Environmental Assessment Checklist

Project Name: Tarkio Pines Timber Sale
Proposed Implementation Date: July 2015-December 2017
Proponent: Missoula Unit, Southwest Land Office, Montana DNRC
County: Missoula

Type and Purpose of Action

Description of Proposed Action:

The Missoula Unit of the Montana Department of Natural Resources and Conservation (DNRC) is proposing The Tarkio Pines Timber Sale. The project is located 14 air miles east of Superior, MT (refer to vicinity map Attachment A-**1** and project map A-**2**) and includes the following sections:

Beneficiary	Legal Description	Total Acres	Treated Acres
Common Schools			
Public Buildings			
MSU 2nd Grant			
MSU Morrill			
Eastern College-MSU/Western College-U of M	**Section 35 T15N R25W**	**640**	**201**
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:

- Reduce stocking within treated areas to prevent loss due to fire.
- Reduce competition for limited water and nutrients.
- Generate revenue for the Eastern College-MSU/Western College-U of M Trust.

Proposed activities include:

Action	Quantity
Proposed Harvest Activities	
Clearcut	0
Seed Tree	0
Shelterwood	0
Selection	201 acres
Commercial Thinning	0
Salvage	0
Total Treatment Acres	**201 acres**
Proposed Forest Improvement Treatment	
Pre-commercial Thinning	**0**
Planting	**0**
Proposed Road Activities	
New permanent road construction	.25 miles
New temporary road construction	0
Road maintenance	.75 miles
Road reconstruction	0
Road abandoned	0
Road reclaimed	0

Duration of Activities:	07/15-12/17
Implementation Period:	07/15-12/17

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

A Scoping Notice was sent to adjacent landowners and interested parties on January 13, 2015. Legal ads were placed in the weekly edition of the Mineral Independent newspaper on January 15 and January 22, 2015.

One comment letter was received from the Confederated Salish and Kootenai Cultural Preservation Office. The letter from the Tribal Cultural Preservation Office stated that the project

area had been reviewed for cultural resources and they were not aware of any cultural resources that could be impacted by this project. These comments and concerns were considered when developing the Action Alternative.

DNRC specialists were consulted, including: Garrett Schairer-Wildlife Biologist and Jeff Collins-Soils Scientist/Hydrologist.

Issues and concerns were incorporated into project planning and design and would 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 2006). The Group determines the delineation of airsheds and impact zones throughout Idaho and Montana. Airsheds describe those geographical areas that have similar atmospheric conditions, while impact zones describe any area in Montana or Idaho that the Group deems smoke sensitive and/or having an existing air quality problem (Montana/Idaho Airshed Group 2006). As a member of the Airshed Group, DNRC agrees to burn only on days approved for good smoke dispersion as determined by the Smoke Management Unit.

- **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 www.dnrc.mt.gov/HCP.

ALTERNATIVES CONSIDERED:

No-Action: No commercial harvest would occur at this time.

Action Alternative (Provide a brief description of all proposed activities): A commercial timber harvest would take place to remove approximately 500 thousand board feet of timber. Timber would be harvested using ground based methods.

Impacts on the Physical Environment

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

VEGETATION:

Vegetation Existing Conditions: The project area is predominantly ponderosa pine in an overstocked and suppressed condition, typical of those found within the I-90 corridor in Mineral County. These overstocked conditions are further exacerbated by thin rocky soils and limited rainfall. There is also an endemic presence of Mountain Pine Beetle onsite. The Desired Future Condition (DFC) for the project area is an open ponderosa pine stand typical of those found within the Clark Fork River valley prior to organized fire suppression. The project area has a harvest history which includes harvesting when the site was owned by the United States Forest Service and salvage logging following the I-90 fire in 2005. These harvest activities and/or the I-90 fire have removed the majority of the large trees from the site. The overstory is dominated by ponderosa pine 10”-14” DBH. These overstory trees have varying amounts of defect such as crook, sweep, forked tops, etc.

There is no Old Growth in the project area.

Noxious Weeds:

Existing weeds, mainly knapweed, houndstongue and thistle are common in the area, especially along roads and disturbed areas such as the adjacent area of past wildfire. Spot infestations of toadflax and leafy spurge, increased activity in the project areas, as well as a more open canopy, can lead to an increased risk of noxious weeds.

No rare plants were identified during field reconnaissance or within the Montana Natural Heritage Program dataset.

Vegetation	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
No-Action														
Noxious Weeds			X				X				X			
Rare Plants	X				X				X					
Vegetative community	X				X				X					
Old Growth	X				X				X					
Action														
Noxious Weeds		X				X				X				
Rare Plants	X				X				X					
Vegetative community		X				X				X			**Yes**	**1**
Old Growth	X				X				X					

Vegetation Comments and Mitigations:

Comments:
1) *DNRC has conducted roadside spraying in the project area, yet noxious weeds continue to occur on state and adjacent lands, spread by disturbance, equipment operations, fire disturbance, animals and wind. Should the Action Alternative be implemented, project areas would be monitored for noxious weeds and herbicide would be applied along roads. If mechanical methods are used, all equipment would be washed and inspected prior to start of work.*

2) The Action Alternative would target approximately 500 thousand board feet (MBF) of smaller, less-vigorous ponderosa pine and/or trees exhibiting poor genetic qualities for removal across 201 acres, leaving healthy ponderosa pine in the project area. All healthy Douglas-fir in the overstory would be retained in order to avoid creating a monoculture of ponderosa pine which could be decimated by an epidemic of Mountain Pine Beetle. This would maintain and hopefully improve the health of the ponderosa pine dominated overstory. Reducing the stocking level in the overstory would free up limited water and nutrients for the understory and the residual ponderosa pine overstory, increasing their growth and vigor. Under the Action Alternative, stand density would be reduced favoring species consistent with the DFC, therefore the proposed alternative would have a low risk of direct, indirect and cumulative effects on the vegetative community.

Vegetation Mitigations:

- *Leave ponderosa pine in the overstory as a seed source*
- *Protect advanced regeneration during all aspects of timber harvest*
- *Harvest in the winter to reduce the likelihood of spreading noxious weeds by limiting scarification.*
- *Clean equipment to minimize the potential of introducing new weeds to the project area.*

SOIL DISTURBANCE AND PRODUCTIVITY:

Soil Disturbance and Productivity Existing Conditions: No unstable or unique geology were identified in the project area. Soils in the project area are Krause deep very gravelly sandy loams with a thin silt loam surface (volcanic ash influenced). Shallow surface soils are subject to displacement. Krause soils are excessively well drained and droughty. Included soils are small areas of shallow rock, and areas of deep sands and silts associated with ancient Lake Missoula deposits that are prone to rutting if operated on when wet and short segments of existing road are rutted. Erosion potential is low to moderate. The sandy areas may have a higher risk of windthrow. There are low levels of woody debris on the ground and some wind-thrown trees. The moderate slopes and dry sites have a long season of use and are well suited to ground based operations. Past harvests have occurred in the area, mainly on moderate slopes and skid trails have revegetated with no apparent BMP departures and there were low cumulative effects.

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**			**Yes**	**1**
Erosion		**X**				**X**				**X**			**Yes**	**1**
Nutrient Cycling			**X**				**X**			**X**			**Yes**	**2**
Slope Stability	**X**				**X**				**X**					
Soil Productivity			**X**				**X**			**X**			**Yes**	**2**

Soil Comments and Mitigations:

1. *Best Management Practices (BMPs) would be implemented on all roads and within the units. A sort segment of rutted road would be rocked with pit-run gravel. To minimize soil impacts, operations would be limited to moderate slopes less than 40% and dry, frozen or snow covered conditions. Windthrow risk could be reduced by promoting codominant trees that are well spaced to reduce moisture competition and improve growth.*

2. *Mitigations for implementing the Action Alternative would include:*

   a) *Season of use limits, and retaining a portion of woody debris for nutrients, while providing of hazardous fuel reduction.*

   b) *Prompt revegetation as needed to protect soil resources.*

   c) *Retaining 5 tons/ acre of well distributed slash (fine and coarse woody debris) during harvest for soil productivity/moisture/and conifer microsites. Residual slash from cut trees would be crushed by equipment, or lopped and scattered and left within the unit (or wood chips if masticated). Nutrients would be available to soils as they decompose.*

WATER QUALITY AND QUANTITY:

<u>Water Quality and Quantity Existing Conditions:</u> There are no stream courses within the thinning project area.

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				1
Water Quantity		X				X				X				1

Comments:

1. *The proposed harvest, if implemented, is not expected to have a measurable influence on: water quality, the amount or timing of runoff (water yield), or downslope stream stability from the proposed project area when compared to the effects anticipated under no action. In summary, all BMP's, would be applied and administered during harvest operations. There would be low risk of disturbance or off-site erosion as a result of the use of existing road for access and log hauling, and conducting activities during the winter. Based on the harvest design, there is low risk of direct, indirect or cumulative effects to water quality or downstream beneficial uses from the action alternative.*

Water Quality & Quantity Mitigations:

- *The proposed activities would take place while soils are frozen and snow covered to limit rutting or disturbance. If soil/snow conditions deteriorate and we enter a spring "break-up" condition harvest would be discontinued until soils are adequately dry, based on inspection.*

- *The proposed haul route would use existing roads. Hauling operations would be limited to frozen or snow covered conditions to prevent rutting disturbance and sedimentation. If these conditions cannot be met, hauling would take place when soils are adequately dry, based on inspection. Any damages to roads would be repaired.*

- *Skid trails would be stabilized by slashing and installing drainage where needed to prevent erosion.*

FISHERIES:

<u>Fisheries Existing Conditions:</u> No Effects- There are no streams or surface waters or wetlands in the harvest area or stream crossings.

WILDLIFE:

Evaluation of the impacts of the No-Action and Action Alternatives including **<u>direct, secondary, and cumulative</u>** impacts on Wildlife (including unique, endangered, fragile, or limited environmental resources).

Wildlife Existing Conditions: The project area has been harvested several times leaving a scattered overstory and a well-stocked understory. No mature habitat currently exists in the project area. The largest diameter trees in the project area are ponderosa pine. In some instances trees 21" dbh and greater do not meet current snag retentions defined in ARM 36.11.411 (2 snags and 2 snag recruits per acre).

No-Action: No direct, secondary or cumulative effects would likely occur beyond those described in the existing conditions.

Action Alternative (see Wildlife table below):

Wildlife	Effects								Can Impact be Mitigated?	Comment Number
	Direct and Indirect				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High		
Threatened and Endangered Species										
Grizzly bear *(Ursus arctos)* Habitat: Recovery areas, security from human activity	**X**				**X**				**Y**	**W-1**
Canada lynx (*Felix lynx)* Habitat: Subalpine fir habitat types, dense sapling, old forest, deep snow zone	**X**				**X**					
Bull Trout (*Salvelinus confluentus*) Habitat: clean cold water, streams, rivers, lakes	**X**				**X**					
Sensitive Species										
Bald eagle *(Haliaeetus leucocephalus)* Habitat: Late-successional forest less than 1 mile from open water		**X**				**X**			**Y**	**W-2**
Black-backed woodpecker *(Picoides arcticus)* Habitat: Mature to old burned or beetle-infested forest	**X**				**X**					
Coeur d'Alene salamander	**X**				**X**					

Wildlife	Effects								Can Impact be Mitigated?	Comment Number
	Direct and Indirect				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High		
(Plethodon idahoensis) Habitat: Waterfall spray zones, talus near cascading streams										
Columbian sharp-tailed grouse *(Tympanuchus Phasianellus columbianus)* Habitat: Grassland, shrubland, riparian, agriculture	**X**				**X**					
Common loon *(Gavia immer)* Habitat: Cold mountain lakes, nest in emergent vegetation	**X**				**X**					
Fisher *(Martes pennanti)* Habitat: Dense mature to old forest less than 6,000 feet in elevation and riparian	**X**				**X**					
Flammulated owl *(Otus flammeolus)* Habitat: Late-successional ponderosa pine and Douglas-fir forest		**X**				**X**			**Y**	**W-3**
Gray Wolf *(Canis lupus)* Habitat: Ample big game populations, security from human activities		**X**				**X**			**Y**	**W-4**
Harlequin duck *(Histrionicus histrionicus)* Habitat: White-water streams, boulder and cobble substrates	**X**				**X**					
Northern bog lemming *(Synaptomys*	**X**				**X**					

Wildlife	Effects								Can Impact be Mitigated?	Comment Number
	Direct and Indirect				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High		
borealis) Habitat: Sphagnum meadows, bogs, fens with thick moss mats										
Mountain plover (*Charadrius montanus*) Habitat: short-grass prairie & prairie dog towns	**X**				**X**					
Peregrine falcon *(Falco peregrinus)* Habitat: Cliff features near open foraging areas and/or wetlands	**X**				**X**					
Pileated woodpecker *(Dryocopus pileatus)* Habitat: Late-successional ponderosa pine and larch-fir forest		**X**				**X**			**Y**	**W-5**
Townsend's big-eared bat *(Plecotus townsendii)* Habitat: Caves, caverns, old mines	**X**				**X**					
Wolverine *(Gulo gulo)* Habitat: Alpine tundra and high-elevation boreal forests that maintain deep persistent snow into late spring	**X**				**X**					
Montana Arctic Grayling (*Thymallus arctucus montanus*) Habitat: clean cold water, streams, rivers, lakes	**X**				**X**					
Westslope	**X**				**X**					

Wildlife	Effects								Can Impact be Mitigated?	Comment Number
	Direct and Indirect				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High		
Cutthroat Trout (*Oncorhynchus clarki lewisi*) Habitat: clean cold water, streams, rivers, lakes										
Big Game Species										
Elk		**X**				**X**				**W-6**
Whitetail		**X**				**X**			**Y**	**W-6**
Mule Deer		**X**				**X**			**Y**	**W-6**
Bighorn Sheep	**X**				**X**					
Other	**X**				**X**					

Comments:

W-1 The project area is 35 miles west of the Northern Continental Divide Ecosystem grizzly bear recovery area and is 17 miles south of `occupied' grizzly bear habitat as mapped by grizzly bear researchers and managers to address increased sightings and encounters of grizzly bears in habitats outside of recovery zones (Wittinger et al. 2002). Individual animals could occasionally use the project area while dispersing or possibly foraging, and they could be displaced by project-related disturbance if they are in the area during proposed activities. However, given their large home range sizes, and manner in which they use a broad range of forested and non-forested habitats, the proposed activities and alterations of forest vegetation on the project area would have negligible influence on grizzly bears.

W-2 The project area is within the home range associated with the Fish Creek bald eagle territory. Ongoing harvesting associated with the Rivulet Peak Timber Sale Project on DNRC-managed lands is occurring in the home range as well, contributing potential late nesting season disturbance to the pair while altering some potential habitats in a small portion of the home range. Proposed activities associated with the Tarkio Pines timber sale project could occur during the nesting season (February 1 –August 15), or the non-nesting (August 16-February 1) season. Minor disturbance to bald eagles could occur should any activities be conducted during the nesting period. Conversely, should activities be conducted during the non-nesting period, no disturbance to bald eagles would be anticipated. Negligible reductions in the availability of large snags or emergent trees that could be used as nest or perch trees could occur in the home range. Reductions in human access to the home range would occur with proposed gate installation, thereby slightly reducing human disturbance potential within the territory.

W-3 There are approximately 226 acres of potential flammulated owl habitats in ponderosa pine and dry Douglas-fir stands across the project area. Portions of the project area and cumulative effects analysis area have been harvested in the recent past, potentially improving flammulated owl habitat by creating foraging areas and reversing a portion of the Douglas-fir encroachment

and opening up stands of ponderosa pine; however retention of large ponderosa pine and/or Douglas-fir was not necessarily a consideration in some of these harvest units, thereby minimizing the benefits to flammulated owls. Future foraging habitats exist in the recently burned and salvaged logged stands in the project area and vicinity. Flammulated owls can be tolerant of human disturbance (McCallum 1994), however the elevated disturbance levels associated with proposed activities could negatively affect flammulated owls should activities occur when flammulated owls are present. Proposed activities could overlap the nestling and fledgling period. Since some snags would be retained, loss of nest trees would be expected to be minimal. Proposed activities on 201 acres of potential flammulated owl habitats would open the canopy while favoring ponderosa pine and Douglas-fir. The more open stand conditions, the retention of fire adapted tree species, and the maintenance of snags would move the project area toward historical conditions, which is preferred flammulated owl habitat.

W-4 Although the project area has not been included in the annual home ranges of any known wolf packs, several wolf packs are in the vicinity, including the Petty Creek, Fish Creek, Quartz Creek, and Sunrise Mountain wolf packs. In general, some wolf use of the project area is possible, but extensive use is somewhat unlikely given the proximity to Interstate 90. No known den or rendezvous sites occur in the project area, but some use of the project area by wolves could occur for breeding, hunting, or other life requirements. Big game species exist in the vicinity of the project area much of the year and winter range exists in the project area. Wolves using the area could be disturbed by proposed activities and are most sensitive at den and rendezvous sites, which are not known to occur in the project area or within 1 mile of the project area. Although no seasonal operational constraint would be implemented, it would be highly unlikely that any activities would occur during the spring period due to the anticipated snow levels/soil moisture limitations, limiting potential disturbance at potential den sites and reducing the potential for disturbing rendezvous sites. Reductions in human access to the project area and larger cumulative effects analysis area would provide minor positive effects to wolves in the vicinity. In the short-term, the proposed activities could lead to slight shifts in big game use, which could lead to a shift in wolf use of the area. Proposed activities would alter canopy closure, summer big game habitat, and big game winter range habitat, which could alter some big game use of the area, but would not be expected to appreciably alter wolf prey abundance.

W-5 Trace amounts of pileated woodpecker nesting habitat exist in the project area; some potential foraging habitats exist in the project area. Disturbance to pileated woodpeckers could occur if proposed activities occur during the nesting period. Harvesting would reduce forested habitats for pileated woodpeckers in the project area. Roughly 201 acres of the potential foraging habitats would be opened up with proposed treatments. These areas could continue to be potential foraging habitats depending on density of trees retained. Elements of the forest structure important for nesting pileated woodpeckers, including snags, coarse woody debris, numerous leave trees, and snag recruits would be retained in the proposed harvest areas. Since pileated woodpecker density is positively correlated with the amount of dead and/or dying wood in a stand (McClelland 1979), pileated woodpecker densities in the project area would be expected to be reduced on 201 acres.

W-6 Montana Department of Fish, Wildlife, and Parks identified white-tailed deer (395 acres) and elk (373 acres) winter range in the project area. These winter ranges are part of larger winter ranges in the area. Mature ponderosa pine stands in the project area are providing attributes facilitating some use by wintering big game. Proposed activities could occur in the winter, and disturbance created by mechanized logging equipment and trucks could temporarily displace big game animals during periods of operation for 2 to 4 years; however, winter logging provides felled tree tops, limbs, and slash piles that could concentrate feeding big game. No long-term effect to winter range carrying capacity or factors that would create long-term displacement or reduced numbers of big game would be anticipated. Proposed activities would occur on roughly 201 acres of deer and elk winter range; proposed activities would reduce canopy closure. Following proposed activities, the capacity of these stands to intercept snow and provide thermal cover for big game would be reduced and/or removed depending on density of trees retained, reducing habitat quality for wintering big game. Proposed activities would not prevent big game movement through the project area appreciably in winter and could stimulate browse production in the units. No potential big game security habitat exists in the project area. Proposed gate installation could reduce big game disturbance by limiting motorized access to the project area.

Wildlife Mitigations:

- A DNRC biologist will be consulted if a threatened or endangered species is encountered to determine if additional mitigations that are consistent with the administrative rules for managing threatened and endangered species (ARM 36.11.428 through 36.11.435) are needed.
- Snags, snag recruits, and coarse woody debris will be managed according to *ARM 36.11.411* through *36.11.414*, particularly favoring western larch and ponderosa pine. Clumps of existing snags could be maintained where they exist to offset areas without sufficient snags. Coarse woody debris retention would emphasize retention of downed logs of 15-inch diameter or larger.
- Gate installation would reduce motorized public access, thereby reducing the potential for disturbance to a suite of wildlife species.
- Contractors and purchasers conducting contract operations will be prohibited from carrying firearms while on duty.
- Food, garbage, and other attractants will be stored in a bear-resistant manner.

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**					

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

Comments: Under the Action Alternative, slash piles consisting of tree limbs and tops and other vegetative debris would be created throughout the project area during harvesting. These slash piles would ultimately be burned after harvesting operations have been completed.

Air Quality Mitigations:

- *Burning within the project area would be short in duration and would be conducted when conditions favored 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.*

Will the No-Action or Action Alternatives 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									
Aesthetics	X				X									
Demands on Environmental Resources of Land, Water, or Energy	X				X									
Action														
Historical or Archaeological Sites	X				X									
Aesthetics	X				X									
Demands on Environmental Resources of Land, Water, or Energy	X				X									

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.*

- None

Impacts on the Human Population

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

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

Will the No-Action or Action Alternatives 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		
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					

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 harvest would generate additional revenue for the Acquired Land Trust. The estimated return to the trust for the proposed harvest is $55,650 based on an estimated harvest of 500 thousand board feet and an overall stumpage value of $15.90 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.

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Environmental Assessment Checklist Prepared By:

Name: Jonathan Hansen
Title: Missoula Unit Manager
Date: June 19, 2015

Finding

Alternative Selected
Action Alternative

Significance of Potential Impacts

- Based on the following, I find that an EIS does not need to be prepared:
- The EA adequately addressed the issues identified during project development, and displayed the information needed to make the pertinent decisions.
- Evaluation of the potential impacts of the proposed timber sale indicates that significant impacts to the human environment will not occur as a result of the implementation of the Action Alternative.
- The ID Team provided sufficient opportunities for public review and comment during project development and analysis.

Need for Further Environmental Analysis

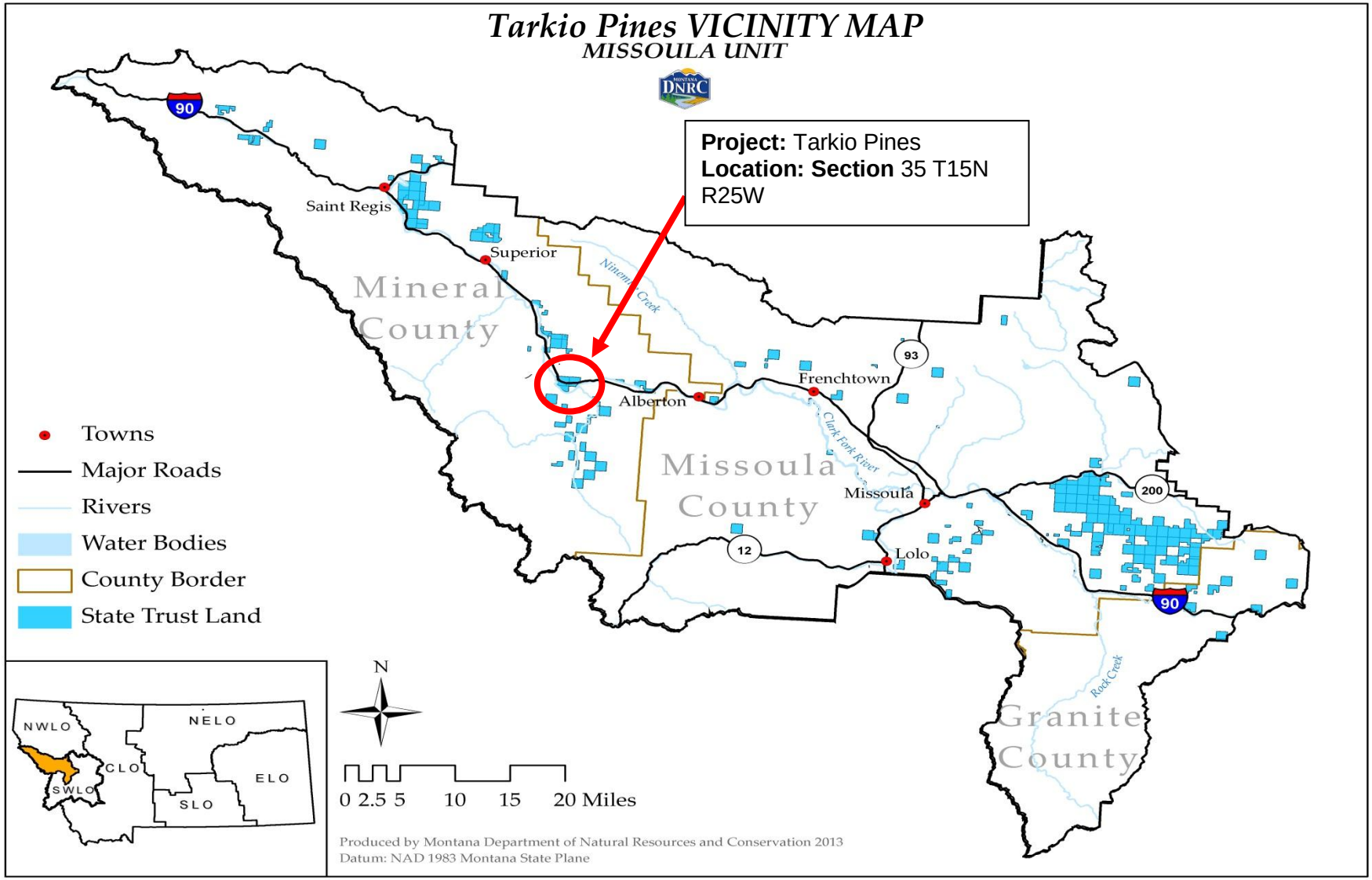
	EIS		More Detailed EA	X	No Further Analysis

Environmental Assessment Checklist Approved By:

Name: Amy Helena
Title: Forest Management Supervisor
Date: 7/06/2015
Signature: /s/ *Amy Helena*

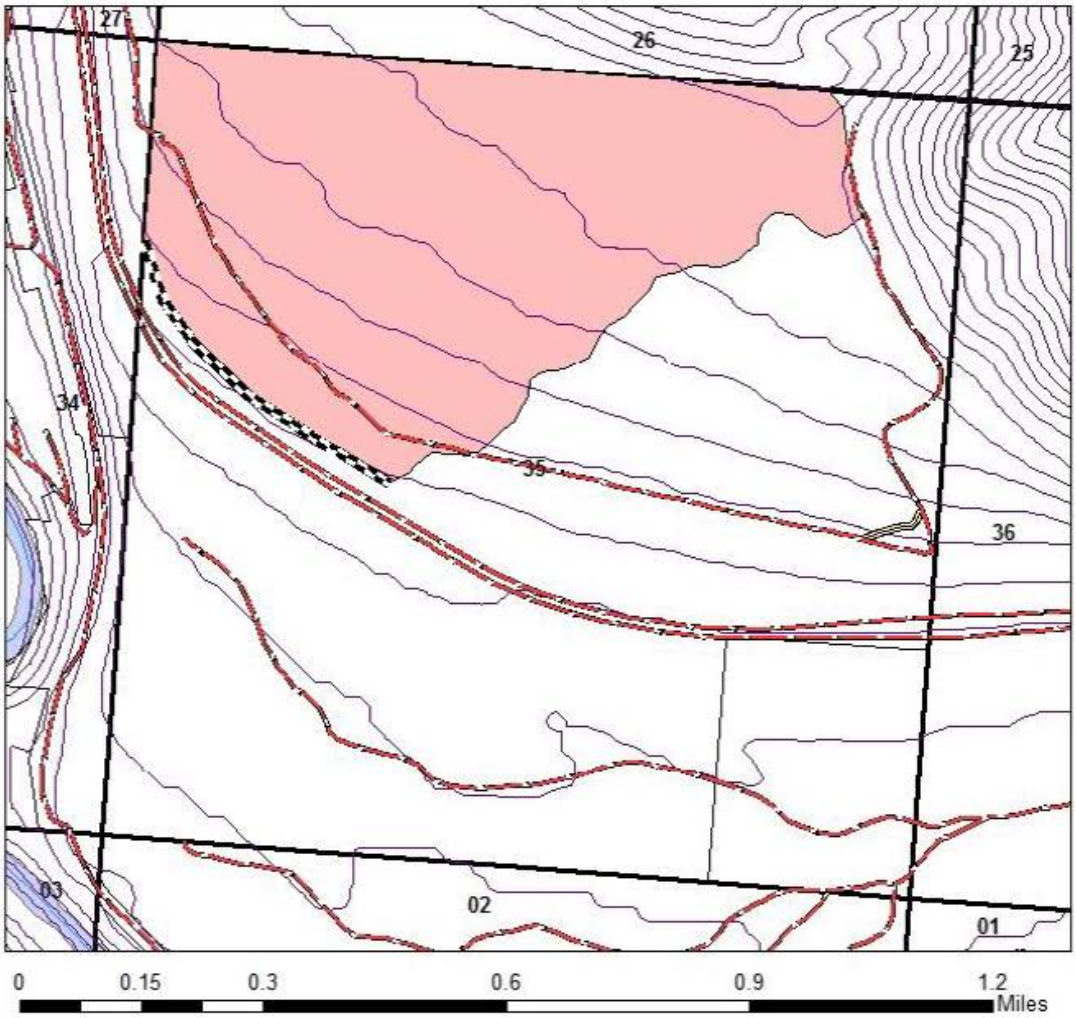
Attachment A- Maps

A-1: Timber Sale Vicinity Map



Attachment A-2

Tarkio Pines
Section 35 T15N R25W
Missoula Unit



Harvest Unit (201 acres): All leave trees are marked with a purple horizontal stripe around the bole of the tree. Protect the residual stand and regeneration during all aspects of the harvest operations. Long butt in the woods and use existing skid trails and landings whenever possible.

Harvest Boundary: Blue 3 stripe and blue flagging
New Road Location: Green flagging

Interstate ROW Fence
New Road Location
Roads
Tarkio Pines
Streams

N
W
E
S

AMH
1/22/15