must submit a list of planned burns to the Airshed Group's Smoke Monitoring Unit describing the type of burn to be conducted, the size of the burn in acres, the estimated fuel loading in tons/acre, and the location and elevation of each burn site. The Smoke Monitoring Unit provides timely restriction messages by airshed. DNRC is required to abide by those restrictions and burn only when granted approval by the Smoke Monitoring Unit when forecasted conditions are conducive to good smoke dispersion.

#### **ALTERNATIVES CONSIDERED:**

**No-Action Alternative**: No timber harvest activities would occur. Forest succession would continue to be influenced by the occurrence of natural events such as insect and disease outbreaks, windthrow, or wildland fire. No road maintenance or improvements would occur, except for those occurring on roads currently open to the public or those with existing easements.

<u>Action Alternative:</u> Timber harvest activities would occur and implement 127 acres of commercial thin, 13 acres of old growth maintenance and 194 acres of individual tree selection prescriptions. Forest health and vigor would be improved in all treated acres, and fuel loading/continuity in the wildland urban interface (WUI) would be reduced. Timber would be harvested using traditional ground-based logging systems. The transportation plan would utilize approximately 5.3 miles of existing road, and 0.3 miles of new road would be constructed.

### Impacts on the Physical Environment

Evaluation of the impacts on the No-Action and Action Alternatives including <u>direct</u>, <u>secondary</u>, <u>and cumulative</u> impacts on the Physical Environment.

#### **VEGETATION:**

#### **Vegetation Existing Conditions:**

Harvest Unit	Habitat Group	Fire Regime	Current Cover Type	Age Class (years)	DFC	RX	Acres
RP 1	Cool and moist (westside)	Mixed	Western Larch/Douglas Fir	100- 149	Western Larch/Douglas Fir	Individual/Select Tree Harvest	113
AR1	Warm and moist (westside)	Mixed	Douglas Fir	40-99	Western Larch/Douglas Fir	Commercial Thinning	55
TC1	Moderately cool and moist (westside)	Mixed	Western Larch/Douglas Fir	100- 149	Western Larch/Douglas Fir	Commercial Thinning	72
BC1	Moderately warm and dry (westside)	Mixed	Western Larch/Douglas Fir	40-99	Western Larch/Douglas Fir	Individual/Select Tree Harvest	81
BC2	Cool and moist (westside)	Mixed	Western Larch/Douglas Fir	Old Growth	Ponderosa Pine	Old Growth Management	13

<u>Fire Hazard/Fuels</u>: State sections a part of the Round Prairie Timber Sale are within the WUI and pose a threat to homes and communities. Sections 5,6 30N 22W (units RP1 and AR1) contain powerline corridors which poses a greater threat and probability for wildfire to occur. Thinning out the overstory with commercial thin, individual tree selection, and old growth management prescriptions would increase the spacing between crowns, reducing the vertical and horizontal continuity of fuels. Overall, fuel reduction from harvest activities would decrease fire severity in the case of a wildfire event.

<u>Insects and Diseases</u>: Bark beetles are present throughout the project sites which is showcasing negative impacts on the health of mature Douglas-fir. There are also pockets of stem rot, root rot, and gall rusts that are scattered throughout the project area.

Sensitive/Rare Plants: None have been identified or documented.

<u>Noxious Weeds</u>: The combined sections in this timber sale have reports of the following noxious weeds; Oxeye Daisy, Sulfur Cinquefoil, Hawkweeds, Spotted Knapweed and St. Johnswort.

						lm	pact						Can	Comment
Vegetation		Di	rect			Seco	ondary			Cum	ulative		Impact Be	Number
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High	Mitigated?	
No-Action														
Current Cover/DFCs	Х				Х				Х					
Age Class	Х				Х				Х					
Old Growth	Х				Х				Х					
Fire/Fuels		X				X				Х				V-1
Insects/Disease		X				Х				Х				V-2
Rare Plants	Х				Х				Х					
Noxious Weeds		Х				Х				Х			Y	V-3
Action														
Current Cover/DFCs		X			X				Х					V-4
Age Class	X				Х				Х					
Old Growth		X				Х				Х				V-5
Fire/Fuels			Х			Х				Х				V-6
Insects/Disease			Х			Х				Х				V-2
Rare Plants	Х				Х				Х					
Noxious Weeds		X				X				X			Υ	V-7

#### Comments:

- **V-1:** No action would result in zero fuel reduction, potentially increasing the severity factor if a wildfire were to occur in the landscape.
- **V-2:** Not removing trees currently infected with insects or diseases will cause the infection to spread to uninfected trees as well as regeneration. This may lead to a decrease in health and vigor in the stand. Removal of infected trees will mitigate this spread.
- **V-3:** The spread of noxious weeds may continue even in the absence of timber harvest activities due to public traffic and weed population providing seed sources on adjacent lands.
- **V-4:** Harvest prescriptions are in place to meet DFC's. A species designation to cut all merchantable lodgepole aids in reaching DFC's.
- **V-5:** An old growth management prescription in unit BC2 would remove decadent, insect and disease infected trees while increase spacing to reduce nutrient competition between residual trees. This would promote resilience and health for the remaining old growth.
- **V-6:** Harvest activities would decrease fuel loading and continuity in the project area.
- **V-7:** Harvest operations could cause an increase in the spread of noxious weeds in project area.

#### Vegetation Mitigations:

To reduce further introduction of noxious weeds, all equipment would be required to be cleaned and inspected prior to the start of work. DNRC staff will monitor weeds after harvest operations. If noxious weeds flourish after the project has been completed, the sties will be treated with chemical treatment.

To further reduce fuel loading, slash piles created from harvest operations will be burned within 1-2 years of those operations being completed. Overall, silvicultural treatments will help reduce fuel continuity and fuel loading in the project area.

**SOIL DISTURBANCE AND PRODUCTIVITY:** The proposed project is composed of four distinct state-owned parcels in sections 5, 6, 7, 19, Township 30N, and Range 22W, which will be described as follows: Antler Ridge, Round Prairie, Tobie Creek, and Beaver Creek, respectively.

Soil Disturbance and Productivity Existing Conditions: A review of the Flathead National Forest Area, Montana, and Upper Flathead Valley Area, Montana, soil surveys have identified four primary soil series in the project area. The two primary soils in the Beaver Creek units are Andeptic Cryoboralfs and Typic Eutroboralfs series, which are silty loams, which are underlain by glacial till on lower slopes with soils on the upper slopes underlain by the Belt Supergroup formation (Vuke et al., 2007). Erosion is a moderate hazard along skid trails and a slight to moderate hazard for exposed road cuts. The risk of compaction and displacement is medium to severe in wet spring conditions due to low soil strength. The two primary soils in the Tobie Creek and Round Prairie units are the Half Moon and Mountainous Regions series. The Half Moon series consists of deep, light-colored, medium-textured soils developed in glacial streams and lacustrine conditions. The erosion and compaction hazard risk for these soils is low. Due to a low bearing strength, these soils have a moderate to severe risk for displacement when wet. The primary soil in the Antler Ridge unit is the Whitefish series, which is generally located on the north and west sides of the Upper Flathead Valley. Soils are deep and well-drained, derived from calcareous glacial till from argillites and guartzites from the Belt Supergroup. Erosion hazard and sediment delivery efficiency are low on gentle terrain and moderate on steeper slopes. Compaction and displacement hazards are severe.

Section record data for past harvesting operations in the project area indicates harvesting started around 1917. Harvesting has continued with various harvest types, from clearcuts to thinnings. Large-scale harvests were recorded in the 1920s, 1940s, 1960s, 1976, and 2000s (DNRC Section Record Cards, NWLO). In 2014, the department treated 1,650 acres east of the project area, harvesting approximately 10 MMBF of timber from two sales, Spencer Lake #1 (685 acres on the south end) and Spencer Lake #2 (965 acres on the north end). Adverse cumulative compaction and displacement impacts from forest management and recreation activity are estimated to cover less than 5 percent of the project area. These conditions are most notable in the Round Prairie unit. Additional adverse cumulative effects on soils are possible due to unauthorized motorized and non-motorized recreation use.

During a field visit, the level of existing coarse woody debris is estimated to range from 3 to 25 tons per acre. Recommendations by Graham et al. (1994) suggest that the CWD levels adequate to maintain soil productivity range from 7 to 13 tons per acre in Grand fir/beargrass

habitat types to 12 to 24 tons per acre in Douglas fir/ninebark habitat types. The wider range of 12 to 24 tons per acre is recommended for this project.

Soil Disturbance						lm	pact						Can	Comment
and Productivity		Di	rect			Sec	ondary			Cum	ulative		Impact Be	Number
•	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High	Mitigated?	
No-Action														
Physical Disturbance (Compaction and Displacement)	x				x				x					
Erosion	х				х				х					
Nutrient Cycling	х				х				х					
Slope Stability	х				х				х					
Soil Productivity	х				х				х					
Action														
Physical Disturbance (Compaction and Displacement)		x				x				x			Y	1, 2
Erosion		Х				х				Х			Υ	3
Nutrient Cycling		Х				х				Х			Υ	4
Slope Stability	х				х				х					
Soil Productivity		Х				X				X			Y	4

#### Comments:

- Monitoring of previous DNRC timber harvests has shown that for similar soils, the total detrimental impacts in a harvest area average 14.7% for traditional ground-based operations localized to primary skid trails and log landing sites (DNRC 2011).
   Detrimental soil impacts are considered substantive when they exceed 20 percent of a harvest area (DNRC 1996).
- 2. Standard implementation of forest Best Management Practices (BMPs) concurrent with harvest activities will lower the physical disturbance risks in the project area. Primary or highly impacted skid trails will be covered with slash and debris. Equipment operations will be limited to periods when soils are relatively dry, (less than 20 percent), frozen, or snow-covered to minimize soil compaction and rutting and maintain drainage features. Prior to harvest, a skidding plan will be decided to limit equipment passes.
- 3. Direct and secondary effects to erosion from the proposed project would include skid trails in ground-based harvest areas and new roads. In each of these areas, there is a high risk of low impacts to erosion due to exposure of bare soil. Skid trails would present a short-term risk which would decrease once disturbed areas re-vegetate.
- 4. Coarse woody debris will be left on-site in volumes recommended to help maintain soil moisture and forest productivity, generally in the 12-24 tons per acre range for habitat types found in the harvest locations (Graham et al. 1994). Because coarse woody debris would be left on site in amounts recommended by scientific literature, benefits to nutrient

cycling and forest productivity would be maintained over the long term. Soil productivity is expected to be maintained when soil function is maintained within 80% of a harvest unit.

#### Soil Mitigations:

- Limit equipment operations to periods when soils are relatively dry, (less than 20 percent), frozen, or snow-covered to minimize soil compaction and rutting and maintain drainage features. Check soil moisture conditions prior to equipment start-up.
- The logger and sales administrator will agree to a skidding plan prior to equipment operations. Skid-trail planning will identify which main trails to use and how many additional trails are needed. Trails not complying with BMPs (i.e., trails in draw bottoms) will only be used if impacts can be adequately mitigated.
- Tractor skidding will be limited to slopes of less than 45 percent unless the operation can be completed without causing excessive displacement or erosion.
- Skid trails will be kept to 20 percent or less of the harvest unit acreage and have adequate drainage concurrently with operations.
- Slash disposal: Limit the combination of disturbance and scarification to 30 to 40
  percent of the harvest units. No dozer piling on slopes over 35 percent; no excavator
  piling on slopes over 45 percent unless the operation can be completed without causing
  excessive erosion. Consider lopping and scattering or jackpot burning on the steeper
  slopes. Consider disturbance incurred during skidding.
- Compliance with Forestry Best Management Practices (BMP's), Streamside Management Zone (SMZ) laws, Montana DNRC Forested Trust Lands HCP and applicable DNRC Forest Management Administrative Rules.

#### References:

- DNRC Section Record Cards. Kept at NWLO for a record of past management activities on DNRC-managed lands.
- DNRC, 1996. Forestry Best Management Practices: State Forest Management Plan. Montana DNRC, Forest management Bureau. Missoula, MT.
- DNRC, 2011. DNRC compiled soils monitoring report on timber harvest projects, 2006-2010, 1st Edition. Department of Natural Resources and Conservation, Forest Management Bureau, Missoula, MT.
- 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.

NRCS, United States Department of Agriculture. Web Soil Survey. Available online at <a href="http://websoilsurvey.nrcs.usda.gov/">http://websoilsurvey.nrcs.usda.gov/</a> accessed [6/19/2024]

Vuke, S.M., Porter, K.W., Lonn, J.D., and Lopez, D.A., 2007, Geologic Map of Montana - Compact Disc: Montana Bureau of Mines and Geology: Geologic Map 62-C, 73 p., 2 sheets, scale 1:500,000. This map was digitized in 2012 as a result of a contract between the U.S. Geological Survey and the Montana Bureau of Mines and Geology.

#### **WATER QUALITY AND QUANTITY:**

Water Quality and Quantity Existing Conditions: The proposed project is located in the Lower Stillwater River – Tobie Creek and Lower Stillwater River – Beaver Creek subwatersheds, which cover 45 and 58 square miles, respectively. The Tobie Creek watershed is 64 percent forested, and ownership comprises 61% private, 21% DNRC, and 19% federal. The Beaver Creek watershed is 27 percent forested, and ownership comprises 81% private, 11% DNRC, and 2% federal. Tobie Creek receives an average annual precipitation of 20 inches, while Beaver Creek receives 17 inches. Both watersheds are classified as B-1 regions, which are suitable for drinking, culinary, and food processing purposes after conventional treatment; bathing, swimming, and recreation; growth and propagation of salmonid fishes and associated aquatic life, waterfowl, and furbearers; and agricultural and industrial water supply (DEQ). Within the project area, no waterbodies are listed as a water-quality-limited waterbody in the Draft 2010 303(d) list. The 303(d) list is compiled by DEQ as required by Section 303(d) of the Federal Clean Water Act and the Environmental Protection Agency (EPA) Water Quality Planning and Management Regulations (40 CFR, Part 130).

The project area includes two perennial Class 1 streams, one intermittent Class 3 stream, and Spencer Lake. Beaver Creek is a continuous perennial Class 1 stream that flows eastward along the southern boundary of harvest unit BC2 in the Beaver Creek Parcel. Surface water rights exist within 2 miles of the project area for stock watering and domestic use. Tobie Creek is a discontinuous Class 3 stream that flows south along the western portion of harvest unit TC1 in the Tobie Creek parcel. Surface flow from Tobie Creek is impounded by a diversion dam located in the NWSESW of Section 7 T30N R22W under Statement of Claim 76LJ 10807 00 (WRQS). Digital elevation models for the area indicate that Tobie Creek channelizes south of the state section, where it begins to flow eastward. Additionally, the Stillwater River and Spencer Lake are within the project area but are 300-500 feet from the nearest harvest unit, and no further analysis will be done for hydrologic or fisheries impacts. No other draws exhibited evidence necessary to be classified as a stream, as all had vegetation similar to the surrounding uplands and no continual scour typically associated with streams per the SMZ law [ARM 36.11.312 (20)].

The project will include less than 0.5 miles of new road construction that would occur well away from streams on soils suitable for road construction and are not considered a high hazard. Because revegetation can be difficult on the road fill- and cut slopes, some erosion could occur, but due to the distance from streams, sediment delivery and subsequent water-quality impacts would not likely be a result. Road maintenance would occur on approximately 4 miles of existing roads with drainage improvements and BMP upgrades. Current maintenance activities would continue to provide drainage to area roads.

Water Quality &						lm	pact						Can	Comment
Quantity		Direct No Low Mod High				Seco	ondary			Cum	ulative	!	Impact Be Mitigated?	Number
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High	willigateur	
No-Action														
Water Quality	х				х				х					
Water Quantity	х				х				х					
Action														
Water Quality		х				х				Х			Υ	W1, W2
Water Quantity	х				х				х					W3

#### Comments:

- W1. The project will impose a 50-foot SMZ (extended to 100 feet on slopes greater than 35%) for Beaver and Tobie Creek and a 100-foot RMZ along Beaver Creek. No harvest will occur within the initial 50 feet, leaving 100 percent tree retention. The potential risk of direct, secondary, or cumulative impacts on water quality due to sediment delivery is low.
- W2. The harvest systems utilized, the location and size of harvest units relative to stream channels, the implementation of Forest Management BMPs, low precipitation levels observed in the project area, and surface water disconnection from downstream waters supporting beneficial uses, there is a low risk of additional direct water quality impacts for the proposed actions. Considering these impacts in combination with past and current activities, the proposed action is not likely to elevate the cumulative watershed effect beyond the existing condition.
- W3. The proposed harvest is not expected to impact current water uses due to the size and scale of the project. In concert with implementing BMPs and streamside buffers, this harvest level is not expected to have measurable effects on the timing, magnitude, or duration of peak flows in disconnected downstream receiving waters.

#### Water Quality & Quantity Mitigations:

- Best Management Practices for Forestry would be implemented and monitored for effectiveness concurrent with all forest management activities.
- Implementation of Montana Administrative Rules for Forest Management and Streamside Management Zones.
- Implementing Montana DNRCs Habitat Conservation Plan commitments for Riparian Management Zones and Sediment Delivery.

#### References:

DEQ, 2011. Montana Average Annual Precipitation 1981-2010. Montana Dept. of Environmental Quality, Helena, MT

DNRC, 2003. Montana administrative rules for forest management. DNRC. Forest Management Bureau, Missoula, Montana.

DNRC, 2010 Habitat Conservation Plan - Trust Land Management Division - Fish, Wildlife, and Parks Management Bureau

#### **FISHERIES:**

<u>Fisheries Existing Conditions:</u> Montana Fish, Wildlife, and Parks' fish database does not indicate any species of concern for Tobie or Beaver Creek, and no suitable fisheries habitat was identified during field inspections. As a result, no further analysis will be completed as direct, secondary, or cumulative impacts on fisheries resources are not expected.

**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 (see Fisheries table below):** 

						lm	pact						Can	Comment
Fisheries		D	irect			Seco	ondary			Cum	ulative	)	Impact Be	Number
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High	Mitigated?	
No-Action														
Sediment	X				x				x					
Flow Regimes	X				X				X					
Woody Debris	х				х				X					
Stream Shading	х				х				Х					
Stream Temperature	х				х				X					
Connectivity	х				х				Х					
Populations	х				х				Х					
Action														
Sediment	х				х				Х					
Flow Regimes	х				х				Х					
Woody Debris	х				х				Х					
Stream Shading	х				х				Х					
Stream Temperature	х				х				X					
Connectivity	х				х				х					
Populations	Х	_			Х				Х					

#### Comments:

#### Fisheries Mitigations:

 No additional project-specific mitigations are necessary beyond the project design and the mitigations listed in the Water Resources analysis.

#### References:

Montana Fish, Wildlife & Parks, (2024). Montana Fish Distribution, mFish database, <a href="https://fwp.mt.gov/gis/maps/mFish/?zoomFeatures=%7BlayerName:%22STREAMS%22,features:%5B%7BLLID:%221123386455677%22%7D%5D,fadeOutTimer:4%7D">https://fwp.mt.gov/gis/maps/mFish/?zoomFeatures=%7BlayerName:%22STREAMS%22,features:%5B%7BLLID:%221123386455677%22%7D%5D,fadeOutTimer:4%7D</a>. Accessed 19 June 2024.

#### WILDLIFE:

Wildlife Existing Conditions: The Project Area consists of four main DNRC-managed areas referred to as the Antler Ridge, Round Prairie, Tobie Creek, and Beaver Creek parcels, totaling 1,134 acres. These parcels are comprised of habitat conditions that favor native wildlife species associated with mature forest types containing a variety of canopy closure levels. Most of these areas contain a mix of Douglas-fir and western larch forest types; however, small stands (5-10 acres) of dense pole-sized lodgepole pine are interspersed throughout. The Project Area spans the West Valley area, where the Stillwater River moves through a mix of forest and agricultural land use. The Project Area contains 501 acres of mature forest (trees ≥9" dbh with ≥40% canopy closure). Of these acres. 17.7 acres are considered old-growth forest using Green et al. (1992) standards. Approximately 367 acres within the Project Area (32.4%) have been treated with regeneration, salvage, or thinning harvest treatments within the previous 40 years. Additionally, 458 acres of the Project Area are considered non-forested, comprised of agricultural land use and residential development. Approximately 11.1 miles of roads are present within the Project Area. Open roads account for approximately 5.1 miles, and the remaining 6.0 miles are considered restricted roads. Restricted roads receive occasional motorized use for resource and fire-management purposes. Public motorized use of the open roads is high, and public non-motorized use of the restricted roads is likely high as well, especially during hunting seasons, due to their access from open roads, developed areas, and neighboring private residences. Cumulative effects analysis areas (CEAAs) incorporate lands near the Project Area and include a 10,134-acre Small CEAA for animals with smaller home ranges, like pileated woodpeckers, fisher, and flammulated owls, and a 48,356-acre Large CEAA for animals that travel across larger areas such as grizzly bears. Canada lynx, and big game.

Recent (within the past 5 years) and ongoing forest management projects in the CEAA include the Beaver Lake (DNRC 2019), Stovepipe (USFS 2021), North Spencer Beetle Salvage (DNRC 2023), Ray Kuhns WMA (DFWP 2023), and Cliff Lake (DNRC 2024) timber sale and restoration projects. Impacts associated with habitat alterations due to these proposed projects have been accounted for in the quantitative portion of the following analysis.

Additional information on cumulative effects analysis areas and analysis methods are available upon request. Overall, the Project Area contains of variety of habitat conditions for native wildlife species.

**No-Action Alternative**: None of the proposed activities would occur. Wildlife would not be displaced by commercial logging activities. In the long-term, habitat suitability for mature forest-associated species would remain similar or increase compared to current conditions. Small areas of disease and insect infestations would be expected to spread. An increase in stand-replacement wildfire risk would also be anticipated. Overall, an increase in habitat availability for species preferring mature connected forests would likely occur over time as other stands mature, while habitat availability would decrease for species preferring young, open stand types.

Action Alternative (see Wildlife table below):

Action A	Impact											Can		
Wildlife		Di	rect				ondary			Cum	ulative		Impact be	Comment
VVIIGITIE	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High	Mitigated?	Number
Threatened and Endangered Species	140	LOW	IVIOU	Tilgii	140	LOW	IVIOG	Tilgii	140	LOW	iviou	Tilgii		
Grizzly bear (Ursus arctos) Habitat: Recovery areas, security from human activity		x				x				x			Y	WI-1
Lynx (Felis lynx) Habitat: SF hab.types, dense sapling, old forest, deep snow zone		х				X				X			Y	WI-2
Yellow-billed cuckoo (Coccyzus americanus) Habitat: open cottonwood riparian forest with dense brush understories (Lake and Flathead counties)	x				x				х					WI-3
Wolverine (Gulo gulo) Habitat: high elevation areas that retain high snow levels in late spring	X				X				x					WI-3
Sensitive Species														
Bald eagle (Haliaeetus leucocephalus) Habitat: Late- successional forest within 1 mile of open water	x				x				x					WI-3
Black-backed woodpecker (Picoides arcticus) Habitat: Mature to old burned or beetle-infested forest	x				x				x					WI-3
Common loon (Gavia immer) Habitat: Cold mountain lakes, nest in emergent vegetation	x				х				х					WI-4
Fisher		X				X				X			Υ	WI-5

						lm	pact						Can	
Wildlife		Di	irect			Sec	ondary			Cum	ulative		Impact be	Comment Number
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High	Mitigated?	Number
(Martes pennanti) Habitat: Dense mature to old forest less than 6,000 feet in elevation and												J		
riparian  Flammulated owl (Otus flammeolus)  Habitat: Late- successional ponderosa pine and Douglas-fir forest	x					x				x			Y	WI-6
Peregrine falcon (Falco peregrinus) Habitat: Cliff features near open foraging areas and/or wetlands	x				x				X					WI-3
Pileated woodpecker (Dryocopus pileatus) Habitat: Late- successional ponderosa pine and larch-fir forest		x				x				х			Y	WI-7
Fringed myotis (Myotis thysanodes) Habitat: low elevation ponderosa pine, Douglas-fir and riparian forest with diverse roost sites including outcrops, caves, mines		x				x				X			Υ	WI-8
Hoary bat (Lasiurus cinereus) Habitat: coniferous and deciduous forests and roost on foliage in trees, under bark, in snags, bridges		x				x				x			Y	WI-9
Townsend's big- eared bat (Plecotus townsendii)	Х				x				х					WI-3

						lm	pact						Can	Commont
Wildlife		Di	irect			Sec	ondary			Cum	ulative		Impact be	Comment Number
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High	Mitigated?	
Habitat: Caves, caverns, old mines														
Big Game Species														
Elk		Х				Х				Х			Υ	WI-10
Moose		Х				Х				Х			Y	WI-10
Whitetail		Х				Х				Х			Υ	WI-10
Mule Deer	Χ				Х				Χ					WI-3
Other														
Mature Forest		X				Х				Х			Y	WI-11

#### Comments:

WI-1. Grizzly Bear - Timber harvest would affect approximately 328 acres of grizzly bear hiding cover (38.0% of available hiding cover within the Project Area) outside non-recovery occupied and recovery zone grizzly bear habitat (Wittinger 2002). However, grizzly bears have been documented within 0.5 miles of the Project Area over the past 10 years (MNHP 2024); therefore, occasional use of the Project Area by grizzly bears would be expected. Of the 861 acres of hiding cover in the Project Area, the proposed action would remove 113 acres (13.1% of available hiding cover). Motorized use of 3.7 miles of existing open roads and 1.6 miles of existing restricted roads within the Project Area would increase during project implementation. In addition, 0.3 miles of new road would be built. Existing restricted roads used for harvesting would remain restricted during and after the project. Approximately 0.7 miles of currently open road would be gated after harvest activities, effectively restricting public motorized use behind the gate. Any grizzly bears using the Project Area could be temporarily displaced by the proposed activities for up to three years. After harvest, hiding cover would persist on approximately 63.0% of the 48,356-acre large cumulative effects analysis area (hereafter Large CEAA), of which 46.7% of the Large CEAA is considered non-recover occupied habitat. Impacts to hiding cover and increased disturbance under the Action Alternative would be additive to any ongoing vegetation management projects on private and public lands within the Large CEAA (see existing conditions section). Increased disturbance along the haul route, totaling 2.9 miles of restricted roads, would also be expected throughout the Large CEAA. Measurable cumulative changes to grizzly bear use of the Large CEAA would be low as a result of the Action Alternative. The greatest risks to bears within the Large CEAA would remain neighboring human habitations and associated attractants that bring bears into conflict with people.

WI-2. Canada Lynx – Approximately 219 acres of suitable lynx habitat (19.3% of the Project Area) would be altered by the proposed Action Alternative. Of these acres, 123 acres (30.2% of existing suitable habitat in the Project Area) are winter foraging habitat for lynx and would be treated with harvest prescriptions that would not retain enough conifer cover to continue providing suitable lynx habitat immediately post-harvest. To ensure that some forest structural attributes preferred by lynx and lynx prey (snowshoe hares) remain following harvest, patches of advanced regeneration and shade-tolerant trees would be retained within portions of existing suitable lynx habitat. Additionally, 5 to 25 tons/acre of coarse woody debris would be retained in accordance with DNRC Forest Management Rules (ARM 36.11.414) and retention of large, downed logs ≥15-inch diameter would be emphasized (ARM 36.11.428(4)(b)). Lynx habitat connectivity within the Project Area is currently low due to small, irregularly shaped patches, interspersed unsuitable habitat types, and adjacent agricultural land use. Lynx have not been

observed within 5 miles of the Project Area within the past 10 years (MNHP 2024); however, occasional use of the Project Area by lynx is possible. The proposed Action Alternative would not appreciably reduce lynx habitat connectivity; however, any lynx that might be using the area could be temporarily displaced from the Project Area for up to three years by the proposed activities. Approximately 284 acres of suitable habitat would be retained in the Project Area and remain connected to suitable habitat in the surrounding 48,356-acre large cumulative effects analysis area (Large CEAA). The Action Alternative would slightly reduce potentially suitable lynx habitat from 31.1% to 30.9% within the Large CEAA. Disturbance/displacement and lynx habitat alteration by the proposed DNRC activities would be additive to forest management projects within the larger CEAA (see existing condition section). Considering the small amount of harvest and the lack of recent observations at the scale of the Large CEAA, negligible effects to lynx in the Large CEAA would be expected.

**WI-3.** This species was evaluated, and it was determined that the Project Area lies outside of the normal distribution for the species, and/or suitable habitat was not found to be present.

**WI-4. Common Loon –** Suitable lake habitat occurs within 500 feet of the Project Area. Common loons successfully nested on Spencer Lake during the 2023 breeding season. The loon nesting area is approximately 500 feet from any proposed harvesting. Harvest activities associated with the Action Alternative would not occur adjacent to the lake and would not affect shoreline habitat. A well-traveled highway parallels one side of Spencer Lake, and extensive recreational use of the lake and surrounding area occur. Additionally, loons using this lake are habituated to motorized and non-motorized human disturbance. Thus, negligible direct, indirect, or cumulative effects to common loons would be anticipated.

WI-5. Fisher - Approximately 245 acres of suitable fisher habitat would be affected by the proposed activities (57.5% of fisher habitat available in the Project Area). Of these acres, 127 acres (29.8% of fisher habitat available in the Project Area) would be treated with harvest prescriptions that would cause these stands to become unsuitable for fisher use post-harvest due to low amounts of mature conifer cover. No riparian fisher habitat would be impacted by the proposed activities. After harvest activities, remaining suitable fisher habitat and habitat connectivity would be primarily associated with riparian areas running through the Project Area, primarily along the Stillwater River. To reduce some adverse effects on fishers, at least 2 large snags and 2 large snag recruitment trees per acre (>21 inches dbh) would be retained (ARM 36.11.411). These snags are important habitat features that provide resting and denning sites for fishers (Olson et al. 2014). Approximately 0.3 miles of new restricted road would be built under the Action Alternative. In addition, disturbance along 2.0 miles of existing restricted roads would increase during the proposed activities. Approximately 0.7 miles of currently open road would be gated after harvest activities, effectively restricting public motorized use behind the gate. Fisher habitat connectivity would remain relatively similar across the Project Area after harvest; however, it is currently limited by interspersed unsuitable cover types and low availability of suitable habitat on adjacent private lands. Approximately 1.8% of suitable fisher habitat in the Large CEAA would be affected by the proposed activities, but the abundance of habitat would remain relatively low (2,929 acres, 28.9% of Large CEAA) after harvest. The likelihood of fishers using the Project Area or Small CEAA is low given the lack of fisher observations in the area within the last 20 years (MNHP 2024). Should any fishers be present within the Small CEAA, habitat alteration and potential disturbance would be additive to recent, ongoing, and proposed forest management projects in the CEAA (see existing conditions section). Considering the small amount of harvest at the scale of the Small CEAA, low amount of suitable habitat, and lack of recent observations, minor effects to fishers in the Small CEAA would be expected.

**WI-6. Flammulated Owls –** The proposed timber harvest would affect 89 acres of preferred flammulated owl cover types within (16.9% of total potential habitat) in the Project Area. Suitable flammulated owl habitat currently exists on 313 acres and will likely persist in the Project Area after harvest. Approximately 12 acres of preferred habitat that is currently too dense, would become suitable flammulated owl habitat post-harvest. To retain potential nesting trees for flammulated owls, at least 2 large snags and 2 large snag recruitment trees per acre (>21 inches dbh) would be retained (ARM 36.11.411). If harvesting occurred during the summer or early fall period, flammulated owls could be temporarily displaced by the proposed activities adjacent to suitable habitat. However, there have been no recorded observation of flammulated owls within 5 miles of the project area (MNHP 2024). Within the 10,134-acre Small CEAA, an estimated 641 acres of forest stands could be potentially suitable for flammulated owls; however, suitable habitat types are not well-represented and snags available for nesting are likely limited in some areas due to differing snag conservation philosophies on surrounding private ownerships.

WI-7. Pileated Woodpecker - The Project Area currently contains approximately 518 acres of suitable pileated woodpecker habitat (45.6% of the Project Area). The proposed activities would affect 222 acres of suitable pileated woodpecker habitat (42.9% of available habitat) within the Project Area. Of those acres affected, 111 acres (21.5% of available habitat) would be treated with harvest prescriptions that would cause these stands to become unsuitable for pileated woodpecker use post-harvest due to low amounts of mature conifer cover. Appreciable use of the Project Area by pileated woodpeckers is likely due to the abundance of suitable habitat types and current tree mortality. Any pileated woodpeckers using the Project Area could be temporarily displaced by the proposed activities for up to three years. To decrease potential adverse effects on pileated woodpeckers, at least 2 large snags and 2 large snag recruitment trees per acre (>21 inches dbh, or largest size class available) would be retained and all snags cut for safety reasons would be left in the harvest unit (ARM 36.11.411). Additionally, 5 to 25 tons/acre of downed wood would be retained, with an emphasis on logs >15" diameter. Habitat availability within the Small CEAA is limited due to past timber harvesting and agricultural land use on surrounding private lands; however, 3,341 acres (33.0% of the Small CEAA) would remain as potentially suitable and moderately connected habitat, primarily through riparian areas. Habitat alterations due to the proposed action would be additive to recent forest management projects on adjacent lands (see existing conditions section).

**WI-8. Fringed myotis –** The proposed activities would affect approximately 271 acres of potential fringed myotis foraging habitat (54.0% of potential habitat within the Project Area). Because fringed myotis typically roost in Douglas-fir forests, roosting habitat would be disturbed by the proposed activities. Potential disturbance would only be expected from April through October, when fringed myotis are in Montana. After the conclusion of activities, continued use of harvested areas by fringed myotis would be anticipated. At least 2 large snags and 2 large snag recruitment trees per acre (>21 inches dbh, or largest size class available) would be retained and could provide structure for foraging habitat. Should any fringed myotis be present within the Project Area, habitat alteration and potential disturbance would be additive to any activities occurring or planned within the Large CEAA. Fringed myotis are considered rare in northwestern Montana, and wind energy and diseases such as white-nosed syndrome pose threats to their population (Bachen et al. 2020).

**WI-9.** Hoary bat – The proposed activities would affect approximately 271 acres of potential hoary bat roosting habitat (54.0% of potential habitat within the Project Area). Because hoary bats typically roost in trees and snags, they could be temporarily disturbed by timber harvesting. Potential disturbance would only be expected from June through September, when hoary bats

are in Montana. After the conclusion of activities, continued use of harvested areas by hoary bats would be anticipated. At least 2 large snags and 2 large snag recruitment trees per acre (>21 inches dbh, or largest size class available) would be retained and could provide roosting habitat. Should any hoary bats be present within the Project Area, habitat alteration and potential disturbance would be additive to any activities occurring or planned within the Large CEAA.

WI-10. Big Game - The Project Area provides 1,134 acres (100% of the Project Area) of winter range habitat for white-tailed deer and moose, and approximately 334 acres (29.4% of the Project Area) of winter range habitat for elk (DFWP 2008). The Project Area contains 765 acres (67.5% of the Project Area) that provide at least a marginal degree thermal cover and snow intercept (≥40% canopy closure). Timber harvesting would affect 172 acres of high-quality thermal cover and snow intercept (≥60% canopy closure; 60.0 % of available high-quality thermal cover in the Project Area), and an additional 150 acres of marginal thermal cover (40%-60% canopy closure) would be affected by the proposed activities (13.2% of available marginal thermal cover in the Project Area). Of these acres, 186 acres of high-quality and 78 acres of marginal thermal cover and snow intercept would be treated with harvest prescriptions that would reduce mature canopy cover below 40%; thus, reducing the capacity of these stands to provide thermal cover and snow intercept during more severe winter conditions. Approximately 101 acres of high-quality thermal cover (8.9% of the Project Area) would remain within the Project Area post-harvest. An additional 401 acres of marginal thermal cover (35.4% of the Project Area) would provide connectivity between scattered thermal cover areas in the Project Area post-harvest. Overall, an estimated 264 acres of total thermal cover (34.4% of currently available thermal cover) would be removed by the proposed activities.

Approximately 328 acres of hiding cover (38.0% of the existing available hiding cover) would be altered by harvesting. Harvest prescriptions on 113 acres (13.1% of cover available) would likely remove hiding cover. The retention of patches containing denser mature trees or submerchantable trees would limit sight distances in much of the Project Area. Approximately 5.1 miles of open roads and 6.1 miles of restricted roads exist within the Project Area. Approximately 0.3 miles of new permanent restricted roads would be built under the Action Alternative, and an additional 2.0 miles of existing restricted roads within the Project Area would be used as part of the haul route. Thus, security for big game would decrease along 2.3 miles of restricted road within the Project Area during the duration of proposed activities under the Action Alternative. Approximately 0.7 miles of currently open road would be gated after harvest activities, effectively restricting public motorized use behind the gate.

Impacts to hiding cover and thermal cover/snow intercept under the Action Alternative would be additive to any ongoing or proposed vegetation management projects within the Large CEAA (see existing conditions section). Hiding cover would remain relatively abundant within the Large CEAA (63.0%). High-quality thermal cover/snow intercept would continue to be limited but connected (29.5% of the Large CEAA) on big game winter range due to past timber management, residential development, and agricultural land use. Increased disturbance and reduced security along the haul route, totaling 2.9 miles of restricted roads, would also be expected throughout the Large CEAA. Patterns of big game use and movement wouldn't likely change within the Project Area. Overall, measurable big game population changes at the scale of the Large CEAA would be minor as a result of the Action Alternative.

**WI-11. Mature Forest** – The Project Area contains 501 acres (44.2% of the Project Area) of mature forest. The proposed action would harvest approximately 271 acres of mature forest (54.0% of mature forest within the Project Area) with a reasonably closed canopy (≥40% canopy closure). In total, prescriptions on 168 acres (33.6% of existing mature forest) would reduce live

tree densities and mature overstory canopy cover to less than 40%. Habitat suitability for species utilizing younger stands and open forest with widely scattered mature trees would increase. Approximately 333 acres (29.3% of the Project Area) of mature forest would remain in the Project Area. After harvest, forest stands in the Project Area would continue to provide a mosaic of habitat conditions, and moderate to dense patches of connected forest cover would remain relatively similar. Connectivity is currently provided through a relatively unmanaged corridor associated with the Stillwater River. The proposed activities would not affect this corridor but would diminish connectivity in adjacent areas. After the proposed action, mature forest abundance would remain relatively low (30.3% of the Small CEAA) but connected through much of the Small CEAA.

#### Wildlife Mitigations:

- If a threatened or endangered species is encountered, consult a DNRC biologist immediately. Similarly, if undocumented nesting raptors are encountered within ½ mile of the Project Area, contact a DNRC biologist.
- Contractors will adhere to food storage and sanitation requirements as described in the timber sale contract. Ensure that all attractants such as food, garbage, and petroleum products are stored in a bear-resistant manner.
- Prohibit contractors and purchasers conducting contract operations from carrying firearms while on duty as per ARM 36.11.432(1).
- Effectively close restricted roads and skid trials in the Project Area via a combination of gates, kelly humps, rocks, and stumps. Maintain public motorized restrictions on restricted and temporary roads during and after harvest activities.
- Within commercial harvest units, retain patches of advanced regeneration trees as per ARM 36.11.428(4)(f).
- Provide visual screening along open roads to the extent practicable by retaining available submerchantable trees and brush.
- Retain at least 2 snags and 2 snag recruits per acre >21 inches dbh or the next available size class according to ARM 36.11.411 through 36.11.414. If snags are cut for safety concerns, they must be left in the harvest unit.
- Retain 5 to 25 tons/acre of coarse-woody debris and emphasize retention of 15-inch diameter downed logs, aiming for at least one 20-foot-long section per ARM 36.11.428(4)(b).

#### Literature:

- Bachen, D.A., A. McEwan, B. Burkholder, S. Blum, and B. Maxell. 2020. Accounts of Bat Species Found in Montana. Report to Montana Department of Environmental Quality. Montana Natural Heritage Program, Helena, Montana. 58 p.
- DFWP. 2008. Maps of moose, elk, mule deer, and white-tailed deer distribution in Montana. *In* Individual GIS data layers. Available online at: https://gis-mtfwp.opendata.arcgis.com/
- DDWP. 2023. Public Scoping Notice Proposed Forest habitat improvement and fuels reduction project on Ray Kuhns Wildlife Management Area. Montana Department of Fis and Wildlife. Kalispell, MT.
- DNRC. 2019. Beaver-to-Boyle Environmental Assessment. Montana Department of Natural Resources and Conservation; Stillwater Unit, Olney, MT.
- DNRC. 2023. North Spencer Beetle Salvage. Montana Department of Natural Resources and Conservation; Kalispell Unit, Kalispell, MT.
- DNRC. 2024. Cliff Lake Environmental Assessment. Montana Department of Natural Resources and Conservation; Kalispell Unit, Kalispell, MT.

- Green, P., J. Joy, D. Sirucek, W. Hann, A. Zack, and B. Naumann. 1992. Old Growth Forest Types of the Northern Region. R-1 SES. USDA Forest Service, Northern Region, Missoula MT 60pp.
- Montana Natural Heritage Program (MNHP). 2024. Environmental Summary Report for Latitude 48.28342 to 48.49772 and Longitude -114.33484 to -114.55417. Retrieved on 6/14/2024, from http://mtnhp.org/MapViewer.
- Olson, L. E., J. D. Sauder, N. M. Albrecht, R. S. Vinkey, S. A. Cushman, and M. K. Schwartz. 2014. Modeling the effects of dispersal and patch size on predicted fisher (*Pekania [Martes] pennanti*) distribution in the U.S. Rocky Mountains. Biological Conservation 169:89-98.
- USDA Forest Service (USFS). 2021. Final Decision Notice and Finding of No Significant Impact for the Stovepipe Project. United States Forest Service; Flathead National Forest, Tally Lake Ranger District, Flathead County, MT.
- Wittinger, W. 2002. Grizzly bear distribution outside of recovery zones. Unpublished memorandum. Report on file at Unpublished memorandum on file at USDA Forest Service, Region 1, Missoula, MT.

#### **AIR QUALITY:**

						lm	pact						Can	Comment
Air Quality	Direct No Low Mod High					Seco	ondary			Cum	ulative		Impact Be Mitigated?	Number
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High	wiitigateu r	
No-Action														
Smoke	Х				Х				Х					
Dust		Х				Х				Х			Υ	AQ-1
Action														
Smoke		Х				X				Χ				AQ-2
Dust		Х				Х				Χ			Υ	AQ-2

#### Comments:

**AQ-1:** Dust could still occur due to roads open nearby or within project area.

**AQ-2:** Dust may occur during the dry season due to log trucks, and short-term smoke will be created from burning slash piles.

Air Quality Mitigations: Burning would occur only on days approved by the Montana/Idaho Airshed group and the DEQ. A test burn will be conducted to verify good dispersal. The DNRC will implement measures to mitigate dust created from log hauling operations as needed. These mitigations may include slow driving speeds, a restricted haul period, and/or application of dust abatement on road surfaces.

# ARCHAEOLOGICAL SITES / AESTHETICS / DEMANDS ON ENVIRONMENTAL RESOURCES:

Will Alternative	Impact												Can	Comment
result in potential impacts to:	Direct				Secondary				Cumulative				Impact Be	Number
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High	Mitigated?	
No-Action														
Historical or Archaeological Sites	Х				Х				Х					
Aesthetics	Х				Х				Х					
Demands on Environmental Resources of Land, Water, or Energy	х				х				x					
Action														
Historical or Archaeological Sites	Х				Х				Х					
Aesthetics	Х				Х				Х					
Demands on Environmental Resources of Land, Water, or Energy	x				х				x					

#### Comments:

Scoping letters were sent to those Tribes that requested to be notified of DNRC timber sales. No response was returned that identified a specific cultural resource issue. 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 results revealed that no cultural or paleontological resources have been identified in the APE, and some portions of the APE has been inventoried for past projects.

Timber harvest activities are expected to have No Effect to Antiquities. 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.

Mitigations: N/A

# 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.

N/A

# **Impacts on the Human Population**

Evaluation of the impacts on the proposed action including <u>direct, secondary, and cumulative</u> impacts on the Human Population.

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

Will Alternative	Impact												Can	Comment
result in potential impacts to:	Direct				Secondary				Cumulative				Impact Be	Number
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High	Mitigated?	
Access To and Quality of Recreational and Wilderness Activities	x				х				x					
Density and Distribution of population and housing	x				х				x					
Social Structures and Mores	Х				х				Х					
Cultural Uniqueness and Diversity	Х				Х				Х					

#### Comments:

The proposed project will have no direct, secondary, or cumulative impacts on the human population.

#### 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:

Costs, revenues and estimates of return are estimates intended for relative comparison of alternatives. They are not intended to be used as absolute estimates of return. The estimated stumpage is based on comparable sales analysis. This method compares recent sales to find a market value for stumpage. These sales have similar species, quality, average diameter, product mix, terrain, date of sale, distance from mills, road building and logging systems, terms of sale, or anything that could affect a buyer's willingness to pay.

**No Action**: The No Action alternative would not generate any return to the trust at this time.

**Action**: The timber harvest would generate additional revenue for the Public Buildings, MSU 2<sup>nd</sup> Grant, and Eastern College-MSU/Western College-U of M Trusts. The estimated return to the trusts for the proposed harvest is \$708,886 based on an estimated harvest of 2.1 million board feet (12,670 tons) and an overall stumpage value of \$55.95 per ton. Costs, revenues, and estimates of return are estimates intended for relative comparison of alternatives, they are not intended to be used as absolute estimates of return.

#### 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?

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

No

Name: Kayla Johnson

Title: Forester Date: June 24, 2024

#### **Alternative Selected**

Action alternative

#### **Significance of Potential Impacts**

I find that the impacts of the proposed action alternative as described in this Environmental Assessment are not significant. This Environmental Analysis has been completed for the Round Prairie Timber Sale. After a thorough review of the EA, project file, responses/discussions with Department and outside specialists, Department policies, standards, and guidelines, the State Land Management Rules, and the HCP rules, I have made the decision to choose the action alternative. I believe this EA has provided a good approximation of what this project would accomplish. Harvesting timber in the parcels included in this EA would generate revenue for the Eastern College-MSU/Western College-U of M, MSU 2<sup>nd</sup> grant, and Public Buildings Trusts. It would also reduce fuel loading in the wildland urban interface, manage insect and disease outbreaks, promote overall forest health and vigor and move the forest condition towards a future desired condition within the project area.

Need	tor I	-urther Envi	ironn	nental Analysis		
		EIS		More Detailed EA	X	No Further Analysis

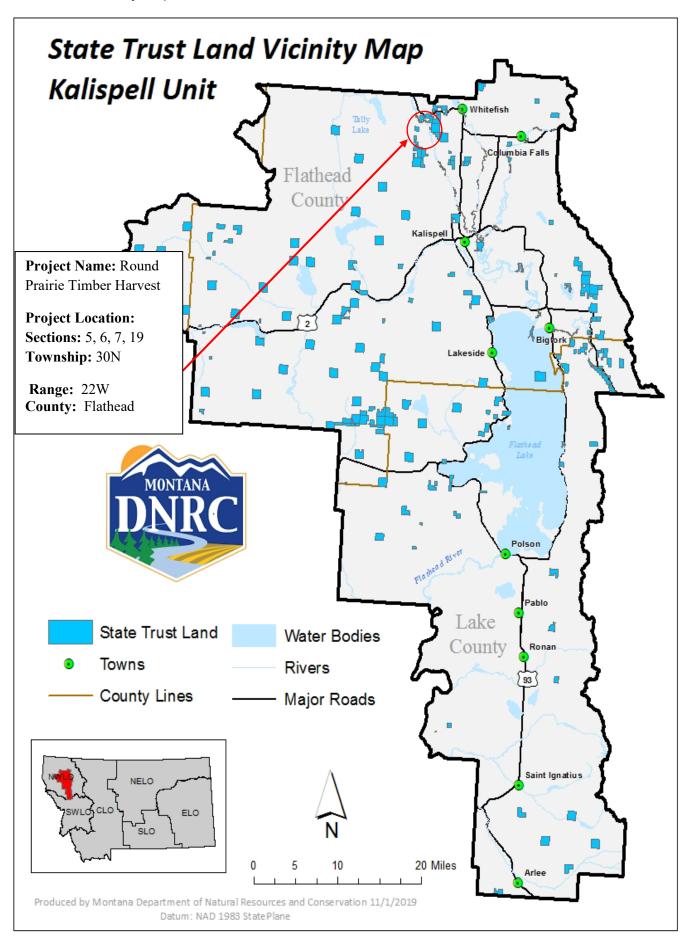
## **Environmental Assessment Checklist Approved By:**

Name: David M Poukish Title: Kalispell Unit Manager

**Date: August 6, 2024** 

Signature: /s/ David M. Poukish

**Attachment A - Maps** 



#### A-2: Timber Sale Harvest Units

