

ENVIRONMENTAL ASSESSMENT

On an Application for an OPENCUT MINING PERMIT

The Montana Department of Environmental Quality (DEQ) prepared this Environmental Assessment (EA) in accordance with requirements of 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 thereunder 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. The DEQ approval of this application would not relieve the operator from the obligation to comply with any other applicable federal, state, or county statutes, regulations, or ordinances. The operator is responsible for obtaining any other permits, licenses, approvals, etc. that are required for any part of the proposed operation.

APPLICANT: Town of Twin Bridges

COUNTY: Madison

SITE NAME: Lott Bros.

DATE: January 2011

LOCATION: Sections 22, 26, & 27, T3 S, R6 W

PROPOSAL: The town of Twin Bridges proposes to mine approximately 60,500 cubic yards of gravel from a 4.9 acre site located approximately 3/4 miles northeast of the town of Twin Bridges. The town would be liable to reclaim the site to rangeland by November 2011. This application contains all items required by the Opencut Mining Act and its implementing 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 located on a rolling short-grass prairie hillside on what appears to be an alluvial fan. The mine area consists of slopes that range from 2 to 25%. Soil ranges from 11 to 14 inches deep and consists of sandy to gravelly loam. This area receives approximately 10 inches of precipitation per year.</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 reclamation success.</p>
2. WATER QUALITY, QUANTITY AND DISTRIBUTION	<p>The Tash Drain Ditch is located within 1,000 feet of the main permit area and within 500 feet of the access road. The access road will need to cross this ditch to access the site. There are no wells located within 1,000 feet of the permit boundary. The operator would use water for dust control at a rate of approximately 2,000 gallons per day. Water will come from the town of Twin Bridges' water distribution system.</p>

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
	<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> Cumulative impacts by the proposed action on resources would be 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.</p>
4. VEGETATION COVER, QUANTITY AND QUALITY	<p>The vegetation that currently exists onsite consists of pasture grass and short-grass prairie, including blue grama, needle and thread grass, bluebunch wheatgrass, sage, rubber rabbit brush, and prickly pear cactus. Overall percentage of plant cover is approximately 75%.</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, 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 7 species of concern in the vicinity of the site:</p> <p>Bald eagle (<i>Haliaeetus leucocephalus</i>) is a bird of prey found in North America that is most recognizable as the national bird and symbol of the United States of America. This sea eagle has two known sub-species and forms a species pair with the white-tailed eagle. Its range includes most of Canada and Alaska, all of the contiguous United States and northern Mexico. It is found near large bodies of open water with an abundant food supply and old-growth trees for nesting.</p> <p>Mountain plover (<i>Charadrius montanus</i>) is a fairly large wading bird. Its summer range includes the eastern three-quarters of the state. Mountain plovers arrive in April and may remain in Montana until September. Primary habitat use during the breeding season includes heavily grazed, shortgrass prairie sites.</p> <p>McCown's longspur (<i>Calcarius mccownii</i>) is a medium-sized sparrow. The eastern three-quarters of Montana make up a portion of its summer range. Mccown's longspur spends its winters from Nebraska and Colorado southward. It is found in shortgrass prairies, native grasslands, pastures, and agricultural areas.</p>

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
	<p>Arctic Grayling (<i>Thymallus arcticus</i>)- The Arctic grayling is a species native to northern North America. The fluvial or river-dwelling population in the upper Big Hole River are the last remnants of this native Fish of Special Concern. Today in Montana Arctic grayling are found primarily small, cold, clear lakes with tributaries suitable for spawning. They do not coexist well with other fishes except cutthroat trout and others with which they evolved. Although fluvial Arctic grayling inhabit the entire Big Hole River, highest densities occur in the vicinity of Wisdom.</p> <p>Townsend's big-eared bat (<i>Corynorhinus townsendii</i>) is bat with very large ears joined at the base, prominent lumps on the nose, absence of large white spots in the pelage and a dorsal pelage that is darker at the tips than the base. The bat lives year-round in Montana. Habitat consists of caves, abandoned mines, abandoned buildings, etc. and it feeds on various nocturnal flying insects found near the foliage of trees and shrubs.</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>Annual Indian Paintbrush (<i>Castilleja exilis</i>) is an annual with erect, unbranched stems that are 3-8 dm high. The stalkless flowers arise from the axils of the reduced upper leaves (bracts) in a spike-like inflorescence at the top of the stem. The upper bracts have red tips. The fruit is a capsule with many tiny seeds. Flowering occurs in late August. Habitat consists of moist alkaline meadows in the valley 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 no sites have been discovered previously on this property. A pedestrian survey of the area by DEQ personnel did not reveal any artifacts or signs of occupation. Based on the lack of inventory and the large ground disturbance required by this undertaking, SHPO feels that this project has the potential to impact cultural properties. SHPO recommends that a cultural resource inventory be conducted in order to determine whether or not sites exist and if they will be impacted.</p> <p><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.</p>
8. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY	<p><i>Impacts:</i> Negligible impacts to land, water, air, or energy would occur.</p>

IMPACTS ON THE HUMAN POPULATION	
RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
9. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS	This site location is not zoned.
10. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING	As seen on the aerial photo of the surrounding area, there is minimal population density. <i>Impact:</i> This pit is being sited in this area because of the location of the resource, and to provide materials for the construction of a waste water lagoon located to the northwest of the site.
11. AESTHETICS	There are no nearby residences. Hours of Operation will be from 7 am to 7 pm, Monday through Friday. The site is located in rangeland. 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 to be short-term, i.e. planned to take one year to complete.
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 jobs. <i>Impacts:</i> New employment opportunities would be limited.
13. INDUSTRIAL, COMMERCIAL, AGRICULTURAL ACTIVITIES AND PRODUCTION	The acreage listed in the proposal would be taken out of rangeland use and put into industrial use. Upon completion of mining, the land would be reclaimed back to rangeland. <i>Impacts:</i> Rangeland production would be reduced as soil stripping and operations progress across the site. When the entire site is opened up for mining and mine-related activities, all rangeland activities would cease.
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 Opencut Program personnel would be conducted in concert with other area activity when in the vicinity.
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.
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES	This activity would not inhibit the use of the identified resources.
18. NATIVE CULTURAL CONCERNS	<i>Impacts:</i> None identified.

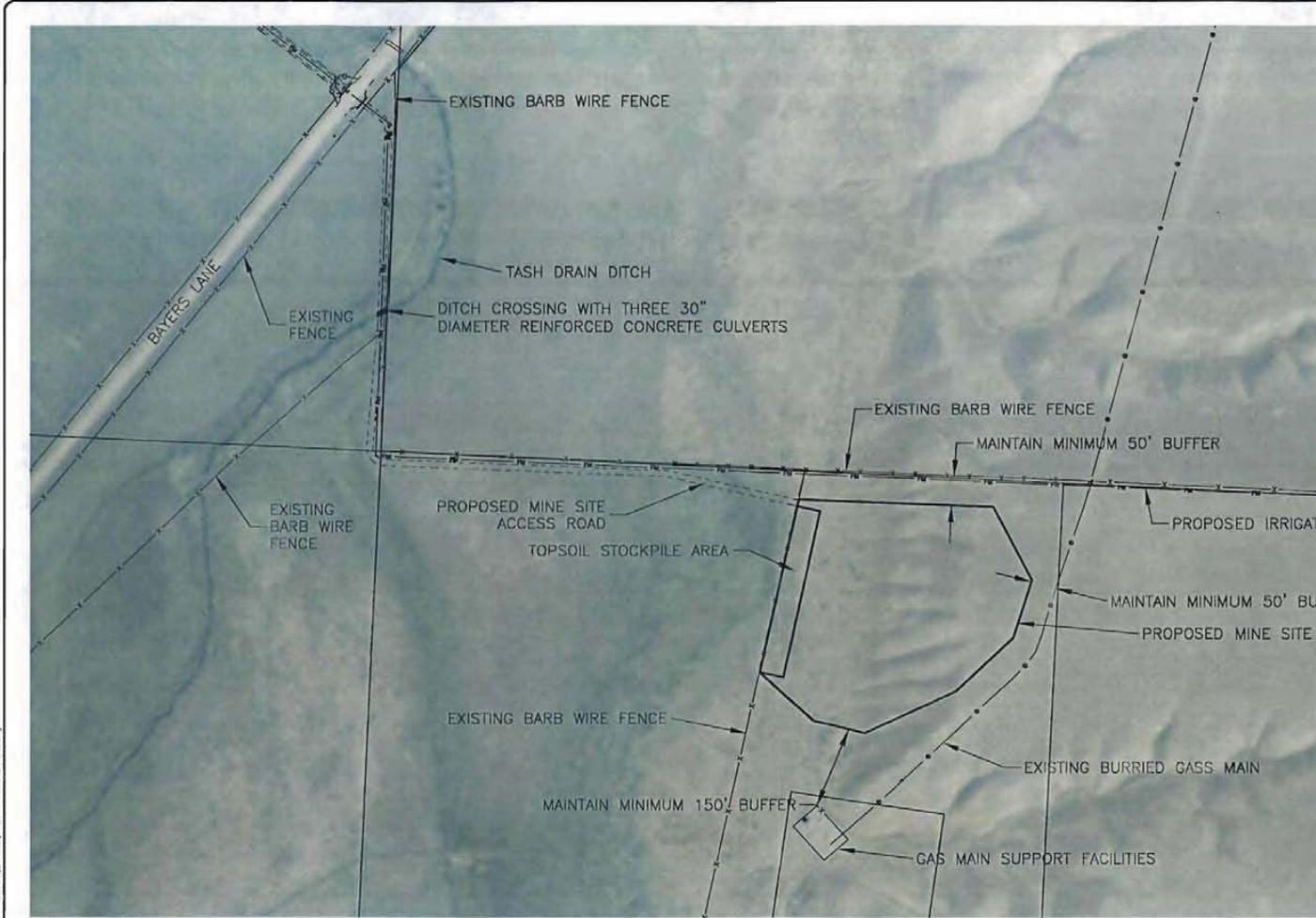
PRIVATE PROPERTY ASSESSMENT ACT (PPAA) CHECKLIST

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.



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