

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: Riverside Contracting Inc.

COUNTY: Sweet Grass

SITE NAME: Griffin

DATE: June 2014

LOCATION: Section 27, T2 N, R14 E

PROPOSAL: The applicant proposes to permit a new, short-term gravel pit to mine, screen, crush, mill, stockpile and transport 35,000 cubic yards of gravel from a 23.5-acre site located approximate 3.5 miles north of Big Timber, and 0.7 miles west of the intersection of US 191 and Swamp Creek Road. The permit would include an asphalt plant.

A reclamation bond would be held by DEQ to ensure that final reclamation of the site to rangeland/pasture with an internal road would be completed by November 2019. 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 relatively flat alluvial terrace that is approximately 50 to 90 ft. above the present elevation of Big Timber Creek. The topography rises west of the permit boundary and drops to the east. . Clasts are mainly granitic igneous rocks, granitic gneiss, schist, and quartzite.</p> <p>The onsite soils consist of Versom loam. The operator would replace 12 inches of soil and 24 inches of overburden.</p> <p>The site receives approximately 15-16 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>

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2. WATER QUALITY, QUANTITY AND DISTRIBUTION	<p>Swamp Creek road is located immediately south of the site which is bordered by a ridge to the west, a steep drop to the north and northeast, and cropland directly to the east. There is a large irrigation ditch/canal which runs along the eastern border of the site. Water would be used on site for dust control and pug milling; it would be obtained from a source greater than 300 feet from the permit boundary. No water would be stored on site.</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> <p><i>Cumulative:</i> No cumulative impacts are anticipated.</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>There are no known rare or sensitive plants or cover types present in the site area. Onsite vegetation consists of crested wheatgrass, intermediate wheatgrass, cheatgrass, sagebrush, and alfalfa, and provides approximately 70-80% cover. 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>
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:	<p>Although the area is used primarily for pasture, it also supports populations of deer, antelope, 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 4 species of concern in the vicinity of the site:</p> <p>Black-tailed prairie dog (<i>Cynomys ludovicianus</i>) is the largest of the prairie dog species. In Montana, its range includes the eastern and central portions of the state, plus some intermountain valleys. This species is not known to migrate. Prairie dog colonies are found on flat, open grasslands and shrub/grasslands with low, relatively sparse vegetation.</p> <p>Greater sage-grouse (<i>Centrocercus urophasianus</i>) is the largest of Montana's grouse. Both sexes have relatively long, pointed tails, feathered legs, and mottled gray-brown, buff, and black plumage. In Montana, it ranges primarily</p>

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	<p>in the southwestern and eastern portions of the state. This species does not migrate. Sagebrush is its preferred habitat.</p> <p>Greater short-horned lizard (<i>Phrynosoma hernandesi</i>) has a broad and flattened body, short spines crowning the head, a spiny back, and maximum total length of 6 inches. It ranges across much of Montana, mostly east of the Continental Divide. Habitat reports mention individuals on ridge crests between coulees, and in sparse, short grass and sagebrush with sun-baked soil.</p> <p>Peregrine Falcon (<i>Falco peregrinus</i>) can be found year round across the state. They arrive in northern breeding areas late April through early May, and departure begins late August through early September. Nests typically are situated on ledges of vertical cliffs, often with a sheltering overhang. Ideal locations include undisturbed areas with a wide view, near water, and close to plentiful prey.</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 within the designated search locale. A pedestrian survey of the area by DEQ personnel did not reveal any artifacts or signs of occupation. SHPO does not feel that a cultural resource inventory is warranted at this site at this time.</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>There are no unusual demands on land, water, air or energy anticipated as a result of this project.</p> <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	<p>Sweet Grass County zoning clearance has been obtained.</p> <p>Site is not zoned.</p>
10. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING	<p>As seen on the aerial photo of the surrounding area, there are two nearby residences located south of the site. Both are located across Swamp Creek road; one approximately 300 feet south of the site, and the other approximately 800 feet southeast of the site.</p> <p><i>Impact:</i> This commercial pit is being sited in this area because of the location of the resource, and to provide resources for an MDT project.</p>
11. AESTHETICS	<p>The site is located in a common cropland 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 to be short-term, i.e., planned to take 5 years to complete.</p>

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	Opencut activities will be conducted between the hours of 5am to 10pm, seven days per week.
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 agricultural use. Upon completion of mining, the land would be reclaimed to rangeland. <i>Impacts:</i> Agricultural 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 agricultural activities would cease, but would be restored as 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 Opencut Program personnel would be conducted in concert with other area activity when in the vicinity.
16. HUMAN HEALTH AND SAFETY	Any industrial activity would increase the opportunities for accidental injury. There are agencies that require the Operator to implement specific safety measures. 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.

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. Approval Alternative: The Department would approve an application that complies with the Act and Rules. Impacts of this application are addressed in the body of the EA.

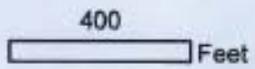
20. Public Involvement, Agencies, Groups or Individuals contacted: Montana State Historic Preservation Office, Montana Natural Heritage Program, and the Sweet Grass County Weed Control Board.

21. Other Governmental Agencies which May Have Overlapping or Sole Jurisdiction include, but may not be limited to: Sweet Grass County Planning Department (zoning), Sweet Grass County Weed Control Board, MSHA and OSHA (worker safety), DEQ ARMB (air quality) and Water Protection Bureau (groundwater and surface water discharge; stormwater), DNRC (water rights), and MDT (road access).



Legend

- GWC Wells
- ◆ Core Hole
- Boundary



Riverside Contracting, Inc.
Griffin
Site Map
May 2014

1 inch = 400 feet

Sec. 27, T2N, R14E
 Sweet Grass County
 Landowner:
 Max & Jeanine Griffin

