

Environmental Assessment Checklist

Project Name: Blacktail Again Timber Sale

Proposed Implementation Date: December 2023

Proponent: Dillon Unit, Central Land Office, Montana DNRC

County: Beaverhead

Type and Purpose of Action

Description of Proposed Action:

The Dillon Unit of the Montana Department of Natural Resources and Conservation (DNRC) is proposing the Blacktail Again Timber Sale. The project is located Approximately 17 air miles northeast of Lima, Montana (refer to Attachments vicinity map A-1 and project map A-2) and includes the following sections:

Beneficiary	Legal Description	Total Acres	Treated Acres
Common Schools	Twn 12S Range 6W, Sections 10, 11, 14, 15, 22, 23, 24	4,160	350
Public Buildings			
MSU 2 nd Grant			
MSU Morrill			
Eastern College-MSU/Western College-U of M			
Montana Tech			
University of Montana			
School for the Deaf and Blind			
Pine Hills School			
Veterans Home			
Public Land Trust			
Acquired Land			

Objectives of the project include:

- Sanitize forest stands of insects and disease infected trees
- Promote forest resilience while reducing the probability of uncharacteristically severe wildfire
- Emulate historic disturbance regimes to promote future stand structure and species composition that would be similar to historic conditions
- Generate revenue for the Common School Trust through timber harvest

Proposed activities include:

Action	Quantity
Proposed Harvest Activities	# Acres
Clearcut	
Seed Tree	52
Shelterwood	227
Selection	
Old Growth Maintenance/Restoration	
Commercial Thinning	
Salvage	
Overstory Removal	71
Total Treatment Acres	350
Proposed Forest Improvement Treatment	# Acres
Pre-commercial Thinning	
Site preparation/scarification	
Planting	
Proposed Road Activities	# Miles
New permanent road construction	3.0
New temporary road construction	0.65
Road maintenance	3.4
Road reconstruction	
Road abandoned	
Road reclaimed	
Other Activities	

Duration of Activities:	4 Years
Implementation Period:	December 2024

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

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

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

Project Development

SCOPING:

- DATE:
 - May 8, 2023
- PUBLIC SCOPED:
 - The scoping notice was posted on the DNRC Website:
<https://dnrc.mt.gov/News/scoping-notice>
 - Statewide Scoping List
- AGENCIES SCOPED:
 - Montana Fish, Wildlife, and Parks
 - Bureau of Land Management – Dillon Field Office
 - United States Forest Service – Dillon Ranger District
 - Beaverhead County Commissioners
 - Madisonian
 - Montana Standard
 - Dillon Tribune
- COMMENTS RECEIVED:
 - How many: Two external comments were received during the scoping period; one from Montana Fish, Wildlife, and Parks and one comment from the Northern Cheyenne Tribe.
 - Concerns: Montana FWP requested they are updated with project plans throughout the development process to be made aware of harvest unit location and size, residual stand densities, new road locations, and post-operation road management.
The Northern Cheyenne Tribe requested class I and/or class III literature review of the project area to ensure that no cultural resources are destroyed.
 - Results: Montana FWP has been periodically notified of the status of the project throughout the timber sale layout process. Details including harvest unit location, acreage, projected residual stand densities, new road locations, and road management plans have been shared. No additional comments, questions, or concerns have been expressed after providing project details. Montana FWP has expressed satisfaction with the current proposal with no further questions or comments.
 - A Class I literature review was conducted to identify documented cultural resources. While four cultural resource sites were identified within the project area, timber harvest activities are not expected to have any impact on these documented sites.

DNRC specialists were consulted, including:
Jeff Schmalenberg, Resource Management and Planning Section Supervisor
Emilia Grzesik, Forest Management Planner
Patrick Rennie, Archaeologist

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

OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED: *(Conservation Easements, Army Corps of Engineers, road use permits, etc.)*

- **United States Fish & Wildlife Service-** DNRC is managing the habitats of threatened and endangered species on this project by implementing the Montana DNRC Forested Trust Lands HCP and the associated Incidental Take Permit that was issued by the United States Fish & Wildlife Service (USFWS) in February of 2012 under Section 10 of the Endangered Species Act. The HCP identifies specific conservation strategies for managing the habitats of grizzly bear, Canada lynx, and three fish species: bull trout, westslope cutthroat trout, and Columbia redband trout. This project complies with the HCP. The HCP can be found at <https://dnrc.mt.gov/TrustLand/about/planning-and-reports>.
- **Montana Department of Environmental Quality (DEQ)-** DNRC is classified as a major open burner by DEQ and is issued a permit from DEQ to conduct burning activities on state lands managed by DNRC. As a major open-burning permit holder, DNRC agrees to comply with the limitations and conditions of the permit.
- **Montana/Idaho Airshed Group-** The DNRC is a member of the Montana/Idaho Airshed Group which was formed to minimize or prevent smoke impacts while using fire to accomplish land management objectives and/or fuel hazard reduction (Montana/Idaho Airshed Group 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.
- **Montana Department of Fish, Wildlife and Parks (DFWP)-** A Stream Protection Act Permit (124 Permit) is required from DFWP for activities that may affect the natural shape and form of a stream's channel, banks, or tributaries. Such activities include:
 - Installation of a 30 foot long cross-laminated timber bridge for a temporary crossing at a Class I stream.
 - Another Installation of a 30 foot long cross-laminated timber bridge for a temporary crossing at a Class I stream, along with the installation of an 18inch culvert at a side channel.

ALTERNATIVES CONSIDERED:

No-Action Alternative: Timber harvest would not occur and no revenue would be generated for the Common School Trust. The road system would not be upgraded to meet Best Management Practices (BMP's).

Action Alternative : Approximately 1.8 million board feet of timber would be harvested from 350 acres and would generate income for the Common School Trust. Access to the project area would be improved by upgrading 3.4 miles of currently existing roads to meet BMP's. Approximately 3.0 miles of new permanent road and 0.65 miles of temporary road will be constructed. Forest health and vigor of the residual forest would be improved.

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
1	Warm and very dry (eastside)	Low-to-mixed	Douglas Fir	150-199	Douglas Fir	Shelterwood Harvest	64
2	Warm and dry (eastside)	Low-to-mixed	Douglas Fir	150-199	Douglas Fir	Shelterwood Harvest	34
3	Warm and very dry (eastside)	Low-to-mixed	Douglas Fir	150-199	Douglas Fir	Shelterwood Harvest	26
4	Warm and dry (eastside)	Low-to-mixed	Douglas Fir	150-199	Douglas Fir	Shelterwood Harvest	45
5	Warm and dry (eastside)	Low-to-mixed	Douglas Fir	100-149	Douglas Fir	Shelterwood Harvest	25
6	Warm and dry (eastside)	Low-to-mixed	Douglas Fir	150-199	Douglas Fir	Shelterwood Harvest	30
7	Warm and very dry (eastside)	Low-to-mixed	Douglas Fir	150-199	Douglas Fir	Shelterwood Harvest	37
8	Warm and dry (eastside)	Low-to-mixed	Douglas Fir	150-199	Douglas Fir	Shelterwood Harvest	15
9	Warm and very dry (eastside)	Low-to-mixed	Douglas Fir	150-199	Douglas Fir	Overstory Removal	71
10	Warm and very dry (eastside)	Low-to-mixed	Douglas Fir	150-199	Douglas Fir	Shelterwood Harvest	3

Fire Hazard/Fuels: Fuel hazards are exacerbated by high mortality rates throughout the majority of the project area. Insect infestations 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 dramatically increases probability of uncharacteristically high fire

intensity and would pose safety and tactical concerns for fire management operations. The project area is not within the wildland-urban interface, as the nearest municipality, Lima, Montana, is 17 air miles away.

Insects and Diseases: Douglas-bark beetle and associated spruce budworm infestations occur frequently throughout the project area.

Sensitive/Rare Plants: The Montana Heritage Program indicates that Idaho sedge (*Carex parryana idahoa*) has been found in the upper Blacktail drainage. The Montana Heritage Program lists the species ranking as global G4G5 and state S3S4. These rankings indicate that the species is common but may be rare or declining in portions of its range and may potentially be at risk due to limited or declining numbers even though it may be abundant in some areas. No observations are noted, nor are there any known botanical surveys within the project area. It is therefore expected that any direct, secondary and cumulative impacts to the species as a result of the action alternative would be low.

Noxious Weeds: Canada Thistle (*Cirsium arvense*), Spotted Knapweed (*Centaurea stoebe*), Houndstongue (*Cynoglossum officinale*)

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/A	
Age Class			x				x				x		N/A	
Old Growth	x				x				x					
Fire/Fuels				x			x				x		N/A	
Insects/Disease			x				x				x		N/A	
Rare Plants	x				x				x					
Noxious Weeds	x				x				x					
Action														
Current Cover/DFCs	x				x				x					
Age Class	x				x				x					
Old Growth	x				x				x					
Fire/Fuels		x				x				x			Y	1
Insects/Disease	x				x				x					
Rare Plants		x			x				x				Y	3
Noxious Weeds			x				x			x			Y	2

Comments:

1. Short term fuel accumulations will occur due logging operations through the harvest of green standing trees. Harvest of dead and downed timber will not result in a net increase in fuel accumulations.
2. Timber harvest and associated road work may lead to an increase in the occurrence of noxious weeds.

3. According to a Montana Natural Heritage Species of Concern report, is one plant species of concern that may occur in the project area.

Vegetation Mitigations:

1. Excess logging slash that is not necessary for soil erosion mitigation will be piled and burned in accordance to Logging Slash Reduction Laws.
2. DNRC plans to complete herbicide treatments of noxious weeds on the state parcel and segments of the access roads on adjacent ownerships to control existing weed infestations. All equipment would be washed and inspected prior to start of work. All new roads would be reseeded to site adapted grass to reduce the threat of noxious weed spread. Project areas would be monitored for noxious weeds after harvest operations are complete and herbicide treatments may be applied if needed.
3. If Idaho sedge is identified within any of the proposed harvest units, care to avoid damaging or destroying the plants would be made to the greatest extent practicable.

SOIL DISTURBANCE AND PRODUCTIVITY:

Soil Disturbance and Productivity Existing Conditions:

The project area is located on moderately steep slopes with deep soils weathered from a complex geology of limestones and shales atop metamorphic bedrock. Forest soils are moderately productive, deep, and well drained with gravelly loam to clay loam textures. Risk of soil displacement, compaction and erosion is low to moderate if Best Management Practices for forestry are adhered to.

Areas of marginal slope stability occur within the project area and/or new road construction. These areas are small (<1 acre) and exhibit signs of historic shallow slumping. The project area also contains one very large rotational failure that is currently dormant. This type of large-scale failure is common in the Snowcrest and Gravelly mountain ranges and is typically a result of tectonic activity in concert with abnormally wet periods. No actions are proposed on these geologically unstable features.

Forest sites are low to moderately productive with predominate limitations being temperature and precipitation. Coarse woody debris volumes are higher than normal for typical Douglas fir stands in this region and were ocularly estimated at 15-20 tons per acre and accumulating in trend.

Previous timber harvest in the project area was completed using helicopter yarding and traditional ground-based methods, thus low detrimental soil disturbance was observed during field review resulting in no loss of soil productivity in the project area.

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			N/A	
Erosion	x				x				x				N/A	
Nutrient Cycling	x				x				x				N/A	
Slope Stability	x					x				x			N/A	
Soil Productivity	x				x					x			N/A	
Action														
Physical Disturbance (Compaction and Displacement)		x			x					x			Yes	1
Erosion		x			x					x			Yes	1
Nutrient Cycling		x				x				x			Yes	2
Slope Stability			x				x				x		Yes	3
Soil Productivity		x				x				x			Yes	1

Comments:

1. Physical disturbance from compaction and displacement would be expected on skid trails and landings. Past monitoring on DNRC timber sales from 1988 to 2010 has shown an average of 12.2 percent soil impacts across all parent materials. Sales harvested prior to 1990 exhibited impacts of 16.8 percent; sales harvest post-1990 showed impacts averaging 7.3 percent of the harvest area. This provides a strong relationship to the implementation of Forestry Best Management Practices (BMPs) and the Streamside Management Zone (SMZ) law. Detrimental soil impacted are expected on less the 20% of the harvest unit acres and soil productivity will be maintained.
2. Coarse and fine woody debris provide a crucial component in forested environments through nutrient cycling, microbial habitat, moisture retention and protection from mineral soil erosion (Harmon et al., 1986). As required in the DNRC Timber Sale Contract, both fine and coarse woody debris would be retained to reduce potential impacts to forest productivity. Although fine woody debris would be left on site for nutrient retention, a moderate reduction in annual fine material contribution would result from this alternative for up to 20 years.
3. The large-scale rotational failure in the project area was avoided to eliminate any potential for reactivation. Road locations were carefully placed to minimize exposure to areas of marginal instability and avoided where possible. Construction practices such as proper compaction and adequate drainage will mitigate slope failures to a moderate degree of risk for both direct and indirect effects. Harvest activities and road construction present a moderate risk of cumulative effects of potentially reactivating small scale historic slumps but downstream water quality has a low risk of effects.

Soil Mitigations:

1. Limit equipment operations to periods when soils are relatively dry, (less than 20 percent oven-dried weight), frozen, or snow-covered in order to minimize soil compaction and rutting and maintain drainage features. Check soil moisture conditions prior to equipment start-up.
2. The logger and sale administrator would agree to a skidding plan prior to equipment operations. Skid-trail planning would identify which main trails to use and how many additional trails are needed. Trails that do not comply with BMPs (i.e. trails in draw bottoms) would not be used unless impacts can be adequately mitigated. Regardless of use, these trails may be closed with additional drainage installed, where needed, or grass-seeded to stabilize the site and control erosion.
3. Tractor skidding should be limited to slopes of less than 40 percent unless the operation can be completed without causing excessive displacement or erosion. Based on site review, short, steep slopes may require a combination of mitigation measures, such as adverse skidding to a ridge or winchline, and skidding from more moderate slopes of less than 40 percent.
4. Keep skid trails to 20 percent or less of the harvest unit acreage. Provide for drainage in skid trails and roads concurrently with operations.
5. Slash disposal: Limit the combination of disturbance and scarification to 30 to 40 percent of the harvest units. No dozer piling on slopes over 35 percent; no excavator piling on slopes over 40 percent, unless the operation can be completed without causing excessive erosion. Consider lopping and scattering or jackpot burning on the steeper slopes. Consider disturbance incurred during skidding operations to, at least, partially provide scarification for regeneration.
6. Retain 10 to 20 tons of large woody debris and a feasible majority of all fine litter following harvesting operations. On units where whole tree harvesting is used, implement one of the following mitigations for nutrient cycling: 1) use in-woods processing equipment that leaves slash on site; 2) for whole-tree harvesting, return-skid slash and evenly distribute within the harvest area; or 3) cut tops from every third bundle of logs so that tops are dispersed as skidding progresses.

WATER QUALITY AND FISHERIES:

Proposed harvesting would impact less than 1 percent of the 6th code HUC watershed; annual precipitation is low with all proposed harvest located in the 18-20 inch precipitation zones. The proposal does not include harvesting within 50 feet of Class 1 streams or Class 2 streams.

Water Quality and Quantity Existing Conditions:

Waters in the West fork of Blacktail Deer Creek are classified as B-1. Waters classified B-1 are to be maintained suitable for drinking, culinary, and food processing purposes, after conventional treatment; bathing, swimming, and recreation; growth and propagation of salmonid

fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply.

In 2016, West fork Blacktail Deer Creek was listed as not fully supporting the beneficial uses previously listed. The causes for this are alterations in stream-side or littoral vegetation, arsenic, chlorophyll-a and sedimentation resulting from grazing, mine tailing and roads. A TMDL for the Beaverhead watershed was completed in 2012 to address sedimentation.

West fork Blacktail Deer Creek supports a fishery containing Rainbow Trout, Brook Trout and Mottled Sculpin none of which are species of concern or listed as sensitive. Due to the low risk of sediment delivery to West fork Blacktail Deer Creek and no SMZ or RMZ timber harvest proposed, no effects to fisheries resources are expected and no further analysis is warranted.

One existing road-stream crossing structure exists in the project area and 3 new road-stream crossing structures are proposed. The existing structure and two new crossings are all proposed as short-span bridges. One new crossing will be a temporary 24-inch CMP on a small, non-fish bearing class 1 stream. Existing roads in the project area, while steep for short segments, currently meet BMP's and are not a source of sediment to West fork Blacktail Deer Creek or other project area waters.

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				NA	
Water Quantity	X				X				X				NA	
Action														
Water Quality		X			X				X				Y	1
Water Quantity	X				X				X				NA	2

Comments:

1. Three new road-stream crossings would be constructed under the action alternative. Two would be temporary bridges over small class 1 streams tributary to the West fork Blacktail Deer Creek and the other one would be 24-inch culvert on a Class 1, non-fish bearing tributary to West fork Blacktail Deer Creek. All crossings present a low risk of long-term sediment delivery as they have minimal fill heights, have flat grades on approaches and would have minimal effect on stream channel form and function. The bridge crossings will be removed upon project completion. Because of this and low risk of sediment production and transport from upland harvest, there is a low risk of low-level impacts for short durations to water quality.

2. Because DNRC is proposing management within a very small portion of the watershed area and annual precipitation is low, it is unlikely that a measurable increase in annual water yield would occur.

Water Quality & Quantity Mitigations:

1. Follow all applicable Best Management Practices for Forest Management.

2. Follow all requirements and recommended mitigations in the Stream Protection Act 124 permit.
3. Implement all applicable Administrative Rules for Forest Management.
4. Implement all Streamside Management Zones laws.
5. Apply all applicable conservation commitments within Montana's Forest Management Habitat Conservation Plan.

WILDLIFE:

The project area is dominated by mature Douglas-fir stands with lesser amounts of Engelmann spruce, lodgepole pine and subalpine fir represented. Some of existing forested area in the project area is present due to range encroachment during the last 150 years. Forested stands make up approximately 46% (1,959 acres) of the project area. Numerous small to moderate-sized snags are found in forested portions of the project area. Coarse woody debris amounts are patchy and high in some locations due to the mature age of stands and recent high mortality. The project area occurs along a forest grassland ecotone that provides habitat for many native song birds, raptors, big game species, and predators. The project area occurs in sage grouse "core" habitat, however, conifer stands that would be treated provide no appreciable habitat for sage grouse. No significant rock outcrop features occur in the project area. Forested stands in the project area occur as fragmented and isolated patches within a broad grassland/shrubland matrix.

For this analysis, direct, indirect, and cumulative effects were considered within the project area (4,235 acres).

No-Action:

Under the no action alternative, none of the proposed vegetation treatments would occur. Thus, no direct, indirect or cumulative effects to habitat and associated species would be expected as a result of the proposed activities.

Action Alternative (see Wildlife table below):

Wildlife	Impact												Can Impact be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
Threatened and Endangered Species														
Grizzly bear (Ursus arctos) Habitat: Recovery areas, security from human activity		X				X				X			Y	1
Lynx (Felis lynx) Habitat: mosaics--dense sapling and old forest >5,000 ft. elev.		X				X				X			Y	2
Wolverine proposed Threatened (Gulo gulo)	X				X				X				N	3

Wildlife	Impact												Can Impact be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
Sensitive Species														
Bald eagle <i>(Haliaeetus leucocephalus)</i> Habitat: Late-successional forest within 1 mile of open water	X				X				X				NA	4
Black-backed woodpecker <i>(Picoides arcticus)</i> Habitat: Mature to old burned or beetle-infested forest	X				X				X				NA	4
Black-tailed prairie dog <i>(Cynomys ludovicianus)</i> Habitat: grasslands, short-grass prairie, sagebrush semi-desert	X				X				X				NA	4
Flammulated owl <i>(Otus flammeolus)</i> Habitat: Late-successional ponderosa pine and Douglas-fir forest	X				X				X				NA	4
Greater sage grouse <i>(Centrocercus urophasianus)</i> Habitat: sagebrush semi-desert		X				X				X			Y	6
Peregrine falcon <i>(Falco peregrinus)</i> Habitat: Cliff features near open foraging areas and/or wetlands	X				X				X				NA	4
Pileated woodpecker <i>(Dryocopus pileatus)</i> Habitat: Late-successional	X				X				X				NA	4

Wildlife	Impact												Can Impact be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
ponderosa pine and larch-fir forest														
Fringed myotis <i>(Myotis thysanodes)</i> Habitat: low elevation ponderosa pine, Douglas-fir and riparian forest with diverse roost sites including outcrops, caves, mines	X				X				X				NA	4
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				NA	4
Townsend's big-eared bat <i>(Plecotus townsendii)</i> Habitat: Caves, caverns, old mines	X				X				X				NA	4
Big Game Species														
Elk		X				X				X			Y	6
Whitetail	X				X				X				NA	4
Mule Deer		X				X				X			Y	6
Other														

Comments:

- The proposed project area lies 34 miles west of the Greater Yellowstone grizzly bear recovery zone and 1 mile west of Non-Recovery Occupied Habitat as defined by Wittinger et al. (2002). Grizzly bears could potentially travel through the project area. Human access levels in this general project area are fairly high due to the presence of the Blacktail Road, which runs through the project area and is open to year-round public motorized access. Cover and habitat connectivity associated with riparian areas would not be appreciable altered as minimal riparian timber harvesting would occur in the project area. Given the size and location of cover patches affected and removed, habitat connectivity would be diminished on approximately 233 acres, however, forest patches in this landscape are relatively isolated. 3.0 miles of new, permanent restricted road would be constructed to access the harvest units and facilitate long-term access for fire suppression. Thus, some long-term, albeit minor risk, to grizzly bears could occur given

this additional road on the landscape. Given the scope and scale of the proposed activities, and relatively marginal inherent habitat quality for grizzly bears, adverse direct, indirect and cumulative impacts to grizzly bears as a result of this project are expected to be low. Whitebark pine, a federally listed threatened species under the Endangered Species Act and an important grizzly bear habitat element, is present in the project area. Potential impacts to whitebark pine stands were assessed and site-specific mitigations were developed to minimize impacts to these stands according to ARM 36.11.432(3).

2. Within the 4,235-acre project area there are currently approximately 1,401 acres of lynx potential habitat, 1,268 of which is currently suitable habitat. Of these 1,268 acres of suitable habitat, 298 acres would be treated and converted to temporary non-suitable habitat. Thus, approximately 970 acres of suitable habitat (76% of existing) would remain following harvest on the project area. It is estimated that the stands being reduced to temporary non-suitable condition would take approximately 15-20 years to regenerate to sufficient canopy heights to return these acres to a "suitable" habitat class. Patches of advanced regeneration comprised of shade-tolerant tree species would be retained to provide habitat structure and maintain these tree species in harvested stands. Given that the project area lies along the edge of a grassland/forest ecotone, affected forest patches are relatively isolated, that the acreage treated is relatively small, and that cover, and habitat would be retained for habitat connectivity, minimal adverse direct, indirect, and cumulative effects to Canada lynx would be anticipated.
3. Suitable denning habitat for wolverines generally found at high elevations in alpine habitat types capable of holding heavy snow in late spring is not present on the project area or within a mile of the project area. No adverse direct, indirect or cumulative effects to wolverines would be expected to occur as a result of this project.
4. This project area is either out of the range of the normal distribution for this species or suitable habitat is not present. Thus, no direct, secondary, or cumulative effects would be anticipated.
5. This project area is located within both Greater Sage-Grouse general and core habitat. This project was reviewed and approved by the Montana Sage Grouse Habitat Conservation Program on January 22, 2024 (Project No. 5346). Proposed alteration and removal of coniferous forest vegetation would have minimal direct, indirect, or cumulative effects on greater sage grouse. To minimize potential negative effects to sage grouse associated with soil disturbance and noxious weed spread, control measures and seeding of roads with site-adapted grass seed would be required.
6. The project area provides suitable habitat for deer and elk. Under the proposed action, 233 acres of mature forest would have tree density and associated crown cover reduced, which could influence local use of the area by big game for several decades. Relatively well stocked stands would remain on approximately 1,726 acres in the project area following the proposed harvest. However, the proposed salvage of downed trees and logs would promote movement through and use of the project area, which would likely be more difficult if dead and dying trees are left in a heavy jack-strawed condition over time. Given the location, size and type of the proposed activity, and habitat

attributes found on the project area, minor adverse direct, indirect and cumulative effects to deer and elk associated with cover removal on these habitats would be anticipated.

Wildlife Mitigations:

- A minimum of two snags and two snag recruitment tree per acre, of the largest diameter class, would be retained. Cull live trees and cull snags would be retained where possible given human safety considerations.
- Retain at least one large log >15 inch diameter and >20 feet long (or of the largest diameter available) per acre to comply with lynx HCP commitment LY-HB2(1).
- Retain patches of advanced regeneration comprised of shade-tolerant tree species to provide habitat structure and maintain these tree species as a part of the stand species mix.
- Project would be completed in an expeditious manner.
- Following project work, existing and new restricted roads would remain closed to motorized public access.
- To minimize negative effects associated with soil disturbance and noxious weed spread on sage grouse, control of noxious weeds and seeding of roads with site-adapted grass seed would be required.
- All applicable Administrative Rules for Forest Management and commitments in Montana's Forest Management Habitat Conservation Plan would be applied.

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				NA	
Dust	X				X				X				NA	
Action														
Smoke		X				X				X			1	1
Dust		X				X				X			Y	2

Comments:

1. Slash consisting of tree limbs and tops and other vegetative debris would be piled throughout the project area during harvesting. Slash would ultimately be burned after harvesting operations have been completed. Burning would introduce particulate matter into the local airshed, temporarily affecting local air quality. Over 70% of emissions emitted from prescribed burning is less than 2.5 microns (National Ambient Air Quality PM 2.5). High, short-term levels of PM 2.5 may be hazardous. Within the typical

column of biomass burning, the chemical toxics are: Formaldehyde, Acrolein, Acetaldehyde, 1,4 Butadiene, and Polycyclic Organic Matter.

2. Timber harvesting and log hauling could create dust, which may affect local air quality. However, because the dust would be localized to skid trails and haul roads and the project is relatively small and located in a remote area, effects to air quality are expected to be low. The greatest impact of dust would be along the county road where it passes through the Matador Ranch Headquarters.

Air Quality Mitigations:

- Burning within the project area would be short in duration and would be conducted when conditions favor good to excellent ventilation and smoke dispersion as determined by the Montana Department of Environmental Quality and the Montana/Idaho Airshed Group. The DNRC, as a member of the Montana/Idaho Airshed Group, would burn only on approved days.
- If the Forest Officer considered the dust level as unacceptable where the haul route passes through the Matador Ranch Headquarters, the application of dust abatement, such as magnesium chloride may be required.

ARCHAEOLOGICAL SITES / AESTHETICS / DEMANDS ON ENVIRONMENTAL RESOURCES:

Will Alternative result in potential impacts to:	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
No-Action														
Historical or Archaeological Sites	x				x				x					
Aesthetics	x				x				x					
Demands on Environmental Resources of Land, Water, or Energy	x				x				x					
Action														
Historical or Archaeological Sites		x				x				x			Y	1
Aesthetics			x			x			x				Y	2
Demands on Environmental Resources of Land, Water, or Energy		x				x					x		Y	3

Comments:

1. Scoping letters were sent to those Tribes that requested to be notified of DNRC timber sales. No response was returned that identified a specific cultural resource issue. A Class I (literature review) level review was conducted by the DNRC staff archaeologist for the area of potential effect (APE). This entailed inspection of project maps, DNRC's

sites/site leads database, land use records, General Land Office Survey Plats, and control cards. The Class I search results revealed that portions of the APE has been inventoried for previous timber sales. Four cultural resource sites (24BE1760, 24BE1825, 24BE1826, and 24BE1827) are within some of the affected sections where the proposed timber sale will occur, but these will be avoided with ground disturbing activities.

2. Under the No Action Alternative there would be no changes to aesthetics. There would be both positive and negative impacts to aesthetics associated with the implementation of the Action Alternative. Positive impacts include cleaning up dead standing timber and greening up of the hillsides with regeneration conifer stands and understory vegetation. Negative impacts include visibility of road cuts, landings, slash piles and skid trails. Negative impacts would be of relatively short duration as slash piles would be burned, landings grass seeded, and skid trails re-vegetate.
3. The project area is leased for grazing. It is not expected that cattle would be displaced by logging operations and once harvest is complete, more area will come into grass production with a reduction in canopy cover.

Mitigations:

1. 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.
2. For aesthetics, road cuts would be grass seeded promptly following construction and roads and landing would be grass seeded upon completion of sale activities.
3. Gate status, whether gates need to be closed or left open and any modifications of fencing would be coordinated with the grazing lessee.

OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA: *List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.*

- N/A

Impacts on the Human Population

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

Will Alternative result in potential impacts to:	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
No-Action														
Health and Human Safety	x				x				x					

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

Comments:

1. Some minor additional short-term risk to health and human safety could be present related to increases in logging traffic during operations.
2. Due to the relatively small size and short duration of the proposed project, impacts to the quantity and distribution of employment would exist but on a nearly unmeasurably small scale.
3. Most of the year the project area receives very light recreational use. In the summer, most recreational activity is limited to a few anglers on the West Fork of Blacktail Creek. Recreational use is the heaviest and most widely spread out during the big game rifle season. All other times of the year, the area outside of the Blacktail road corridor sees virtually no recreational use. Due to the seasonal concentrated use, relatively small size of the project, and short duration of activity, it is unlikely implementation of the Action Alternative will have much measurable direct or secondary impacts to recreation. No cumulative impacts are expected from the Action Alternative.

Mitigations:

- Signs at appropriate locations on public roads would be used to warn motorists and local residents of potential presence of log truck traffic.

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

- N/A

Other Appropriate Social and Economic Circumstances:

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

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

Action: The timber harvest would generate additional revenue for the Common Schools Trust. The estimated return to the trust for the proposed harvest is \$70,470 based on an estimated harvest of 1,719,000 board feet (14,094 tons) and an overall stumpage value of \$5.00 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: Riley Stevenson
Title: Dillon Unit Forester
Date: February 21, 2024

Finding

Alternative Selected

Upon review of the Checklist EA and attachments, I find the Action Alternative, as proposed, meets the intent of the project objectives as stated in the *Type and Purpose of Action*. The lands involved in this project are held by the State of Montana in trust for the support of specific beneficiary institutions and DNRC is required by law to administer these trust lands to produce the largest measure of reasonable and legitimate return over the long run (*Enabling Act of February 22, 1889; 1972 Montana Constitution, Article X Section 11; and, 77-1-212 MCA*). The Action Alternative was designed to be in full compliance of the State Forest Lands Manage Plan (SFLMP), the Administrative Rules for Forest Management (Forest Management Rules; ARM 36.11.401 through 471), as well as other applicable state and federal laws.

Significance of Potential Impacts

The identified resource management concerns have been fully addressed in the environmental analysis that was conducted. Specific project design features and various recommendations of the resource management specialists have been implemented to ensure that this project will fall within the limits of acceptable environmental change. For example, the project is designed to:

- Incorporate Best Management Practices (BMP's) in the design and construction of 3.65 miles of new road.
- Retain coarse woody debris to be left on site in amounts recommended by Graham, et.al (1994) and fine debris as much as practicable, maintaining nutrient cycling in harvest

units, helping maintain soil productivity, as well as to provide habitat substrates for wildlife.

- Limit the area of adverse soil impacts, equipment operations would be limited to periods when soils are dry (<20% soil moisture), frozen or snow covered (12" packed or 18" unconsolidated) as well as limited to slopes <45%.
- Implement mitigation measures to reduce the proliferation of weeds including requiring all off-road equipment to be washed prior to operation on site, sowing grass seed on roads after harvest, and applying herbicide along roadsides and on spots of weed outbreaks.
- Retain at least 2 large snags and 2 large snag recruitment trees (largest size available) per acre within harvest units across the project area.
- Retain patches of advanced regeneration comprised of shade-tolerant trees species to provide habitat structure, and maintain these tree species as a part of the stand species mix.
- Retain at least one large log >15-inch diameter or of the largest diameter available per acre.

Need for Further Environmental Analysis

☐

EIS

☐

More Detailed EA

☒

No Further Analysis

Environmental Assessment Checklist Approved By:

Name: Timothy Egan

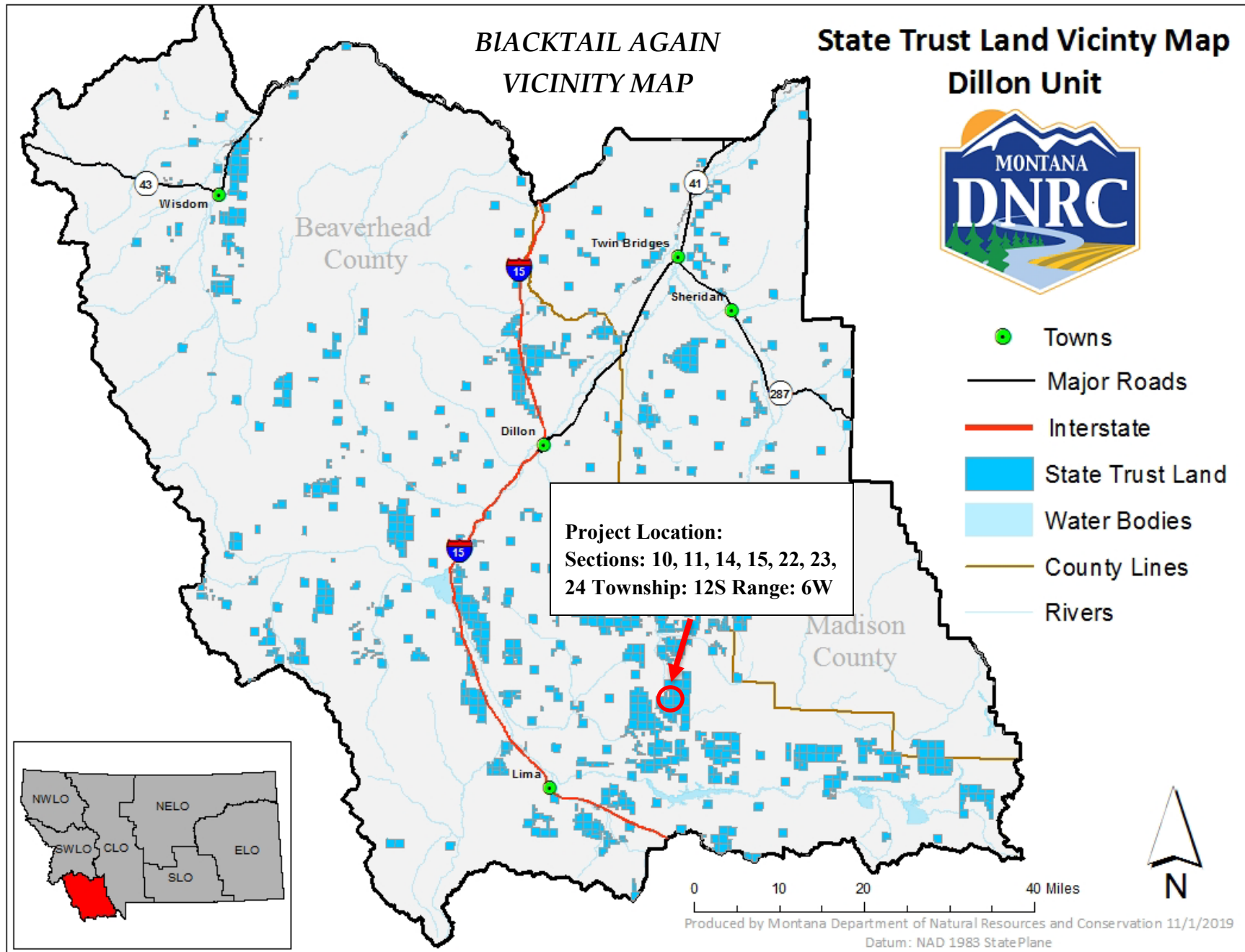
Title: Dillon Unit Manager

Date: February 22, 2024

Signature: /s/ Timothy Egan

Attachment A - Maps

A-1: Timber Sale Vicinity Map



A-2: Timber Sale Harvest Units

