Environmental Assessment Checklist

Project Name: Helena Unit WUI Fuels Reduction Project
Proposed Implementation Date: July, 2024
Proponent: Helena Unit, Central Land Office, Montana DNRC
County: Lewis & Clark, and Jefferson County

Type and Purpose of Action

Description of Proposed Action:

The Helena Unit of the Montana Department of Natural Resources and Conservation (DNRC) is proposing the Helena Unit WUI Fuels Reduction Project. The project is located near Helena and Clancy, MT (refer to Attachments vicinity map A-**1** and project map A-**2**) and includes the following sections:

Beneficiary	Legal Description	Total Acres	Treated Acres
Common Schools	**10N 4W S27 9N 4W S36 8N 3W S16**	**1,321**	**676**
Public Buildings			
MSU 2nd Grant			
MSU Morrill			
Eastern College-MSU/Western College-U of M			
Montana Tech			
University of Montana			
School for the Deaf and Blind			
Pine Hills School			
Veterans Home			
Public Land Trust			
Acquired Land			

Objectives of the project include:

- The primary objective of this project is to reduce fuel loading in young stands of timber located within the Wildland Urban Interface (WUI) on State Trust Land. The stands of young/sub-merchantable timber identified for treatment have significant potential to contribute to severe wildfire conditions. The parcels in this project area are in close proximity to Helena, MT and typically have structures on adjacent private land. Reducing fuel loading has many benefits for forest health. Treated stands of timber will be more resistant to wildfire and drought. The reduction in fuel loading will also create safer conditions to fight a potential wildfire.

- The Helena Unit WUI Fuels Reduction project has the potential to treat approximately 676 acres. Section 27 has 206 acres identified for treatment, Section 36 has 175 acres identified, and Section 16 has up to 295 acres identified for fuels reduction. The desired future condition of the treated areas is to have crop trees on a 15-20' spacing. All fuels reduction work will be completed by hand crews, and all slash generated from the treatment will be piled and burned in accordance with MT DEQ Air Quality Standards.

- The Helena Unit may determine to utilize prescribed fire in certain locations on the state owned parcels listed above. Low intensity prescribed fire is a tool that would help to create a more fire adapted landscape and lengthen the effective benefit time from the fuels reduction work completed by the hand crews.

Proposed activities include:

Action	Quantity
Proposed Harvest Activities	# Acres
Clearcut	
Seed Tree	
Shelterwood	
Selection	
Old Growth Maintenance/Restoration	
Commercial Thinning	
Salvage	
Total Treatment Acres	
Proposed Forest Improvement Treatment	# Acres
Pre-commercial Thinning	**676**
Site preparation/scarification	
Planting	
Proposed Road Activities	# Miles
New permanent road construction	0
New temporary road construction	0
Road maintenance	0
Road reconstruction	0
Road abandoned	0

Action	Quantity
Road reclaimed	0
Other Activities	
Prescribed Burning	<676

Duration of Activities:	Funding Dependent
Implementation Period:	Summer/Fall 2024

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

The DNRC would manage lands involved in this project in accordance with:
- The State Forest Land Management Plan (DNRC 1996),
- Administrative Rules for Forest Management (ARM 36.11.401 through 471),
- and all other applicable state and federal laws.

Project Development

SCOPING:

- DATE:
  - May 02, 2024 – May 17, 2024
- PUBLIC SCOPED:
  - The scoping notice was posted on the DNRC Website: https://dnrc.mt.gov/News/scoping-notices
  - Adjacent Landowners
- AGENCIES SCOPED:
  - Montana Department of Fish, Wildlife, & Parks
  - Montana Tribal Agencies
  - United States Forest Service
  - A field tour was held with Montana FWP Wildlife Biologist Adam Grove on the parcel located at 9N 4W S36. The proposed project area was observed, and preferred types of elk habitat were discussed.
- COMMENTS RECEIVED:
  - How many: Three comments were received.
  - Concerns: Montana FWP was concerned that a portion of Section 16, 8N, 3W is utilized by elk in the winter and other times of the year. Visual cover for elk was also a concern.
  - Results (how were concerns addressed): Three comment letters were received in relation to this project. Two of the comment letters were from adjacent landowners who wanted to voice their support for the proposed fuels reduction work on State Land. The third comment letter was from Montana FWP concerning winter elk habitat on Section 16, 8N, 3W. The DNRC met with FWP

Wildlife Biologist Adam Grove on-site to discuss possible concerns and suggestions for fuels treatments. It was determined during the site visit that the proposed fuels reduction work on this section would improve winter elk habitat by increasing spacing between small unmerchantable trees that are currently growing too close together to be utilized by elk in the area.

DNRC specialists were consulted, including: Jeff Schmalenberg, Chris Forristal 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.)*

- **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:

ALTERNATIVES CONSIDERED:

No-Action Alternative: Under this alternative, no fuels reduction work would occur. Foregoing fuels reduction work on these three parcels would allow overstocked stands of young sub-merchantable trees to continue to grow and multiply under stressed growing conditions. Overstocking increases competition for limited resources such as water and soil nutrients. Increased competition from overstocking is also a contributing factor in the likelihood of insect infestations and drought mortality. No-Action would also allow for the continued annual increase in fuel loading on the landscape

No prescribed fire will eliminate the short-term impacts to air quality of the Helena Valley and neighboring communities. Electing not to implement prescribed burning will also remove the potential for a prescribed fire to spread to areas where it was not intended. Safety to firefighters during a prescribed burn operation will not be impacted if no burn is conducted.

Action Alternative: DNRC would perform fuel reduction/thinning projects with hand crews. All slash will be piled by hand, and disposed of by burning the slash piles when conditions are safe to do so. A reduction in stand density would improve forest health, growing conditions for leave trees, and reduce the threat of a catastrophic wildfire. DNRC's neighboring landowners will benefit from a lower wildfire risk. Reduced stocking levels will also lessen the threat of an insect outbreak that could impact state land and adjacent stands of timber on private land.

DNRC may elect to use prescribed fire in select locations on the parcels identified for treatment in this project. There may be opportunities for DNRC to collaborate with other government agencies to implement prescribed fire across multiple ownerships. It is anticipated that prescribed burning will benefit the ecosystems in the treatment area since they are located in a fire adapted landscape. A wildfire is more likely to stay on the ground and be less damaging in areas that have been treated by a prescribed fire. Prescribed fire would also improve the safety of working conditions for wildland firefighters on these parcels in the event of a wildfire.

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:

All three parcels identified for treatment have similar existing vegetation conditions. Elevations across the three parcels range from 4,200'-5,000' above sea level. Ponderosa Pine is the dominant tree species and Doug-fir has a minor representation on each parcel. Timber management activities have occurred in the past on all three parcels. Three age classes of trees are present (overstory, mid-story, and young regeneration). Overstory trees are typically 12"+ dbh and are 40-60' tall. Mid-story trees range from 6-10" dbh and are 15-25' tall. Young regeneration ranges from 2-8" dbh, and are 6-15' tall. Current stocking levels vary greatly depending on the location and aspect within the unit(s) and range from 500-2,000+ tpa.

At the present time, there is evidence of pine beetle activity within the state owned parcels, and on adjacent private land. Mortality is currently occurring in small groups with only a few trees being impacted.

Project Area	Habitat Group	Fire Regime	Current Cover Type	Age Class (years)	DFC	RX	Acres
1 10N 4W S27	Warm and dry (eastside)	Low-to-mixed	Ponderosa Pine	0-39	Ponderosa Pine	Precommercial Thinning	206
2 9N 4W S36	Warm and dry (eastside)	Low-to-mixed	Ponderosa Pine	0-39	Ponderosa Pine	Precommercial Thinning	175
3 8N 3W S16	Warm and dry (eastside)	Low-to-mixed	Ponderosa Pine	0-39	Ponderosa Pine	Precommercial Thinning	295

Fire Hazard/Fuels: The fire hazard from fuel loading on all three project areas is significant. The three project areas are all adjacent to WUI. The fuel loading primarily consists of overstocked stands of young sub-merchantable Ponderosa Pine, and in some areas Douglas-Fir may be present. Densities range from 500-2,000+ TPA.

Insects and Diseases: At the present time there is evidence of pine beetle activity. All three project areas have a history pine beetle infestation/activity. The existing stand conditions are at high risk for an insect or disease outbreak due to overstocking and drought stress.

Sensitive/Rare Plants: The Montana Natural Heritage Program (MTNHP) Environmental Summary was used to identify the potential presence of plant Species of Concern, including threatened, endangered, or sensitive plant species, in the project area. Species of Concern are native species that are considered at risk of extirpation in Montana due to declining populations, threats to their habitats, restricted distribution, or other factors. Designation as a Montana Species of Concern is not a statutory or regulatory classification (MTNHP 2024). Results of this search were compared to the location of proposed treatment units for potential direct and indirect impacts and to assess the need for protective mitigation measures.

Noxious Weeds: Knapweed, Hound's Tongue, and Mullein can be found in various locations across the three project areas.

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					
Age Class	x				x				x					
Old Growth	x				x				x					
Fire/Fuels			x				x					x	N	1
Insects/Disease	x													
Rare Plants	x				x				x					
Noxious Weeds	x				x				x					
Action														

Vegetation	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
Current Cover/DFCs			**x**			**x**				**x**				**2**
Age Class		**x**				**x**				**x**				
Old Growth	**x**				**x**				**x**					
Fire/Fuels			**x**			**x**				**x**			**Y**	**3, 4**
Insects/Disease		**x**				**x**				**x**			**Y**	**5**
Rare Plants	**x**				**x**				**x**					
Noxious Weeds		**x**				**x**				**x**				**6**

Comments:

1. If a No-Action alternative is selected, there will be no treatment mechanism to reduce the fuel loading on the landscape. Over time the fuel loading from annual tree growth will continue to build each growing season.
2. If the Action alternative is selected, it would reduce stand density and competition for resources among trees and increase individual tree vigor. The Action alternative would also promote a stand condition that is more in line with historically occurring natural disturbance regimes.
3. If the Action alternative is selected, slash generated from the thinning treatment will be piled and burned in the fall/winter. There will be a short-term elevated threat from fuels until the slash piles are burned. Once the slash is burned, the risk from fire/fuels will be reduced. A decreased stand density would also alter potential fire behavior over the long term and decrease the risk of a crown or stand-replacing fire.
4. If the Action alternative is selected and prescribed fire is implemented, there may be a moderate direct risk of fire spreading beyond the intended treatment unit. Wildland fire personal and fire suppression equipment will be on-site during prescribed fire operations in order to reduce this risk.
5. If the Action alternative is selected, there may be an short-term increased risk from insect and disease due to fresh slash being generated. Depending on the time of year, fresh cut slash may attract pine beetles to the slash piles and neighboring trees. This threat will be reduced once the slash piles are burned or the slash has dried significantly in the pile. A decreased stand density post treatment will increase individual tree vigor, which will result in reduced susceptibility to future insect and disease outbreaks.
6. If the Action alternative is selected, the spread of noxious weeds from thinning would be minimal since no mechanized equipment will be used that would disturb the ground. If prescribed burning is used, it could increase potential noxious weed spread. Post prescribed fire it will be necessary to monitor and spray weeds to control potential establishment of noxious weeds.

Vegetation Mitigations:

1. All precommercial thinning will be completed by hand crews. This will limit potential vegetation impacts since no mechanized equipment will be working within the proposed treatment units.
2. Trees with the best vigor will be retained as leave trees in order to create the desired future condition of a resilient stand with superior genetics.
3. Thinning slash shall be piled away from leave trees and burned during the winter.
4. Prescribed burning operations will only be conducted when conditions are safe to do so and are in prescription as determined by a qualified Burn Boss. Burning during the appropriate conditions will reduce the impacts to existing vegetation.

SOIL DISTURBANCE AND PRODUCTIVITY:

Soil Disturbance and Productivity Existing Conditions: The soils across all the proposed treatment units are classified as “Drought Vulnerable Soils” per the USDA Web Soil Survey. Vegetation growing on drought vulnerable soils are likely to experience drought stress, even on years with normal to slightly less than normal precipitation.

Since the project area is likely to experience drought on a frequent basis, reducing the stocking levels of young trees will decrease the competition for limited soil moisture. Trees that are less stressed from drought are more likely to withstand the impacts of wildfire or insect attacks.

Timber management has occurred on all three of the proposed project areas in the past. Soil disturbance from previous operations has recovered and is in a functioning condition.

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														
Physical Disturbance (Compaction and Displacement)		**x**				**x**			**x**				**Y**	**1**
Erosion	**x**				**x**				**x**					
Nutrient Cycling	**x**				**x**				**x**					
Slope Stability	**x**				**x**				**x**					
Soil Productivity	**x**				**x**				**x**					

Comments:

1. If the Action alternative is selected, there may be a short-term disturbance to soil from a prescribed fire or from burning slash piles. The impacts may be mitigated by burning when conditions are in prescription and favor a low intensity prescribed fire or pile burning operation.

Soil Mitigations: Thinning operations will only be conducted when soil conditions are dry or frozen. No mechanized equipment will be utilized to achieve the objectives of this project. Prescribed fire will only be implemented during periods that would facilitate a low intensity ground fire as determined by Government Agency Wildland Fire professionals.

WATER QUALITY AND QUANTITY:

Water Quality and Quantity Existing Conditions: The proposed fuel reduction treatment units have no streams or wetlands present. In the event a wet area or stream is encountered on the ground, the proposed unit boundary would be adjusted to exclude areas with water present.

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**					
Water Quantity	**x**				**x**				**x**					

Comments: Removal of pre-commercially thinned trees would have no measurable impacts to water quality or quantity. Hand falling and SMZs protections would generate no impacts to water quality. No change in water quantity is expected.

Water Quality & Quantity Mitigations: No thinning or prescribed fire operations activities would occur in a Stream Side Management Zone (SMZ). There are no SMZ's within the proposed treatment units. Excluding management activities in areas with water present will eliminate the potential risk of impacting water quality or quantity.

FISHERIES:

Fisheries Existing Conditions:

This proposed project will not treat any aquatic areas or fish bearing streams. No further fisheries analysis is warranted.

WILDLIFE:

Wildlife Existing Conditions: The project area is comprised of both forested and unforested wildlife habitat. Grasslands occupy the unforested areas, whereas forested areas are composed of ponderosa pine and Douglas-fir stands in a variety of size classes, with younger size classes more predominant. Overstory trees range from 40 to 70 feet tall in stands containing mature trees. A variety of native and non-native species use this varied habitat, including game species managed by Montana Fish, Wildlife, and Parks (e.g. mule deer, elk, wild turkey). Historically, wildlife habitat and vegetation communities in the project area were likely shaped by frequent, low-intensity wildfires.

No-Action: Existing conditions of terrestrial, avian, and aquatic habitats will continue in their current state. Forest health concerns will remain due to the overstocking of encroachment trees on the landscape. Elevated wildfire risk to wildlife habitat will persist due to high fuel loading. Species that rely on grasslands will experience a decrease in habitat over time due to encroaching conifers occupying additional acreage.

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**					**1.**
Lynx (*Felis lynx*) Habitat: mosaics--dense sapling and old forest >5,000 ft. elev.	**x**				**x**				**x**					**2.**
Wolverine (*Gulo gulo*) Habitat: high elevation areas that retain high snow levels in late spring	**x**				**x**				**x**					**2.**
Sensitive Species														
Bald eagle *(Haliaeetus leucocephalus)* Habitat: Late-successional forest within 1 mile of open water		**x**				**x**			**x**					**3.**
Black-backed woodpecker *(Picoides arcticus)*	**x**				**x**				**x**					**2.**

Wildlife	Impact												Can Impact be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
Habitat: Mature to old burned or beetle-infested forest														
Black-tailed prairie dog (*Cynomys ludoviscianus*) Habitat: grasslands, short-grass prairie, sagebrush semi-desert	**x**				**x**				**x**					**2.**
Flammulated owl *(Otus flammeolus)* Habitat: Late-successional ponderosa pine and Douglas-fir forest		**x**				**x**				**x**			**Y**	**4.**
Greater sage grouse (*Centrocercus urophasianus*) Habitat: sagebrush semi-desert	**x**				**x**				**x**					**2.**
Peregrine falcon *(Falco peregrinus)* Habitat: Cliff features near open foraging areas and/or wetlands	**x**				**x**				**x**					**2.**
Pileated woodpecker *(Dryocopus pileatus)* Habitat: Late-successional ponderosa pine and larch-fir forest		**x**				**x**				**x**			**Y**	**5.**
Fringed myotis (*Myotis thysanodes*) Habitat: low elevation ponderosa pine, Douglas-fir and riparian forest with diverse roost sites including outcrops,		**x**				**x**				**x**			**Y**	**6.**

Wildlife	Impact												Can Impact be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
caves, mines														
Hoary bat (*Lasiurus cinereus*) Habitat: coniferous and deciduous forests and roost on foliage in trees, under bark, in snags, bridges		**x**				**x**				**x**			**Y**	**7.**
Townsend's big-eared bat *(Plecotus townsendii)* Habitat: Caves, caverns, old mines	**x**				**x**				**x**					**2.**
Big Game Species														
Elk			**x**			**x**				**x**			**N**	**8.**
Whitetail			**x**			**x**				**x**			**N**	**8.**
Mule Deer			**x**			**x**				**x**			**N**	**8.**
Other														

Comments:

1. **Grizzly Bear –** The project area is not within a recovery zone or non-recovery occupied habitat (Wittinger 2002). While occasional presence of a grizzly bear in the project area parcels is possible, appreciable use by grizzly bears would not be expected due to the distance from occupied grizzly bear habitat, lack of preferred habitat, and proximity of human developments. As grizzly bears continue to expand their range outside of recovery zones, bears could occasionally travel through the parcel during their long-range movements, but appreciable changes to potential movement patterns would not be anticipated under the Action Alternative.

2. The project area is either out of the range of the normal distribution for this species or suitable habitat is not present. Thus, no direct, secondary, or cumulative effects would be anticipated.

3. **Bald Eagle –** The closest know bald eagle nest is approximately 1.3 miles from one of the project area parcels. Appreciable use of the project area by bald eagles is not anticipated and eagles in the vicinity of the project area are likely habituated to moderate levels of motorized disturbance by humans due to existing surrounding development and roads. Large emergent trees and snags (>21" dbh) preferred by eagles for hunting and nesting would not be affected by the proposed forest management activities.

4. **Flammulated Owl –** The proposed forest management would affect approximately 626 acres (47.4% of the project area) of preferred flammulated owl cover types. These stands would receive thinning treatments that would maintain or improve habitat suitability by creating more open forest structure and favoring larger trees. Suitable flammulated owl habitat would likely persist within the Project Area. Preservation of large snags and patches of submerchantable trees (if available) To retain potential nesting trees for flammulated owls, at least 2 large snags and 2 large snag recruitment trees per acre (>21 inches dbh) would be retained (*ARM*

36.11.411). If harvesting occurred during the summer or early fall period, flammulated owls could be temporarily displaced by the proposed activities. Within the surrounding cumulative effects analysis area (CEAA), flammulated owl habitat would remain similar to existing levels; however, snags available for nesting are likely limited in some areas due to differing snag conservation philosophies on surrounding private ownerships.

5. **Pileated Woodpecker –** Some small areas of potentially suitable pileated woodpecker habitat are present within the project area. While the proposed forest management activities could occur on portions of this habitat, the treatments would primarily target removal of smaller understory trees and not the larger, seral trees that pileated woodpeckers utilize for nesting and foraging. A reduction in tree and coarse woody debris density could decrease overall habitat quality in the short-term. In the long term, healthier forest stand conditions would increase the likelihood of more acres growing into suitable pileated woodpecker habitat. The proposed Action Alternative could result in short-term disturbance of pileated woodpeckers, should any be in the project area when activities occur. Habitat conditions in the surrounding CEAA are similar to the project area in that it is patchy in nature and of low abundance. Interspersed grasslands and unsuitable habitat types on dry, open slopes result in low connectivity. However, the treatments proposed would not be expected to remove any existing suitable habitat and continued persistence of pileated woodpeckers (should they be present) within the CEAA is anticipated.

6. **Fringed myotis -** The proposed activities could affect approximately 626 acres of potential fringed myotis bat habitat. No fringed myotis have been detected in within the project area, however some rocky outcrops are present and use is possible in ponderosa pine forests (Keinath 2004). Fringed myotis typically roost in caves, mines, rock crevices, buildings, and other protected sites (Bachen et al. 2020) and if present they could be temporarily displaced by timber harvesting. Disturbance activities would likely be of relatively short duration. Tree and crown closure reductions under the action alternative would likely improve habitat quality and the possibility of use by foraging bats in these stands by creating a more open understory. 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 potential foraging or roosting habitat.

7. **Hoary bat -** The proposed activities would affect approximately 626 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. Tree and crown closure reductions under the action alternative would likely improve habitat quality and the possibility of use by foraging bats in these stands by creating a more open understory. Potential disturbance would only be expected from late May through September, when hoary bats are in Montana. After the conclusion of activities, continued use of treated areas by hoary bats would be anticipated. At least 2 large snags and 2 large snag recruitment trees per acre (>21 inches dbh, or largest size class available) would be retained and could provide potential roosting habitat.

8. **Big game -** The project area contains year-round habitat for deer and elk, including mule deer and elk winter range. Proposed forest management could impact approximately 253 acres (54.8% of available) of hiding cover and 31 acres (27.6% of available) of thermal cover (≥40% conifer crown closure over 26 feet high). Proposed forest management would maintain some small areas of hiding cover and thermal cover, however the quality of this habitat would be reduced. Topographic screening is also present in portions of the project area and reduces site distances. The risk of human hunting mortality could increase to a minor degree. Disturbance associated with forest management activities could temporarily displace individual animals in the area, however the project would be of relatively short duration. No new road construction

would occur. Reductions in stand and stem density under the proposed action would decrease stand-replacement wildfire risk and likely increase the long-term persistence of forest habitat in this area. Continued use of the project area and CEAA by big game species would be expected.

Wildlife Mitigations:

- Retain a minimum of two snag and two snag recruitment tree per acre of the largest diameter class available.
- Maintain screening cover along riparian areas.
- Retain coarse woody debris amounts in harvest units according to ARM 36.11.414.
- Contact a DNRC wildlife biologist should any threatened or endangered species be encountered within the proposed project area.
- Contact a DNRC wildlife biologist should an active raptor nest be encountered within ½ mile of the proposed project area.

References:

Bachen, D.A., A. McEwan, B. Burkholder, S. Blum, and B. Maxell. 2020. Accounts of Bat Species Found in Montana. Report to Montana Department of Environmental Quality. Montana Natural Heritage Program, Helena, Montana. 58 p.

DFWP. 2008. Maps of moose, elk, mule deer, and white-tailed deer distribution in Montana. *In* Individual GIS data layers. Available online at: https://gis-mtfwp.hub.arcgis.com/search?tags=wildlife

Keinath, D.A. (2004, October 29). Fringed Myotis (*Myotis thysanodes*): a technical conservation assessment. [Online]. USDA Forest Service, Rocky Mountain Region. Available: http://www.fs.fed.us/r2/projects/scp/assessments/ fringedmyotis.pdf 1/27/2023.

MNHP. 2024. Natural Heritage Map Viewer. Montana Natural Heritage Program. Retrieved on August 12, 2024, from http://mtnhp.org/MapViewer.

AIR QUALITY:

Air Quality	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
No-Action														
Smoke	**x**				**x**				**x**					
Dust	**x**				**x**				**x**					
Action														
Smoke		**x**			**x**				**x**				**Y**	**1**
Dust	**x**				**x**				**x**					

Comments:

1. If the Action alternative is selected, there will be a short-term impact from smoke related to burning slash piles or implementing a prescribed fire. Impacts from smoke can be

mitigated by burning within approved conditions as determined by the Montana/Idaho Airshed Group.

Air Quality Mitigations: DNRC will only burn on days approved for good smoke dispersion as determined by Montana/Idaho Airshed Group.

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**					**1**
Aesthetics		**x**			**x**				**x**				**Y**	**2, 3**
Demands on Environmental Resources of Land, Water, or Energy	**x**				**x**				**x**					

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 much of the APE was previously inventoried and several instances of placer mining was identified.

   Proposed fuel reduction activities are expected to have *No Effect* to *Antiquities*, so 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. Aesthetics from thinning will result in slash piles on the ground. The slash piles will be disposed of by burning when conditions are safe to do so, thus eliminating aesthetic impacts.

3. Prescribed burning will result in a burned appearance on the landscape. It is anticipated that new foliage will reoccupy the areas treated with a prescribed burn. Ground vegetation typically responds in a positive manner to a low intensity prescribed fire.

Mitigations:

1. Burn all slash piles generated from thinning operations when conditions are safe to do so and air quality standards are being met.

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.*

- Currently there are no environmental documents pertaining to proposed future actions on the three parcels identified for fuels reduction work. The parcels located at T10N R4W S27 and T8N R3W S16 have little to no potential for timber management activities to take place within the next 20-30 years. S36, T9N, R4W is under consideration for a potential timber harvest in the future depending on market conditions.

- DNRC may elect to participate with other land management agencies to implement prescribed burning activities on the parcels identified for treatment in this document.

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		N	1
Industrial, Commercial and Agricultural Activities and Production		x				x				x			N	2
Quantity and Distribution of	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		
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	3
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					

Comments:

1. If the No Action Alternative is selected, Health and Human Safety may be impacted due to the increased wildfire threat from heavy fuel loading that is present on state owned land. The threat of wildfire will continue to compound on an annual basis due to annual growth of overstocked stands of trees.

2. If the No Action Alternative is selected, agricultural grazing may be impacted since livestock cannot graze areas that are densely populated with young trees. Young trees will also continue to grow and reproduce, thus reducing the total number acres occupied by grass over time.
3. If the Action Alternative is selected, Health and Human Safety may have short term impacts during thinning and prescribed fire operations. Signage will be utilized at public access points to inform the public to the work occurring on state land.
4. If the Action Alternative is selected, recreational access may be impacted while work is occurring. Once thinning and prescribed fire operations are completed, the public may resume full access to all locations on state land.

Mitigations: DNRC has Public Information Officers that can release public information statements for work occurring on state land that has the potential to impact the general public who utilize the state land identified in this proposed project.t

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.*

- Helena, MT is situated in a fire prone landscape with many wildland urban interfaces (WUI). There are many fuel reduction projects that have been planned and implemented in the Helena area by DNRC, USFS, BLM, and private landowners. This project is intended to contribute to work being performed by other government land management agencies and private land owners to reduce fuel loading across the landscape. Work implemented on S27, T10N, R4W would connect to a previously completed fuel reduction project that crosses multiple ownerships in the south hills of Helena called the Capitol 360 Project.

Other Appropriate Social and Economic Circumstances:

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

Action: The Action alternative would not generate any return to the trust at this time. An estimated cost to complete hand thinning and slash piling is between $800 - $1,000 per acre. A total estimated cost to hand thin and pile 676 acres would be between $540,800 - $676,000.

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?
The proposed action of prescribed burning is unlikely to adversely affect private property, but could in the event the prescribed fire spreads to areas it was not intended. Fire management personal plan for this potential scenario, and resources would be on-site to reduce the potential of a prescribed fire extending beyond its inte

Does the proposed action have impacts that are individually minor, but cumulatively significant or potentially significant?
No.

Environmental Assessment Checklist Prepared By:

Name: Brian Krott
Title: Trust Land Forester
Date: 06/17/2024

Finding

Alternative Selected

Two alternatives are presented and fully analyzed in the CEA:

- The No-Action Alternative includes existing activities but does not include the proposed action of reducing fuels through thinning and prescribed fire on 676 acres.
- In addition to existing activities, the Action Alternative proposes 676 acres of fuels reduction through thinning and prescribed fire.

After reviewing the correspondence from the public and information presented in the CEA, I have selected the Action Alternative without additional modifications. I feel the Action Alternative best meets the purpose and need for action for the following reasons:

- The selected Action Alternative meets the type and purpose of action listed in this CEA.
- The analysis of identified issues did not reveal information to persuade DNRC, or myself, to choose the No-Action Alternative.
- The Action Alternative for this project meets all requirements of the Administrative Rules for Forest Management (*ARM 36.11.401* through *450*).
- The project area is located on DNRC-managed lands that are principally valuable for the timber that is on them (*77-1-402 MCA*). DNRC manages these lands according to the standards adopted by the Administrative Rules for Forest Management (*ARM 36.11.401* through *450*) and the philosophy within the SFLMP.
- The selected Action Alternative aligned with the Montana Forest Action Plan and supports cross-boundary, landscape-scale projects that promotes healthy, working forests, that are resilient to disturbance and a changing climate

- As mandated by State statute (*77-5-222 MCA*), the proposed precommercial thinning improves forest growth for improved future contribution to DNRC's sustained yield.

Significance of Potential Impacts

I find that the Action Alternative would not have significant impacts on the human environment for the following reasons:

- The proposed fuels reduction project conforms to the management philosophies of DNRC and follows existing laws, rules, policies, and standards applicable to this type of proposed action.
- The Action Alternative would not preclude analysis of future actions on state trust lands.
- Mitigations and specifications identified in the CEA would be implemented as prescribed.
- The proposed activities are similar to past projects on state trust lands using common practices in the industry and would not be conducted on unique or fragile sites.

Need for Further Environmental Analysis

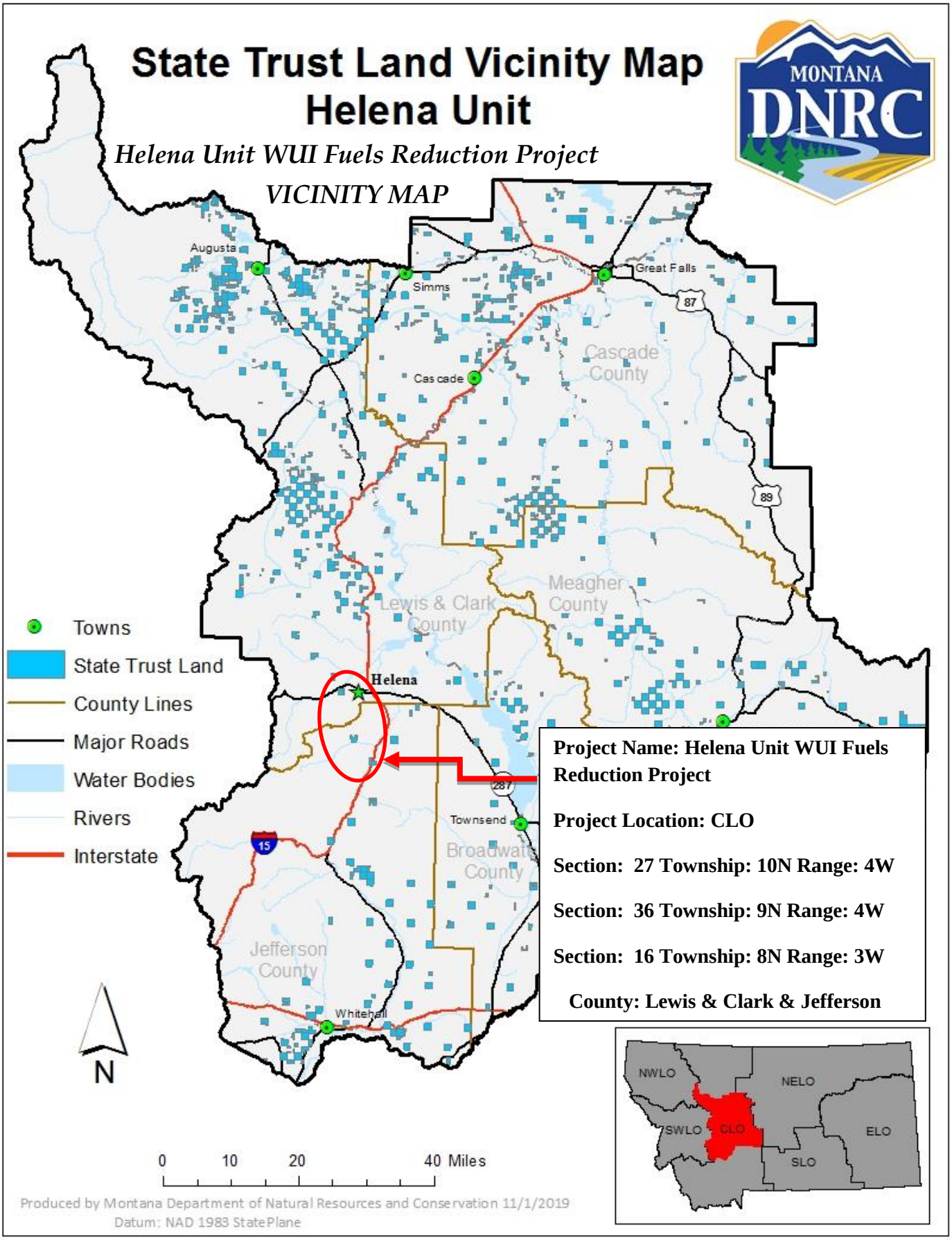
[ ]	EIS	[ ]	More Detailed EA	[X]	No Further Analysis

Environmental Assessment Checklist Approved By:

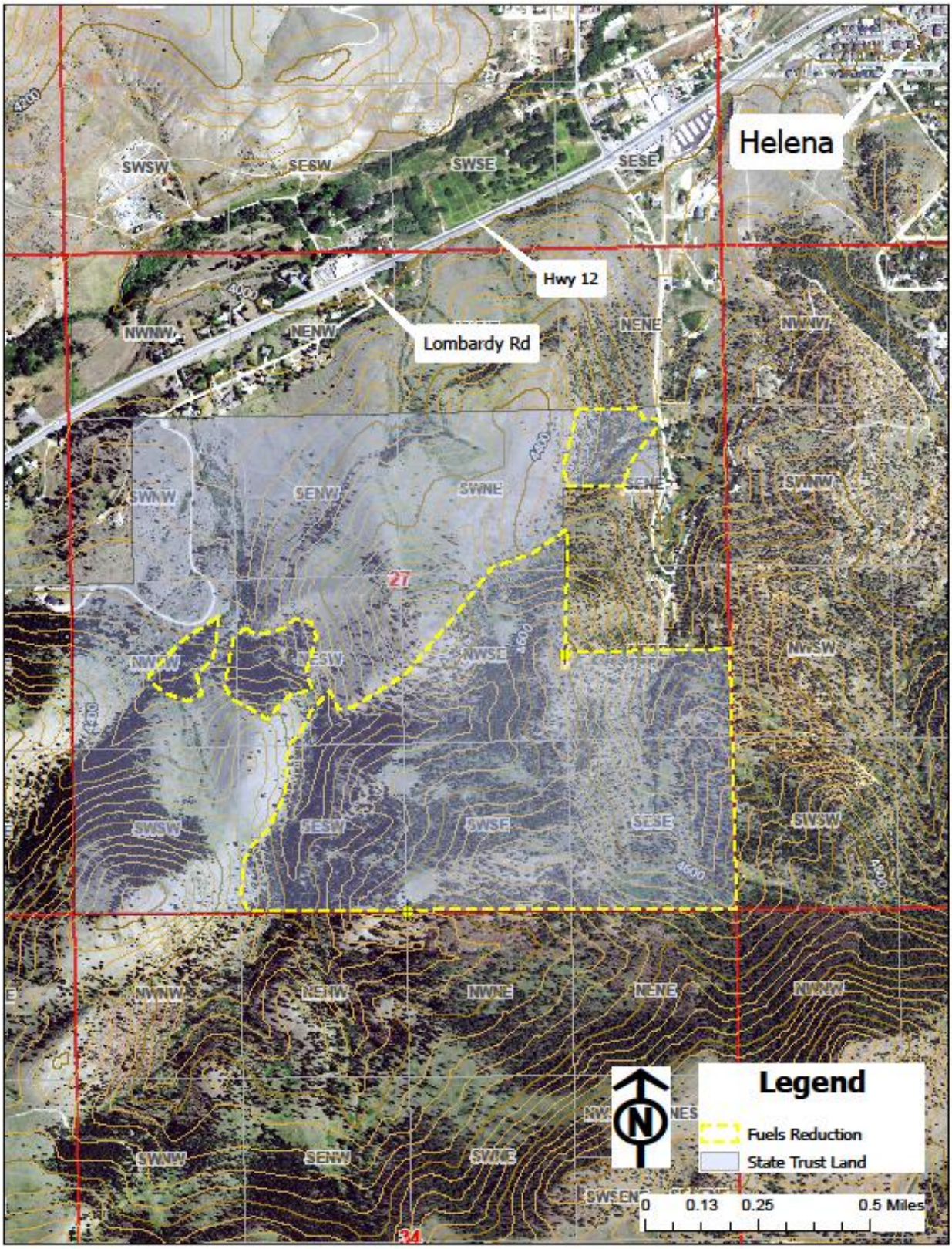
Name: Adam Blythe
Title: Unit Manager
Date: 09/20/2024
Signature: /s/ Adam Blythe

Attachment A - Maps

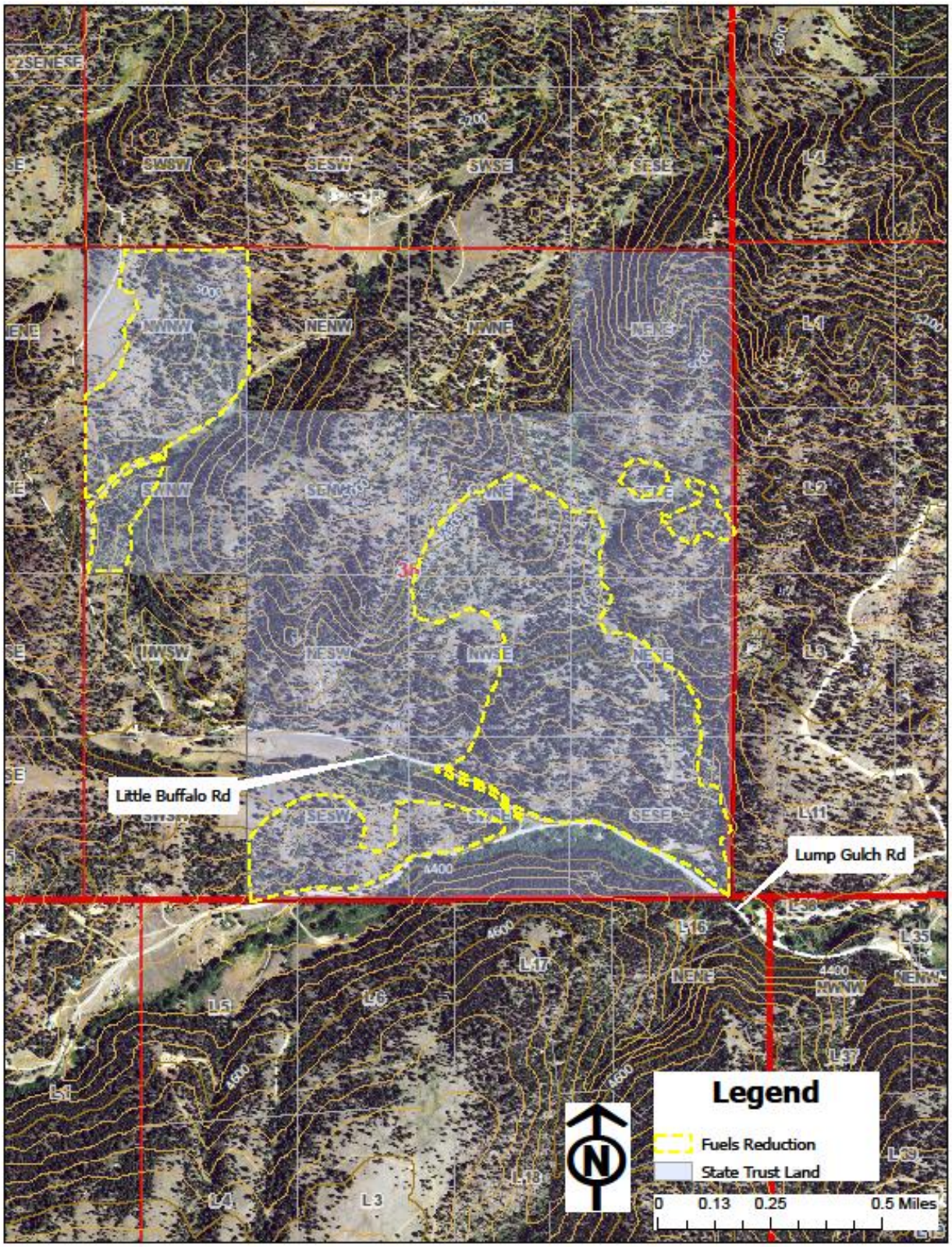
A-1: Helena Unit WUI Fuels Reduction Project Vicinity Map



A-2: Section 27, Township 10N Range 4W Units



A-3: Section 36, Township 9N Range 4W Units



A-4: Section 16, Township 8N Range 3W Units