

Banana Fire Salvage & Clark Hinch
Timber Sale
Environmental Assessment
Checklist



Plains Unit
Northwestern Land Office
Montana Department of Natural Resources and
Conservation
October 2025



MEMORANDUM

To: Ty Colombo, Forest Management Supervisor and Joe Buchanan, Management Forester

From: David Olsen, Plains Unit Resource Program Manager

Date: August 5, 2025

RE: Banana Lake Fire Salvage and Clark Hinch Timber Sale Objectives

Primary Objective

The primary objective of the Banana Lake Salvage and Clark Hinch Timber Sale is to generate income for the Common Schools (CS) Trust. The parcels involved in these proposed projects are Banana Lake Fire Salvage in Sections 4 and 5, T20N, R25W and Clark Hinch Timber Sale in Section 16, T21N, R25W. Banana Lake Fire Salvage would provide approximately 1.0 MMBF of merchantable timber toward the FY 2026 Northwestern Land Office timber sale volume target. Clark Hinch Timber Sale would provide an estimated 2.5 MMBF of merchantable timber applied toward meeting the FY 2027 Northwestern Land Office timber sale volume target.

Secondary Objectives

Minimize losses in timber quality and available volume resulting from fire, insect damage and deteriorating stand conditions in the defined project area as well as the surrounding forested land.

Promote the continued presence and/or re-establishment of historically appropriate timber types on Trust Lands included in these projects.

Reduce fire hazard and associated risks of loss to the State of Montana and privately-owned land in the area.

Management Directives

In planning and preparing these projects, requirements and specified actions as designated in the DNRC HCP shall be addressed, management direction from the State Forest Land Management Plan and Administrative Rules shall be followed, and all applicable Streamside Management Zones rules and regulations will be met. Montana Best Management Practices will be applied in all instances.

Environmental Assessment Checklist

Project Name: Banana Fire Salvage/Clark Hinch TS

Proposed Implementation Date: December 2025

Proponent: Plains Unit, Northwest Land Office, Montana DNRC

County: Sanders

Type and Purpose of Action

Description of Proposed Action:

The Plains Unit of the Montana Department of Natural Resources and Conservation (DNRC) is proposing the Banana Fire Salvage and Clark Hinch timber sales. The projects are located approximately 5 and 8 air miles northeast of Plains, MT in the Clark Hinchwood area (refer to Attachments vicinity map A-1 and project maps A-2 – A-4) and includes the following sections:

Beneficiary	Legal Description	Total Acres	Treated Acres
Common Schools	S16 T21N R25W	645.6	609.7
	S4 & S5 T20N R25W	721.3	310.5

Objectives of the project include:

- Capture value of dead/dying timber
- Move stands toward desired future conditions
- Emulate natural disturbance regimes
- Promote/establish regeneration
- Enhance stand growth and vigor
- Address insect and disease issues
- Reduce fuel loading/fire hazard
- Generate revenue for the trust beneficiaries

Proposed activities include:

Action	Quantity
Proposed Harvest Activities	# Acres
Clearcut	
Seed Tree	92.4
Shelterwood	119
Selection	188.9
Old Growth Maintenance/Restoration	23.2
Overstory Removal	86.7
Commercial Thinning	
Fire Salvage	147.2
Total Treatment Acres	657.4
Proposed Forest Improvement Treatment	# Acres
Pre-commercial Thinning	262.8
Site preparation/scarification	41.5
Planting	
Proposed Road Activities	# Miles
New permanent road construction	1.07
New temporary road construction	
Road maintenance	16.24
Road reconstruction	0.77
Road abandoned	
Road reclaimed	
Other Activities	

Duration of Activities:	10 years
Implementation Period:	2026-2036

The lands involved in this proposed project are held in trust by the State of Montana. (Enabling Act of February 22, 1889; 1972 Montana Constitution, Article X, Section 11). The Board of Land Commissioners and the DNRC are required by law to administer these trust lands to produce the largest measure of reasonable and legitimate return over the long run for the beneficiary institutions (Section 77-1-202, MCA).

The DNRC would manage lands involved in this project in accordance with:

- The State Forest Land Management Plan (DNRC 1996),
- Administrative Rules for Forest Management (ARM 36.11.401 through 471),
- The Montana DNRC Forested State Trust Lands Habitat Conservation Plan (HCP) (DNRC 2010)
- and all other applicable state and federal laws.

Project Development

SCOPING:

- DATE:
 - February 24, 2025 to March 31, 2025 (Clark Hinch)
 - July 29, 2025 to September 1, 2025 (Banana Fire)
- PUBLIC SCOPED:
 - The scoping notice was posted on the DNRC Website:
<https://dnrc.mt.gov/News/scoping-notice>
 - Adjacent landowners, statewide scoping list, user groups, posted on DNRC website
- AGENCIES SCOPED:
 - FWP, USFS, Sanders County Weed Control, Plains/Thompson Falls Ranger District, Bonneville Power Administration
- COMMENTS RECEIVED:
 - How many: 1 (Clark Hinch), 0 (Banana Fire)
 - Concerns: 1
 - Montana Fish, Wildlife & Parks
 - Results: FWP raised concerns over ungulate summer/winter forage, maintaining a mosaic landscape with differing silvicultural prescriptions and adverse effects of road construction & maintenance within the Lynch Creek – Clark Fork Grizzly Bear Management Unit. Concerns would be addressed by having multiple different silvicultural prescriptions to maintain a mosaic landscape and corridors. Existing Roads USFS 18270, 18456 and new construction road 16-1 would have gates installed at the property boundary on state land to mitigate impacts due to maintenance, new construction and vehicle use.

DNRC specialists were consulted, including: Victoria Forristal, Tony Nelson and Patrick Rennie

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.

A Short-term Exemption from Montana's Surface Water Quality Standards (318 Authorization) may also be required from DEQ if activities such as replacing a bridge on a stream would introduce sediment above natural levels into streams.

- **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.
- **TRUP from Forest Service-** A Temporary Road Use Permit (TRUP) to utilize roads on Forest Service Lands on USFS 1027 for 8.5 miles from highway 28 to the junction with USFS 18456, 1.6 miles on USFS 16173, 1.1 miles on USFS 18270 and 0.3 miles on USFS 18456. The DNRC would seek to obtain permanent access on Forest Service land along roads USFS 1027, 16173, 18270 and 18456.

ALTERNATIVES CONSIDERED:

No-Action Alternative: Under this alternative, no timber would be harvested and therefore no revenue would be generated from the project area for the Common Schools Trust. Forest health would decline due to bark beetles, root rot and effects from wildfire while fuel loading would increase thus increasing fire danger. Common Schools Trust would continue to lose stumpage value within the stand.

Action Alternative: These commercial timber harvests would take place using ground-based and cable yarding methods on 657.4 acres to remove approximately 5000 tons of non-sawlog and between 3-4 million board feet of timber combined from both sales, generating revenue for the Common Schools Trust. There would be 1.07 miles of new road construction, 0.77 miles reconstruction and 16.24 miles of road improvements. The pre-commercial timber thinning would take place using hand-felling methods on 262.8 acres to allow established regeneration of seral species to release. Forest health would improve by reducing the possibility of insect and disease activity, established regeneration of seral species would release and fuel loading would decrease thus decreasing fire danger. Timber sale design would promote and reestablish timber types historically found in these areas.

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:

Harvest Unit	Habitat Group	Fire Regime	Current Cover Type	Age Class (years)	DFC	RX	Acres
16-1	Cool and moderately dry (westside)	Mixed	Subalpine Fir	Old Growth	Western Larch/Douglas Fir	Old Growth Management	23.2
16-2	Moderately cool and dry (westside)	Mixed	Mixed Conifer	100-149	Western Larch/Douglas Fir	Seed Tree	4.9
16-3	Moderately cool and dry (westside)	Mixed	Western Larch/Douglas Fir	100-149	Western Larch/Douglas Fir	Seed Tree	16
16-4	Moderately cool and dry (westside)	Mixed	Mixed Conifer	100-149	Western Larch/Douglas Fir	Shelterwood Harvest	29.4
16-5	Moderately cool and dry (westside)	Mixed	Mixed Conifer	100-149	Western Larch/Douglas Fir	Shelterwood Harvest	3.2
16-6	Cool and moderately dry (westside)	Mixed	Western Larch/Douglas Fir	100-149	Western Larch/Douglas Fir	Overstory Removal	19.3
16-7	Moderately cool and dry (westside)	Mixed	Western Larch/Douglas Fir	100-149	Western Larch/Douglas Fir	Seed Tree	21.7
16-8	Moderately cool and dry (westside)	Mixed	Western Larch/Douglas Fir	100-149	Western Larch/Douglas Fir	Shelterwood Harvest	48.2
16-9	Moderately cool and dry (westside)	Mixed	Western Larch/Douglas Fir	100-149	Western Larch/Douglas Fir	Shelterwood Harvest	38.2
16-10	Cool and moderately dry (westside)	Mixed	Subalpine Fir	100-149	Western Larch/Douglas Fir	Overstory Removal	28.1

16-11	Cool and moderately dry (westside)	Mixed	Western Larch/Douglas Fir	100-149	Western Larch/Douglas Fir	Individual/Select Tree Harvest	25.6
16-12	Moderately cool and dry (westside)	Mixed	Western Larch/Douglas Fir	100-149	Western Larch/Douglas Fir	Seed Tree	9.1
16-13	Cool and moderately dry (westside)	Mixed	Western Larch/Douglas Fir	100-149	Western Larch/Douglas Fir	Seed Tree	9.5
16-14	Cool and moderately dry (westside)	Mixed	Western Larch/Douglas Fir	100-149	Western Larch/Douglas Fir	Overstory Removal	34.6
16-15	Cool and moderately dry (westside)	Mixed	Lodgepole Pine	100-149	Western Larch/Douglas Fir	Seed Tree	31.2
16-16	Cool and moderately dry (westside)	Mixed	Western Larch/Douglas Fir	40-99	Western Larch/Douglas Fir	Overstory Removal	4.7
16-1PCT	Cool and moderately dry (westside)	Mixed	Lodgepole Pine	0-39	Western Larch/Douglas Fir	Precommercial Thinning	77.1
16-2PCT	Cool and moderately dry (westside)	Mixed	Subalpine Fir	0-39	Western Larch/Douglas Fir	Precommercial Thinning	63.8
16-3PCT	Cool and moderately dry (westside)	Mixed	Lodgepole Pine	0-39	Western Larch/Douglas Fir	Precommercial Thinning	57.3
16-4PCT	Cool and moderately dry (westside)	Mixed	Western Larch/Douglas Fir	0-39	Western Larch/Douglas Fir	Precommercial Thinning	64.6
4-1	Warm and Dry (westside)	Low to mixed	Ponderosa Pine	40-99	Ponderosa Pine	Individual Tree Selection	122.6
5-1	Warm and Dry (westside)	Low to mixed	Ponderosa Pine	40-99	Ponderosa Pine	Fire Salvage	147.2
5-2	Warm and Dry (westside)	Low to mixed	Ponderosa Pine	40-99	Ponderosa Pine	Individual Tree Selection	25.9
5-3	Warm and Dry (westside)	Low to mixed	Ponderosa Pine	40-99	Ponderosa Pine	Individual Tree Selection	14.8

Fire Hazard/Fuels: Fire mortality, insect infestations and root rot have led to an abundance of dead-standing and downed timber that poses hazardous fuels conditions. The current arrangement and volume of ground fuels and dead-standing timber increases probability of high fire intensity. A portion of the project area (Banana Fire Salvage) is located within the wildland-urban interface.

Insects and Diseases: Root rot (*Armillaria ostoyae* & *Phaeolus schweinitzii*) in Douglas fir, signs of active and old Douglas-fir beetle (*Dendroctonus pseudotsugae*) as a primary and secondary infestation from trees affected by root rot. Dwarf mistletoe is present throughout the Western larch and Douglas fir. Signs of previous Mountain pine beetle (*Dendroctonus ponderosae*) outbreak affected Lodgepole pine.

Sensitive/Rare Plants: No plant species of concern identified by the MNHP in the project area.

Noxious Weeds: Houndstongue (*Cynoglossum officinale*) was identified in the project area

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														
Current Cover/DFCs		X				X				X			N	
Age Class	X				X				X					
Old Growth	X				X				X					
Fire/Fuels				X				X				X	N	
Insects/Disease				X				X				X	N	
Rare Plants	X				X				X					
Noxious Weeds		X				X				X			N	
Action														
Current Cover/DFCs			X			X				X			Y	V-1
Age Class			X			X				X			N	
Old Growth		X				X				X			Y	V-1
Fire/Fuels			X				X				X		Y	V-1
Insects/Disease			X				X				X		Y	V-1
Rare Plants	X				X				X				Y	V-1
Noxious Weeds		X				X				X			Y	V-1

Comments: V-1; See vegetation mitigations

- *Vegetation Mitigations:*
- Trees would be harvested based on the designated silvicultural prescription in each harvest unit to move towards the stands desired future conditions.

- Field verification of one old growth stand in the Clark Hinch Project area showed that the stand did meet the minimum number of large trees and minimum age required to be old growth. Therefore, there is old growth present in the project area that is being managed for old growth.
- Dead/dying trees are found throughout the whole project area which has increased the amount of standing and down woody debris. The Banana Lake area has had recent fire mortality in a portion of the stand, and the Clark Hinch area has significant insect and disease mortality. By removing dead or susceptible species, the amount of down woody debris/fuel loading that is accrued will create a more natural fire regime.
- To minimize the potential for the spread of noxious weeds, off-road equipment would be cleaned and inspected as required in the timber sale contract to avoid seed migration. Roadsides would be sprayed post-harvest.
- If any sensitive plant species are observed within the project area, an equipment restriction zone would be made around the specimen and a plant survey would be completed.

SOIL DISTURBANCE AND PRODUCTIVITY: The landform and parent materials in the project area are generally quartzite and argillite bedrock soils with small areas of glacial till or glacial drift influence. The majority of the bedrock consists of slightly metamorphosed sedimentary rocks formed from sand, silt, clay, and carbonate materials deposited in an ancient shallow sea during the Precambrian period.

Soil Disturbance and Productivity Existing Conditions: There are approximately 14.0 miles of low to moderate standard existing road within and leading to the proposed Clark Hinch project area, and approximately 3.51 miles of existing roads would be used to access the Banana Fire Salvage. Timber harvesting activities in the proposed project area began in the 1940s-1950s. The most recent timber management in the project area was completed in the 1990s with numerous timber permits also occurring. Existing skid trails from prior entries are ameliorating due to root penetration and frost action and impacts from past entries are abating, though still identifiable on the ground. The roads and skid trails are not an existing source of erosion or sediment delivery.

Soil Disturbance and Productivity	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
No-Action														
Physical Disturbance (Compaction and Displacement)	X				X				X					
Erosion	X				X				X					
Nutrient Cycling	X				X				X					
Slope Stability	X				X				X					
Soil Productivity	X				X				X					
Action														

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		
Physical Disturbance (Compaction and Displacement)		X				X				X			Y	S-1
Erosion		X				X				X			Y	S-2
Nutrient Cycling		X				X				X			Y	S-3
Slope Stability	X				X				X					
Soil Productivity		X				X				X			Y	S-4

Comments:

S-1: Based on DNRC soil monitoring on similar soils with a similar harvest intensity, approximately 10.5% of both proposed harvest areas may be in an impacted condition (DNRC, 2006). This level is below the range analyzed for in the *EXPECTED FUTURE CONDITIONS* section of the *SFLMP*, and well within the 20-percent impacted area established as a level of concern in the *SFLMP* (DNRC 1996). This level translates to a low risk of low direct, secondary and cumulative impacts to soil physical disturbance.

S-2: Clark Hinch – Low impacts to soil erosion are possible due to exposure of bare soil during felling and yarding operations and road construction activities. Risk of erosion would be mitigated by implementing all applicable BMPs to harvesting and road building activities.

Banana Fire Salvage – Low impacts to soil erosion are possible due to exposure of bare soil during salvage yarding operations. Burn intensity was low to moderate throughout the fire activity on state lands, so no risk of hydrophobic soils was identified. Risk of erosion would be mitigated by implementing all applicable BMPs to harvesting and road building activities.

S-3: Based on research by Graham, et. al. (1994), habitat types found in each project area should have 7-24 tons/acre of coarse woody debris for nutrient cycling. Logging residue left on the ground as mitigation would have a positive effect on nutrient cycling and improve the project area over the current condition. Snags left behind after fire salvage in the Banana Fire Salvage area would also provide additional input of downed woody debris.

S-4: Soil productivity would be impacted by road construction and the use of ground-based machinery to yard timber in both project areas. As stated in comment **S-1**, levels of ground disturbance are expected to be less than 10.5% with roads included, which is well below the range analyzed for in the *EXPECTED FUTURE CONDITIONS* section of the *SFLMP*, and well within the 20-percent impacted area established as a level of concern in the *SFLMP* (DNRC 1996). This level translates to a low risk of low direct, secondary and cumulative impacts to soil productivity.

Soil Mitigations:

- Operate ground-based equipment only during periods of dry, frozen or snow-covered conditions

- Space skid trails a minimum of 60 feet apart to minimize areas impacted by ground-based equipment. Land types in the proposed project area are prone to impacts from soil displacement
- Use existing skid trails if they are in suitable locations to minimize potential for cumulative impacts to soil physical disturbance
- Leave approximately 7-24 tons per acre of woody material 3-inches in diameter or greater on the ground for nutrient cycling

WATER QUALITY AND QUANTITY:

An unnamed perennial class 1 tributary to Clark Creek flows through the Clark Hinch proposed project area. Several additional stream channel reaches were identified throughout the Clark Hinch project area.

The Banana Fire Salvage project area had no stream channels identified during field reconnaissance. Then northwest corner of section 4 of the proposed salvage area had a perennial wetland and developed water source identified during field reconnaissance.

Water Quality and Quantity Existing Conditions: Clark Creek is a perennial, fish-bearing class 1 stream. The unnamed tributaries to Clark Creek found in the Clark Hinch project area are perennial but likely do not have sufficient flow to support fish populations. No fish were identified during field reconnaissance. All stream reaches were found to be stable and not actively eroding laterally or vertically.

Water Quality & Quantity	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
No-Action														
Water Quality	X				X				X					
Water Quantity	X				X				X					
Action														
Water Quality		X				X				X			Y	WQ-1
Water Quantity		X				X				X			Y	WQ-2

Comments:

WQ-1: All requirements found in ARM 36.11.301-313, and ARM 36.11.421-427 would be implemented, where applicable. In addition, all applicable forest management BMPs would be implemented. These measures would minimize any potential risk of sediment delivery to a stream or draw and leave a low risk of direct, secondary or cumulative impacts to water quality. All applicable BMPs, SMZ rules and HCP commitments would be implemented in order to minimize the risk of impacts to water quality. These measures would mitigate the potential impacts of proposed timber harvesting activities as well as the construction of approximately 1.07 miles of new permanent roads in the Clark Hinch project area. No road construction is proposed with the Banana Fire Salvage

WQ-2: There is a low risk of any proposed activities leading to increases in water quantity sufficient to destabilize any project area stream channel due to the size of the watershed relative to the proposed harvesting, the stable nature of the stream channels within the proposed project areas and the well-drained nature of the soils in the project areas.

Water Quality & Quantity Mitigations:

- Minimize use of ground-based equipment in swale and draw bottoms to avoid concentration of runoff.

FISHERIES:

Fisheries Existing Conditions: An unnamed tributary to Clark Creek flows through the Clark Hinch parcel proposed project area. According to FishMT, Clark Creek contains a population of Westslope cutthroat trout. No fish were observed in any of the perennial tributaries to Clark Creek during field reconnaissance, and late season flows were low enough that viable habitat is doubtful in the reaches located within the Clark Hinch proposed project area.

No surface water features were identified in the Banana Fire Salvage project area, so no further analysis will pertain to that project.

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):

Fisheries	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
No-Action														
Sediment	X				X				X					
Flow Regimes	X				X				X					
Woody Debris	X				X				X					
Stream Shading	X				X				X					
Stream Temperature	X				X				X					
Connectivity	X				X				X					
Populations	X				X				X					
Action														
Sediment		X				X				X			Y	F-1
Flow Regimes	X				X				X					
Woody Debris		X				X				X			Y	F-1
Stream Shading		X				X				X			Y	F-1
Stream Temperature		X				X				X			Y	F-1
Connectivity	X				X				X					

Fisheries	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
Populations		X				X				X			Y	F-2

Comments:

F-1: All requirements found in ARM 36.11.301-313, and ARM 36.11.421-427 would be implemented, where applicable. In addition, all applicable forest management BMPs and Montana DNRC's Habitat Conservation Plan would be implemented. These measures would minimize any potential risk of sediment delivery to a fish-bearing stream and leave a low risk of direct, secondary or cumulative impacts to water quality and fish habitat.

F-2: Provided the measures listed in F-1 and the mitigation measures listed in the water quality portion of this analysis are followed, there is a very low risk of adverse direct, secondary or cumulative impacts to fish populations as a result of the proposed project.

Fisheries Mitigations:

- Based on site-potential tree heights, a 97-foot riparian management zone (RMZ) would be implemented on all class 1 streams. No harvesting is proposed within the RMZ. Follow all requirements of ARM 36.11.425 to ensure woody debris, stream shading and stream temperature values are maintained

WILDLIFE:

Wildlife Existing Conditions: The Project Area includes two DNRC-managed parcels located approximately 3 miles apart. The Project Area consists of 1,366 acres which are included in DNRC's Habitat Conservation Plan (USFWS and DNRC 2010). The 646-acre Clark Hinchwood parcel (S16 T21N R25W) consists of approximately 301 acres of mature (trees ≥9" dbh with ≥40% canopy closure) Douglas-fir and western larch stands. Of these acres, approximately 34 acres are considered old growth by Green et. al. (1992) standards. The remainder of the parcel includes approximately 314 acres of dense regenerating forest and 30 non-forested acres that consist mainly of scree fields. Insects and disease are impacting portions of the mature forest stands. The parcel contains approximately 3.1 miles of restricted road and no open roads. Other uses of the parcel include a permit for a 10.1-acre rock quarry, and a seasonal cattle grazing lease. The 721 acres of the Project Area in the Banana Lake area (S4 & 5 T20N R25W) include 242 acres that were burned in the Banana Lake Fire in June of 2025. The remainder of the parcel consists of approximately 63 acres of mature (trees ≥9" dbh with ≥40% canopy closure) ponderosa pine, Douglas-fir, and western larch stands; approximately 346 acres of regenerating stands, and 70 non-forested acres primarily due to the Highway 28 and powerline corridors. There is a grazing lease in the Banana Lake portion of the Project Area. There is no old-growth forest in this portion of the Project Area. There are approximately 6.8 miles of open road and 0.7 miles of restricted road in the Banana Lake portion of the Project Area. In total, the Project Area contains 365 acres of mature forest and receives low levels on non-motorized human use. Overall, the Project Area provides a variety of habitat conditions for native wildlife species. Cumulative effects analysis areas (CEAA) encompass lands near the Project Area and include

the 13,374-acre Small CEAA for animals with smaller home ranges like pileated woodpeckers and a 39,022-acre Large CEAA for animals that travel across larger areas such as Canada lynx and big game. Approximately 2.1% (878 acres) of the Large CEAA was impacted by the Banana Lake Fire in 2025. Additional information on cumulative effects analysis areas and analysis methods is available upon request.

No-Action Alternative: None of the proposed activities would occur. In the short term, no changes to the amounts, quality, or spatial arrangement of forested or burned habitat would occur and wildlife would not be displaced by logging activities. Gradual reductions in canopy cover and mature forest habitat suitability are likely to continue due to tree mortality from insects and disease. Regenerating forest stands would continue to mature. In the short term and in the absence of other natural disturbance, current wildlife habitat conditions would be expected to remain similar to current conditions under the No-Action Alternative.

Action Alternative (see Wildlife table below):

Action Alternative (see Wildlife table below):

Wildlife	Impact												Can Impact be Mitigated?	Comment Number	
	Direct				Secondary				Cumulative						
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High			
Threatened and Endangered Species															
Grizzly bear <i>(Ursus arctos)</i> Habitat: Recovery areas, security from human activity	X				X				X					Y	WI-1
Lynx <i>(Felis lynx)</i> Habitat: SF hab.types, dense sapling, old forest, deep snow zone		X				X				X				Y	WI-2
Yellow-billed cuckoo <i>(Coccyzus americanus)</i> Habitat: open cottonwood riparian forest with dense brush understories (Lake and Flathead counties)	X				X				X						WI-3
Wolverine <i>(Gulo gulo)</i> Habitat: high elevation areas that retain high snow levels in late spring	X				X				X						WI-3
Sensitive Species															
Bald eagle <i>(Haliaeetus leucocephalus)</i> Habitat: Late-successional forest		X				X				X				Y	WI-4

Wildlife	Impact												Can Impact be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
within 1 mile of open water														
Black-backed woodpecker <i>(Picoides arcticus)</i> Habitat: Mature to old burned or beetle-infested forest				X				X			X		Y	WI-5
Common loon <i>(Gavia immer)</i> Habitat: Cold mountain lakes, nest in emergent vegetation	X				X				X					WI-3
Fisher <i>(Martes pennanti)</i> Habitat: Dense mature to old forest less than 6,000 feet in elevation and riparian			X				X			X				WI-6
Flammulated owl <i>(Otus flammeolus)</i> Habitat: Late-successional ponderosa pine and Douglas-fir forest			X				X			X			Y	WI-7
Peregrine falcon <i>(Falco peregrinus)</i> Habitat: Cliff features near open foraging areas and/or wetlands	X				X				X					WI-3
Pileated woodpecker <i>(Dryocopus pileatus)</i> Habitat: Late-successional ponderosa pine and larch-fir forest				X				X		X			Y	WI-8
Fringed myotis <i>(Myotis thysanodes)</i> Habitat: low elevation ponderosa pine, Douglas-fir and riparian forest with	X				X				X					WI-3

Wildlife	Impact												Can Impact be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
diverse roost sites including outcrops, caves, mines														
Hoary bat <i>(Lasiurus cinereus)</i> 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 <i>(Plecotus townsendii)</i> Habitat: Caves, caverns, old mines	X				X				X					WI-3
Big Game Species														
Elk			X				X			X			Y	WI-10
Whitetail			X				X			X			Y	WI-10
Mule Deer			X				X			X				WI-10
Moose		X				X				X				WI-10
Other														
Mature Forest				X				X		X			N	WI-11
Old Growth		X				X				X				WI-11

Comments:

WI-1. Grizzly Bear - The Project Area is over 7 miles from the grizzly bear recovery zone associated with the Cabinet-Yaak Ecosystem (USFWS 1993, Wittinger 2002). While the occasional presence of a grizzly bear in the Project Area is possible, appreciable use by grizzly bears would not be expected due to the absence of preferred habitat and low bear densities. The greatest risks to bears within the larger surrounding area would continue to be human habitations and associated attractants that bring bears into conflict with people. Mitigations included under the Action Alternative would require contractors to manage potential attractants to minimize conflicts.

WI-2. Canada Lynx – Approximately 10 acres of suitable lynx habitat exists in the Banana Lake portion of the Project Area and would not be impacted by proposed harvest. Approximately 429 acres, or 87.0%, of suitable lynx habitat in the Clark Hinchwood parcel would be affected by the proposed Action Alternative. Precommercial thinning, old growth maintenance, and overstory removal prescriptions on 280 acres (65.2% of existing suitable habitat in the Clark Hinchwood parcel) would maintain a total canopy closure of ≥40% after harvest. Therefore, these areas would continue to provide suitable lynx habitat immediately post-harvest, albeit the quality of some habitat attributes would be reduced. Approximately 149 acres (30.2% of existing suitable habitat in the Clark Hinchwood parcel) would undergo seed tree, shelterwood, or individual tree selection and would become temporarily unsuitable lynx habitat after harvest because of the reduction in canopy closure. Post-harvest, approximately 53.2% of the Clark Hinchwood parcel would remain suitable lynx habitat (25.9% of the total Project Area which

includes Banana Lake area). Habitat connectivity in the Clark Hinchwood parcel would be maintained along SMZs and some ridges where pre-commercial thinning is proposed. Suitable lynx habitat would remain moderately abundant (39.7% of Large CEAA) and moderately well-connected in the Large CEAA after harvest. To ensure that 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 suitable lynx habitat per LY-HB4.1 and LY-HB4.2 (*USFWS and DNRC 2010*). Additionally, 7 to 24 tons/acre of coarse woody debris would be retained in accordance with DNRC Forest Management Rules (*ARM 36.11.414*) and retention of downed logs ≥ 15 inch diameter would be emphasized. Recent observations of lynx in the vicinity are lacking (MNHP 2025); however, any lynx that might be using the Project Area could be displaced for up to four years by the proposed activities.

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. Bald Eagle – A portion of the Project Area is within the nest site area and the primary use area of the Rainbow Lake bald eagle pair. The territory has been consistently occupied for over a decade (MNHP 2025) and was active during the summer of 2025. Proximity of the nest sites to open roads suggests that these eagles are habituated to some human disturbance. No harvesting would occur within 330 feet of the nest. To protecting nesting bald eagles, harvest activities would be restricted from February 1-August 15 within $\frac{1}{2}$ mile of the nest if the nest is occupied. To retain habitat characteristics important to bald eagles, at least 2 large snags and 2 large snag recruitment trees per acre (>21 inches dbh) would be retained as well as at least 33 trees per acre over 8" dbh.

WI-5. Black-backed Woodpecker – In June of 2025, the Banana Lake Fire burned approximately 828 acres in the vicinity of the Project Area. Within the Project Area, approximately 242 acres were burned. Larger trees and higher density snag patches which are habitat characteristics favored by black-backed woodpeckers for nesting and foraging (Saab et. al. 2002, Saab et. al. 1998). The density and size of burned snags varies throughout the proposed harvest area and approximately 214 acres have characteristics sufficient to provide habitat for black-backed woodpeckers. To retain habitat characteristics important to black-backed woodpeckers, approximately 21 acres representative of the burn would remain unharvested. In salvage harvest units, sub-merchantable burned trees would be left standing where possible.

WI-6. Fisher – There are approximately 10 acres of existing, potentially suitable fisher habitat in the Banana Lake portion of the Project Area. None of these acres would be impacted by the action alternative. Approximately 110 acres of suitable fisher habitat in the Clark-Hinchwood parcel would be affected by the proposed activities (78.0% of fisher habitat available in the Clark Hinchwood parcel). Due to the reduction in canopy cover, these acres would all be temporarily unsuitable for fisher use post-harvest. Existing habitat connectivity in the parcel is low due to regenerating areas that do not contain the structural complexity required by fishers and interspersed cover types that are not suitable for fisher use. Connectivity would be further reduced by harvest, and the 34 acres (5.2% of Clark Hinchwood parcel) of remaining suitable habitat would be limited to the southwest portion of the parcel, however; remaining suitable habitat in the Project Area would be connected to potentially suitable habitat in the Large CEAA. The proposed harvest would reduce fisher habitat in the Large CEAA by less than 1%, and 32.2% of the Large CEAA would be potentially suitable fisher habitat post-harvest. To reduce some potential adverse effects on fishers, at least 2 large snags and 2 large snag recruitment trees per acre (>21 inches dbh) would be retained (*ARM 36.11.411*). These snags and large

trees are important habitat features that provide resting and denning sites for fishers (Olson 2014). Approximately 1.1 miles of new permanent roads would be constructed in the Clark Hinchwood parcel, which could increase fur trapper access. However, three new gates would be installed at the property boundary which would limit public access on the parcel to non-motorized use year-round. Should any fishers be present within the CEAA, habitat alteration and potential disturbance would be additive to any activities occurring or planned on surrounding lands.

WI-7. Flammulated Owl – The proposed timber harvest would affect approximately 143 acres, or 58.4%, of suitable flammulated owl habitat in the Project Area. Due to the low density of mature trees that would remain after the proposed seed tree and shelterwood harvests, 80 acres, or 32.9% of available habitat in the Project Area, would no longer be suitable for flammulated owl use. Proposed individual tree selection treatments would favor mature seral species and would maintain more open forest stand conditions potentially beneficial to flammulated owls on 63 acres. In total, 164 acres (12.0% of the Project Area) of suitable flammulated owl habitat would remain in the Project Area post-harvest. Flammulated habitat in the Small CEAA is limited and patchy. Harvest would reduce flammulated owl habitat in the Small CEAA by 8.1% and approximately 908 acres of flammulated owl habitat would remain in the Small CEAA. 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*).

WI-8. Pileated Woodpecker – Under the action alternative, 200 acres of suitable pileated woodpecker habitat (73.0% of habitat in the Project Area, 4.0% of habitat in the Small CEAA) would be affected. Proposed harvest would reduce the mature canopy cover such that these stands would be unsuitable for breeding pileated woodpecker use post-harvest. After the proposed harvest, approximately 5.4% (74 acres) of the Project Area would remain suitable pileated woodpecker habitat. In the Clark Hinchwood parcel; the remaining suitable habitat would consist of relatively small patches and narrow corridors. Small, isolated patches of habitat would remain in the southern portion of the Banana Lake area. Overall, the amount and configuration of habitat remaining in the Project Area is not likely to support a breeding pair of pileated woodpeckers. To reduce 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, 7 to 24 tons/per acre of downed wood would be retained. Suitable habitat in the Small CEAA would be reduced from 37.2% (4,969 acres) to 35.7% (4,769 acres). After harvest, connectivity through the center of the Small CEAA surrounding the Clark Hinchwood parcel would be low due to the proposed harvest and prior harvest. Proposed harvest in the Banana Lake portion would have a minor affect on connectivity in that area. Continued use of the Small CEAA by pileated woodpeckers would be likely.

WI-9. Hoary bat – The proposed activities would affect approximately 826 acres of potential hoary bat habitat. Hoary bats typically roost in tree foliage (Bachen et al. 2020) and if present they could be temporarily displaced by timber harvesting. Potential disturbance would only be expected from late May through September, when hoary bats are in Montana. 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. The Project Area and Small CEAA would likely remain occupied by hoary bats during and after harvest, as hoary bats are considered common and widespread throughout Montana (Bachen et al. 2020).

WI-10. Big Game – The Project Area provides winter range habitat for white-tailed deer, elk, mule deer, and elk ((DFWP 2008, DFWP 2025). The proposed timber harvest would remove 159 acres of thermal cover/snow intercept (63.0% of available) in the Project Area. Mature tree canopy cover would be reduced such that there would be little capacity of these stands to provide thermal cover during winter conditions. Thermal cover/snow intercept would remain on approximately 93 acres, or 6.8% of the Project Area. The proposed activities would impact approximately 635 acres, or 67.5% of available hiding cover in the Project Area. The proposed seed tree, shelterwood, and individual tree selection prescriptions would remove 356 acres (37.8% of available) of hiding cover. Overstory removal, old growth maintenance, and pre-commercial thinning prescriptions would retain enough vegetation to continue providing hiding cover. Approximately 585 acres, or 42.8% of the Project Area, would remain hiding cover after harvest activities are complete. The reduction in hiding cover could result in increased mortality risk to big game species due to hunting. Approximately 1.1 miles of new permanent restricted road would be constructed in the Clark Hinchwood parcel and three new gates would be installed at the section line of the same parcel. Although the new permanent roads would decrease big game security by facilitating non-motorized access, the new gates would provide consistent, year-round restrictions to public motorized use of the Clark Hinchwood parcel. Overall, this would increase big game security compared to current conditions. No new roads would be built in the Banana Lake portion of the Project Area, and all open roads would remain open after harvest. Approximately 0.4% of thermal cover/snow intercept in the Large CEAA would be removed by the proposed harvest and thermal cover/snow intercept abundance would remain low (16.2% of the Large CEAA). Hiding cover would be reduced by approximately 1.4% in the Large CEAA and remain moderately abundant (25,304 acres or 46.8% of Large CEAA). Minor changes in movement patterns of big game in proximity to the Project Area could occur within the Large CEAA.

WI-11. Mature Forest & Old Growth– Approximately 264 acres of mature forest (72.3% of mature forest within the Project Area) would be altered under the action alternative. This includes harvest of approximately 234 acres of mature forest in the Clark Hinchwood parcel, and 30 acres of mature forest in the Banana Lake portion of the Project Area. The proposed harvest would reduce overstory canopy cover to approximately 5%-35%, which is too open to be considered mature forest. Thus, these stands would no longer be suitable for wildlife species that prefer dense mature forest with more shaded canopies. However, habitat suitability for species that utilize more open forests would increase under the proposed Action Alternative. After harvest, approximately 101 acres (7.4% of the Project Area) of mature forest would remain in the Project Area. In the Clark Hinchwood parcel, the remaining 67 acres of mature forest would be connected primarily in narrow corridors along SMZ/RMZs. In the Banana Lake area, the remaining 33 acres of mature forest would occur mainly in small, scattered, unharvested patches on the southern portion of the Project Area. In the Small CEAA, approximately 6.5% of mature forest would be removed, and mature forest abundance would be reduced from 30.3% to 28.3% (area of the Small CEAA). Mature forest connectivity in the Small CEAA would be reduced, particularly through the core of the Clark Hinchwood area. There is no old growth in the Banana Lake portion of the Project Area. Approximately 23.2 acres (94.7% of existing) of old growth in the Clark Hinchwood parcel would be treated with an old growth maintenance prescription. Under this harvest prescription, old growth, as defined by Green et. al (1992), would be retained post-harvest. Some small openings of less than one acre would occur. The single old growth patch of 25 acres would remain isolated from other old growth habitat. Old growth status is unknown on other ownerships, but abundance and connectivity of old growth is likely limited in the Small CEAA due to past forest management on other ownerships.

Wildlife Mitigations:

- If a threatened or endangered species is encountered, consult a DNRC biologist immediately. Similarly, if undocumented nesting raptors or wolf dens are encountered within 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 36.11.444(2)*.
- Within commercial harvest units, retain patches of advanced regeneration of shade-tolerant trees as per LY-HB4.2 (*USFWS and DNRC 2010*). This applies to all commercial units in the Clark Hinchwood parcel except EA units 16-9 and 16-8. This mitigation does not apply to harvest units in the Banana Lake area.
- In pre-commercial thinning units, retain small, shade-tolerant trees that do not pose competition risks to crop trees as per LY-HB4.1 (*USFWS and DNRC 2010*).
- Prohibit mechanized forest management activities within 1/2 mile of the Rainbow Lake bald eagle nest from February 1 – August 15 to protect nesting bald eagles unless a wildlife biologist determines the nest is inactive (*ARM 36.11.436(7)*).
- Effectively close restricted roads and skid trails in the Project Area via a combination of gates, kelly humps, rocks, and stumps. Maintain public motorized restrictions on restricted roads during and after harvest activities.
- Retain at least 2 snags and 2 snag recruits per acre >21 inches dbh or the next largest available size class, particularly favoring ponderosa pine, western larch, western red cedar and Douglas-fir for retention. If snags are cut for safety concerns, they must be left in the harvest unit.
- Retain 7-24 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 acre LY-HB2 (*USFWS and DNRC 2010*).

Literature:

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- DFWP. 2008. Montana Department of Fish, Wildlife and Parks maps of moose, elk, mule deer, and white-tailed deer distribution in Montana. In Individual GIS data layers. Available online at:
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- 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. 2025. Natural Heritage Map Viewer. Montana Natural Heritage Program. Retrieved on September 22, 2025, from <http://mtnhp.org/MapView>.
- 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.

- Saab, V.A.; R. Brannon, J.G. Dudley, L. Donohue, D. Vanderzanden, V. Johnson, H. Lachowski. 2002. Selection of fire-created snags at two spatial scales by cavity-nesting birds. In: Shea, P.J.; W.F. Laudenslayer Jr., B. Valentine, C.P. Weatherspoon, T.E. Lisle, eds. Proceedings of the symposium on the ecology and management of dead wood in western forests. Gen. Tech. Rep. PNW-GTR-181. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station: 835–848.
- Saab, V.A.; J.G. Dudley. 1998. Responses of cavity-nesting birds to stand replacement fire and salvage logging in ponderosa pine/Douglas-fir forests of southwestern Idaho. Res. Paper RMRS-RP-11. Ogden, UT: Rocky Mountain Research Station, Forest Service, U.S. Department of Agriculture; 17 p.
- USFWS. 1993. Grizzly bear recovery plan. Report on file at Missoula, MT. 181pp.
- USFWS and DNRC. 2010. Montana Department of Natural Resources and Conservation Forested Trust Lands Habitat Conservation Plan, Final Environmental Impact Statement, Volumes I and II., U.S. Department of Interior, Fish and Wildlife Service, Region 6, Denver, Colorado and Montana Department of Natural Resources and Conservation, Missoula, MT.
- Wittinger, W.T. 2002. Grizzly bear distribution outside of recovery zones. Unpublished memorandum on file at USFS, Region 1, Missoula, Montana.

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				N	
Dust	X				X				X				N	
Action														
Smoke		X				X				X			Y	AQ-1
Dust		X				X				X			Y	AQ-2

Comments:

AQ-1: The proposed project is located in Montana State Airshed 2 as designated by the Montana/Idaho Airshed Group. Particulate matter may be introduced into the Airshed from the burning of logging slash. All burning would be conducted following the rules, regulations, and procedures of the DNRC major open burning permit and the Montana/Idaho Airshed Group operations guide. Impacts are expected to be minor and temporary as all slash burning would be conducted burning on days with good to excellent dispersion when smoke would not be expected to impair visibility. Therefore, direct, indirect, and cumulative effects to air quality are expected to be minimal.

AQ-2: Under the action alternative, truck traffic would produce more dust than the no action alternative.

Air Quality Mitigations:

- Only burn on days approved by the Montana/Idaho Airshed group and DEQ.
- Keep truck speeds down to reduce road dust.

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													
Demands on Environmental Resources of Land, Water, or Energy	X				X				X					
Action														
Historical or Archaeological Sites	X				X				X				N	A-1
Aesthetics	X				X				X					
Demands on Environmental Resources of Land, Water, or Energy	X				X				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 and limited field inspection 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, and visiting sites 24SA176 and 24SA220. Site 24SA176 is a series of mature ponderosa pine trees that exhibit bark removal scars. These presumably represent cambium extraction by Native American in the early 20th century based on age of the trees. Site 24SA220 is the location of a Precontact Native American campsite at an active spring. Age of the cultural deposits in the site are presently unknown. It is evidenced by the occasional presence of chipped stone detritus on the present ground surface.

Because both cultural resources are outside the APE, proposed 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.

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.*

- Section 16 had a small scale entry in 1947 and a large scale entry in 1993
- Hot Springs Timber Sale (2005), Lower Corona Timber Sale (2012), Tim Burke Two Timber Sale (2012), ReDeemer Timber Sale (2020) and Clark Hinchwood Rock Permit EA (2023)

Impacts on the Human Population

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

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

Will Alternative result in potential impacts to:	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
Health and Human Safety	X				X				X					
Industrial, Commercial and Agricultural Activities and Production		X				X				X			Y	Q-1
Quantity and Distribution of Employment		X				X				X			N	Q-2
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			Y	Q-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:

- Q-1 There is a grazing lease on both sections within the sale area, the area is used for grazing cattle and has existing barbed wire fence that may be affected. Reducing the canopy cover may result in an increase of forage. The sale activity would affect the cattle and timing for them to graze the area. A commercial rock permit is within section 16, sale activity could affect the ability of the lessee to work in the rock permit area.
- Q-2 According to the Montana Bureau of Business and Economic Research a general rule of thumb is that for every 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 8 person years of employment in the forest products industry. A few short-term jobs would also be created/sustained by issuing contracts following harvest. 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 of employment in the area.

- Q-3 The sale area has a high abundance of activity throughout the year from hunting, hiking and general recreation from the public. New construction of roads and harvesting would open up visuals and pathways for hiking and hunting through the area. Installing gates at the property boundary in section 16 on roads would affect public vehicle access.

Mitigations:

- Q-1 Existing fence that may be damaged or removed for activities related to the sale would be fixed following harvest.
- Q-3 Existing seasonally closed roads (USFS 16173, 18270 and 18456) that would be utilized during harvest operations would be gated on state land and be permanently closed to limit motorized traffic. New construction would be built behind gates.

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:

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 harvests would generate additional revenue for the Common Schools Trust. The estimated return to the trust for the proposed harvest is \$227,500 based on an estimated harvest of 3.5 MM board feet (22,750 tons) and an overall stumpage value of \$10 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?

No

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

No

Environmental Assessment Checklist Prepared By:

Name: Tyrell Colombo & Joe Buchanan

Title: Forest Management Supervisor, Management Forester

Date: October 31, 2025

Finding

Alternative Selected

The Action Alternative is selected for implementation.

Significance of Potential Impacts

No significant impacts were identified.

Need for Further Environmental Analysis

☐

EIS

☐

More Detailed EA

☒

No Further Analysis

Environmental Assessment Checklist Approved By:

Name: David Olsen

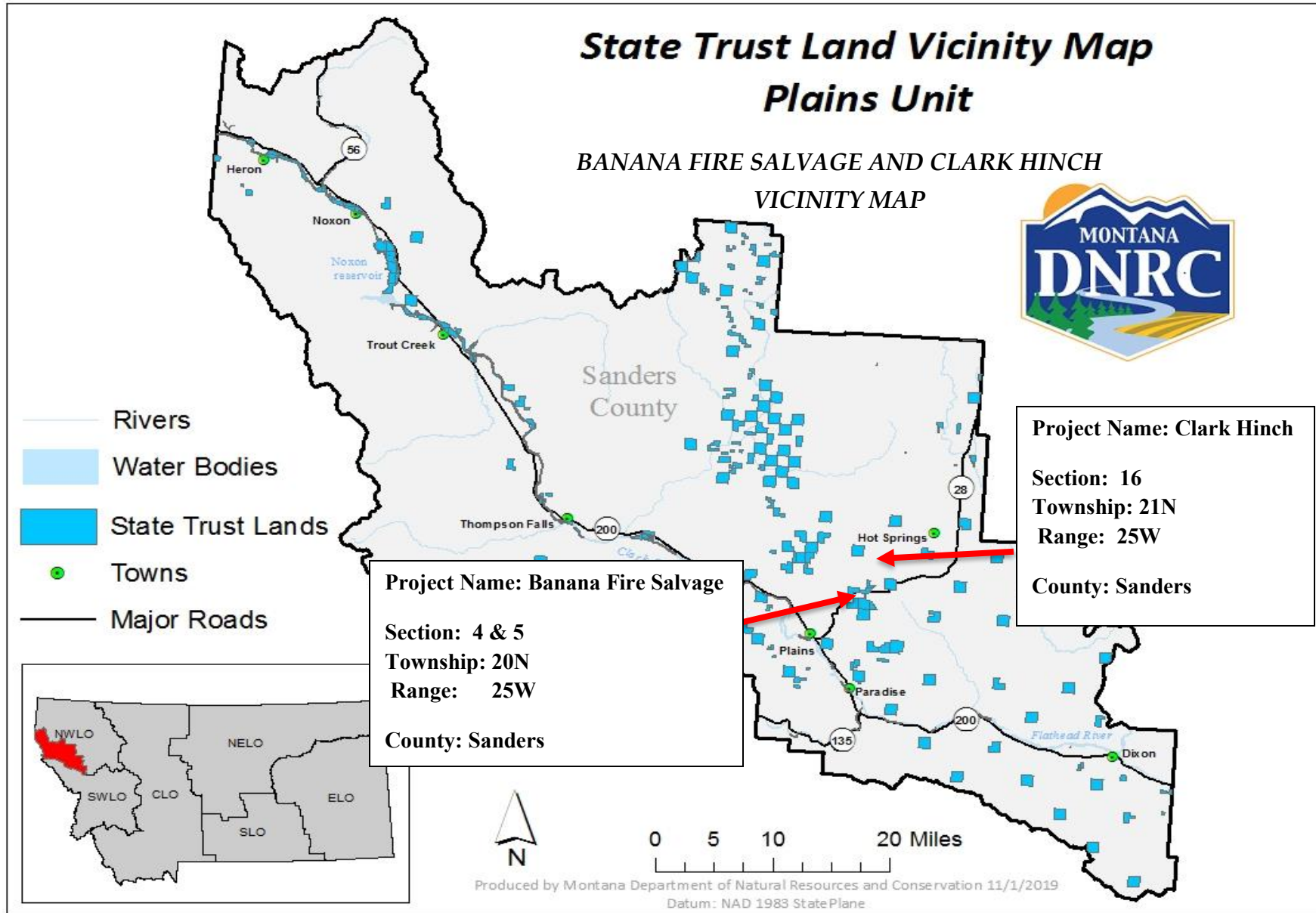
Title: Plains Unit Program Manager

Date: November 3, 2025

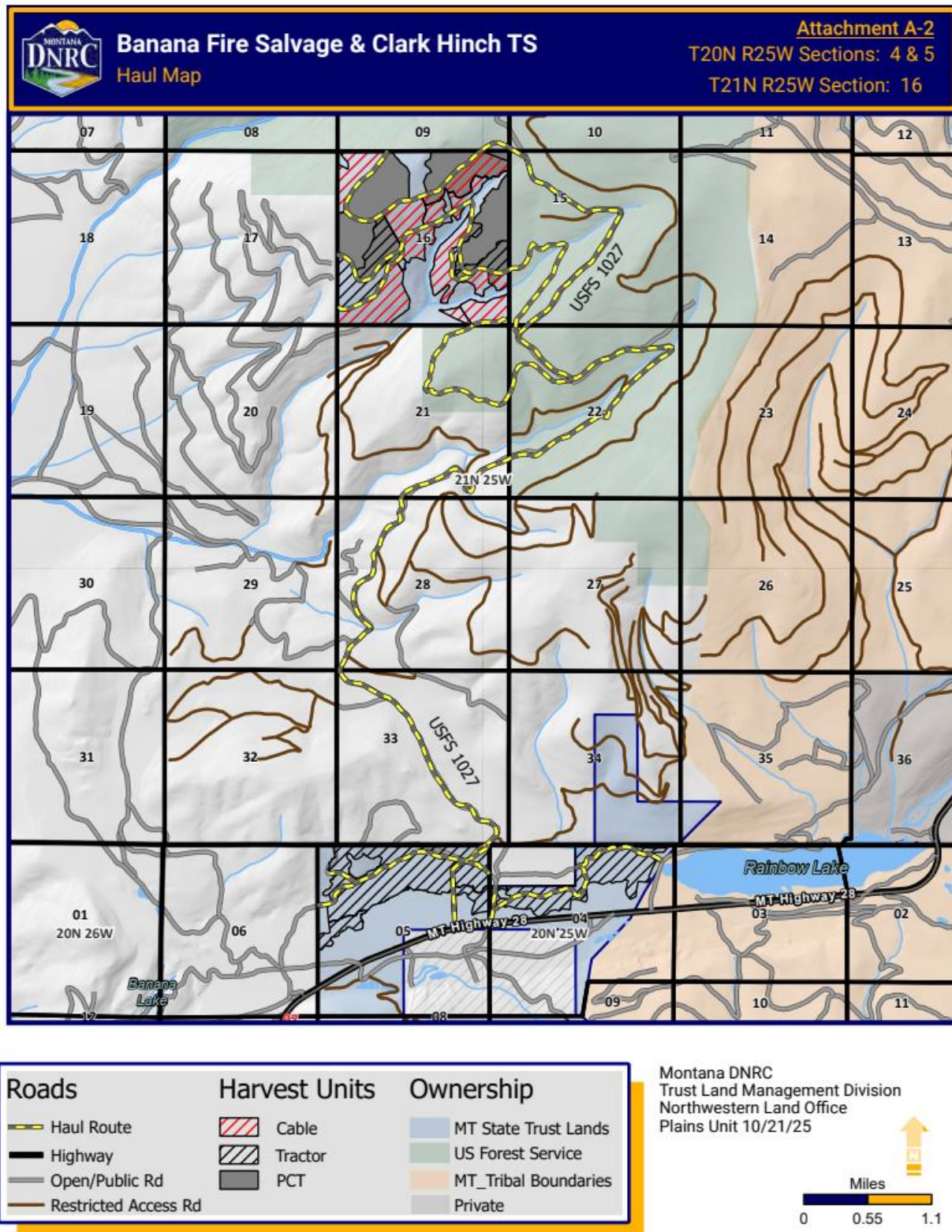
Signature: /s/ *David M. Olsen*

Attachment A - Maps

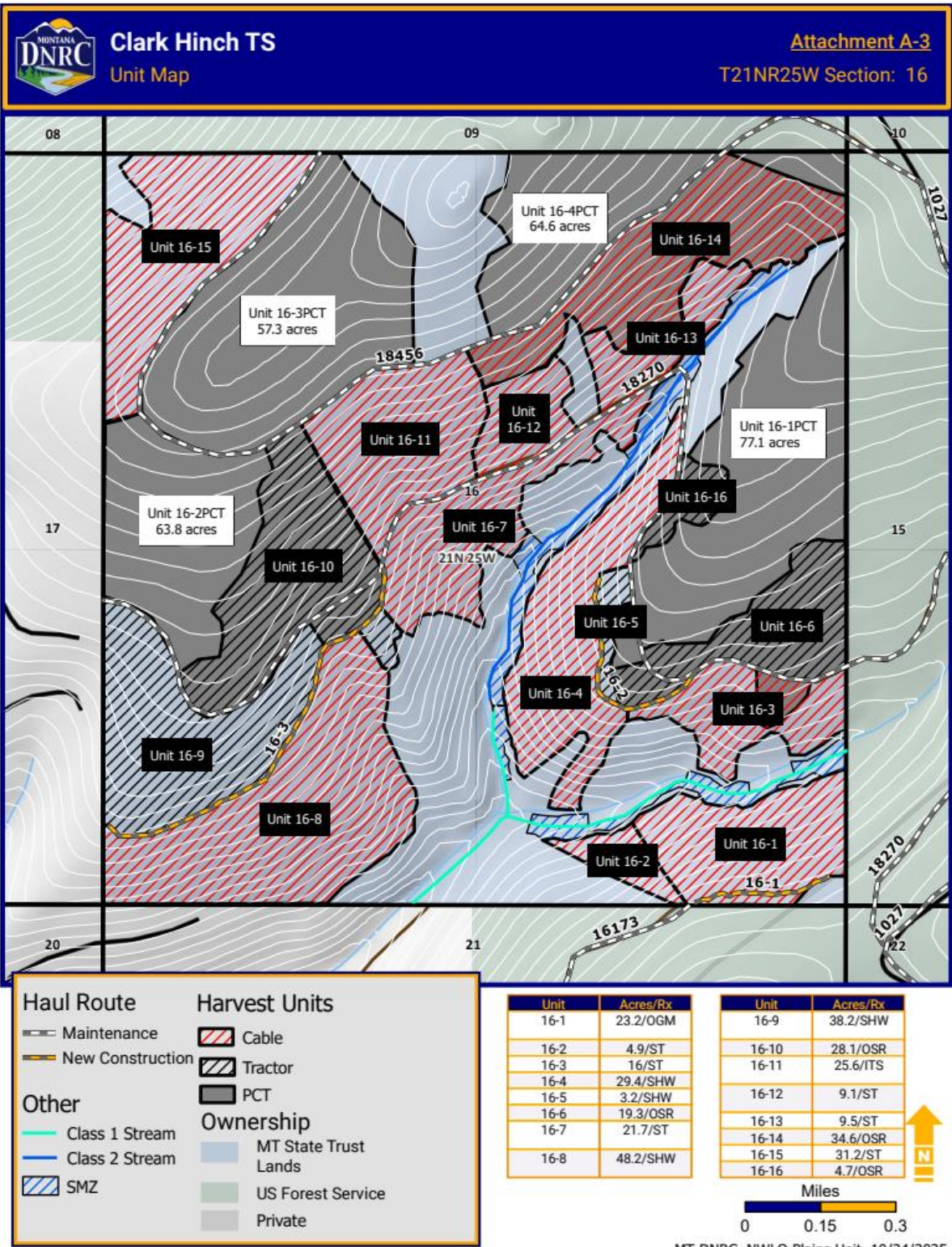
A-1: Timber Sale Vicinity Map



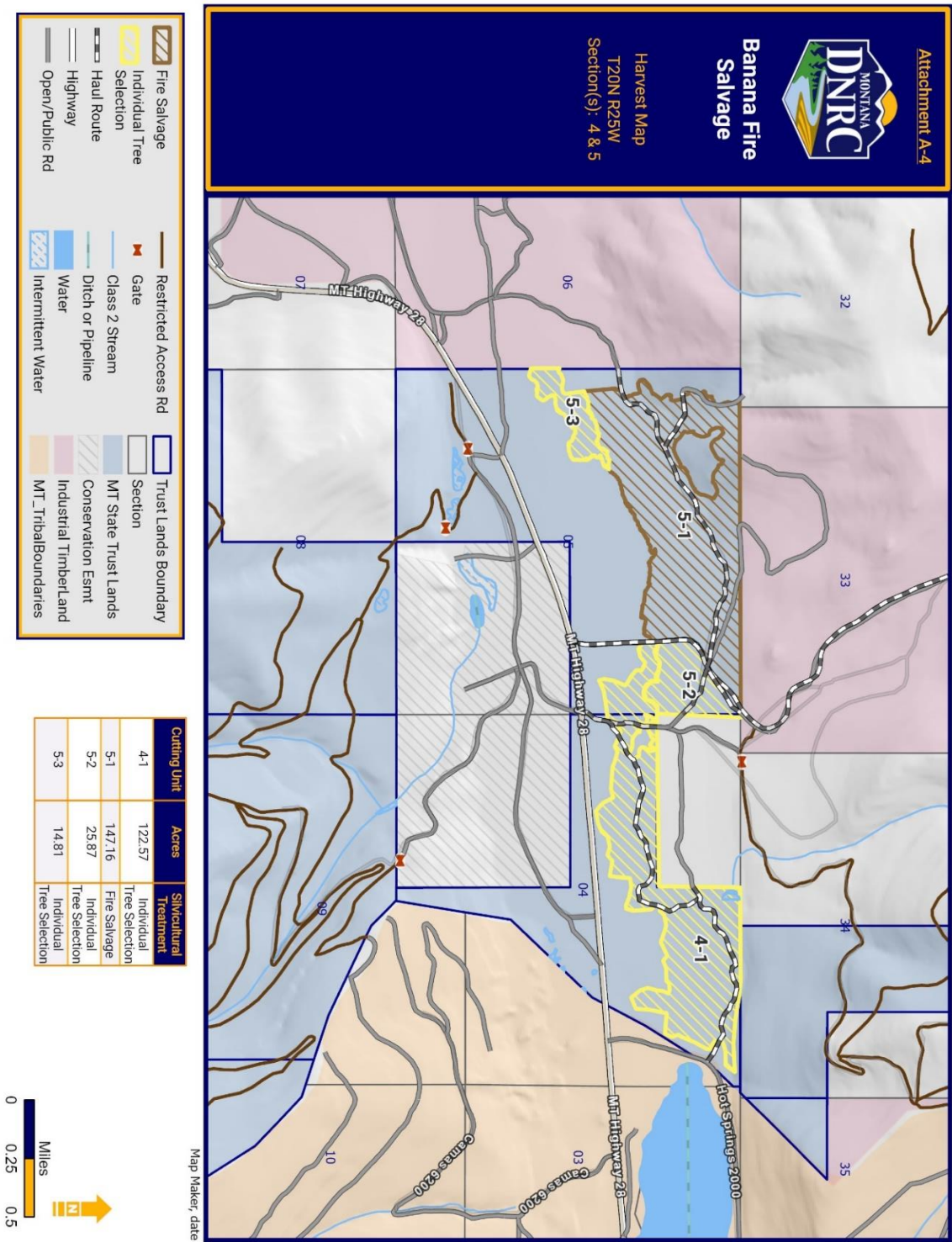
A-2: Timber Sale Haul Route



A-3: Timber Sale Harvest Units



Attachment A-4: Timber Sale Harvest Units



Attachment B-Prescriptions

Timber Sale: Clark Hinch

Cutting Unit: 16-1

EA/EIS: Banana Fire Salvage/Clark Hinch

Field Contact: Joe Buchanan

Land Office: NWLO

Sale Type: Timber Sale

Acres: 23.2

Unit Office: PLN

Planned Sale Date: July 15, 2026

Expected MBF/Acre: 13.5

TRS: 21N 25W 16

Planned FY: 2027

Est. Harvest Volume (MBF): 313

BIODIVERSITY INFORMATION

Losensky Cover Type: SUBALP	Old Growth: YES
Desired Future Condition: Douglas fir/Western larch	Old Growth Rx: Old Growth Maintenance
Habitat Type Group: Cool & moderately dry (westside)	Pre-Harvest Est. Old Growth Acres: 34
Age Class: OLD GROWTH	Post Harvest Est Old Growth Acres: 23.2

UNIT/STAND DESCRIPTION

The forest type for this unit is Douglas fir/Western larch and is composed of Douglas fir, Subalpine fir, Western larch, & Englemann spruce. Fire regime is mixed severity. Old growth cruise for DF/WL was done and has been verified as old growth westside type 5 with one plot significantly influencing results. The stand is well stocked for the entire stand and well stocked for saw timber. The stand structure is multi-storied and regeneration of DF, AF, GF, ES & WL is present. Forest health issues are Douglas fir bark beetle and Root rot in the DF. Stand has good to average vigor.

TARGET STAND CONDITIONS

Remove unhealthy trees, as well as those with poor vigor and to promote long term forest health, growth and vitality. Move this unit toward the desired future condition of Western larch/Douglas-fir and maintaining the stand as a WL/DF old growth stand. Keep an 80 BA and utilize 35 ft spacing of WL, WP, PP & DF. Targeting 17+ DBH trees leaving 10 large TPA with small openings less than 1 acre scattered throughout. Reduce/remove AF, GF and ES component in favor of WL & DF, maintain stand as old growth, and create space for established regeneration to release. Spacing may vary due to pockets of AF, GF and ES. Scarify the site sufficiently to make an available seed bed to promote natural regeneration of seral species.

PRESCRIBED TREATMENT

Silvicultural Treatment: Old Growth Maintenance	EA/EIS Alternative:	Harvest Method: Cable
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LEAVE/CUT TREE INFORMATION

80 BA/35 ft spacing/ 10 TPA 17+ DBH

SITE PREP and REGENERATION

Site Prep Method: SaleSkid	Site Prep Accomplished By: TS Contract	Site Prep Date: July 1, 2033
Regeneration Type:		
Additional Planting Information:		

Timber Sale: Clark Hinch

Cutting Unit: 16-2

EA/EIS: Banana Fire Salvage/Clark Hinch

Field Contact: Joe Buchanan

Land Office: NWLO

Sale Type: Timber Sale

Acres: 4.92

Unit Office: PLN

Planned Sale Date: July 15, 2026

Expected MBF/Acre: 13

TRS: 21N 25W 16

Planned FY: 2027

Est. Harvest Volume (MBF): 64

BIODIVERSITY INFORMATION	
Losensky Cover Type: MC	Old Growth: NO
Desired Future Condition: Western larch/Douglas fir	Old Growth Rx:
Habitat Type Group: Moderately cool & dry (westside)	Pre-Harvest Est. Old Growth Acres:
Age Class: 100-149	Post Harvest Est Old Growth Acres:

UNIT/STAND DESCRIPTION
The forest type for this unit is Douglas fir/Western larch and is composed of Western larch, Douglas fir, Grand fir and Subalpine fir. Fire regime is mixed severity. Age class is 100-149 years old and is well stocked for the entire stand and well stocked for saw timber. The stand structure is multi-storied with regeneration of DF, GF, WL & LP present. Forest health issues include Douglas fir bark beetle and Mountain pine beetle. Stand has good to average vigor.

TARGET STAND CONDITIONS
Remove unhealthy trees, as well as those with poor vigor and to promote long term forest health, growth and vitality. Move this unit toward the desired future condition of Western larch/Douglas-fir. Retention and 55-65 ft spacing of WL, PP & DF leaving 10-15 TPA . Reduce/remove mature DF component being affected by DF bark beetle in favor of WL & PP, create space for established regeneration to release. Leave healthy WL, PP and DF with good crowns as seed trees. Scarify the site sufficiently to make an available seed bed to promote natural regeneration of seral species.

PRESCRIBED TREATMENT		
Silvicultural Treatment: Seed Tree	EA/EIS Alternative:	Harvest Method: Cable

LEAVE/CUT TREE INFORMATION
10-15 TPA/ 55-65 ft/16 + dbh

SITE PREP and REGENERATION		
Site Prep Method: SaleSkid	Site Prep Accomplished By: TS Contract	Site Prep Date:
Regeneration Type:		
Additional Planting Information:		

Timber Sale: Clark Hinch

Cutting Unit: 16-3

EA/EIS: Banana Fire Salvage/Clark Hinch

Field Contact: Joe Buchanan

Land Office: NWLO

Sale Type: Timber Sale

Acres: 16.02

Unit Office: PLN

Planned Sale Date: July 15, 2026

Expected MBF/Acre: 3.1

TRS: 21N 25W 16

Planned FY: 2027

Est. Harvest Volume (MBF): 49

BIODIVERSITY INFORMATION

Losensky Cover Type: WL/DF	Old Growth: NO
Desired Future Condition: Western larch/Douglas fir	Old Growth Rx:
Habitat Type Group: Moderately cool & dry (westside)	Pre-Harvest Est. Old Growth Acres:
Age Class: 100-149	Post Harvest Est Old Growth Acres:

UNIT/STAND DESCRIPTION

The forest type for this unit is Douglas fir and is composed of Douglas fir, Western larch, Ponderosa pine and Lodgepole pine. Fire regime is mixed severity. Age class is 100-149 years old and is well stocked for the entire stand and medium stocked for saw timber. The stand structure is multi-storied with regeneration of DF, WL & LP present. Forest health issues include Douglas fir bark beetle and Mountain pine beetle. Stand has large pockets of dead DF due to beetles and is spread throughout the stand as a whole. Stand has below average to poor vigor.

TARGET STAND CONDITIONS

Remove unhealthy trees, as well as those with poor vigor to promote long term forest health, growth and vitality. Move this unit toward the desired future condition of Western larch/Douglas-fir. Retention and 55-65 ft spacing of PP, WL & DF leaving 10-15 TPA. Spacing may vary due to pockets of dead DF. Reduce/remove mature DF component being affected by DF bark beetle in favor of PP & WL, create space for established regeneration to release. Leave healthy WL, PP and DF with good crowns as seed trees. Scarify the site sufficiently to make an available seed bed to promote natural regeneration of seral species.

PRESCRIBED TREATMENT

Silvicultural Treatment: Seed Tree	EA/EIS Alternative:	Harvest Method: Cable
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LEAVE/CUT TREE INFORMATION

10-15 TPA, 55-65 ft spacing

SITE PREP and REGENERATION

Site Prep Method: SaleSkid	Site Prep Accomplished By: TS Contract	Site Prep Date: July 1, 2033
Regeneration Type:		
Additional Planting Information:		

Timber Sale: Clark Hinch

Cutting Unit: 16-4

EA/EIS: Banana Fire Salvage/Clark Hinch

Field Contact: Joe Buchanan

Land Office: NWLO

Sale Type: Timber Sale

Acres: 29.35

Unit Office: PLN

Planned Sale Date: July 15, 2026

Expected MBF/Acre: 7.9

TRS: 21N 25W 16

Planned FY: 2027

Est. Harvest Volume (MBF): 233

BIODIVERSITY INFORMATION

Losensky Cover Type: MC	Old Growth: NO
Desired Future Condition: Western larch/Douglas fir	Old Growth Rx:
Habitat Type Group: Moderately cool & dry (westside)	Pre-Harvest Est. Old Growth Acres:
Age Class: 100-149	Post Harvest Est Old Growth Acres:

UNIT/STAND DESCRIPTION

The forest type for this unit is Douglas fir/Western larch and is composed of Douglas fir, Western larch, Grand Fir and Lodgepole pine. Fire regime is mixed severity. Age class is 100-149 years old and is well stocked for the entire stand and medium stocked for saw timber. The stand structure is multi-storied with regeneration of DF, GF, WL & LP present. Forest health issues include Douglas fir bark beetle, Root rot and Mountain pine beetle. Stand has good to average vigor.

TARGET STAND CONDITIONS

Remove unhealthy trees, as well as those with poor vigor to promote long term forest health, growth and vitality. Move this unit toward the desired future condition of Western larch/Douglas-fir. Retention and 45 ft spacing of PP, WL & DF leaving 12-18 TPA. Reduce/remove mature DF component being affected by DF bark beetle in favor of PP & WL, create space for established regeneration to release. Leave healthy PP, WL and DF with good crowns. Scarify the site sufficiently to make an available seed bed to promote natural regeneration of seral species.

PRESCRIBED TREATMENT

Silvicultural Treatment: Shelterwood	EA/EIS Alternative:	Harvest Method: Cable
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LEAVE/CUT TREE INFORMATION

12-18 TPA/ 45 ft spacing

SITE PREP and REGENERATION

Site Prep Method: SaleSkid	Site Prep Accomplished By: TS Contract	Site Prep Date: July 1, 2033
Regeneration Type: Natural		
Additional Planting Information:		

Timber Sale: Clark Hinch

Cutting Unit: 16-5

EA/EIS: Banana Fire Salvage/Clark Hinch

Field Contact: Joe Buchanan

Land Office: NWLO

Sale Type: Timber Sale

Acres: 3.24

Unit Office: PLN

Planned Sale Date: July 15, 2026

Expected MBF/Acre: 4.6

TRS: 21N 25W 16

Planned FY: 2027

Est. Harvest Volume (MBF): 15

BIODIVERSITY INFORMATION

Losensky Cover Type: MC	Old Growth: NO
Desired Future Condition: Western larch/Douglas fir	Old Growth Rx:
Habitat Type Group: Moderately cool & dry (westside)	Pre-Harvest Est. Old Growth Acres:
Age Class: 100-149	Post Harvest Est Old Growth Acres:

UNIT/STAND DESCRIPTION

The forest type for this unit is Douglas fir/Western larch and is composed of Western larch, Lodgepole pine and Douglas fir. Fire regime is mixed severity. Age class is 100-149 years old and is well stocked for the entire stand and medium stocked for saw timber. The stand structure is multi-storied with regeneration of WL, DF & LP present. Forest health issues include DF bark beetle, Root rot and Mountain pine beetle. Stand has good to average vigor.

TARGET STAND CONDITIONS

Remove unhealthy trees, as well as those with poor vigor to promote long term forest health, growth and vitality. Move this unit toward the desired future condition of Western larch/Douglas-fir. Retention and 45 ft spacing of WL, PP & DF leaving 12-18 TPA. Reduce/remove mature DF component being affected by DF bark beetle in favor of WL & PP, create space for established regeneration to release. Leave healthy WL, PP and DF with good crowns. Scarify the site sufficiently to make an available seed bed to promote natural regeneration of seral species.

PRESCRIBED TREATMENT

Silvicultural Treatment: Shelterwood	EA/EIS Alternative:	Harvest Method: Tractor
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LEAVE/CUT TREE INFORMATION

12-18 TPA/45 ft spacing

SITE PREP and REGENERATION

Site Prep Method: SaleSkid	Site Prep Accomplished By: TS Contract	Site Prep Date: July 1, 2033
Regeneration Type: Natural		
Additional Planting Information:		

Timber Sale: Clark Hinch

Cutting Unit: 16-6

EA/EIS: Banana Fire Salvage/Clark Hinch

Field Contact: Joe Buchanan

Land Office: NWLO

Sale Type: Timber Sale

Acres: 19.31

Unit Office: PLN

Planned Sale Date: July 15, 2026

Expected MBF/Acre: 3.7

TRS: 21N 25W 16

Planned FY: 2027

Est. Harvest Volume (MBF): 72

BIODIVERSITY INFORMATION

Losensky Cover Type: WL/DF	Old Growth: NO
Desired Future Condition: Western larch/Douglas fir	Old Growth Rx:
Habitat Type Group: Cool & moderately dry (westside)	Pre-Harvest Est. Old Growth Acres:
Age Class: 100-149	Post Harvest Est Old Growth Acres:

UNIT/STAND DESCRIPTION

The forest type for this unit is Douglas fir and is composed of Douglas fir and Western larch. Fire regime is mixed severity. Age class is 100-149 years old and is well stocked for the entire stand and poorly stocked for saw timber. The stand structure is multi-storied, although dominated by the lower and mid-level with regeneration of LP, WL & DF present. Unit was logged in 1990 with a Seed tree prescription, unit was then scarified and natural regeneration came back thick. Unit is ready for PCT following overstory removal. Forest health issues include Douglas fir bark beetle and Larch needle cast. Stand has full vigor.

TARGET STAND CONDITIONS

Remove overstory and follow up with a PCT to promote long term forest health, growth and vitality. Move this unit toward the desired future condition of Western larch/Douglas-fir. Retention of WL, PP & DF leaving 4-5 TPA. Reduce/remove overstory component, create space for established regeneration to release.

PRESCRIBED TREATMENT

Silvicultural Treatment: Overstory Removal	EA/EIS Alternative:	Harvest Method: Tractor
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LEAVE/CUT TREE INFORMATION

4-5 TPA, leaving mature WL,PP and DF with good crowns

SITE PREP and REGENERATION

Site Prep Method:	Site Prep Accomplished By:	Site Prep Date:
Regeneration Type:		
Additional Planting Information:		

Timber Sale: Clark Hinch

Cutting Unit: 16-7

EA/EIS: Banana Fire Salvage/Clark Hinch

Field Contact: Joe Buchanan

Land Office: NWLO

Sale Type: Timber Sale

Acres: 21.71

Unit Office: PLN

Planned Sale Date: July 15, 2026

Expected MBF/Acre: 8.1

TRS: 21N 25W 16

Planned FY: 2027

Est. Harvest Volume (MBF): 176

BIODIVERSITY INFORMATION

Losensky Cover Type: WL/DF	Old Growth: NO
Desired Future Condition: Western larch/Douglas fir	Old Growth Rx:
Habitat Type Group: Moderately cool & dry (westside)	Pre-Harvest Est. Old Growth Acres:
Age Class: 100-149	Post Harvest Est Old Growth Acres:

UNIT/STAND DESCRIPTION

The forest type for this unit is Douglas fir and is composed of Douglas fir, Western larch and Ponderosa pine. Fire regime is mixed severity. Age class is 100-149 years old and is well stocked for the entire stand and medium stocked for saw timber. The stand structure is multi-storied with regeneration of DF, WL & PP present. Forest health issues include Douglas fir bark beetle and dwarf mistletoe. Stand has large pockets of dead DF due to beetles and is spread throughout stand as a whole. Stand has good to average vigor.

TARGET STAND CONDITIONS

Remove unhealthy trees, as well as those with poor vigor to promote long term forest health, growth and vitality. Move this unit toward the desired future condition of Western larch/Douglas-fir. Retention and 55-65 ft spacing of WL, PP & DF leaving 8-12 TPA. Reduce/remove mature DF component being affected by DF bark beetle in favor of WL & PP, reduce/remove DF & WL component affected by dwarf mistletoe, create space for established regeneration to release. Leave healthy WL, PP and DF with good crowns as seed trees. Scarify the site sufficiently to make an available seed bed to promote natural regeneration of seral species.

PRESCRIBED TREATMENT

Silvicultural Treatment: Seed Tree	EA/EIS Alternative:	Harvest Method: Cable
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LEAVE/CUT TREE INFORMATION

8-12 TPA/55-65 ft/ 16+ dbh

SITE PREP and REGENERATION

Site Prep Method: SaleSkid	Site Prep Accomplished By: TS Contract	Site Prep Date: July 1, 2033
Regeneration Type: Natural		
Additional Planting Information:		

Timber Sale: Clark Hinch

Cutting Unit: 16-8

EA/EIS: Banana Fire Salvage/Clark Hinch

Field Contact: Joe Buchanan

Land Office: NWLO

Sale Type: Timber Sale

Acres: 48.2

Unit Office: PLN

Planned Sale Date: July 15, 2026

Expected MBF/Acre: 7.1

TRS: 21N 25W 16

Planned FY: 2027

Est. Harvest Volume (MBF): 340

BIODIVERSITY INFORMATION

Losensky Cover Type: WL/DF	Old Growth: NO
Desired Future Condition: Western larch/Douglas fir	Old Growth Rx:
Habitat Type Group: Moderately cool & dry (westside)	Pre-Harvest Est. Old Growth Acres:
Age Class: 100-149	Post Harvest Est Old Growth Acres:

UNIT/STAND DESCRIPTION

The forest type for this unit is Douglas fir and is composed of Douglas fir, Western larch, Ponderosa pine and Lodgepole pine. Fire regime is mixed-severity. Age class is 100-149 years old and is well stocked for the entire stand and well stocked for saw timber. The stand structure is multi-storied with regeneration of DF, PP & WL present. Forest health issues include DF bark beetle, root rot and dwarf mistletoe. Stand has good to average vigor.

TARGET STAND CONDITIONS

Remove unhealthy trees, as well as those with poor vigor to promote long term forest health, growth and vitality. Move this unit toward the desired future condition of Western larch/Douglas-fir. Retention and 45 ft spacing of PP, WL & DF leaving 12-18 TPA. Reduce/remove mature DF component being affected by DF bark beetle in favor of WL & PP, reduce and remove DF & WL component affected by dwarf mistletoe, create space for established regeneration to release. Leave healthy PP, WL and DF with good crowns. Scarify the site sufficiently to make an available seed bed to promote natural regeneration of seral species.+\\

PRESCRIBED TREATMENT

Silvicultural Treatment: Shelterwood	EA/EIS Alternative:	Harvest Method: Cable
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LEAVE/CUT TREE INFORMATION

12-18 TPA/ 45 ft/16 + dbh

SITE PREP and REGENERATION

Site Prep Method: SaleSkid	Site Prep Accomplished By: TS Contract	Site Prep Date: July 1, 2033
Regeneration Type: Natural		
Additional Planting Information:		

Timber Sale: Clark Hinch

Cutting Unit: 16-9

EA/EIS: Banana Fire Salvage/Clark Hinch

Field Contact: Joe Buchanan

Land Office: NWLO

Sale Type: Timber Sale

Acres: 38.22

Unit Office: PLN

Planned Sale Date: July 15, 2026

Expected MBF/Acre: 9.4

TRS: 21N 25W 16

Planned FY: 2027

Est. Harvest Volume (MBF): 360

BIODIVERSITY INFORMATION

Losensky Cover Type: WL/DF	Old Growth: NO
Desired Future Condition: Western larch/Douglas fir	Old Growth Rx:
Habitat Type Group: Moderately cool & dry (westside)	Pre-Harvest Est. Old Growth Acres:
Age Class: 100-149	Post Harvest Est Old Growth Acres:

UNIT/STAND DESCRIPTION

The forest type for this unit is Douglas fir and is composed of Douglas fir, Western larch, Ponderosa pine and Lodgepole pine. Fire regime is mixed-severity. Age class is 100-149 years old and is well stocked for the entire stand and well stocked for saw timber. The stand structure is multi-storied with regeneration of DF, PP & WL present. Forest health issues include DF bark beetle, root rot and dwarf mistletoe. Stand has good to average vigor.

TARGET STAND CONDITIONS

Remove unhealthy trees, as well as those with poor vigor to promote long term forest health, growth and vitality. Move this unit toward the desired future condition of Western larch/Douglas-fir. Retention and 45 ft spacing of PP, WL & DF leaving 12-18 TPA. Spacing may vary due to DF beetle pockets and dwarf mistletoe. Reduce/remove mature DF component being affected by DF bark beetle in favor of WL & PP, reduce and remove DF & WL component affected by dwarf mistletoe, create space for established regeneration to release. Leave healthy PP, WL and DF with good crowns. Scarify the site sufficiently to make an available seed bed to promote natural regeneration of seral species.

PRESCRIBED TREATMENT

Silvicultural Treatment: Shelterwood	EA/EIS Alternative:	Harvest Method: Tractor
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LEAVE/CUT TREE INFORMATION

12-18 TPA/45 ft/16+ dbh

SITE PREP and REGENERATION

Site Prep Method: SaleSkid	Site Prep Accomplished By: TS Contract	Site Prep Date: July 1, 2033
Regeneration Type: Natural		
Additional Planting Information:		

Timber Sale: Clark Hinch

Cutting Unit: 16-10

EA/EIS: Banana Fire Salvage/Clark Hinch

Field Contact: Joe Buchanan

Land Office: NWLO

Sale Type: Timber Sale

Acres: 28.11

Unit Office: PLN

Planned Sale Date: July 15, 2026

Expected MBF/Acre: 7.2

TRS: 21N 25W 16

Planned FY: 2027

Est. Harvest Volume (MBF): 203

BIODIVERSITY INFORMATION

Losensky Cover Type: WL/DF	Old Growth: NO
Desired Future Condition: Western larch/Douglas fir	Old Growth Rx:
Habitat Type Group: Cool & moderately dry (westside)	Pre-Harvest Est. Old Growth Acres:
Age Class: 100-149	Post Harvest Est Old Growth Acres:

UNIT/STAND DESCRIPTION

The forest type for this unit is Douglas fir/Western larch and is composed of DF, WL, AF & WP . Fire regime is mixed-severity. Age class is 100-149 years old and is well stocked for the entire stand and poorly stocked for saw timber. The stand structure is multi-storied, although dominated by the lower and mid-level with regeneration of WL, DF, AF, GF, LP and WP present. Unit was logged in 1996 with a Seed tree prescription, unit was then scarified and natural regeneration came back thick. Unit is ready for PCT following overstory removal. Forest health issues include Douglas fir bark beetle and Larch needle cast. Stand has full vigor.

TARGET STAND CONDITIONS

Remove overstory and follow up with a PCT to promote long term forest health, growth and vitality. Move this unit toward the desired future condition of Western larch/Douglas-fir. Retention of WP, WL, PP & DF leaving 4-5 TPA . Reduce/remove overstory component, create space for established regeneration to release.

PRESCRIBED TREATMENT

Silvicultural Treatment: Overstory Removal	EA/EIS Alternative:	Harvest Method: Tractor
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LEAVE/CUT TREE INFORMATION

4-5 TPA/16+ dbh

SITE PREP and REGENERATION

Site Prep Method:	Site Prep Accomplished By:	Site Prep Date:
Regeneration Type:		
Additional Planting Information:		

Timber Sale: Clark Hinch

Cutting Unit: 16-11

EA/EIS: Banana Fire Salvage/Clark Hinch

Field Contact: Joe Buchanan

Land Office: NWLO

Sale Type: Timber Sale

Acres: 25.63

Unit Office: PLN

Planned Sale Date: July 15, 2026

Expected MBF/Acre: 8.5

TRS: 21N 25W 16

Planned FY: 2027

Est. Harvest Volume (MBF): 219

BIODIVERSITY INFORMATION

Losensky Cover Type: WL/DF	Old Growth: NO
Desired Future Condition: Western larch/Douglas fir	Old Growth Rx: Old Growth Recruitment
Habitat Type Group: Cool & moderately dry (westside)	Pre-Harvest Est. Old Growth Acres:
Age Class: 100-149	Post Harvest Est Old Growth Acres:

UNIT/STAND DESCRIPTION

The forest type for this unit is Douglas fir and is composed of Douglas fir, Western larch and Lodgepole pine. Fire regime is mixed-severity. Age class is 100-149 years old and is well stocked for the entire stand and well stocked for saw timber. The stand structure is multi-storied with regeneration of DF, WL, AF & LP present. Forest health issues include Douglas fir bark beetle and Mountain pine beetle. Stand was cruised for Old Growth, did not meet age requirements, but TPA of Western larch met requirements. Stand has good to average vigor.

TARGET STAND CONDITIONS

Remove unhealthy trees, as well as those with poor vigor to promote long term forest health, growth and vitality. Move this unit toward the desired future condition of Western larch/Douglas-fir as an old growth recruitment stand. Retention of 80 BA with 35 ft spacing of WL, PP & DF and 10 TPA of 17+ dbh WL & DF. Manage stand as Old Growth Recruitment, Reduce/remove mature DF component being affected by DF bark beetle in favor of WL & PP, create space for established regeneration to release. Leave healthy WL, PP and DF with good crowns. Scarify the site sufficiently to make an available seed bed to promote natural regeneration of seral species.

PRESCRIBED TREATMENT

Silvicultural Treatment: Individual Tree Selection	EA/EIS Alternative:	Harvest Method: Cable
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LEAVE/CUT TREE INFORMATION

80 BA , 35 ft, 10 large TPA 17+ dbh WL and DF

SITE PREP and REGENERATION

Site Prep Method:	Site Prep Accomplished By:	Site Prep Date:
Regeneration Type:		
Additional Planting Information:		

Timber Sale: Clark Hinch

Cutting Unit: 16-12

EA/EIS: Banana Fire Salvage/Clark Hinch

Field Contact: Joe Buchanan

Land Office: NWLO

Sale Type: Timber Sale

Acres: 9.08

Unit Office: PLN

Planned Sale Date: July 15, 2026

Expected MBF/Acre: 8.6

TRS: 21N 25W 16

Planned FY: 2027

Est. Harvest Volume (MBF): 79

BIODIVERSITY INFORMATION	
Losensky Cover Type: WL/DF	Old Growth: NO
Desired Future Condition: Western larch/Douglas fir	Old Growth Rx:
Habitat Type Group: Moderately cool & dry (westside)	Pre-Harvest Est. Old Growth Acres:
Age Class: 100-149	Post Harvest Est Old Growth Acres:

UNIT/STAND DESCRIPTION
The forest type for this unit is Douglas fir and is composed of Douglas fir, Western larch and Ponderosa pine. Fire regime is mixed-severity. Age class is 100-149 years old and is well stocked for the entire stand and medium stocked for saw timber. The stand structure is multi-storied with regeneration of DF, WL, GF & PP present. Forest health issues include Douglas fir bark beetle and previous Mountain pine beetle outbreaks. Stand has large pockets of dead and red needled DF due to beetles and is spread throughout stand as a whole. Stand has good to average vigor.

TARGET STAND CONDITIONS
Remove unhealthy trees, as well as those with poor vigor to promote long term forest health, growth and vitality. Move this unit toward the desired future condition of Western larch/Douglas-fir. Retention of WL, PP & DF leaving 5-8 TPA . Reduce/remove mature DF component being affected by DF bark beetle in favor of WL & PP, create space for established regeneration to release. Leave healthy WL, PP and DF with good crowns as seed trees. Scarify the site sufficiently to make an available seed bed to promote natural regeneration of seral species.

PRESCRIBED TREATMENT		
Silvicultural Treatment: Seed Tree	EA/EIS Alternative:	Harvest Method: Cable

LEAVE/CUT TREE INFORMATION
5-8 TPA/ 16+ dbh

SITE PREP and REGENERATION		
Site Prep Method: SaleSkid	Site Prep Accomplished By: TS Contract	Site Prep Date: July 1, 2033
Regeneration Type: Natural		
Additional Planting Information:		

Timber Sale: Clark Hinch

Cutting Unit: 16-13

EA/EIS: Banana Fire Salvage/Clark Hinch

Field Contact: Joe Buchanan

Land Office: NWLO

Sale Type: Timber Sale

Acres: 9.53

Unit Office: PLN

Planned Sale Date: July 15, 2026

Expected MBF/Acre: 12.1

TRS: 21N 25W 16

Planned FY: 2027

Est. Harvest Volume (MBF): 115

BIODIVERSITY INFORMATION

Losensky Cover Type: WL/DF	Old Growth: NO
Desired Future Condition: Western larch/Douglas fir	Old Growth Rx:
Habitat Type Group: Cool & moderately dry (westside)	Pre-Harvest Est. Old Growth Acres:
Age Class: 100-149	Post Harvest Est Old Growth Acres:

UNIT/STAND DESCRIPTION

The forest type for this unit is Douglas fir and is composed of Douglas fir, Western larch, Lodgepole pine and Subalpine fir. Fire regime is mixed-severity. Age class is 100-149 years old and is well stocked for the entire stand and well stocked for saw timber. The stand structure is multi-storied with regeneration of DF, AF & LP present. Forest health issues include Douglas fir bark beetle and Mountain pine beetle. Stand has good to average vigor.

TARGET STAND CONDITIONS

Remove unhealthy trees, as well as those with poor vigor to promote long term forest health, growth and vitality. Move this unit toward the desired future condition of Western larch/Douglas-fir. Retention and 55-65 ft spacing of WL, PP & DF leaving 5-8 TPA. Reduce/remove mature DF component being affected by DF bark beetle in favor of WL & PP, create space for established regeneration to release. Leave healthy WL, PP and DF with good crowns as seed trees. Scarify the site sufficiently to make an available seed bed to promote natural regeneration of seral species.

PRESCRIBED TREATMENT

Silvicultural Treatment: Seed Tree	EA/EIS Alternative:	Harvest Method: Cable
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LEAVE/CUT TREE INFORMATION

5-8 TPA/16+ dbh

SITE PREP and REGENERATION

Site Prep Method: SaleSkid	Site Prep Accomplished By: TS Contract	Site Prep Date: July 1, 2033
Regeneration Type: Natural		
Additional Planting Information:		

Timber Sale: Clark Hinch

Cutting Unit: 16-14

EA/EIS: Banana Fire Salvage/Clark Hinch

Field Contact: Joe Buchanan

Land Office: NWLO

Sale Type: Timber Sale

Acres: 34.59

Unit Office: PLN

Planned Sale Date: July 15, 2026

Expected MBF/Acre: 4.6

TRS: 21N 25W 16

Planned FY: 2027

Est. Harvest Volume (MBF): 158

BIODIVERSITY INFORMATION	
Losensky Cover Type: WL/DF	Old Growth: NO
Desired Future Condition: Western larch/Douglas fir	Old Growth Rx:
Habitat Type Group: Cool & moderately dry (westside)	Pre-Harvest Est. Old Growth Acres:
Age Class: 100-149	Post Harvest Est Old Growth Acres:

UNIT/STAND DESCRIPTION
The forest type for this unit is Douglas fir and is composed of DF, WL, LP & AF. Age class is 100-149 years old and is well stocked for the entire stand and poorly stocked for saw timber. The stand structure is multi-storied, although dominated by the lower and mid-level with regeneration of DF, AF, LP, WL & WP present. Unit was logged in 1996 with a Seed tree prescription, unit was then scarified and natural regeneration came back thick. Unit is ready for PCT following overstory removal. Forest health issues include Douglas fir bark beetle and Larch needle cast. Stand has full vigor.

TARGET STAND CONDITIONS
Remove overstory and follow up with a PCT to promote long term forest health, growth and vitality. Move this unit toward the desired future condition of Western larch/Douglas-fir. Retention of WL, PP & DF leaving 5-8 TPA . Reduce/remove overstory component, create space for established regeneration to release.

PRESCRIBED TREATMENT		
Silvicultural Treatment: Overstory Removal	EA/EIS Alternative:	Harvest Method: Cable

LEAVE/CUT TREE INFORMATION
5-8 TPA/16+ dbh

SITE PREP and REGENERATION		
Site Prep Method:	Site Prep Accomplished By:	Site Prep Date:
Regeneration Type:		
Additional Planting Information:		

Timber Sale: Clark Hinch

Cutting Unit: 16-15

EA/EIS: Banana Fire Salvage/Clark Hinch

Field Contact: Joe Buchanan

Land Office: NWLO

Sale Type: Timber Sale

Acres: 31.15

Unit Office: PLN

Planned Sale Date: July 1, 2026

Expected MBF/Acre: 6.3

TRS: 21N 25W 16

Planned FY: 2027

Est. Harvest Volume (MBF): 195

BIODIVERSITY INFORMATION	
Losensky Cover Type: LP	Old Growth: NO
Desired Future Condition: Western larch/Douglas fir	Old Growth Rx:
Habitat Type Group: Cool & moderately dry (westside)	Pre-Harvest Est. Old Growth Acres:
Age Class: 100-149	Post Harvest Est Old Growth Acres:

UNIT/STAND DESCRIPTION
The forest type for this unit is Lodgepole pine and is composed of LP, DF, WL & AF. Fire regime is mixed-severity. Stand is well stocked for the entire stand and medium stocked for saw timber. The stand structure is multi-storied with regeneration of DF, AF & WL present. Forest health issues include Douglas fir bark beetle and Mountain pine beetle. Majority of the Lodgepole in the stand were killed due to past beetle outbreak and is spread throughout stand as a whole. No longer considered an Old Growth stand. Stand has good to average vigor.

TARGET STAND CONDITIONS
Remove unhealthy trees, as well as those with poor vigor to promote long term forest health, growth and vitality. Move this unit toward the desired future condition of Western larch/Douglas-fir. Retention and 55-65 ft spacing of WL, PP & DF leaving 10-15 TPA . Remove/reduce LP component affected by Mountain pine beetle in favor of WL & DF, create space for established regeneration to release. Leave healthy WL & DF with good crowns as seed trees. Scarify the site sufficiently to make an available seed bed to promote natural regeneration of seral species.

PRESCRIBED TREATMENT		
Silvicultural Treatment: Seed Tree	EA/EIS Alternative:	Harvest Method: Cable

LEAVE/CUT TREE INFORMATION
10-15 TPA/55-65 ft/ 16+ dbh

SITE PREP and REGENERATION		
Site Prep Method: SaleSkid	Site Prep Accomplished By: TS Contract	Site Prep Date: July 1, 2033
Regeneration Type: Natural		
Additional Planting Information:		

Timber Sale: Clark Hinch

Cutting Unit: 16-16

EA/EIS: Banana Fire Salvage/Clark Hinch

Field Contact: Joe Buchanan

Land Office: NWLO

Sale Type: Timber Sale

Acres: 4.7

Unit Office: PLN

Planned Sale Date: July 15, 2026

Expected MBF/Acre: 5.7

TRS: 21N 25W 16

Planned FY: 2027

Est. Harvest Volume (MBF): 27

BIODIVERSITY INFORMATION

Losensky Cover Type: WL/DF	Old Growth: NO
Desired Future Condition: Western larch/Douglas fir	Old Growth Rx:
Habitat Type Group: Cool & moderately dry (westside)	Pre-Harvest Est. Old Growth Acres:
Age Class: 040-099	Post Harvest Est Old Growth Acres:

UNIT/STAND DESCRIPTION

The forest type for this unit is Western larch and is composed of Western larch & Douglas fir. Fire regime is mixed severity. Age class is 40-99 years old and is medium stocked for the entire stand and poorly stocked for saw timber. The stand structure is multi-storied, although dominated by the lower and mid-level with regeneration of AF, DF, LP & WL present. Unit was logged in 1990 with a Seed tree prescription, unit was then scarified and natural regeneration came back thick. Unit is ready for PCT following overstory removal. Forest health issues include Douglas fir bark beetle and Larch needle cast. Stand has full vigor.

TARGET STAND CONDITIONS

Remove overstory and follow up with a PCT to promote long term forest health, growth and vitality. Move this unit toward the desired future condition of Western larch/Douglas-fir. Retention of WL, PP & DF leaving 4-5 TPA. Reduce/remove overstory component, create space for established regeneration to release.

PRESCRIBED TREATMENT

Silvicultural Treatment: Overstory Removal	EA/EIS Alternative:	Harvest Method: Tractor
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LEAVE/CUT TREE INFORMATION

4-5 TPA/16 + dbh

SITE PREP and REGENERATION

Site Prep Method:	Site Prep Accomplished By:	Site Prep Date:
Regeneration Type:		
Additional Planting Information:		

Timber Sale: Banana Fire Salvage

Cutting Unit: 4-1

EA/EIS: Banana Fire Salvage/Clark Hinch

Field Contact: Ty Colombo

Land Office: NWLO

Sale Type: Timber Sale

Acres: 122.57

Unit Office: PLN

Planned Sale Date: December 15, 2025

Expected MBF/Acre: 5

TRS: 20N 25W 4

Planned FY: 2026

Est. Harvest Volume (MBF): 470

BIODIVERSITY INFORMATION	
Losensky Cover Type: PP	Old Growth: NO
Desired Future Condition: PP	Old Growth Rx:
Habitat Type Group: PSME/ARUV	Pre-Harvest Est. Old Growth Acres: 0
Age Class: 040-099	Post Harvest Est Old Growth Acres: 0

UNIT/STAND DESCRIPTION
Comprised of mostly PP with a good component of DF. The stands are mostly one story with PP/DF overstory and some scattered pockets of DF/PP regen. The stands age range from 40 - 80. There is 85 BAA and 130 tpa in the existing stands.

TARGET STAND CONDITIONS
Stand comprised of a PP overstory with pockets of DF and PP regen. Removal of all merchantable DF. Space out the existing trees to allow them to release. Leave 23 BAA and 35 tpa.

PRESCRIBED TREATMENT		
Silvicultural Treatment: Individual Tree Selection	EA/EIS Alternative:	Harvest Method: Tractor

LEAVE/CUT TREE INFORMATION
33 tpa/40 ft/ 8-20+ DBH

SITE PREP and REGENERATION		
Site Prep Method:	Site Prep Accomplished By:	Site Prep Date:
Regeneration Type:		
Additional Planting Information:		

Timber Sale: Banana Fire Salvage

Cutting Unit: 5-1

EA/EIS: Banana Fire Salvage/Clark Hinch

Field Contact: Ty Colombo

Land Office: NWLO

Sale Type: Timber Sale

Acres: 147.16

Unit Office: PLN

Planned Sale Date: December 15, 2025

Expected MBF/Acre: 3

TRS: 20N 25W 5

Planned FY: 2026

Est. Harvest Volume (MBF): 565

BIODIVERSITY INFORMATION

Losensky Cover Type: PP	Old Growth: NO
Desired Future Condition: PP	Old Growth Rx:
Habitat Type Group: PSME/ARUV	Pre-Harvest Est. Old Growth Acres: 0
Age Class: 040-099	Post Harvest Est Old Growth Acres: 0

UNIT/STAND DESCRIPTION

Stand comprised of mostly PP and DF with a few LP. High severity fire burned the unit (90% mortality). Most of the CWD was consumed in the fire. The stands ages were around 75 years.

TARGET STAND CONDITIONS

Leave 5 tpa 15"+ dbh for snags. Live PP will be left. Fuel loading (CWD) will increase due to the amount of burnt sub-merch trees falling. Monitor for regen to see if planting is necessary.

PRESCRIBED TREATMENT

Silvicultural Treatment: Fire Salvage	EA/EIS Alternative:	Harvest Method: Tractor
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LEAVE/CUT TREE INFORMATION

5 tpa/100 ft/ 15+ dbh

SITE PREP and REGENERATION

Site Prep Method:	Site Prep Accomplished By:	Site Prep Date:
Regeneration Type:		
Additional Planting Information:		

Timber Sale: Banana Fire Salvage

Cutting Unit: 5-2

EA/EIS: Banana Fire Salvage/Clark Hinch

Field Contact: Ty Colombo

Land Office: NWLO

Sale Type: Timber Sale

Acres: 25.87

Unit Office: PLN

Planned Sale Date: December 15, 2025

Expected MBF/Acre: 6

TRS: 20N 25W 5

Planned FY: 2026

Est. Harvest Volume (MBF): 160

BIODIVERSITY INFORMATION

Losensky Cover Type: PP	Old Growth: NO
Desired Future Condition: PP	Old Growth Rx:
Habitat Type Group: PSME/ARUV	Pre-Harvest Est. Old Growth Acres: 0
Age Class: 040-099	Post Harvest Est Old Growth Acres: 0

UNIT/STAND DESCRIPTION

Comprised of mostly PP with pockets of DF. A mixed severity fire passed though the unit causing little mortality (5% mortality). The stands age is 70. There is 105 BAA and 142 tpa in the existing stand including dead trees.

TARGET STAND CONDITIONS

A three storied stand comprised of a PP overstory with pockets of DF and PP sub-merch and regen. Removal of all merchantable DF. Space out the existing trees to allow them to release. Leave 25 BAA and 25 tpa.

PRESCRIBED TREATMENT

Silvicultural Treatment: Individual Tree Selection	EA/EIS Alternative:	Harvest Method: Tractor
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LEAVE/CUT TREE INFORMATION

25 tpa/40-45 ft/ 8-20+ dbh

SITE PREP and REGENERATION

Site Prep Method:	Site Prep Accomplished By:	Site Prep Date:
Regeneration Type:		
Additional Planting Information:		

Timber Sale: Banana Fire Salvage

Cutting Unit: 5-3

EA/EIS: Banana Fire Salvage/Clark Hinch

Field Contact: Ty Colombo

Land Office: NWLO

Sale Type: Timber Sale

Acres: 14.81

Unit Office: PLN

Planned Sale Date: December 15, 2025

Expected MBF/Acre: 1

TRS: 20N 25W 5

Planned FY: 2026

Est. Harvest Volume (MBF): 25

BIODIVERSITY INFORMATION

Losensky Cover Type: PP	Old Growth: NO
Desired Future Condition: PP	Old Growth Rx:
Habitat Type Group: PSME/ARUV	Pre-Harvest Est. Old Growth Acres: 0
Age Class: 040-099	Post Harvest Est Old Growth Acres: 0

UNIT/STAND DESCRIPTION

Comprised of mostly DF with a good component of PP. A mixed severity fire passed through the unit causing some mortality (30% mortality). The stands age is 70. There is 42 BAA and 70 tpa in the existing stand including dead trees.

TARGET STAND CONDITIONS

Stand comprised of a PP overstory with pockets of DF and PP regen. Removal of all merchantable DF. Space out the existing trees to allow them to release. Leave 20 BAA and 25 tpa.

PRESCRIBED TREATMENT

Silvicultural Treatment: Individual Tree Selection	EA/EIS Alternative:	Harvest Method: Tractor
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LEAVE/CUT TREE INFORMATION

25 tpa/ 40-45 ft/8-12 dbh

SITE PREP and REGENERATION

Site Prep Method:	Site Prep Accomplished By:	Site Prep Date:
Regeneration Type:		
Additional Planting Information:		