

Environmental Assessment Checklist

Project Name: Lynch Lake Timber Sale
Proposed Implementation Date: July 2018
Proponent: Kalispell Unit, Northwest Land Office, Montana DNRC
County: Lincoln

Type and Purpose of Action

Description of Proposed Action:

The Kalispell Unit of the Montana Department of Natural Resources and Conservation (DNRC) is proposing the Lynch Lake Timber Sale. The project is located approximately 18 miles northwest of Marion, 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	Section 16, T28N, R27W	640	527

Objectives of the project include:

- Harvest approximately 3.5 MMBF of merchantable timber to generate revenue for the Common Schools Trust and contribute to the sustainable yield for the DNRC timber management program, as mandated by *State Statute 77-5-222 MCA*.
- Promote biodiversity by managing for appropriate stand structures and species compositions.
- Improve the growth and vigor through silvicultural treatments that increase stand vigor and reduce the amount of insect and disease infected trees.

Proposed activities include:

Action	Quantity
Proposed Harvest Activities	# Acres
Shelterwood	301
Commercial Thinning	226
Total Treatment Acres	527
Proposed Forest Improvement Treatment	# Acres
Pile and scarify	301
Pile burning	527
Weed spraying	20
Proposed Road Activities	# Miles
New permanent road construction	1.42
New temporary road construction	

Action	Quantity
Road maintenance	23.9
Road reconstruction	1.05
Total miles of road work	26.4

Duration of Activities:	3 years 4 months
Implementation Period:	June 2018 thru October 2021

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:
 - January 5, 2017
- PUBLIC SCOPED:
 - The scoping notice was posted on the DNRC Website: <http://dnrc.mt.gov/public-interest/public-notice>
 - Adjacent landowners, statewide scoping list, *Kalispell Daily Inter Lake*, user groups
- AGENCIES SCOPED:
 - MT DEQ, USFWS, MT FWP, Montana Tribal Nations
- COMMENTS RECEIVED:
 - How many: 2
 - Concerns: Identification of any cultural resources
 - Results (how were concerns addressed): Currently, the DNRC has no record of cultural resources in the area of potential effect, and other Tribal Historic Preservation Officers have not identified tribal cultural resources there. If an unanticipated cultural resource is discovered, all project related activities will cease until the resource can be adequately evaluated. DNRC will keep interested parties apprised of any unanticipated discoveries.

DNRC specialists were consulted, including: Archeologist: Patrick Rennie, Wildlife Biologist: Leah Breidinger, Hydrologist: Marc Vessar

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:

- **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 <http://dnrc.mt.gov/divisions/trust/forest-management/hcp>.
- **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.
- **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:
 - Crossing of a Class 3 stream segment with a new road.

ALTERNATIVES CONSIDERED:

No-Action Alternative:

No timber harvesting would occur. Small quantities of wood products would continue to be sold from some areas in the form of residential firewood and other types of permits.

Forest and plant succession would continue to be mainly influenced by the occurrence of natural events, such as insect and disease outbreaks, wind throw, or wildfire.

No road maintenance or road improvements would occur. Maintenance of existing roads would be limited to periods when the roads are being used for removal of forest products.

Action Alternative

Under the Action Alternative, DNRC would harvest approximately 3.5 million board feet from approximately 527 acres. Commercial thinning and sanitation prescriptions would be applied to approximately 226 acres. The remaining area would be treated with shelterwood (301 acres) prescriptions to promote the regeneration of western larch and ponderosa pine. Forest health and vigor would be improved in all treated acres.

Timber would be harvested using tractor logging with conventional, mechanical or cut-to-length operations. The transportation plan would utilize 25 miles of existing road and 1.4 miles of new road construction.

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:

No rare or endangered plants are present within the project area. No old growth is present within the project area. The project area has experienced several timber harvests in the early to late 1970's. These harvests removed the larger western larch, ponderosa pine, and Douglas-fir. Numerous age classes and stocking levels are present across the section. Engelmann spruce, grand fir, and sub-alpine fir are present in draw bottoms and stream banks. Lodgepole pine is scattered throughout the section. Advanced regeneration is mostly Douglas-fir. Shelterwood harvest prescriptions will promote the regeneration of western larch and ponderosa pine. Silvicultural prescriptions will remove much of the existing decadent and unhealthy overstory which will improve growth and vigor. Pockets of dwarf mistletoe infestation are present in the western larch.

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

Comments: 1. Timber harvest and associated road work may lead to an increase in the occurrence of noxious weeds.

Vegetation Mitigations: 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.

SOIL DISTURBANCE AND PRODUCTIVITY:

Soil Disturbance and Productivity Existing Conditions: According to the soil surveys of *Flathead County Area and Part of Lincoln County, Montana (MT618)* and *Kootenai National Forest Area, Montana-Idaho (MT634)* there are six soil types present in the state parcel. These soil types are listed by map units 80F, 222E, 223E, 225F, 355, and 633F. These soils are listed as having low to moderate erosion potential (NRCS Web Soil Survey 2017). During field reconnaissance, no evidence of substantial erosion was observed in the state-managed parcel although some minor erosion was identified on an older road prism in the southwest portion of the parcel.

Past harvesting in the parcel has been limited to one large timber sale in 1972 of approximately 700 mbf; other small harvest in the 1970's removed approximately 18mbf. Existing skid trails, where discernable, are well-vegetated and had no observed erosion. Existing roads are generally impassable by vehicles due to brush and small trees.

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	S-1
Erosion		X				X				X			Y	S-1
Nutrient Cycling		X				X				X			Y	S-2
Slope Stability	X				X				X					
Soil Productivity		X				X				X			Y	S-2

Comments:

S-1: Physical disturbance from compaction/displacement and erosion would be minimized by following applicable Forestry BMPs as listed in the mitigations.

S-2: Impacts to nutrient cycling and soil productivity would be minimized by retaining fine and coarse woody debris on site and managing physical impacts to less than 20 percent of the harvest area.

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) On ground-based units, especially on previously harvested areas, 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 12 to 24 tons of large woody debris and a feasible majority of all fine litter following harvesting operations. On units where whole tree harvesting is used, consider implementing one of the following mitigations to minimize fine litter removal 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. 4) on cable

harvest units, monitor limb breakage and lop tops as needed to minimize fine litter removal

- 7) Protect submerchantable trees and shrubs in draw bottoms from prescribed fire. Focus retention of leave trees in draw bottoms to promote slope stability.

WATER QUALITY AND QUANTITY:

The project area is bisected by two 6th code watersheds. Surface water within the parcel is limited to intermittent disconnected streams that do not provide fish habitat. No harvest is proposed within the SMZ of class 2 streams.

Water Quality and Quantity Existing Conditions:

The project area (state parcel) is divided between two 6th code watersheds: Island Creek (24,660 acres) and Pleasant Valley Fisher River-Barnum Creek (39,149 acres). Average annual precipitation for each watershed is estimated at 21.8 inches and 24 inches, respectively (NRIS 2010)

Streams within the state parcel are discontinuous and generally intermittent. In the Island Creek watershed, a class 3 stream flows from the middle of the parcel in a northeasterly direction, but dissipates in less than 1000 feet.

In the Pleasant Valley Fisher River-Barnum Creek watershed, two class 2 streams flow in a southerly direction across the parcel boundary, but dissipate before reaching the Pleasant Valley Road. A third class 2 stream flows for a short distance in a westerly direction but does not connect with other surface water. Portions of these streams flow greater than 6 months of the year but no fish were observed.

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

Comments:

H-1: During road construction, a stream crossing structure would need to be installed. While all Forestry BMPs would be applied to minimize impacts, it is likely that some sediment may enter the stream channel. The impact would be short-lived and would not be expected to adversely affect downstream beneficial uses.

H-2: Harvesting would likely increase annual water yield, however due to the low annual precipitation, rocky soil and discontinuous characteristic of the channels only a low risk of low impacts to channel stability would result.

Water Quality & Quantity Mitigations: follow Forestry BMPs

FISHERIES:

Fisheries Existing Conditions: Due to the intermittent and discontinuous characteristics of the streams in the state parcel, no fish were observed or are present in the project area. No further analysis is warranted.

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.

NRCS 2017. Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at the following link: <https://websoilsurvey.sc.egov.usda.gov/>. Accessed February 22, 2017.

NRIS 2010. Montana Natural Resources Information Service. Average annual precipitation 1981-2010. http://ftp.geoinfo.msl.mt.gov/Data/Spatial/NonMSDI/Geodatabases/mt_1981-2010_AveAnnPrecip.zip.

WILDLIFE:

No-Action: None of the proposed activities would occur. In the short-term, no changes to the amounts, quality, or spatial arrangement of mature forested habitat would occur. In the long-term and in the absence of natural disturbance, habitat availability would increase for species preferring mature connected forests while habitat availability would decrease for species preferring young, open stand types.

Action Alternative (see Wildlife table below):

Lynch Lake Timber Sale
Montana Department of Natural Resources and Conservation

Wildlife	Impact												Can Impact be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
Threatened and Endangered Species														
Grizzly bear <i>(Ursus arctos)</i> Habitat: Recovery areas, security from human activity	X				X				X					
Canada lynx <i>(Felix lynx)</i> Habitat: Subalpine fir habitat types, dense sapling, old forest, deep snow zone			X				X			X			Y	WI-1
Sensitive Species														
Bald eagle <i>(Haliaeetus leucocephalus)</i> Habitat: Late-successional forest within 1 mile of open water	X				X				X					
Black-backed woodpecker <i>(Picoides arcticus)</i> Habitat: Mature to old burned or beetle-infested forest	X				X				X					
Coeur d'Alene salamander <i>(Plethodon idahoensis)</i> Habitat: Waterfall spray zones, talus near cascading streams	X				X				X					
Columbian sharp-tailed grouse <i>(Tympanuchus Phasianellus columbianus)</i> Habitat: Grassland, shrubland, riparian, agriculture	X				X				X					
Common loon <i>(Gavia immer)</i> Habitat: Cold mountain lakes, nest in emergent vegetation	X				X				X					
Fisher <i>(Martes pennanti)</i> Habitat: Dense mature to old forest			X				X				X		Y	WI-2

Wildlife	Impact												Can Impact be Mitigated?	Comment Number	
	Direct				Secondary				Cumulative						
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High			
less than 6,000 feet in elevation and riparian															
Flammulated owl (<i>Otus flammeolus</i>) Habitat: Late-successional ponderosa pine and Douglas-fir forest		X				X				X				Y	WI-3
Gray Wolf (<i>Canis lupus</i>) Habitat: Ample big game populations, security from human activities		X				X			X					Y	WI-4
Harlequin duck (<i>Histrionicus histrionicus</i>) Habitat: White-water streams, boulder and cobble substrates	X				X				X						
Northern bog lemming (<i>Synaptomys borealis</i>) Habitat: Sphagnum meadows, bogs, fens with thick moss mats	X				X				X						
Peregrine falcon (<i>Falco peregrinus</i>) Habitat: Cliff features near open foraging areas and/or wetlands	X				X				X						
Pileated woodpecker (<i>Dryocopus pileatus</i>) Habitat: Late-successional ponderosa pine and larch-fir forest			X				X				X			Y	WI-5
Townsend's big-eared bat (<i>Plecotus townsendii</i>) Habitat: Caves, caverns, old mines	X				X				X						
Wolverine (<i>Gulo gulo</i>) Habitat: Alpine tundra and high-elevation boreal forests that maintain deep persistent snow into late spring	X				X				X						
Big Game Species															
Elk			X				X			X				Y	WI-6

Wildlife	Impact												Can Impact be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
Whitetail	X				X				X					
Mule Deer	X				X				X					
Other	X				X				X					

Comments:

WI-1 Canada lynx – Approximately 402 acres (98% of existing habitat in the Project Area; 11% of existing habitat in the Large Cumulative Effects Analysis Area - CEAA) would be impacted by the proposed timber sale. Of these acres, 183 acres would be treated with a shelterwood cut and most of these stands would not retain enough conifer canopy cover to continue providing suitable lynx habitat post-harvest. The remaining 219 acres would be treated with a commercial thin and would continue providing suitable lynx habitat, albeit at a reduced stand density. Connectivity would be reduced southwest of the prominent ridgeline the Project Area. However, sufficient canopy cover would be retained in the northeast portion of the Project Area to facilitate travel of lynx and other wildlife species that prefer greater amounts of canopy cover. Currently, the Project Area is surrounded by Weyerhaeuser Lands that do not contain much conifer cover therefore overall connectivity is limited. However, as these stands age in the next 10-15 years connectivity may increase for lynx. To reduce adverse effects of the proposed harvest on lynx, habitat characteristics important to lynx and their main prey, snowshoe hares, would be retained. Dense patches of advanced regeneration would be retained within lynx winter forage habitat. Additionally, 12 to 24 tons/acre of coarse woody debris would be retained in accordance with DNRC Forest Management Rules (*ARM 36.11.414*) and retention of downed logs ≥ 15 -inch diameter would be emphasized.

WI-2 Fisher - Approximately 486 acres of potential fisher habitat would be affected by the proposed activities (93% of fisher habitat available in the Project Area; 79% of habitat in the Medium CEAA). Of these acres, 277 acres would not be suitable post-harvest due to low amounts of mature conifer cover (53% of fisher habitat available in the Project Area; 45% in the Medium CEAA). The remaining stands would be logged, but would remain suitable for fisher use post-harvest due to high retention of mature trees. Riparian fisher habitat would not be harvested. Overall connectivity would remain intact across the Project Area due to high retention of trees in the northeast portion of the Project Area, which would be treated with a Commercial Thin. However, connectivity across the broader landscape would continue to be low considering the low proportion of mature stands on neighboring lands. Considering the low availability of mature stands in the surrounding area and prevalence of dry ponderosa pine forest types, which are avoided by fishers (*Olson et al. 2014*), the likelihood of fishers using the area is low. To reduce potential adverse effects on fishers, at least 2 large snags and 2 large snag recruitment trees per acre (>21 inches dbh) would be retained (*ARM 36.11.411*). These snags are important habitat features that provide resting and denning sites for fishers.

WI-3 Flammulated owl – The proposed timber harvest would affect approximately 119 acres (51% of habitat in the Project Area; 8% of habitat in the Medium CEAA) of preferred flammulated owl cover types located on the ridgeline and southwest facing slopes in the Project Area. The commercial thin and shelterwood treatments would open stands to 25-60% canopy cover and would favor seral species, which would create forest stand conditions beneficial to flammulated owls. To retain potential nesting trees for flammulated owls at least 2 large snags and 2 large snag recruitment trees per acre (>21 inches dbh) would be retained (*ARM 36.11.411*).

WI-4 Gray wolves - Wolves may use habitat near the Project Area. Disturbance associated with timber sales at den and rendezvous locations can adversely affect wolves; however, timing restrictions would apply if den or rendezvous sites are documented (*ARM 33.11.430(1)(a)(b)*).

WI-5 Pileated woodpeckers – The proposed activities would affect 496 acres of suitable pileated woodpecker habitat (94% of habitat available in the Project Area; 79% of habitat in the Medium CEAA). Of these acres, 277 acres (53% of habitat available in the Project Area; 45% of habitat in the Medium CEAA) would be treated with a shelterwood cut reducing mature canopy cover from 60-70% to 25-35% and causing these stands to become unsuitable for pileated woodpecker use post-harvest. The remaining acres would be treated with a commercial thin and would remain suitable for pileated woodpeckers post-harvest, although fewer snags would be available for nesting and foraging. To reduce potential adverse effects on pileated woodpeckers, at least 2 large snags and 2 large snag recruitment trees per acre (>21 inches dbh) would be retained and all snags cut for safety reasons would be left in the harvest unit (*ARM 36.11.411*).

WI-6 Big game – The proposed activities would reduce thermal cover on potential elk winter range (*DFWP 2008*). The proposed harvest would affect 456 acres of thermal cover (97% of thermal cover available in the Project Area; 12% of thermal cover in the Large CEAA). Of these acres 243 acres (52% of thermal cover available in the Project Area; 12% of thermal cover in the Large CEAA) would be treated with a shelterwood cut and would retain 25-35% mature canopy cover reducing the capacity of these stands to provide thermal cover when snowpack is high. The remaining acres would be treated with a commercial thin and would continue providing thermal cover post-harvest, albeit at a reduced quality. However, increased growth of forage plants may compensate for reduced mature canopy cover in these stands. Overall connectivity would be reduced and would continue to remain low near the Project Area due to the lack of available mature forested habitat on neighboring ownerships.

Wildlife Mitigations:

- If a threatened or endangered species is encountered, consult a DNRC biologist immediately. Similarly, if undocumented nesting raptors or wolf dens are encountered within ½ mile of the Project Area, contact a DNRC biologist.
- Contractors will adhere to food storage and sanitation requirements as described in the timber sale contract. Ensure that all attractants such as food, garbage, and petroleum products are stored in a bear-resistant manner.
- Prohibit contractors and purchasers conducting contract operations from carrying firearms while on duty as per *ARM 36.11.444(2)*.
- Effectively close roads in the Project Area via a combination of kelly humps, rocks, and stumps.
- Retain patches of advanced regeneration of shade-tolerant trees as per *LY-HB4 (USFWS and DNRC 2010)* in all harvest units.
- Retain at least 2 snags and 2 snag recruits per acre >21 inches dbh or the next available size class, particularly favoring western larch and Douglas-fir for retention. If snags are cut for safety concerns, they must be left in the harvest unit.
- Retain 12-24 tons/acre of coarse-woody and emphasize retention of 15-inch diameter downed logs aiming for at least one 20-foot-long section per acre.

Literature:

DFWP. 2008. Maps of moose, elk, mule deer, and white-tailed deer distribution in Montana. *In* Individual GIS data layers. Available online at:
<http://fwp.mt.gov/gisData/imageFiles/distributionElk.jpg>

<http://fwp.mt.gov/gisData/imageFiles/distributionMoose.jpg>
<http://fwp.mt.gov/gisData/imageFiles/distributionMuleDeer.jpg>
<http://fwp.mt.gov/gisData/imageFiles/distributionWhiteTailedDeer.jpg>

Olson, L. E., J. D. Sauder, N. M. Albrecht, R. S. Vinkey, S. A. Cushman, and M. K. Schwartz. 2014. Modeling the effects of dispersal and patch size on predicted fisher (*Pekania [Martes] pennanti*) distribution in the U.S. Rocky Mountains. *Biological Conservation* 169:89-98.

USFWS, and DNRC. 2010. Montana Department of Natural Resources and Conservation Forested Trust Lands Habitat Conservation Plan, Final Environmental Impact Statement, Volumes I and II., U.S. Department of Interior, Fish and Wildlife Service, Region 6, Denver, Colorado and Montana Department of Natural Resources and Conservation, Missoula, MT.

AIR QUALITY:

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

Comments: 1. Smoke will be created from pile burning and dust may be created from log hauling operations.

Air Quality Mitigations: Burning would occur on days approved by the Montana/Idaho Airshed group and DEQ. Conduct test burn to verify good dispersal. Dust abatement may be used as necessary. Slower speed limits may be included in contracts as necessary to reduce dust.

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				n/a	
Aesthetics	X				X				X				n/a	
Demands on Environmental Resources of Land, Water, or Energy	X				X				X				n/a	

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		
Action														
Historical or Archaeological Sites		X				X				X			Yes	1
Aesthetics	X				X				X				n/a	
Demands on Environmental Resources of Land, Water, or Energy	X				X				X				n/a	

Comments: 1. Timber harvest activity and associated road work could disturb archaeological resources.

Mitigations: All THPO offices throughout the state have been notified of this project. Currently, the DNRC has no record of cultural resources in the area of potential effect, and other THPOs have not identified tribal cultural resources there. Because of extensive past logging activities on this parcel, the DNRC will only conduct a Class I (records search) review of the area of potential effect. However, if an unanticipated cultural resource is discovered, all project related activities will cease until the resource can be adequately evaluated.

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				n/a	
Industrial, Commercial and Agricultural Activities and Production	X				X				X				n/a	
Quantity and Distribution of Employment	X				X				X				n/a	
Local Tax Base and Tax Revenues	X				X				X				n/a	

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		
Demand for Government Services	X				X				X				n/a	
Access To and Quality of Recreational and Wilderness Activities	X				X				X				n/a	
Density and Distribution of population and housing	X				X				X				n/a	
Social Structures and Mores	X				X				X				n/a	
Cultural Uniqueness and Diversity	X				X				X				n/a	
Action														
Health and Human Safety	X				X				X				n/a	
Industrial, Commercial and Agricultural Activities and Production	X				X				X				n/a	
Quantity and Distribution of Employment	X				X				X				n/a	
Local Tax Base and Tax Revenues	X				X				X				n/a	
Demand for Government Services	X				X				X				n/a	
Access To and Quality of Recreational and Wilderness Activities	X				X				X				n/a	
Density and Distribution of population and housing	X				X				X				n/a	
Social Structures and Mores	X				X				X				n/a	
Cultural Uniqueness and Diversity	X				X				X				n/a	

Comments: No direct, secondary, or cumulative impacts are expected as a result of the action alternative.

Mitigations: N/A

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 \$560,000.00 based on an estimated harvest of 3.5 million board feet (22,400 tons) and an overall stumpage value of \$25.00 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: Pete Seigmund
Title: Forest Management Supervisor, Kalispell Unit
Date: January 2018

Finding

Alternative Selected

I select the action alternative.

Significance of Potential Impacts

No significant or potential impacts are expected due to this action. Mitigations discussed in this EA are adequate to expect little to no impacts to the resources on this section of land.

Need for Further Environmental Analysis

EIS

More Detailed EA

No Further Analysis

Environmental Assessment Checklist Approved By:

Name: David M. Poukish

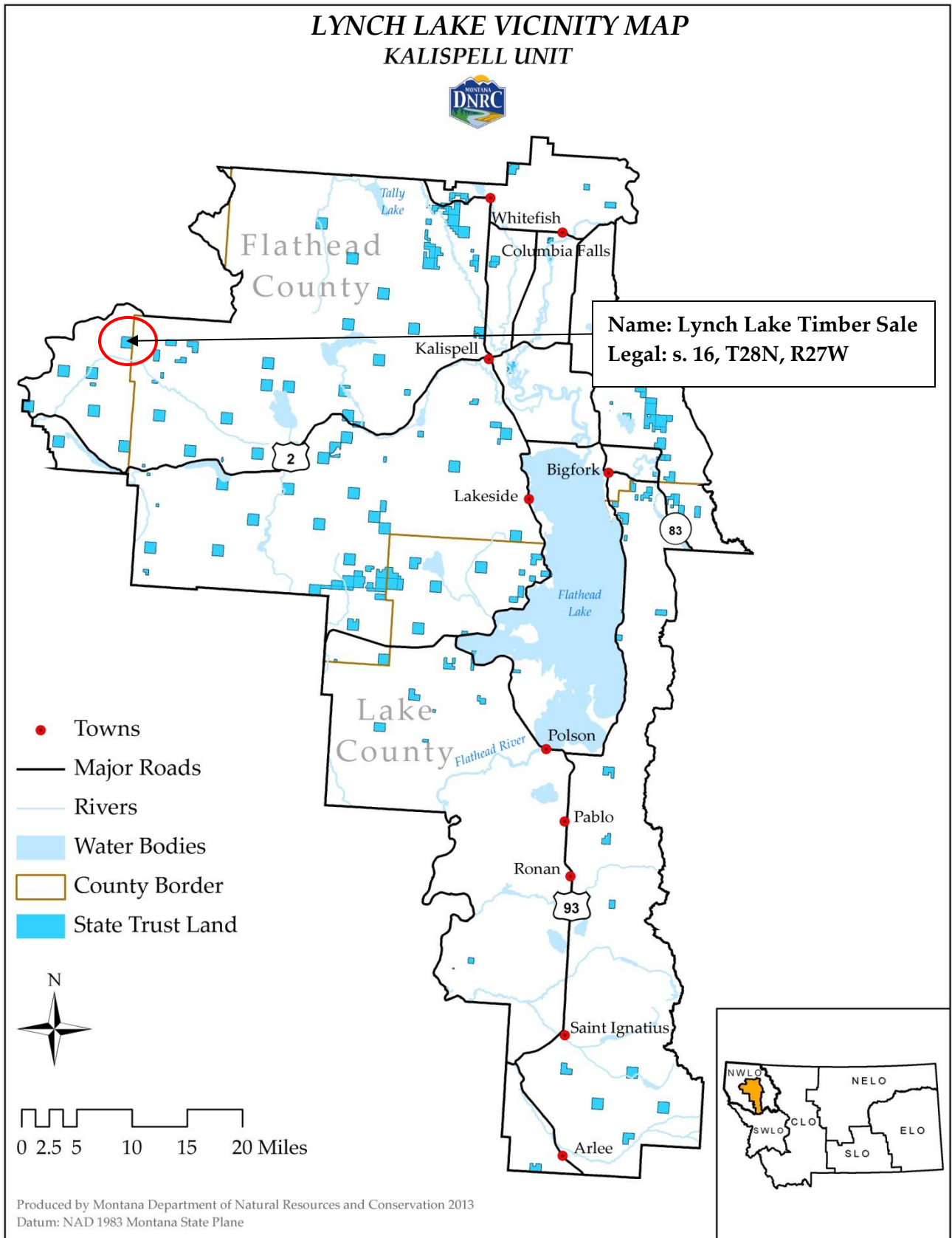
Title: Kalispell Unit Manager

Date: 2/2/2018

Signature: /s/ David M. Poukish

Attachment A- Maps

A-1: Timber Sale Vicinity Map



A-2: Timber Sale Harvest Units

