

## 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:** Glacier County Road Department

**SITE NAME:** Geer Pit

**LOCATION:** Sections 7, 8 & 17, T34N, R12W

**COUNTY:** Glacier

**DATE:** May 2010

**PROPOSAL:** Glacier County has mined this site in the past without a permit. However, the applicant proposes to permit all existing and future disturbance in accordance with the Opencut Mining Act. The applicant proposes to mine, crush, screen stockpile and transport approximately 100,000 cubic yards of gravel from then 8.76 acre site. The site was previously pastureland and is located approximately 3.5 miles south of Wetzel, Montana. The landowner's house is the only residence located within a couple miles of the proposed site. The proposed site is private land located within the Blackfoot Indian reservation. The applicant would reclaim the site to pasture with 3:1 slopes or flatter by January 2015.

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
<b>1. TOPOGRAPHY, GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:</b>	<p>This site is located at the base of the Rocky Mountains on top of a ridge consisting of glacial till. The sandy soils are approximately 6" thick and the site receives approximately 14.9 inches of precipitation annually.</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 would occur, but this would not impair the capacity of the soils to support full reclamation. The topographic character of the land would change as a portion of the ridge would be mined away. There are no unusual topographic, geologic, soil, or special reclamation considerations that would prevent reclamation from being successful.</p>

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<b>2. WATER QUALITY, QUANTITY AND DISTRIBUTION</b>	<p>Groundwater is located over 100 feet below the ground surface. There are no nearby wells identified near this site. No fuel will be stored onsite and equipment will be fueled by mobile fuel truck.</p> <p><i>Impacts:</i> The proposed activities would have a minimal effect on the quantity and quality of the surface and groundwater resources.</p>
<b>3. AIR QUALITY</b>	<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>
<b>4. VEGETATION COVER, QUANTITY AND QUALITY</b>	<p>Vegetation consists of a variety of native plants that make up the short grass prairie. The vegetation would be removed as soil is stripped and the site would be replanted with plant species compatible with the proposed reclaimed use.</p> <p><i>Impacts:</i> No long term detrimental impacts to the vegetation would occur.</p>
<b>5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:</b>	<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>
<b>6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:</b>	<p>The Montana Natural Heritage Program (MNHP) lists the following two species of special concern in the vicinity of the Glacier County Geer site.</p> <p><b>Grizzly Bear</b> (<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><b>Canada Lynx</b> (<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</p>

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	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.
<b>7. HISTORICAL AND ARCHAEOLOGICAL SITES</b>	The Montana State Historic Preservation Office (SHPO) was notified of the application. It reported that no sites have been discovered previously on this property, but recommended that a cultural resource inventory be conducted to determine whether or not sites exist and if they will be impacted. A pedestrian survey of the area by DEQ personnel did not reveal any artifacts or signs of occupation. No signs of artifacts were evident at depth in the previously disturbed area.  <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.
<b>8. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY</b>	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, air, or energy would occur.

<b>IMPACTS ON THE HUMAN POPULATION</b>	
<b>RESOURCE</b>	<b>POTENTIAL IMPACTS AND MITIGATION MEASURES</b>
<b>9. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS</b>	County zoning clearance has been obtained; there is currently no zoning in this area.
<b>10. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING</b>	As seen on the aerial photo of the surrounding area, there are no nearby residences other than the landowner's. The site is located in a rural area.  <i>Impact:</i> This county pit is being sited in this area because of the location of the resource, and to service the existing roads located in this area of the county.
<b>11. AESTHETICS</b>	This site is located along a ridge, far from any population. There would be a temporary alteration of the aesthetics while mining is under way. However, reclamation would return the area to a visually acceptable landscape. This project is considered to be relatively short-term as it is proposed to be reclaimed by January 2015.
<b>12. QUANTITY/ DISTRIBUTION OF EMPLOYMENT</b>	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 as this is a relatively small operation that is only operated as gravel is needed.
<b>13. INDUSTRIAL, COMMERCIAL, AGRICULTURAL ACTIVITIES AND PRODUCTION</b>	The acreage listed in the proposal would be taken out of active pasture use and put into industrial mine use. Upon completion of mining, the land would be reclaimed back to pasture.  <i>Impacts:</i> Agricultural production would be reduced on the site for the life of the permit.



## 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.



**Site Information:**

1. Operator Name - Glacier County
2. Site Name - Geer Pit
3. Section 8 & 17, T34N, R12W
4. Bar Scale - shown on map (1:4800, 1"=400')
5. Date of Drafting - March 9, 2010
6. North Arrow - Shown on Map (Montana State Plane North)

Note: Coordinates are in decimal degrees-NAD83

Point ID	Lat-Dec	Long-Dec
101 NW Corner	48.71125621	-113.2059114
102 NE Corner	48.71117281	-113.2049118
103 E Int Corner	48.70995179	-113.2048833
104 SE Corner	48.7083755	-113.2059941
105 SW Corner	48.70860895	-113.2068975