

ENVIRONMENTAL ASSESSMENT

On an Application for an

OPENCUT MINING AMENDMENT

This Environmental Assessment (EA) is required under the Montana Environmental Policy Act (MEPA). An EA functions to identify, disclose, and analyze the impacts of a proposed action. This document may disclose impacts that have no legislatively required mitigation measures, or over which there is no regulatory authority.

The state law that regulates gravel mining operations in Montana is the Opencut Mining Act. This law and the rules adopted hereunder place operational guidance and limitations on a project during its lifetime, and provide for the reclamation of land affected by opencut mining operations.

Local governments and other state agencies may have authority over different resources and activities under their regulations. Approval or denial of this Opencut Application will be based on a determination of whether or not the proposed operation complies with the Opencut Mining Act and the rules adopted thereunder.

APPLICANT: Lincoln County

COUNTY: Lincoln

SITE NAME: Troy District No. 2 Gravel Pit

DATE: April 2010

LOCATION: Section 13, T31 N, R34 W

PROPOSAL: The applicant proposes an amendment to allow the temporary use of an asphalt plant at the site for 10 days during April and May 2010. The applicant is currently permitted to mine, crush, stockpile and transport approximately 10,000 cubic yards of gravel a year.

Lincoln County would be liable to reclaim the site to grassland and/or residential in accordance with the Plan of Operation. This application contains all items required by the Opencut Act and Rules. Proponent commits to properly conducting opencut operations and would be legally bound by the permit.

IMPACTS ON THE PHYSICAL ENVIRONMENT

RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
1. TOPOGRAPHY, GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:	<p>The site is underlain by bedrock of the Lower Missoula Group – Shepard Formation and is located at the base of Freeman Ridge and McConnell Mountain in hilly terrain that slopes toward the Kootenai River. The deposit consists of glacial gravels of varying sizes. The site receives approximately 24 inches of precipitation a year. The soils are silty loams ranging from 6 to 24 inches thick.</p> <p><i>Impacts:</i> An irreversible and irretrievable removal of gravel from the site would occur. A small impact to the quantity and quality of soils from salvaging, stockpiling, and resoiling activities also would occur, but this would not impair the capacity of the soils to support full reclamation. There are no unusual topographic, geologic, soil, or special reclamation considerations that would prevent the reclamation from succeeding.</p>
2. WATER QUALITY, QUANTITY AND DISTRIBUTION	<p>The site is located approximately 2,500 feet west of Lake Creek, 3,500 feet west of the Kootenai River and 1,700 feet east of Callahan Creek. The site slopes towards Callahan Creek and eventually the Kootenai River. The operation is not mining into groundwater and does not propose to mine into the groundwater.</p>

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	<p><i>Impacts:</i> The proposed activities would have a minimal effect on the quantity and quality of the surface and groundwater resources.</p> <p><i>Cumulative:</i> Due to the short time period (10 days) that this asphalt is proposed to operate, and its distance to groundwater, the cumulative impacts of this site are negligible.</p>
3. AIR QUALITY	<p>Air quality standards are based upon the Clean Air Act of Montana and pursuant rules and are administered by the DEQ Air Resources Management Bureau (ARMB). Its program is approved by the Environmental Protection Agency (EPA). These rules and standards are designed to be protective of human health and the environment.</p> <p>Air quality permits would be required on the processing equipment before installment. Machinery, such as generators, crushers and asphalt plants, are individually permitted for allowable emissions. Best Available Control Technology (BACT) is the usual standard applied.</p> <p>Fugitive dust is that which blows off the pit floor, stockpiles, gravel roads, farm fields, etc. It is considered to be a nuisance but not harmful to health.</p> <p><i>Impacts:</i> Air quality standards as set by the federal government and enforced by the ARMB would allow minimal detrimental air impacts. The proposed asphalt plant would be permitted and would comply with EPA and DEQ requirements. In addition, operation of the asphalt plant would be temporary and it would only be in use for up to 10 days during April and May 2010</p>
4. VEGETATION COVER, QUANTITY AND QUALITY	<p>The site currently contains conifers, various grasses and forbs and knapweed.</p> <p><i>Impacts:</i> No long term detrimental impacts to the vegetation would occur.</p>
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:	<p>Although the area is used primarily for pasture, it also supports populations of deer, elk, bear, rodents, song birds, coyotes, foxes, raptors, insects and various other animal species. Population numbers for these species are not known.</p> <p><i>Impacts:</i> The proposed mine is expected to temporarily displace some individual species and it is likely that the site would be re-inhabited following reclamation to similar habitat.</p>
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:	<p>The Montana Natural Heritage Program (MNHP) lists the following 15 species of concern in the vicinity of the site:</p> <p>Coeur d'Alene Salamander (<i>Plethodon idahoensis</i>) is a small dark gray to black, lungless salamander with a yellowish throat patch, and a yellow, orange, green or red dorsal stripe. It prefers springs and seeps, waterfall spray zones and stream edges. This salamander is an invertivore, feeding primarily on insects.</p> <p>Harlequin Duck (<i>Histrionicus histrionicus</i>) is a duck whose males sport slate blue body plumage with white bands and collars, bordered with black lines on the chest and neck with a black streak bordered by</p>

IMPACTS ON THE PHYSICAL ENVIRONMENT

RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
	<p>white and amber lines on top of the head. The ducks are migratory birds and arrive in Montana in late April to early May. They prefer low gradient, clear mountain streams and primarily eat stoneflies, mayflies and caddis flies.</p> <p>Torrent Sculpin (<i>Cottus rhotheus</i>) is a fish found only in the fast headwater streams of the Kootenai River drainage of northwest Montana. It presents a somewhat grotesque appearance with its large head, huge pectoral fins, and bulging eyes. The fry eat mostly plankton and the adults feed mainly on aquatic insects and a variety of invertebrates.</p> <p>White Sturgeon (<i>Acipenser transmontanus</i>) is an endangered species that has almost no recruitment since the installment of the Libby dam. They have cartilaginous skeletons with a persistent notochord, a protractile tube-like mouth, and sensory barbells on the underside of the snout. The fish is a bottom feeder that will eat almost any available organism.</p> <p>Westslope Cutthroat Trout (<i>Oncorhynchus clarkii lewisi</i>) is one of two subspecies of native cutthroat found in the state. It has been designated as Montana’s state fish. Westslope cutthroat trout require cold water and seek out gravel substrates in riffles and pool crests for spawning habitat.</p> <p>Columbia River Redband Trout (<i>Oncorhynchus mykiss gairdneri</i>) is a native trout found throughout the Columbia River basin. The trout make short spawning migrations either in the same stream or often into smaller tributaries. The trout prefer cool, clean relatively low gradient stream and feed mainly on aquatic insects.</p> <p>Bull Trout (<i>Salvelinus confluentus</i>) is a threatened species of fish that can be found in the Clark Fork and Flathead drainages of western Montana. Sub-adult and adult fluvial bull trout reside in larger streams and rivers and spawn in smaller tributary streams, whereas adfluvial bull trout reside in lakes and spawn in tributaries. Bull trout can grow to lengths of 37 inches and weights of 20+ pounds.</p> <p>Gray Wolf (<i>Canus lupus</i>) is the largest of the wild dogs. In Montana, its range is predominately the western mountainous portion of the state. This species is not migratory but may move seasonally following migrating ungulates within its territory. The gray wolf exhibits no particular habitat preference except for the presence of native ungulates within its territory on a year round basis.</p> <p>Grizzly Bear (<i>Ursus arctos horribilis</i>) This bear has a massive head with prominent nose, rounded inconspicuous ears, small eyes, short tail and large, powerful body. The facial profile is concave and there is a noticeable hump above the shoulders. Grizzly Bears are opportunistic and adaptable omnivores.</p> <p>Fisher (<i>Martes pennanti</i>) is a medium-sized mammal with a long, low stocky body and relatively long and heavily furred tail. The fisher</p>

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	<p>occupies dense coniferous or mixed forests and tends to reside in tree hollows, under logs, in ground or rocky crevices or in the branches of conifers. The fisher's diet consists of small mammals, birds and fruit.</p> <p>Wolverine (<i>Gulo gulo</i>) is a bear-like mustelid with massive limbs and long, dense, dark brown pelage, paler on the head, with two broad yellowish stripes extending from the shoulders and joining on the rump. Wolverines are limited to alpine tundra, and boreal and mountain forests in the western mountains. They feed on a variety of roots, berries, small mammals, birds' eggs and young, fledglings, and fish. They may attack moose, caribou, and deer hampered by deep snow.</p> <p>Canada Lynx (<i>Lynx Canadensis</i>) is a medium sized cat with silver-gray to grayish-brown upperparts and a white belly and throat. Lynx have long legs and a relatively short, compact body. Lynx inhabit subalpine forests and avoid large openings, but often hunt along edges in areas of dense cover. The Lynx's primary food consists of the snowshoe hare, although they also diet on squirrels and other small mammals.</p> <p>Northern Alligator Lizard (<i>Elgaria coerulea</i>) has an elongated body with short legs. The lizard is found in western Montana and prefers the grassy, grown-over areas at the margins of woodlands, clearcuts, sagebrush habitats, rocky habitats and streams. Very little is known about this lizard in Montana.</p> <p>Western Skink (<i>Eumeces skiltonianus</i>) is a small lizard with a shiny appearance. The body is covered in smooth, shiny, rounded scales. The lizard is an invertivore. The lizard prefers southwest aspects and sites with gentle rolling to steep terrain with rocky areas containing Ponderosa pine and Douglas-fir.</p> <p>Geyer's Biscuitroot (<i>Lomatium geyeri</i>) is a glabrous, herbaceous perennial with 1-3 stems that are 15-40 cm tall. The smallest flower clusters consist of a number of stalked flowers attached at a single point. They flower the end of March through May and fruit in late May to early June. They prefer vernal moist soil in open or partially shaded habitats in the montane zone.</p> <p><i>Impacts:</i> None of the listed species have been found on this site. Even if suitable habitat did exist on this site, the disturbance area would be small and large areas of similar or identical habitat surrounds the site. The possible impact to these species would be minimal.</p>
7. HISTORICAL AND ARCHAEOLOGICAL SITES	<p>The Montana State Historic Preservation Office (SHPO) was notified of the application. It reported that a few sites have been discovered previously within the search locale, but none have been identified onsite. A pedestrian survey of the area by DEQ personnel did not reveal any artifacts or signs of occupation. No signs were evident at depth in the previously disturbed area. There is no recommendation for a cultural resource inventory at this time.</p>

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	<i>Impacts:</i> If during operations resources were to be discovered, activities would be temporarily moved to another area or halted until SHPO was contacted and the importance of the resources was determined.
8. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY	There are no unusual demands on land, water, air or energy anticipated as a result of this project. <i>Impacts:</i> Negligible impacts to land, water, air, or energy would occur.

IMPACTS ON THE HUMAN POPULATION	
RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
9. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS	County zoning has been obtained for this site.
10. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING	As seen on the aerial photo of the surrounding area, the site is located approximately 1,400 feet west of multiple residences. It is also located approximately 1,100 feet north of multiple residences. <i>Impact:</i> This county pit is sited in this area because of the location of the resource, and to service the growing population in this area of the county.
11. AESTHETICS	The site is located on top of a bench at the base of the mountains in a treed area. There would be a temporary alteration of aesthetics while mining is under way. However, reclamation would return the area to a visually acceptable landscape. This project is considered long-term with no identified reclamation date.
12. QUANTITY/ DISTRIBUTION OF EMPLOYMENT	Existing employees would mainly be utilized for this operation. There is low potential that this project would create a significant number of new long term jobs. <i>Impacts:</i> New employment opportunities would be limited.
13. INDUSTRIAL, COMMERCIAL, AGRICULTURAL ACTIVITIES AND PRODUCTION	The acreage listed in the application would be taken out of agricultural/pastureland use and put into industrial/commercial use. Upon completion of mining, the land would be reclaimed back to grassland/residential use. <i>Impacts:</i> Pastureland use would cease until the site is reclaimed.
14. LOCAL, STATE TAX BASE AND TAX REVENUES, PERSONAL AND COMMUNITY INCOME	Local, state and federal governments would be responsible for appraising the property, setting tax rates, collecting taxes, etc., from the companies, employees, or landowners benefitting from this operation. Following reclamation, it is assumed the tax base would revert to pre-mine levels.
15. DEMAND FOR GOVERNMENT SERVICES	Limited oversight by DEQ officials that are generally conducted in concert with other area activity would occur.
16. HUMAN HEALTH AND SAFETY	Any industrial activity will increase the opportunities for accidental injury. There are agencies that require specific safety measures are in place. If followed there is no reason to believe that significant safety issues would be present.

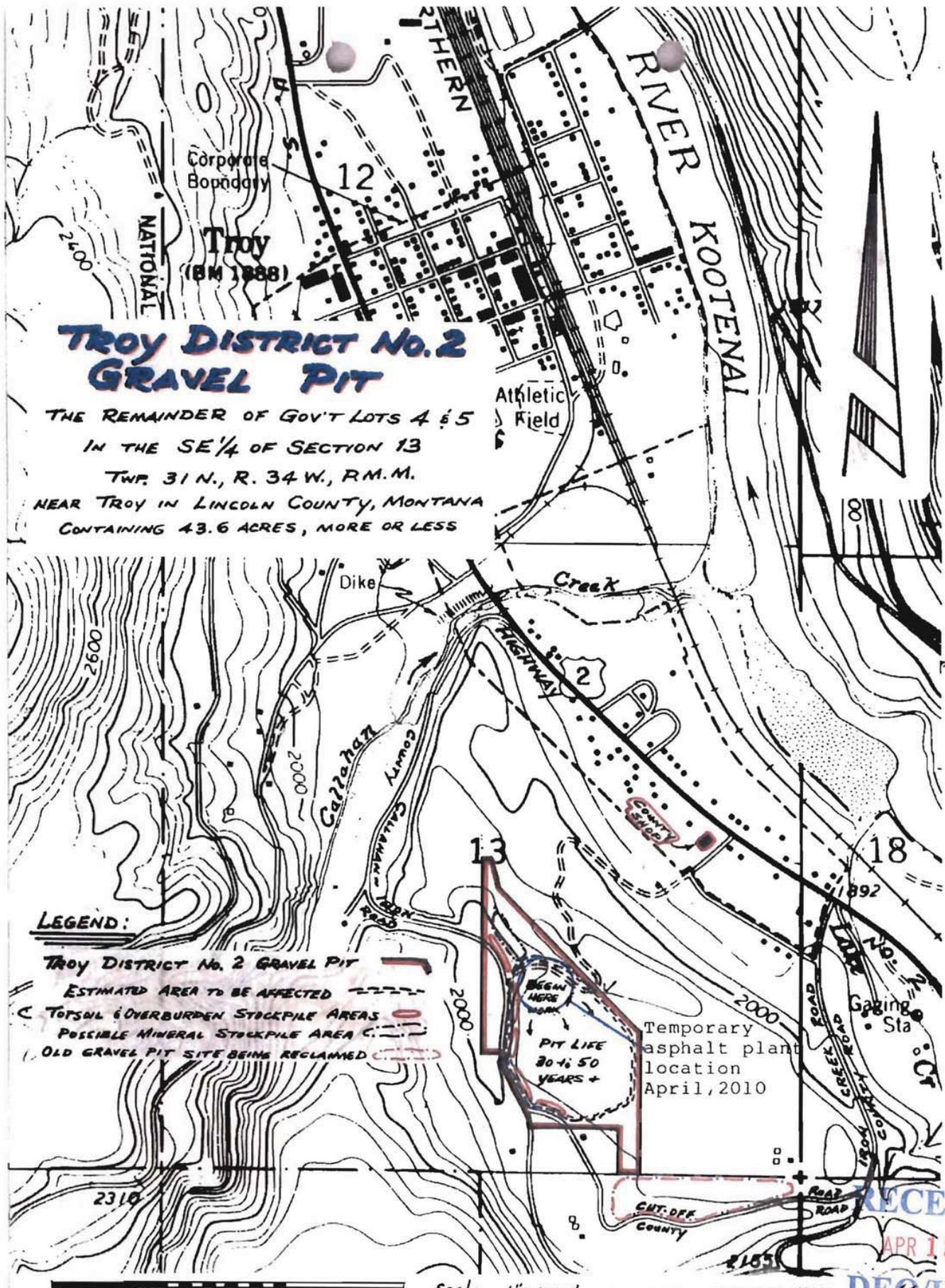
PRIVATE PROPERTY ASSESSMENT ACT (PPAA) CHECKLIST

DOES THE PROPOSED AGENCY ACTION HAVE TAKINGS IMPLICATIONS UNDER THE PPAA?

YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	X	3. Does the action deprive the owner of all economically viable uses of the property?
	X	4. Does the action deny a fundamental attribute of ownership?
	X	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? (If answer is NO, skip questions 5a and 5b and continue with question 6.)
		5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
	X	6. Does the action have a severe impact on the value of the property?
	X	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally? (If the answer is NO, skip questions 7a-7c)
		7a. Is the impact of government action direct, peculiar, and significant?
		7b. Has the government action resulted in the property becoming practically inaccessible, waterlogged, or flooded?
		7c. Has the government action diminished property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?

Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b.

If taking or damaging implications exist, the agency must comply with § 5 of the Private Property Assessment Act, to include the preparation of a taking or damaging impact assessment. Normally, the preparation of an impact assessment will require consultation with agency legal staff.



Troy District No. 2 GRAVEL PIT

THE REMAINDER OF GOV'T LOTS 4 & 5
 IN THE SE 1/4 OF SECTION 13
 TWP. 31 N., R. 34 W., P.M.M.
 NEAR TROY IN LINCOLN COUNTY, MONTANA
 CONTAINING 43.6 ACRES, MORE OR LESS

LEGEND:

- Troy District No. 2 GRAVEL PIT
- ESTIMATED AREA TO BE AFFECTED
- TOPSOIL & OVERBURDEN STOCKPILE AREAS
- POSSIBLE MINERAL STOCKPILE AREA
- OLD GRAVEL PIT SITE BEING RECLAIMED

Temporary
 asphalt plant
 location
 April, 2010

RECEIVED
 APR 13 2010
 DECEMBER