

Environmental Assessment Checklist

Project Name: Sheldon Flats Gravel
Proposed Implementation Date: April, 2015
Proponent: Libby Unit, Northwestern Land Office, Montana DNRC
County: Lincoln

Type and Purpose of Action

Description of Proposed Action:

The Libby Unit of the Montana Department of Natural Resources and Conservation (DNRC) is proposing the Sheldon Flats Gravel Pit. The project is located approximately 4 miles north of Libby (refer to vicinity map Attachment A-1 and project map A-2) and includes the following sections: Section 16, T31N, R31W.

Beneficiary	Legal Description	Total Acres	Treated Acres
Common Schools	E/2 of SE/4 of section 16 T30N R31W	80	80
Public Buildings			
MSU 2 nd Grant			
MSU Morrill			
Eastern College-MSU/Western College-U of M			
Montana Tech			
University of Montana			
School for the Deaf and Blind			
Pine Hills School			
Veterans Home			
Public Land Trust			
Acquired Land			

Objectives of the project include:

- Generate revenue for the Common School trust; provide needed gravel materials for the Libby area and employment opportunities.

Proposed activities include:

Action	Quantity
Proposed Harvest Activities	
Clearcut	
Seed Tree	
Shelterwood	

Action	Quantity
Selection	
Commercial Thinning	
Salvage	
Total Treatment Acres	
Proposed Forest Improvement Treatment	
Pre-commercial Thinning	
Planting	
Proposed Road Activities	
New permanent road construction	
New temporary road construction	
Road maintenance	
Road reconstruction	
Road abandoned	
Road reclaimed	
Other Activities	
Gravel pit development	80 acres

Duration of Activities:	Pit life approx. 25 years
Implementation Period:	April 2015

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:
 - October 14 – November 14, 2014
- PUBLIC SCOPED:
 - The scoping notice was posted on the DNRC Website:
<http://dnrc.mt.gov/PublicInterest/Notices/Default.asp>
 - Mailings to adjacent landowners and Western News newspapers
- AGENCIES SCOPED:
 - USFS
- COMMENTS RECEIVED:

- How many: None
- Concerns: N/A
- Results (how were concerns addressed): N/A

DNRC specialists were consulted, including: Marc Vessar, Leah Breidinger, Patrick Rennie.

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

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

- **United States Fish & Wildlife Service-** DNRC is managing the habitats of threatened and endangered species on this project by implementing the Montana DNRC Forested Trust Lands HCP and the associated Incidental Take Permit that was issued by the United States Fish & Wildlife Service (USFWS) in February of 2012 under Section 10 of the Endangered Species Act. The HCP identifies specific conservation strategies for managing the habitats of grizzly bear, Canada lynx, and three fish species: bull trout, westslope cutthroat trout, and Columbia redband trout. This project complies with the HCP. The HCP can be found at www.dnrc.mt.gov/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.

ALTERNATIVES CONSIDERED:

No-Action: Deny Noble Excavating Inc. the right to use DNRC State Land for a new permit.

Action Alternative (Provide a brief description of all proposed activities): Allow the permitting of a new long term gravel pit of approximately 80 acres to Noble Excavating Inc. This new pit would be used for long term use (≈25 years) and would allow The permit and price paid to the MT DNRC for use of the gravel would need to be re-permitted and negotiated on a biannual basis. Noble Excavating Inc. would also be required to obtain an Open Cut Mining Permit from the MT DEQ and file a reclamation plan for use of the pit. Top soil will be stored on site and will be used to reclaim the mined area. As each 5 acre piece is mined and reclaimed, sides of the pit would be back sloped to a 3:1 (horizontal:vertical) ratio and spreading top soil

and grass seeding to the disturbed areas as well as spraying for weeds annually and for 5 years after the closure and reclamation of the pit.

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: Following a 1987 clear cut, this site was planted and is currently fully stocked with a mix of lodgepole pine, Douglas-fir, and Ponderosa pine.

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			x				Y	V-1
Rare Plants	x				x				x					
Vegetative community				x	x		x		x				Y	V-2
Old Growth	x				x				x					

Comments:

V-1: Disturbance associated with developing a sand and gravel pit would open the site for the introduction of noxious weeds.

V-2: the Vegetative community is currently composed of a regenerated forest approximately 25 years old. Developing a sand and gravel pit would change this vegetation community during the life of the permit. As a 5 acre piece is developed, the existing vegetation would be removed. During reclamation proponent would be required to grass seed and forest vegetation would naturally repopulate the site.

Vegetation Mitigations: Follow MT DEQ mining permit reclamation requirements for back sloping, grass seeding and weed spraying.

SOIL DISTURBANCE AND PRODUCTIVITY:

Soil Disturbance and Productivity Existing Conditions: The project area in the SE ¼, section 16, T31N, R31W contains landform and soils characteristic of landtype 108 from the Soil Survey of Kootenai National Forest Area, Montana and Idaho (USDA, 1995). This landtype is comprised

of lacustrine and glacial outwash terraces. Soils are very well drained due to the coarse texture of the material.

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		N	S-1
Erosion			X				X				X		Y	S-2
Nutrient Cycling			X				X			X			Y	S-3
Slope Stability		X				X				X			Y	S-4
Soil Productivity			X				X				X		Y	S-5

Comments:

S-1: Proposed land use (gravel mining) inherently is a high disturbance activity for soil resource. Cumulative impact is listed as moderate because the site would be reclaimed with the stockpile overburden (topsoil) when each 5 acre plot has been mined.

S-2: Due to the removal of all vegetation, fine soil particles would be more susceptible to erosion from wind and rainfall. However, due to the extremely well drained characteristics of the soils in the proposal area and the flat terrain, it is unlikely that material would be transported off-site or result in direct/indirect deliver to waterbodies.

S-3: Nutrient cycling impacts would be a result of ground clearing for mining operations. Reclamation should implement a revegetation plan that would support nutrient cycling.

S-4: Slope stability impacts would be low on the perimeter of the mining area as long as the gravel pit walls are slope no steeper than 1½: 1

S-5: Soil productivity will be reduced due to the disturbance. By replacing topsoil and overburden during reclamation, this impact would be reduced.

Soil Mitigations:

- Stockpile all available topsoil to use during reclamation
- Slopes into mining area should not be steeper than 1½: 1

- Monitor revegetation efforts to ensure reclamation success. Apply DNRC approved grass seed mix as necessary to achieve adequate ground cover.

WATER QUALITY AND QUANTITY:

The proposed mining area is located at least 1200 feet away from Pipe Creek on a bench approximately 200 to 240 feet above the stream. Due to the well-drained soil, the nearly flat terrain on the bench where the project is located and the distance from the stream, the risk of adverse cumulative impact to water resources would be low.

Water Quality and Quantity Existing Conditions: Pipe Creek is Class 1, perennial fish-bearing stream that flows in a north-to-south direction through the state parcel (S16, T31N, R31N). The Pipe Creek watershed is approximately 67,720 acres and ranges in elevation from approximately 2,900 feet at the confluence with the Kootenai River to over 6,000 feet. Pipe Creek is *not* on the impaired waters list [303(d) list] maintained by DEQ.

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				H-1

Comments:

H-1: Due to the low precipitation and well-drained soils, it is unlikely that any increase in water yield would be measureable.

Water Quality & Quantity Mitigations: Follow standard Forestry BMPs for road drainage.

FISHERIES:

Evaluation of the impacts on the No-Action and Action Alternatives include **direct, secondary and cumulative** impacts on fisheries.

Fisheries Existing Conditions: Pipe Creek contains several species of fish include Bull trout and westslope cutthroat trout. A list of fish species inhabiting Pipe Creek can be found in the project file or from the Montana Fish, Wildlife and Parks website.

No-Action: No direct or indirect impacts would occur to affected fish species or affected fisheries resources beyond those described in Fisheries Existing Conditions. Cumulative effects (other related past and present factors; other future, related actions; and any impacts described in Fisheries Existing Conditions) would continue to occur.

Action Alternative (see Fisheries table below):

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

Comments: Due to the distance from Pipe Creek, the proposed activities would not be expected to have a measureable impact on fisheries parameters.

Fisheries Mitigations: None

WILDLIFE:

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

No-Action: No activities associated with the gravel pit would occur. Thus no direct, indirect, or cumulative effects to terrestrial wildlife species would be anticipated

Action Alternative (see Wildlife table below):

Wildlife	Impact												Can Impact be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
Threatened and Endangered Species														
Grizzly bear <i>(Ursus arctos)</i> Habitat: Recovery areas, security from human activity		x				x				x			Y	W-1
Canada lynx <i>(Felix lynx)</i> Habitat: Subalpine fir habitat types, dense sapling, old forest, deep snow zone	x				x				x					
Sensitive Species														
Bald eagle <i>(Haliaeetus leucocephalus)</i>		x				x				x			N	W-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: Late-successional forest more than 1 mile from open water														
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 less than 6,000 feet in elevation and riparian	x				x				x					
Flammulated owl <i>(Otus flammeolus)</i> Habitat: Late-successional ponderosa pine and Douglas-fir forest	x				x				x					
Gray Wolf <i>(Canis lupus)</i> Habitat: Ample big game populations,		x				x				x			Y	W-3

Wildlife	Impact												Can Impact be Mitigated?	Comment Number	
	Direct				Secondary				Cumulative						
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High			
security from human activities															
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					
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, high-elevation forests, persistent spring snow	x				x					x					
Big Game Species															
Elk		x				x					x			Y	W-4
Whitetail		x				x					x			Y	W-4
Mule Deer		x				x					x			Y	W-4

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

Comments:

W -1: The project area is located within 1 mile of non-recovery occupied habitat (NROH; *Wittinger 2002*) associated with the Cabinet-Yaak Ecosystem and bears may occasionally use the parcel. However, the area contains many residences and the county landfill is located within 1 mile of the project area. Due to the level of development in the vicinity, the area is not likely to provide high quality habitat for bears. If bears are located in the vicinity of the project area, they could be displaced. Hiding cover would be removed during mining, but would be rehabbed following the activity. The licensee would be required to store garbage, food, petroleum products and other bear attractants in a bear-safe manner to reduce the risk of human-bear conflicts. Additionally, the gravel pit would be gated and the public would not be permitted to use the area as a shooting range.

W-2: The project area is located within the home range of a bald eagle pair that nests on Pipe Creek; however, the project area is located outside of the primary use management zone (≤ 0.5 miles from nest), which is considered sensitive and require timing restrictions. Additionally, the county landfill is located near the nest site and the birds are likely accustomed to high levels of human activity. Important bald eagle habitat attributes would not be affected since merchantable timber and snags would not be cleared and the project area is located outside of riparian habitat.

W-3: Wolf use of the project area is possible at any time. Disturbance at den and rendezvous locations can adversely affect wolves; however, timing restrictions would apply if den or rendezvous sites are identified (*ARM 33.11.430(1)(a)(b)*).

W-4: The project area is considered winter range by DFWP; however, thermal cover does not occur in the permit area and the capacity of the area to support wintering animals is low. However, disturbance and displacement may occur as a result of the gravel pit operations. The area would be gated to prevent motorized access during hunting season and shooting would not be allowed.

References:

Wittinger, W.T. 2002. Grizzly bear distribution outside of recovery zones. Unpublished memorandum on file at U.S. Forest Service, Region 1, Missoula, Montana.

Wildlife Mitigations:

- If a threatened or endangered species is encountered, consult a DNRC biologist immediately and develop additional mitigations that are consistent with the administrative rules for managing threatened and endangered species (*ARM 36.11.428 through 36.11.435*).
- Keep the gate locked after hours to provide security for wildlife.
- Shooting is prohibited. Contact DNRC if shooting becomes a problem at the site.

- Require the lessee and their employees to store all food, garbage, and petroleum products in a bear safe manner. Keep the site clean.

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					
Dust		x				x			x				Y	A-1

Comments:

A-1: This proposal would generate some dust during the excavation, crushing and hauling phases of the operations. The overall impact to the area would be small and would be spread out over a longer duration of time. This proposal however would not affect long term air quality in the Libby impact zone because of the limited size of the proposal.

Air Quality Mitigations:

- Access road from Hwy 567 (Pipe Creek Road) to pit may have dust control measure applied such as application of Magnesium Chloride.

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				x					
Aesthetics	x				x				x					
Demands on Environmental Resources of Land, Water, or Energy	x				x				x					
Action														
Historical or Archaeological Sites	x				x				x					
Aesthetics		x			x				x				N	
Demands on Environmental Resources of Land, Water, or Energy	x				x				x					

Comments: A Class III intensity level cultural and paleontological resources inventory was conducted of the area of potential effect on state land. Despite a detailed examination, no

cultural or fossil resources were identified and no additional archaeological or paleontological investigative work is recommended. The proposed project will have *No Effect to Antiquities* as defined under the Montana State Antiquities Act. A formal report of findings has been prepared and is on file with the DNRC and the Montana State Historic Preservation Officer.

The state land involved in this proposal does not provide unique or scenic qualities and would not be visible from populated areas.

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.*

- There are no other projects under MEPA review on the tract listed in this EA. Montana DEQ will complete an environmental review for their open mine permit process.

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					

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			
Cultural Uniqueness and Diversity	x				x				x						
Action															
Health and Human Safety		x			x				x						IHP-1
Industrial, Commercial and Agricultural Activities and Production		x			x				x						IHP-2
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:

IHP-1: Normal risks involved with the operation of heavy equipment.

IHP-2: A newly developed sand and gravel pit in the Libby are would contribute towards meeting the current and future demand of these materials for industrial production.

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.

- There are no zoning or other agency management plans affecting this project area.

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 sale of sand and gravel would generate additional revenue for the Common School Trust. The estimated return to the trust for the proposed harvest is \$600,000.00 based on an estimated removal of the permitted 600,000 cubic yards and a royalty value of \$1.00 per cubic yard. 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?

None that are known or anticipated.

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

None that are known or anticipated.

Environmental Assessment Checklist Prepared By:

Name: Jeremy Rank
Title: Management Forester
Date: December 24, 2014

Finding

Alternative Selected

I have selected the Action Alternative which would authorize the development of a sand and gravel permit and the removal of 600,000 cubic yards of said materials from state land on the E/2 of the SE/4 of section 16 in T31N R31W in accordance with Montana DEQ permit requirements.

Significance of Potential Impacts

No significant environmental or social impacts are not expected to occur as a result of the proposed activity. Revenue to the Common School trust will result from the proposed activity.

Need for Further Environmental Analysis

EIS

More Detailed EA

No Further Analysis

Environmental Assessment Checklist Approved By:

Name: Mark Peck

Title: Libby Unit Manager

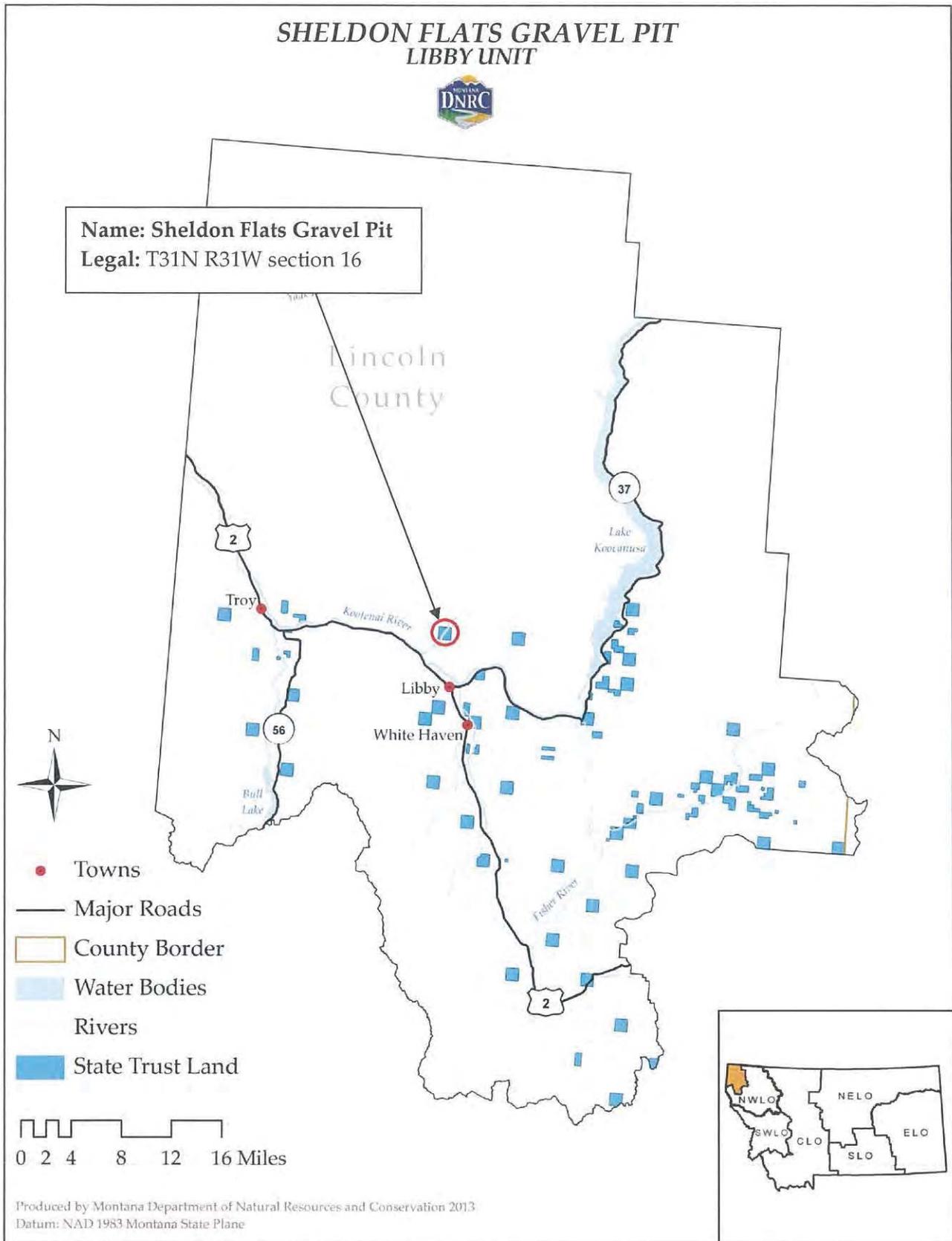
Date: December 24, 2014

Signature: /s/ Mark Peck



Attachment A- Maps

A-1: Vicinity Map



A-2: Development Map

