Environmental Assessment Checklist

Project Name: Pasture Draw Timber Sale
Proposed Implementation Date: June 2023
Proponent: Hamilton Unit, Southwest Land Office, Montana DNRC
County: Ravalli

Type and Purpose of Action

Description of Proposed Action:

The Hamilton Unit of the Montana Department of Natural Resources and Conservation (DNRC) is proposing the Pasture Draw timber sale. The project is located approximately 4.2 miles northeast of Sula, Montana. (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	**T2N R19W Sec. 24, 25, 26, 34, 35, 36**	**1720**	**346**
Public Buildings	**T2N 19W Sec. 35**	**120**	**120**
MSU 2nd Grant			
MSU Morrill			
Eastern College-MSU/Western College-U of M			
Montana Tech			
University of Montana			
School for the Deaf and Blind			
Pine Hills School			
Veterans Home			
Public Land Trust			
Acquired Land			

Objectives of the project include:

- Improve timber stand growth and productivity by removing trees with poor form and/or vigor.
- Salvage Douglas-fir impacted Douglas-fir dwarf mistletoe, Douglas-fir bark beetle, and western spruce budworm.
- Maximize revenue over the long-term for the School Trust accounts from the timber resources and provide a sufficient amount of sawlog volume to contribute to the DNRC's sustained yield as mandated by State Statute 77-5-222, MCA.

Proposed activities include:

Action	Quantity
Proposed Harvest Activities	# Acres
Clearcut	
Seed Tree	
Shelterwood	
Selection	466
Commercial Thinning	
Salvage	
Total Treatment Acres	**466**
Proposed Forest Improvement Treatment	# Acres
Pre-commercial Thinning	
Planting	
Proposed Road Activities	# Miles
New permanent road construction	
New temporary road construction	.51
Road maintenance	8.2
Road reconstruction	.5
Road abandoned	
Road reclaimed	
Other Activities	

Duration of Activities:	2023-2027
Implementation Period:	6/1/2023-9/1/2027

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:
  - August 11, 2022
- PUBLIC SCOPED:
  - The scoping notice was posted on the DNRC Website: https://dnrc.mt.gov/News/scoping-notices.
  - Adjacent landowners were scoped. The mailing list of parties receiving initial scoping notices for this project is located in the project file at the Hamilton Unit Office.
- AGENCIES SCOPED:
  - Montana Tribal Organizations, MT FWP, USFS
- COMMENTS RECEIVED:
  - None of the tribes identified a specific cultural resource concern.
  - Comments from FWP were received. Comments and responses are listed in Attachment B.
  - Comments from neighboring landowners were received. Comments and responses are listed in Attachment B.
- DNRC RESPONSE:
  - If a site with cultural significance were discovered during project implementation, all work would be halted and the DNRC Archaeologist would be notified immediately.

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

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 https://dnrc.mt.gov/TrustLand/about/planning-and-reports.

- **Montana Department of Environmental Quality (DEQ)-** DNRC is classified as a major open burner by DEQ and is issued a permit from DEQ to conduct burning activities on state lands managed by DNRC. As a major open-burning permit holder, DNRC agrees to comply with the limitations and conditions of the permit.

- **Montana/Idaho Airshed Group-** The DNRC is a member of the Montana/Idaho Airshed Group which was formed to minimize or prevent smoke impacts while using fire to accomplish land management objectives and/or fuel hazard reduction (Montana/Idaho Airshed Group 2006). The Group determines the delineation of airsheds and impact zones throughout Idaho and Montana. Airsheds describe those geographical areas that have similar atmospheric conditions, while impact zones describe any area in Montana or Idaho that the Group deems smoke sensitive and/or having an existing air quality problem (Montana/Idaho Airshed Group 2006). As a member of the Airshed Group, DNRC agrees to burn only on days approved for good smoke dispersion as determined by the Smoke Management Unit.

ALTERNATIVES CONSIDERED:

No-Action Alternative:
No commercial harvest of timber would occur. No road maintenance or road reconstruction would occur.

Action Alternative:

- DNRC would harvest approximately 1.1 MMBF from approximately 466 acres using an individual tree selection prescription. This prescription would harvest infested and dying timber. Timber exhibiting poor form and limited growth would also be harvested. Douglas-fir would primarily be targeted for removal to meet the desired future condition of ponderosa pine. Large trees over 21" DBH would be favored for retention. A ground-based harvest system would be utilized. Slash would be piled and burned postharvest.

- Approximately 8.2 miles of road maintenance, 0.5 miles of road reconstruction, and 0.51 miles of temporary road construction activities would take place to improve logging access to the DNRC parcel and to bring existing roads up to BMP standards.

Impacts on the Physical Environment

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

VEGETATION:

Vegetation Existing Conditions:
The current stand condition in the project area is a result of past timber management and wildfire activity and/or suppression. The project area contains a mix of ponderosa pine and Douglas-fir. Ponderosa pine and Douglas-fir comprise the dominant, co-dominant, and intermediate layers with a DBH range of 10" – 28+". The understory is comprised mainly of seedling/sapling Douglas-fir forming patches in the openings along with scattered ponderosa pine seedling/saplings in the larger canopy openings.

Overall stand health varies by species. Douglas-fir in the project area (overstory and understory) has been moderately to heavily affected by dwarf mistletoe. Douglas-fir also shows minor effects due to spruce budworm and Douglas-fir bark beetle. Overall health of ponderosa pine is good with just some small patches (less than .2 acre) of mortality due to bark beetle.

Spotted knapweed (Centaurea maculosa) is the most prevalent noxious weed present. Infestations were mainly observed on open, dry, south-facing aspects and along established roads.

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**					
Old Growth	**X**				**X**				**X**					
Action														
Noxious Weeds		**X**				**X**				**X**			**Y**	**1**
Rare Plants	**X**				**X**				**X**					
Vegetative community			**X**			**X**					**X**			**2**
Old Growth	**X**				**X**				**X**					**3**

Comments:

1. Implementation of the action alternative would involve ground-disturbing activities that have the potential to introduce or spread noxious weeds.

2. The Pasture Draw timber harvest would promote healthy stand conditions and emulate natural disturbances based on fire regimes historically present in the project area. Large trees over 21" DBH would be favored for retention. The harvest would remove dead and dying trees impacted by insects and disease. Trees with poor form and growth (forked tops, crook, sweep, flat tops and showing signs of little to no growth) would also be removed. Douglas-fir would be targeted for removal to meet the desired future condition of ponderosa pine. Tree removal would focus on a residual basal area between 40 to 60. Advanced regeneration would be protected during operations. Post-harvest stands would appear more open and park like. Ponderosa pine along with lesser amounts of healthy Douglas-fir would be present across the landscape. Young, vigorous ponderosa pine and Douglas-fir would remain present in the understory to eventually replace the trees removed from the overstory. At least one snag and one snag recruits per acre would exist scattered among the overstory component.

3. Old Growth is identified and analyzed using criteria outlined in Green et al. Stand Level Inventories of the project area were queried to identify potential Old Growth and Old Growth stands. This query resulted in no stands that were identified as old growth. This data was field verified using cruising data from the inventory of the sale area.

Mitigations:

- Wash equipment prior to harvest to limit weed seed dispersal.

- Use herbicide application and biocontrol to limit spread of existing weeds. Post-harvest herbicide applications and biocontrol release along roads and open ridges. Areas of this proposed project are under a WHIP grant to target noxious weeds. The primary areas targeted under this grant for aerial treatment are the main open ridges near Bunch Gulch.

- Plant grass along reconstructed roads and in disturbed areas to limit the resources available for weeds to become established.

Vegetation references:
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. Unpublished report on file at US Forest Service, Northern Region, Missoula, MT.

Montana Natural Heritage Program (MTNHP). 2013. Plant species of concern report. Available online at: http://mtnhp.org/SpeciesOfConcern/?AorP=p.

SOIL DISTURBANCE AND PRODUCTIVITY:

Soil Disturbance and Productivity Existing Conditions:

The project is located in the southern portion of the Sapphire Mountains north of the East Fork of the Bitterroot River. Underlying rocks are mainly intrusive igneous rocks associated with the Idaho Batholith.

The proposed harvest areas are located on mostly gentle topography with the steepest slopes occurring in the Bunch Gulch harvest area. Slopes within the Bunch Gulch harvest area are 45 percent or less.

Soils in the Pasture Draw harvest area include
- Rochester, very stony-Roegulch, rubbly-Rock outcrop complex, 15 to 60 percent slopes (500F)
- Macmeal-Totelake-Sharrott families, complex, moderately steep mountain slopes (32B30)

Soils in the Bunch Gulch harvest area include
- Perma-Holter-Sharrott families, complex, steep mountain slopes (30K31)
- Totelake-Macmeal-Sharrott families, complex, dissected mountain slopes (31B15)

No unique or unstable terrain were observed within the project area. Analysis included review of recently collected (2020) Lidar data.

Ground cover includes grasses, shrubs, and riparian vegetation. Deciduous trees (cottonwood and aspen), shrubs, and sedges occur in low-lying areas within the project area such as the bottom of draws adjacent to streams and above channel initiation.

Existing and past disturbances

The project area has the following recorded existing and past disturbances:

- Bunch Gulch Timber Sale (2005), Timber Permit (2006-2007), 4 Corners Timber Sale (1991-1993)
- Fire History: much of the area burned in 2000, but the burn areas do not include the proposed harvest units. However, a portion of Pasture Draw did burn according to Bitterroot GIS data.

The area is included in an active grazing license. No overgrazing observed. Riparian conditions are good. The area is also included in several active outfitting licenses and special recreation use permits.

Visual review of existing coarse woody debris (CWD) within the harvest areas completed in October 2022 appear to be within the range appropriate for the landscape and forest type (5 to 15 tons/acre) per Graham et al. (1994).

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 - 6**
Erosion		**X**				**X**				**X**			**Y**	**2 - 6**
Nutrient Cycling		**X**				**X**				**X**			**Y**	**7**
Slope Stability	**X**				**X**				**X**					**8**
Soil Productivity		**X**				**X**				**X**			**Y**	**2 - 7**

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 disturbances from harvest activities may result in temporary 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 by physical disturbance would likely occur by ground-based yarding. All expected impacts are expected to be less than 12.2% and would be minimized by use of existing and temporary roads, and existing skid trails. This disturbance rate estimate is based off previous soil disturbance monitoring of timber sales completed by the DNRC (DNRC, 2011).

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 (BMPs), the DNRC Trust Lands Habitat Conservation Plan, and the State Forest Land Management Plan.

6. Temporary road construction in the SMZ of upper Bunch Gulch is proposed as part of the project. Temporary roads will meet Montana Forestry BMPs and Montana Streamside Management Zone (SMZ) Law and Rules. An Alternative Practice will be

implemented for the first 100 ft. of the road that passes through the SMZ. **Mitigation:** Slash filter will be placed along the fill slope and winter logging will be encouraged to reduce the risk of concentrated runoff, erosion, and sediment delivery during snowmelt conditions. This temporary road will be grass-seeded immediately following reclamation.

7. According to Graham et al. (1994), a minimum of 4.5 and up to 9 tons/acre of coarse woody debris (CWD) would be a desired post-harvest condition to maintain forest productivity for this forest habitat type. The action alternative would include increasing or maintaining CWD concentrations per mitigation described below.

8. Unstable slopes were not observed on site. The project is anticipated to have no risk to slope stability.

Additional Soil Mitigations:

- 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.

- An average minimum of 4.5 tons/acre of coarse and fine woody debris would be maintained within harvest areas to meet the concentration for the DF/PHMA habitat type recommended by Graham et al (1994). Any existing CWD shall be left in place. See comment 7 above.

Soil References:

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.

WATER QUALITY AND QUANTITY:

Water Quality and Quantity Existing Conditions:

The project is located north of the East Fork of the Bitterroot River. Unit 1 of the proposed harvest area (approximately 333 acres) is located within the Pasture Draw watershed. Unit 2 (approximately 133 acres) is located within the Bunch Gulch watershed.

Pasture Draw is a Class 2 stream that is intercepted by the Daniels (Vought) Ditch after it crosses French Basin Road approximately 0.4 miles downstream of Trust Lands ownership. The Daniels (Vought) Ditches returns flow to Cameron Creek approximately 1.5 miles south of the confluence with Pasture Draw. The total length of the Pasture Draw stream is approximately 1.3 miles; above channel initiation the valley floors are occupied occasionally by wetlands. These wetlands follow the topographic low of the draw but are not contiguous.

The existing Pasture Draw Road is poorly located near the Class 2 stream and in some areas the buffer between the edge or the road and road fill is immediately adjacent to the creek. The road material is loose and is composed mostly of sand-sized grains with low binders. The existing road drainage is mainly rolling dips that are appropriately spaced but require maintenance to sustain or restore effectiveness.

Bunch Gulch is a Class 2 stream. The gulch flows south towards the East Fork Bitterroot River, however there is no channel observable at the MT Route 472 culvert crossing immediately south of the mouth of Bunch Gulch and 100 feet north of the East Fork Bitterroot River. No flows were present in Bunch Gulch during field observations in October 2022. In past timber sales, Bunch Gulch has been classified as Class 2 like because portions of the channel have flows for more than 6 months in the average year. Above channel initiation the draw bottom has discontinuous wetlands. The channel appears to have some impacts from cattle including hoof shear and punging. Riparian shrubs and sedges occur at the stream channel that has an average bank full width of 1 foot.

Field observations, and Lidar data collected in 2020 and processed to show bare-earth conditions, indicate roads have been constructed along the draw bottom adjacent to the channel in Bunch Gulch. Within the proposed harvest areas, abandoned roads occur east of the channel. Above the channel, abandoned roads occur both east and west of the draw bottom.

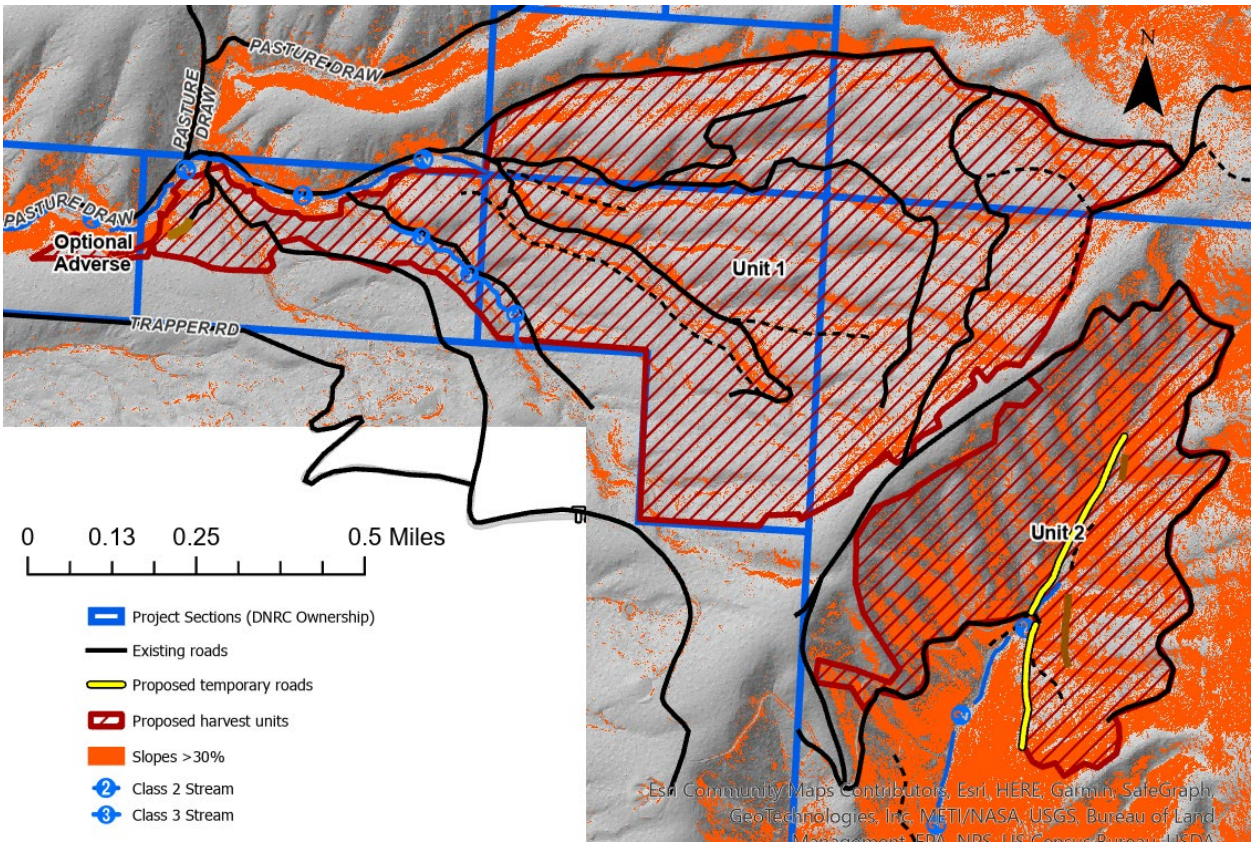


Figure 1: Observed streams within proposed project area. Map includes LiDAR imagery (DNRC 2020).

Magnesium Chloride bonds the road surface and reduces dust and loose gravel on the roadway.

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 – 5**
Water Quantity		**X**				**X**				**X**			**Y**	**6**

Comments:

1. With no action, no timber harvesting or related activities would occur. Water quality conditions would likely continue under its current condition. Similarly, no risk of change of current fluctuations in water yield or stream flow would result.

2. 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.
3. The action alternative would not involve work within streams. Tree harvest and equipment operations will comply with the Montana Streamside Management Zone (SMZ) Law and Rules.
4. Pasture Draw road would require road drainage maintenance and improvement in order to sustain or restore drainage effectiveness to meet Montana Forestry BMPs. Dust control would also be needed along this stretch of road to reduce the risk of dust mobilization and delivery to the adjacent stream through airborne disposition or through direct water runoff from the road or nearby dusty vegetation. Mitigation: For the first mile of Pasture Draw Road east of the junction with French Basin Road: (1) Limit the speed of all vehicles to 10 mph, (2) Require chemical (MgCl) or regular (multiple times daily) watering treatment during log hauling when road materials are dry.
5. Temporary road construction in the SMZ of upper Bunch Gulch is proposed as an optional part of the project. Temporary roads will meet Montana Forestry BMPs and Montana Streamside Management Zone (SMZ) Law and Rules. An Alternative Practice will be implemented for the first 100 ft. of the road that passes through the SMZ. **Mitigation:** Slash filter will be placed along the fill slope and winter logging will be encouraged to reduce the risk of concentrated runoff, erosion, and sediment delivery during snowmelt conditions. This temporary road will be grass-seeded immediately following reclamation.
6. Changes to steam flow hydrology (water quantity or water flow) would likely not be detectible with the Action Alternative. 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). The proposed harvest areas within Pasture Draw and Bunch Gulch occupy approximately 18% and 15% of each watershed area respectively. Vegetation removal within the harvest areas would not be complete (i.e., prescriptions would allow for retention of select trees), therefore less than 15% of the existing vegetation within each watershed would be removed.

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.

DNRC, 2020. Ravalli County, Montana. PHASE1_RAVALLI_2020_4RAcntyCentral_QL1 LiDAR. https://mslservices.mt.gov/Geographic_Information/Data/DataList/datalist_Details.aspx?did={354b7afe-64b2-4d63-aa79-e6f8e01787d0}

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

FISHERIES:

The nearest streams with fish occur in Cameron Creek and the East Fork Bitterroot River. Both streams carry Bull Trout and Westslope Cutthroat Trout, and in addition to other species. Bull trout are currently listed as a threatened species under the Endangered Species Act and Westslope Cutthroat Trout is a sensitive species. The proposed haul route would not cross these streams before connecting with County or State-maintained roads. Harvest areas would be greater than 0.5 miles from Cameron Creek, and greater than 1 mile from the East Fork Bitterroot River.

Due to the distance of proposed Action Alternative to fish-bearing streams, no foreseeable direct, indirect, or cumulative effects to fisheries resources are anticipated with an action or no-action alternative.

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

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. Smoke would be produced during pile burning.
2. Dust would be produced during harvesting and hauling activities.

Air Quality Mitigations:

- Only burn on days approved by the Montana/Idaho Airshed group and DEQ.
- Conduct test burn to verify good dispersal.
- Dust abatement may be used as necessary.
- Slower speed limits may be included in contracts as necessary to reduce dust.

WILDLIFE:

Existing Conditions: The project area contains a variety of ponderosa pine and Douglas-fir stands (~86% of project area) intermixed with some non-forested grassland and shrublands. The project area contains approximately 1,187 acres (62% of project area) of mature stands (100-plus years in age) with a reasonably closed canopy (>40% canopy closure) that are generally stocked with Douglas-fir and ponderosa pine. The project area is outside of the grizzly bear recovery zone and the 'non-recovery occupied habitat' as mapped by grizzly bear researchers and managers to address increased sightings and encounters of grizzly bears in habitats outside of recovery zones (Wittinger et al. 2002). Use by grizzly bears could occur as bears continue moving out of the recovery zone to the north of the project area, but probability of use would be fairly low. Potential habitat exists for flammulated owls and pileated woodpeckers in the project area. Some potential use by fringed myotis and hoary bats could occur. White-tailed deer (822 acres; 43%), mule deer (1,906 acres; 100%), and elk (1,906 acres; 100%) winter range exists in the project area; summer use by deer, elk, and moose likely occurs. Roughly 1,144 acres of big game hiding cover exists in the project area. No big game security habitat exists in the western portions of the project area due to open roads, habitats intermixed with open types, and overall small sizes of habitat patches, however roughly 1,251 acres in the eastern portion of the project area contains sufficient cover and is distant enough from open to be considered suitable big game security habitats (Hillis et al. 1991) and appear to contribute to larger blocks of potential security habitats in the vicinity. The East Fork Bitterroot bighorn sheep herd inhabits the vicinity of the project area and some use of the project area could occur.

No-Action: No further potential for disturbance to wildlife would be anticipated. No timber management activities would be conducted, thus no appreciable changes to existing habitats would occur. Maturation in overstory as well as younger trees following recent timber management would occur. No appreciable changes to landscape connectivity, or availability of forested patches would occur under this alternative. Continued maturation within existing stands could improve pileated woodpecker foraging habitats, big game summer and winter range attributes, but could reduce habitat quality for flammulated owls over the long term. Generally, negligible direct, indirect, or cumulative effects to threatened, endangered, or sensitive terrestrial and avian wildlife species and big game species would be anticipated.

Action Alternative (see Wildlife table below):
Roughly 467 acres of forested habitats, including 363 acres (31%) of existing mature Douglas-fir and ponderosa pine stands with reasonably closed canopies would be harvested. In general, habitats for those species adapted to more-open forest conditions would increase in the project area, meanwhile habitats for wildlife species that prefer somewhat dense, mature Douglas-fir and ponderosa pine stands would be reduced. Generally, some reductions in canopy cover would be anticipated, but proposed prescriptions would retain the majority of the larger trees, which could continue to provide habitats for a variety of wildlife species that rely on larger ponderosa pine. Some changes in visual screening would occur within individual units, but the combination of irregular-shaped units, riparian areas, un-harvested patches throughout the

project area, and distance from open roads would minimize the effects of the reductions in visual screening. Generally, modifications to canopy cover and stand density would alter overall connectivity, but negligible changes in functional connectivity would be anticipated given the prescriptions, unit layout, and landscape within which the project area is located. Short-term increases in disturbance potential associated with proposed timber management, road construction, and use would occur with proposed activities in the project area, but overall, a negligible increase in potential human disturbance would be anticipated following proposed treatments. No changes in legal motorized public access would occur in the project area. Contract stipulations would minimize the presence of human-related attractants for the duration of the proposed activities. Disturbance associated with proposed activities could occur but would be of short duration and disturbance levels would be expected to revert to levels similar to the existing conditions following proposed activities.

Wildlife	**Effects**								**Can Impact be Mitigated?**	**Comment Number**
	Direct and Indirect				**Cumulative**					
	No	Low	Mod	High	No	Low	Mod	High		
Threatened and Endangered Species										
Grizzly bear *(Ursus arctos)* Habitat: Recovery areas, security from human activity		**X**				**X**				**1**
Canada lynx (*Felix lynx)* Habitat: Subalpine fir habitat types, dense sapling, old forest, deep snow zone	**X**				**X**					**2**
Yellow-Billed Cuckoo (*Coccyzus americanus*) Habitat: Deciduous forest stands of 25 acres or more with dense understories and in Montana these areas are generally found in large river bottoms	**X**				**X**					**2**
Sensitive Species										

Wildlife	Effects								Can Impact be Mitigated?	Comment Number
	Direct and Indirect				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High		
Bald eagle *(Haliaeetus leucocephalus)* Habitat: Late-successional forest less than 1 mile from open water	**X**				**X**					**2**
Black-backed woodpecker *(Picoides arcticus)* Habitat: Mature to old burned or beetle-infested forest	**X**				**X**					**2**
Common loon *(Gavia immer)* Habitat: Cold mountain lakes, nest in emergent vegetation	**X**				**X**					**2**
Fisher *(Martes pennanti)* Habitat: Dense mature to old forest less than 6,000 feet in elevation and riparian	**X**				**X**					**2**
Flammulated owl *(Otus flammeolus)* Habitat: Late-successional ponderosa pine and Douglas-fir forest		**X**				**X**			**Y**	**3**
Fringed myotis (*Myotis thysanodes*) Habitat: low elevation ponderosa pine, Douglas-fir and riparian forest with diverse roost sites including outcrops, caves, mines	**X**				**X**					**4**
Hoary bat (*Lasiurus cinereus*) Habitat: coniferous and deciduous forests and roost on foliage in trees,	**X**				**X**					**5**

Wildlife	Effects								Can Impact be Mitigated?	Comment Number
	Direct and Indirect				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High		
under bark, in snags, bridges										
Peregrine falcon *(Falco peregrinus)* Habitat: Cliff features near open foraging areas and/or wetlands	**X**				**X**					**2**
Pileated woodpecker *(Dryocopus pileatus)* Habitat: Late-successional ponderosa pine and larch-fir forest		**X**				**X**			**Y**	**6**
Townsend's big-eared bat *(Plecotus townsendii)* Habitat: Caves, caverns, old mines	**X**				**X**					**2**
Wolverine *(Gulo gulo)* Habitat: Alpine tundra and high-elevation boreal forests that maintain deep persistent snow into late spring	**X**				**X**					**2**
Big Game Species										
Elk		**X**				**X**			**Y**	**7**
Whitetail		**X**				**X**			**Y**	**7**
Mule Deer		**X**				**X**			**Y**	**7**
Moose		**X**				**X**			**Y**	**7**
Bighorn Sheep		**X**				**X**			**Y**	**8**
Other	**X**				**X**					

Comments:

1. The project area is outside of the grizzly bear recovery zone and the 'non-recovery occupied habitat' as mapped by grizzly bear researchers and managers to address increased sightings and encounters of grizzly bears in habitats outside of recovery zones. Individual animals could occasionally use the project area while dispersing as bears continue moving out of the recovery zone to the north of the project area. Past fire activity and recent timber

management have altered cover in the cumulative effects analysis area, and coupled with a variety of relatively open habitat types, likely limits overall quality of the area for grizzly bears. Activities would occur during the denning or non-denning periods, potential for disturbance would exist with any activities conducted during the non-denning period, but any proposed activities conducted during the denning period would not be expected to disturb grizzly bears. Some reductions in potential hiding cover could reduce overall quality for grizzly bears, but some hiding cover would persist in the project area. No changes to open road densities, security habitats, or human–related food, garbage, or other unnatural grizzly bear attractants would occur. 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. There are roughly 1,644 acres of potential flammulated owl habitats in dry Douglas-fir/ponderosa pine types in the project area. Additionally, there are roughly 262 acres in the project area that are in grasslands and shrublands that may be suitable foraging habitats for flammulated owls that may be using the forested portions of the project area. Roughly 467 acres (28%) of flammulated owl habitats would be treated, which would further open the canopy while favoring ponderosa pine and Douglas-fir. The more open stand conditions, the retention of fire adapted tree species, and the maintenance of snags would move the proposed project area towards historical conditions, which is preferred flammulated owl habitat. Proposed activities could occur during the flammulated owl nesting season, which could introduce some disturbance of nesting owls, but proposed activities would not affect nesting structures.

4. Fringed Myotis are year-round residents of Montana that use a variety of habitats, including deserts, shrublands, sagebrush-grasslands, and forested habitats. They overwinter in caves, mines, crevices, or human structures. Fringed myotis forage near the ground or near vegetation. No known caves, mines, crevices, or other structures used for roosting occur in the project area or immediate vicinity. Fringed myotis have not been documented in the vicinity of the project area, but are known to use the Bitterroot drainage. Proposed activities could disturb fringed myotis should they be in the area. Changes in vegetation structural attributes could change overall prey availability, but considerable foraging habitats would persist in the project and cumulative effects analysis areas. Overall, no appreciable changes to fringed myotis use of the project area or cumulative effects analysis areas would be anticipated.

5. Hoary bats are summer residents (June-September) across a variety of forested habitats in Montana. Hoary bats frequently forage over water sources near forested habitats. Hoary bats are generally thought to roost alone in, primarily in trees, but will use also use caves, other nests, and human structures. Some use by hoary bats would be possible given the varied habitats in the project area and the proximity to the East Fork of the Bitterroot River, Cameron Creek, and numerous other smaller wetlands. Individual trees and snags in the

existing forested habitats could be used for roosting. No known caves or other structures used for roosting occur in the project area or immediate vicinity. Hoary bats have been documented in the vicinity on USFS-managed lands and could be using the project area. Proposed activities could disturb hoary bats in the area should activities occur during the summer months. Loss of potential roosting habitats could occur, but considerable numbers of trees would persist in the project and cumulative effects analysis areas. No changes in foraging habitats would be anticipated. Overall, no appreciable changes to hoary bat use of the project area or cumulative effects analysis areas would be anticipated.

6. Roughly 851 acres of pileated woodpecker nesting habitat exists in ponderosa pine and Douglas-fir stands in the project area. Another 708 acres of potential foraging habitats exist in moderate and well stocked stands of Douglas-fir. Disturbance to pileated woodpeckers could occur if proposed activities occur during the nesting period. Proposed activities would reduce forested habitats for pileated woodpeckers in the project area. Roughly 254 acres (30%) of potential habitats and another 213 acres (30%) of potential foraging habitats would be opened up with proposed treatments. Some potential continued use as foraging habitats would be possible depending on density of trees retained; considerable nesting and foraging habitats would be retained in the project area. 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 505 acres. The reductions in habitat quality within the project area would reduce the overall quality for pileated woodpeckers in the cumulative effects analysis area, but continued use of that area would be anticipated.
7. Deer, elk, and moose likely use the project area much of the non-winter period. Approximately 822 acres (43% of the project area) of white-tailed deer, 1,906 acres (100%) of mule deer winter range, and 1,906 acres (100%) of elk winter range exists in the project area. Roughly 1,474 acres (77%) in the project area have attributes that likely provide potential thermal cover for big game. Portions of the cumulative effects analysis area burned in the recent past and those stands are not yet providing snow-intercept and thermal cover attributes. Proposed activities could occur in the winter or non-winter periods. Disturbance during the winter created by mechanized logging equipment and trucks could temporarily displace big game animals during periods of operation for 2 to 4 years; however, winter logging activities provide felled tree tops, limbs, and slash piles that could concentrate feeding big game. No disturbance to wintering big game would occur with any activities occurring during the non-winter period; activities 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. No long-term effect to winter range carrying capacity or factors that would create long-term displacement or reduced numbers of big game would be anticipated. Following proposed activities, the capacity of these stands to intercept snow and provide thermal cover for big game would be reduced (467 acres; 32%), thus reducing habitat quality for wintering big game. Losses of snow intercept and thermal cover would be additive to losses associated with past wildfires and timber management in the area.

Proposed activities would not prevent big game movement through the project area appreciably in winter and could stimulate browse production in the units. Further reductions in hiding cover in the project area and reductions in visual screening along open roads could elevate big game hunting risk; but mule deer, elk, and moose populations in the vicinity are highly regulated by FWP and these reductions would have overall negligible effects on populations of big game in the area. Proposed activities would avoid the fall hunting seasons, which would limit potential disturbance to big game and general recreational hunting in the area. Roughly 366 acres (32%) of big game hiding cover would be altered which would reduce quality for 10 to 20 years as Douglas-fir and ponderosa pine seedlings and shrubs fill in and provide adequate cover for big game; however, some cover for big game would persist that could benefit big game during the hunting season in the project area. These reductions in hiding cover would include alterations on 418 acres (33%) of hiding cover in blocks that may contribute to potential big game security habitats. Within harvested stands, individual trees, unharvested areas, and retention buffers along riparian areas would remain, which would continue to provide some amount of escape cover and visual screening for big game animals. No changes in open roads or motorized access for the general public would be anticipated that would increase hunter access to the project area. Continued use of the project area by the suite of big game species currently found in the project area would be anticipated.

8. The East Fork Bitterroot bighorn sheep herd inhabits the vicinity of the project area and some use of the project area could occur. Generally, this population of sheep is relatively stable to slowly increasing, but is currently below FWP's management objectives largely due to recent pneumonia infections. Bighorn sheep in this herd use 3 smaller areas of lower elevation, relatively steep, and often rocky habitats during most of the year. The project area is not within the general description of these areas, but is in the vicinity of a winter range area identified for this herd (MFWP 2010). The Bunch Gulch winter range includes sparsely forested, steep, south facing slopes in the vicinity of Bunch Gulch, Pasture Draw, Shirley Mountain, Badger Gulch, Jakes Draw, and Sula Peak. The intermix of grassland ridges with drier ponderosa pine/Douglas-fir in the project area could be used by bighorn sheep during the winter months. Proposed activities that may occur during the winter months could disturb or displace wintering bighorn sheep. Any bighorn sheep use during the nonwinter period could be disturbed by any proposed activities during that time period, but would not occur during the rut or hunting seasons, thus no additional stress would be introduced during those sensitive time periods. Generally, proposed activities would avoid the sparsely forested, steep, south facing slopes in the area, but could introduce noise and disturbance to some wintering bighorn sheep. Proposed activities would not have an appreciable effect on availability of forage or other habitat attributes for bighorn sheep in the project area. Available winter range habitats would persist on other ownerships during proposed activities, and capacity of these pieces of the winter range would revert to existing levels following proposed activities. No long-term disturbance or loss of winter range attributes would be anticipated from the proposed activities.

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 will be restricted at all times on restricted roads that are opened for proposed activities.
- Snags, snag recruits, and coarse woody debris will be managed according to *ARM 36.11.411* through *36.11.414*, particularly favoring 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.
- Should any other raptor nests be identified in or near project activities, activities will cease and a DNRC biologist will be contacted. Site-specific measures will be developed and implemented to protect the nest and birds prior to re-starting activities.
- Limit potential stress and disturbance to big game species by limiting operations during the big game hunting seasons.

Wildlife References

Hillis, J.M., and M.J. Thompson, J.E. Canfield, L.J. Lyon, C.L. Marcum, P.M. Dolan, and D.W. McCleerey. 1991. Defining elk security: the Hillis paradigm. Pages 38-43 in A.G. Christensen, L.J. Lyon, and T.N. Lonner, comps., Proc. Elk Vulnerability Symp., Mont. State Univ., Bozeman, Montana. 330pp.

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

Montana Fish, Wildlife and Parks. 2010. Montana Bighorn Sheep Conservation Strategy. Helena, MT. 313pp.

Wittinger, W.T. 2002. Grizzly bear distribution outside of recovery zones. Unpublished memorandum on file at USDA Forest Service, Region 1. Missoula, Montana. 2pp.

ARCHAEOLOGICAL SITES / AESTHETICS / DEMANDS ON ENVIRONMENTAL RESOURCES:

Will Alternative result in potential impacts to:	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
No-Action														
Historical or Archaeological Sites	**X**				**X**				**X**					
Aesthetics	**X**				**X**				**X**					
Demands on Environmental Resources of Land, Water, or Energy	**X**				**X**				**X**					
Action														
Historical or Archaeological Sites	**X**				**X**				**X**					**1**
Aesthetics		**X**				**X**					**X**			**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.
2. Most of the area surrounding the proposed project area was affected by forest fires in 2000. The proposed treatments would reduce the stocking, which would allow the section to match the surrounding landscape more closely. Final treatments would result in open-parklike stands of primarily large size ponderosa pine.

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.
- Slash piles would be burned, and associated landing areas would be grass seeded. Newly exposed cut slopes and fill slopes on reconstructed roads would be grass seeded. Temporary roads would be reclaimed, and grass seeded after use.

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 **direct, secondary, and cumulative** impacts on the Human Population.

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

Will Alternative result in potential impacts to:	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
Quantity and Distribution of Employment		X				X				X				2
Local Tax Base and Tax Revenues		X				X				X				2
Demand for Government Services	X				X				X					
Access To and Quality of Recreational and Wilderness Activities		X				X				X				3
Density and Distribution of population and housing	X				X				X					
Social Structures and Mores	X				X				X					
Cultural Uniqueness and Diversity	X				X				X					

Comments:

1. Log truck traffic in the area would increase for the duration of the timber sale, which could cause a low impact to human safety.
2. According to the Montana Bureau of Business and Economic Research a general rule of thumb is that for every one million board feet of sawtimber harvested in Montana, ten person years of employment occur in the forest products industry. This harvest is viewed as a continuation of a sustained yield and as such would not create any new jobs but rather sustain approximately 7 person years of employment in the forest products industry. Additionally, local businesses, such as hotels, grocery stores, and gas stations would likely receive additional revenues from personnel working on the proposed project. This would be a positive low impact to quantity and distribution in the area.
3. Harvesting activities would temporarily impact recreation in the project area while tree cutting, skidding, and hauling take place.

Mitigations:

- Signs would be posted indicating that log truck traffic and timber harvesting is present in the area.
- If necessary, a slower speed limit may also be imposed in the timber harvest contract.
- Timber harvest and log hauling would take place during the general “work week”.
- Harvesting activities would be restricted to time outside big game hunting seasons.

Locally Adopted Environmental Plans and Goals: *List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.*

- None

Other Appropriate Social and Economic Circumstances:

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

Action: The proposed action has a projected harvest volume of 1.1 MMBF. Delivered to market, the proposed action has a total revenue value of an estimated $499,932. Removing the timber sale purchaser's contracted operations and DNRC's development, administration, and operation expenses, the trust beneficiaries net between an estimated 15 and 35 percent of total delivered sawlog market value. Therefore, the proposed action may generate net income for trust beneficiaries between $74,989 and $174,976.
Costs related to the administration of the timber sale program are only tracked at the Land Office and Statewide level. DNRC does not track project-level costs for individual timber sales. An annual cash flow analysis is conducted on the DNRC forest product sales program. Revenue and costs are calculated by land office and statewide. These revenue-to-cost ratios are a measure of economic efficiency. A recent revenue-to-cost ratio of the Trust Lands Program was 1:2.07. This means that, on average, for every $1.00 spent in costs, $2.07 in revenue was generated. 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.

Mills in Montana need 351 MMBF per year to maintain current production levels and industry infrastructure. Currently the sustained yield and target harvest from Trust Lands is 60 MMBF, which represents approximately 17% of timber harvested in the state of Montana. This project would provide approximately 1.1 MMBF of timber towards the sustained yield target thus helping sustain current mill capacity.

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.

Bureau of Business and Economic Research University of Montana. *Montana Sawlog and Veneer Log Price Report.* http://www.bber.umt.edu/pubs/forest/prices/sawlog2022q3.pdf

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: Thayer Jacques
Title: Hamilton Unit Forester
Date: January 18, 2023

Finding

Alternative Selected

The EA Checklist has analyzed and disclosed the potential environmental impacts of two alternatives:

1. Proposed Action
2. No Action

I have decided to approve the Proposed Action with all mitigations and controls recommended in the EA Checklist and is hereby adopted. My decision is based on a thorough review of the environmental assessment and the following conclusions arrived at through that review:

1) I conclude that the proposed action will achieve the project objectives of a) mitigating adverse insect and disease impacts and restoring the forest to its income generating potential and b) capturing timber values at imminent risk of loss.

2) I further conclude that, by virtue of design, mitigations and controls adopted and integrated into the proposed action, the project objectives will be achieved in a manner that avoids significant adverse impacts to the human and physical environment.

I am also satisfied that the proposed action has been developed through an appropriate process involving public participation, interdisciplinary methods and inter-entity consultations; that it reflects understandings, conclusions and agreements arrived at through such collaborative work; and that it is true and faithful to the trust land mission provided by the Montana Constitution and forestry laws of the State of Montana, as well as principles laid out in the State Forest Land Management Plan and Rule under which policy the trust land forestry mission is pursued.

Significance of Potential Impacts

I am satisfied that all pertinent resources and environmental values have been properly identified and studied through the project development process. Based on my review of the environmental analysis, I have concluded that the proposed action will not cause any significant adverse impacts - direct, secondary or cumulative - on the human and physical environment.

With respect to the significance of potential impacts, I find there are none that should be regarded as severe, enduring, geographically widespread or frequent.

Further, I find that the quantity and quality of the various resources, including any that may be considered unique or fragile, will not be adversely affected to a significant degree and that the seven criteria for determining significance of impacts contained in ARM 26.2.644 have been addressed completely. I find in the proposed action no precedent for future actions that would cause significant impacts and I find no conflict with local, state or federal laws, requirements or formal plans. In summary, I find that some adverse impacts are avoided altogether by means of project design and that others are controlled and mitigated to the extent that they do not become significant.

Alternative Selected
Action alternative

Significance of Potential Impacts
The analysis of identified issues did not disclose any reason compelling the DNRC to not implement the timber sale.
The Action Alternative includes mitigation activities to address environmental and human concerns identified during both the Public Scoping phase and the project analysis.

Need for Further Environmental Analysis

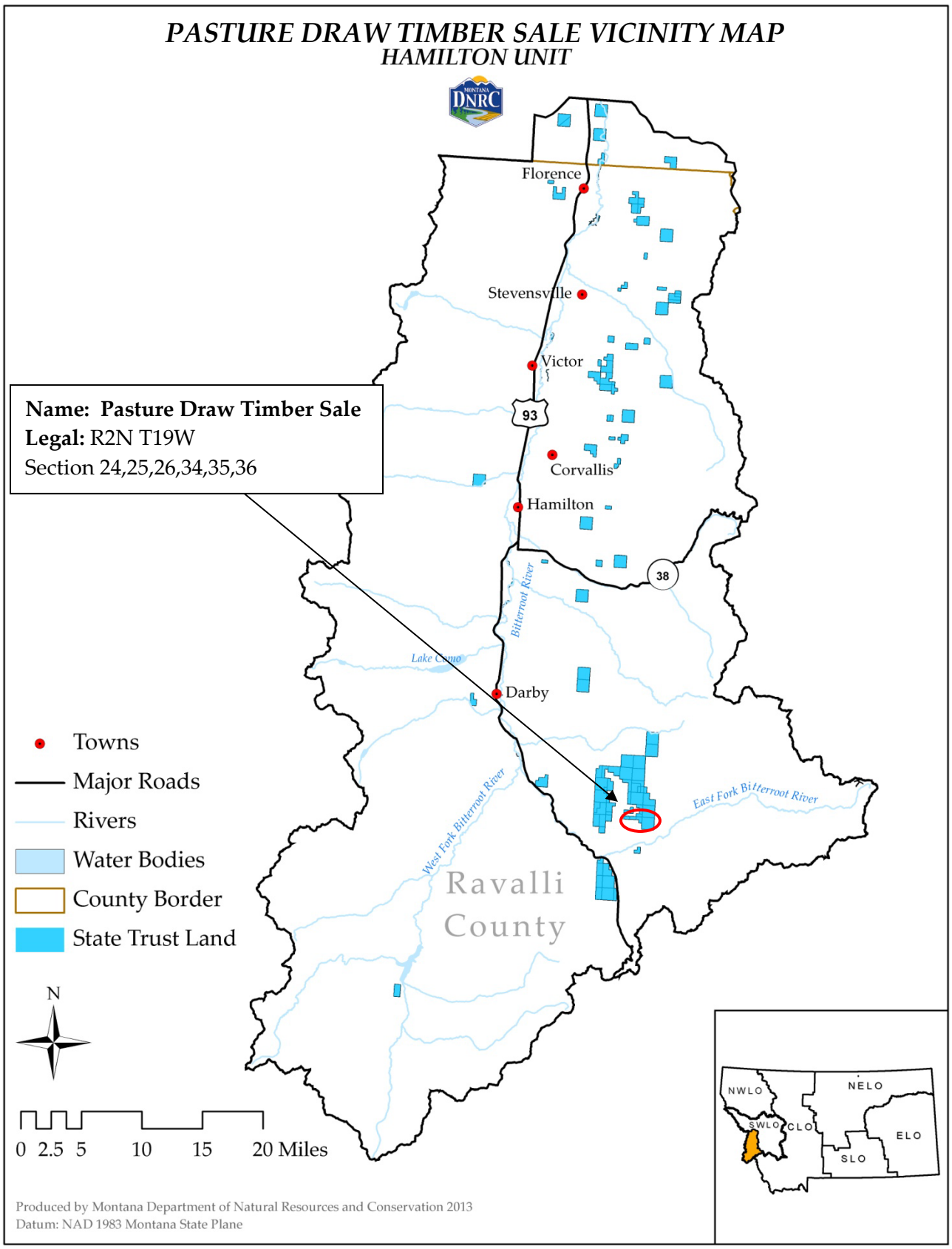
[ ]	EIS	[ ]	More Detailed EA	[X]	No Further Analysis

Environmental Assessment Checklist Approved By:

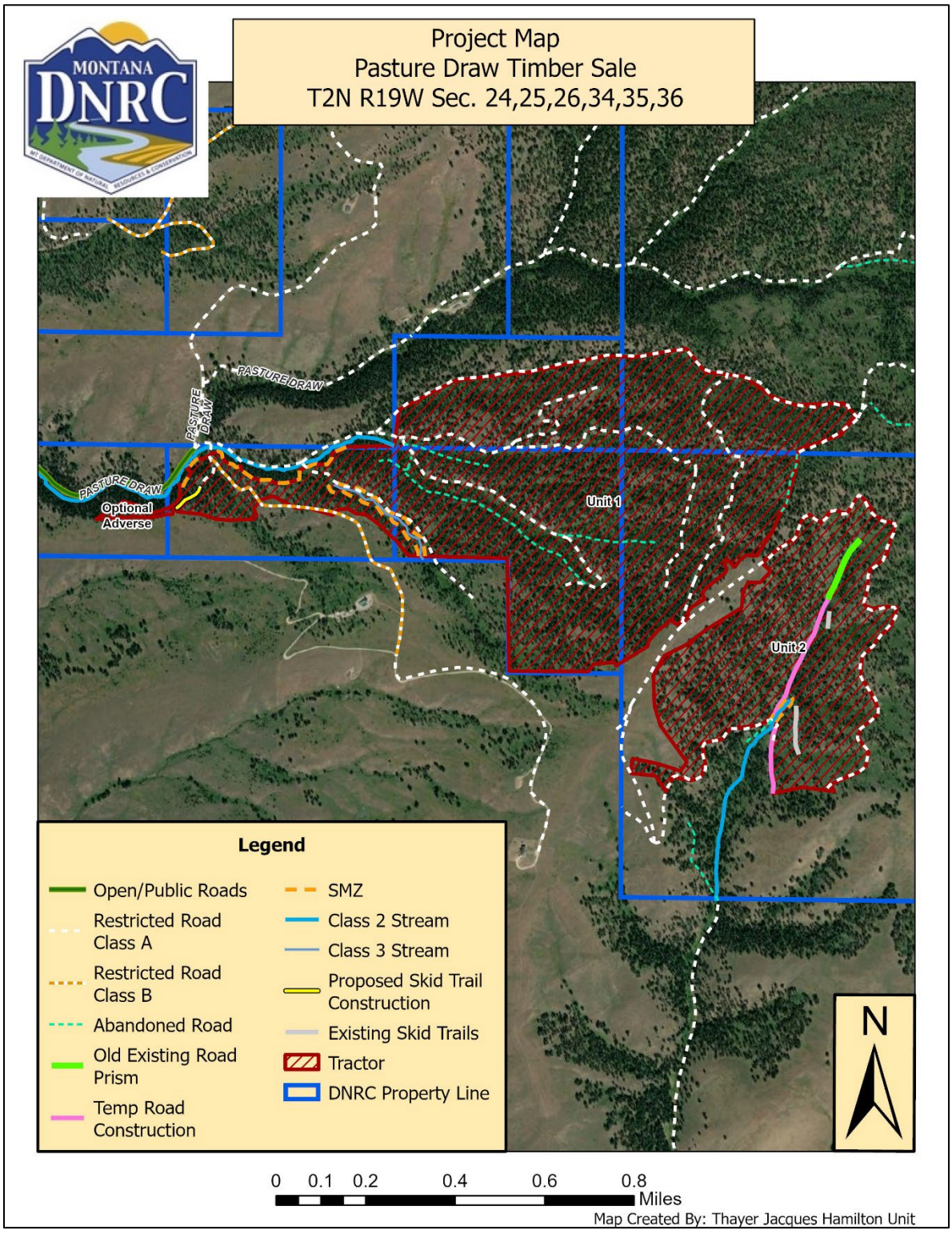
Name: Jon M. Hayes
Title: SWLO Forest Management Program Manager
Date: January 20, 2023
Signature: /Jon M. Hayes/

Attachment A- Maps

A-1: Timber Sale Vicinity Map



A-2: Timber Sale Project Map



Attachment B- Scoping Comments

INTRODUCTION

This section contains information on interactions with and additional comments related to the Pasture Draw Timber Sale received during the scoping period.

The comments received are presented below, as well as the DNRC's responses. The specific comment is presented first and the DNRC's response to address this comment is presented in underlined *italic* font below it.

Comments received from Randy Arnold MTFWP:

Dear Mr. Jacques:

FWP appreciates the opportunity to comment during the scoping period for the DNRC's Pasture Draw Timber Sale in the East Fork of the Bitterroot River drainage.

The Pasture Draw area is a popular area for hunting and hosts a large number of elk, mule and whitetail deer, black bears, and mountain grouse. Additionally, the mature forests, multi-age stand structure, and presence of exceptionally large trees makes Pasture Draw a high-value area for many nongame species, including Species of Concern. Great gray owls and flammulated owls have been confirmed nesting in the area, as have pileated woodpeckers and a wide variety of other snag and large-diameter tree dependent species. The DNRC parcels in this area are part of a larger landscape that connects the valley bottom of the East Fork of the Bitterroot River with the high elevations of the Sapphire Mountains. Elk, deer, moose, bears, mountain lions, and wolves cross these properties during seasonal movements and dispersal events. Therefore, these parcels are not only important because of the habitats they provide within their boundaries, but also because of the role they play in connecting to other landscapes.

DNRC Response:

See wildlife analysis starting on page 13.

Portions of the DNRC parcels in this area are characterized by large-diameter ponderosa pine and Douglas-fir, with some areas showing characteristics of old growth forests. There are exceptionally large trees in the area, and given the relatively scarcity of living trees, snags, and downed woody debris of that size, this area is highly important wildlife habitat. The more open stand conditions provide important winter range for elk with security cover in close proximity. The importance of this area is reflected in its inclusion in the East Fork Bitterroot Tier II Terrestrial Focal Area under Montana's State Wildlife Action Plan (SWAP; MFWP 2015).

DNRC Response:

Unit prescriptions include favoring larger trees for retention. Only large trees infected with disease (mistletoe) would be targeted for removal. Final stands will be primarily large (+21") ponderosa pine with some scattered large (21+") disease free Douglas-fir. Current snags and large woody debris will be maintained.

The Pasture Draw area is highly popular for hunting for multiple species and during all hunting seasons. The proposed timber harvest is also directly adjacent to the Lazy J Cross Block Management Area. Therefore, we suggest timber harvest activities in this area be timed to avoid hunting seasons. Preferably, logging activities would not go beyond the first week of August, as hunters are beginning to scope the area for the archery season by that time of year. At the very latest, we suggest timber harvest activities end by September 1st. Great gray owls and some woodpecker species begin establishing nest sites as early as February, so we suggest a winter operating season to avoid hunters and disturbing nesting nongame species. If timber harvest needs to extend into February/March, we suggest these activities only occur in one season, as disturbance through two or more nesting seasons may impact long-term use of the site by nesting birds.

DNRC Response:

DNRC is proposing limiting logging activities during hunting seasons. Also, see wildlife analysis starting on pg. 13.

In our initial correspondence, you informed us that the majority of the timber harvest in the area will be focused on Douglas-fir, with the desired future condition being open stands of ponderosa pine. We are highly supportive of this type of timber harvest in the area, as opening the overstory can improve range for elk and deer and mitigate the risk of high-intensity wildfire. Furthermore, the targeting of Douglas-fir will help restore more historic stand conditions for these transitional habitats consisting of large-diameter and widely spaced ponderosa pine and an open understory. These goals will likely benefit game and nongame species in the area in the long-term, as long as important habitat features like snags and large downed woody debris are maintained.

DNRC Response:

Unit prescriptions include favoring larger trees for retention. Only large trees infected with disease (mistletoe) would be targeted for removal. Final stands will be primarily large (+21") ponderosa pine with some scattered large (21+") disease free Douglas-fir

FWP looks forward to continued engagement with the DNRC as this project moves forward. We are planning to submit more detailed and specific comments related to timber management once we have had a chance to review the Environmental Assessment and associated maps of cut units. In the coming months, we will be exploring these parcels more fully to help identify key habitat patches and potential impacts with the goal of helping inform timber management practices that will meet DNRC's sustainable yield goals while also protecting the disproportionately important habitat types and habitat features that are found on these parcels.

Thank you for the opportunity to comment. We look forward to working with you on this project.

Comments received from neigboring privat landowner:

1. Road Improvements.

- What are the miles of road that will be improved? Do you have a PDF map you can send?

DNRC Response:

Preliminary project map was sent.

- What specific work will be done to improve the road?

DNRC Response:

Roads would be brought up to BMP compliance. This work includes road widening to accommodate log trucks and improvement of existing drain dips.

- Who will be doing the work?

DNRC Response:

Road work would be completed by the successful bidder/logging contractor.

2. Noxious weed management - Does this mean that weeds will be sprayed?

- If not, what is this part of the project?
- If so, where exactly will the spraying be done?

DNRC Response:

See "vegetation mitigations" pg. 5.

3. Slash piles

- When do you anticipate the slash piles will be burned?
- Will we get notice ahead of time before you are burning?

DNRC Response:

Slash piles will be burned once they are dry and weather conditions allow. This is typically the fall/winter after harvest is complete. Hamilton DNRC will send notice to landowners on when planned burning is to occur.

4. Do you anticipate any road closures here, since we and several others live off Pasture Draw year round.

DNRC Response:

Only gated roads will remain closed. Pasture Draw road will remain open. Signs indicating log truck traffic will be posted.

Comments received from neigboring privat landowner:

8/20/2022

Had a phone conversation with a private landowner who lives at the bottom of Pasture Draw road near the junction with French Basin Road. His concerns were about log truck traffic, particularly the dust created by truck traffic. Wanted to know how DNRC would abate the dust. Also, raised a concern about local residents meeting log truck traffic while they are using Pasture Draw Road.

DNRC Response:

DNRC would require dust abatement on the first mile of Pasture Draw road. Speeds would be limited to 10 mph in the contract for this road. Signs indicating log truck traffic will be posted.