

**ENVIRONMENTAL ASSESSMENT**

On an Application for an  
**OPENCUT MINING PERMIT**

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: Riverside Contracting**

**SITE NAME: Gaustad**

**LOCATION: Section 28, T3S R19E**

**COUNTY: Stillwater**

**DATE: January 2010**

**PROPOSAL:** Riverside Contracting proposes to mine and crush 115,000 yards of gravel from a 57.4-acre site. An asphalt plant would also be used for some jobs. The material would be used for an MDT highway reconstruction project and for local commercial jobs in this fast-growing county. The new access road would be left for the landowner. Mining would start near the new access road and would proceed toward the west. Stockpiles would be toward the edge of the bluff and the crusher and asphalt plant would be located toward the west. 32.5 acres would not be bonded or disturbed at this time.

The access road would remain at reclamation. The site would be reclaimed to grassland by 2015. A reclamation bond of \$107,544 would be held by DEQ to ensure final reclamation of the 24.9-acre first phase.

**IMPACTS ON THE PHYSICAL ENVIRONMENT**

<b>RESOURCE</b>	<b>POTENTIAL IMPACTS AND MITIGATION MEASURES</b>
<b>1. TOPOGRAPHY, GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:</b>	The site is on top of the high, flat ridge east of the confluence of East and West Rosebud Creeks. This is part of the dissected plains portion of the Stillwater County. It is identified by hard sandstone bluffs and more gently sloping shale benches or outcrops lower down. The Gaustad site is at an elevation of 4,500 feet above mean sea level while the lower end of the access road is at 4,100 feet. Turner series soils are located on the flat, main permit area. The parent material of these clay loams is glacial outwash and alluvial fan materials. The soils are about 1 foot deep overlaying clay or sandy gravels. The access road is build across the scarp face on a complex of rock outcrop soils. Precipitation in the area is between 15 and 19 inches. <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

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	<p>from salvaging, stockpiling, and resoiling activities also would occur, but this would not impair the capacity of the soils to support full reclamation.</p> <p>There are no unusual topographic, geologic, soil, or special reclamation considerations that would lead to reclamation failure.</p>
<b>2. WATER QUALITY, QUANTITY AND DISTRIBUTION</b>	<p>There are no water features on site. The confluence of east and West Rosebud Creeks is about a half mile to the east.</p> <p>Several residential wells are located 200 to 400 feet below the terrace, southwest of the permit area.</p> <p>The crusher would use about 80,000 gallons of water a day and dust suppression would require another 20,000 gallons. It would be hauled daily from surrounding landowner sources.</p> <p><i>Impacts:</i> Because the site is several hundred feet higher than the surrounding residences, mining would have no effect on local wells. 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>The main permit area has been plowed and seeded for use as hayland. The access road traverses native range comprised of grasses, sagebrush, and shrubs. No noxious weeds were observed.</p> <p><i>Impacts:</i> Because the access road would be left at reclamation, 2.5 acres of native vegetation would be permanently lost. No other 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 and hayland, 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</b>	<p>The Montana Natural Heritage Program (MNHP) lists 2 species of concern in the vicinity of the site. The bobolink and the greater short-horned lizard might utilize this site. The bobolink is a summer</p>

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<b>RESOURCES:</b>	breeding resident in Montana. It nests in “old” hayfields and grasslands. The greater short-horned lizard lives in dry, rocky, shortgrass/sagebrush ecosystems. The western edge of the site and the sandstone bluff would provide habitat for this lizard. It has not been seen on site. <i>Impacts:</i> Neither of the listed species has been found on this site. Although suitable habitat exists nearby along the access road, the disturbance area would be small and large areas of similar or identical habitat surrounds the site. Possible adverse impacts to these species would be minimal.
<b>7. HISTORICAL AND ARCHAEOLOGICAL SITES</b>	The Montana State Historic Preservation Office (SHPO) was notified of the application. It reported 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. No signs 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>	<i>Impacts:</i> Negligible impacts to land, water, 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>	
<b>10. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING</b>	Fifteen residences and a cemetery are located just below this site. The new access road would divert all mine traffic away from them. <i>Impact:</i> This pit is being sited in this area because of the location of the resource near an MDT road reconstruction job and the population growth and new construction in this part of Stillwater County.
<b>11. AESTHETICS</b>	The access road would be about 1,000 feet north of the closest residence. Although the facilities area would be at the western edge of the bench, the crusher, asphalt plant, etc. would be set back from the boundary almost 2,000 feet away from the nearest residence. No special aesthetic mitigation has been proposed. <i>Impacts:</i> The existing access goes through the residential area. The new road is over 1,000 feet to the north and, because of some switchbacks, approaches the main permit area from the north. The residents below the site would be less severely impacted by truck noise because of the distance from their homes. Services at the cemetery would not be impacted by truck traffic, and the noise would be reduced.

<b>IMPACTS ON THE HUMAN POPULATION</b>	
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	Because of the elevation of the site, noise would impact persons at a greater distance. Soil berms along that western edge would mitigate this impact.
<b>12. QUANTITY/ DISTRIBUTION OF EMPLOYMENT</b>	<i>Impacts:</i> New employment opportunities would be limited. Most of the employees permanently work for Riverside at different locations. This is a relatively small operation.
<b>13. INDUSTRIAL, COMMERCIAL, AGRICULTURAL ACTIVITIES AND PRODUCTION</b>	Range and hay production would be limited on this site until reclamation was reestablished. <i>Impacts:</i> Agricultural production would be reduced on the site for the life of the permit and permanently on 2.5 acres of the native range because the access road would remain.
<b>14. LOCAL, STATE TAX BASE AND TAX REVENUES, PERSONAL AND COMMUNITY INCOME</b>	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
<b>15. DEMAND FOR GOVERNMENT SERVICES</b>	Inspections by DEQ officials are generally conducted in concert with other area activity.
<b>16. HUMAN HEALTH AND SAFETY</b>	Any industrial activity will increase the opportunities for accidental injury. Other government agencies (e.g. MSHA, OSHA) require specific safety measures. As a result, there is no reason to believe that significant safety issues would be present.
<b>17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES</b>	This activity would not inhibit the use of the identified resources.
<b>18. NATIVE CULTURAL CONCERNS</b>	<i>Impacts:</i> None.

**19. Alternatives Considered:**

- A. Denial Alternative: The Department would deny an application that does not comply with the Act and Rules. No impacts to the natural or human environment would occur.
- B. Proposed Action Alternative

**20. Public Involvement, Agencies, Groups or Individuals contacted:** Montana State Historic Preservation Office, Montana Natural Heritage Program

**21. Other Governmental Agencies which May Have Overlapping or Sole Jurisdiction:** Stillwater County Commission, Stillwater County Weed Control Board, MSHA and OSHA regarding mine safety.

Possible permits required from other programs or agencies: DEQ's Air Resources Management Bureau regarding air quality, DEQ's Water Protection Bureau for stormwater or discharge permits, Department of Natural Resources and Conservation for water rights 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.