

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: Fergus County Road and Bridge Department

COUNTY: Fergus

DATE: December 2011

SITE NAME: Larry Tuss Gravel Pit

LOCATION: Section 10 & 11, T21 N, R18 E

PROPOSAL: The applicant proposes to permit a new, long-term gravel pit to mine, screen, crush, stockpile and transport 94,000 cubic yards of gravel from a 5.3-acre site located four miles north of Winifred. The Fergus County Road and Bridge Department would be liable to reclaim the site to grassland by July 2036. 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 gently rolling alluvial terrace that is partially dissected by moderately steep coulees. It is in a mid-level position on the second terrace above Dog Creek. Onsite soils consist of loam and clay loam soils. The operator will replace 12 inches of soil and 6 inches of overburden. The site receives approximately 15 inches of precipitation per year.</p> <p><i>Impacts:</i> An irreversible and irretrievable removal of gravel would occur. A small impact to the quantity and quality of soils from salvaging, stockpiling, and resoiling 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>Dog Creek is located approximately 350 feet south of the site. The only water to be used onsite will be for dust control and would be obtained at the County shop.</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>

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
	<i>Cumulative:</i> Cumulative impacts by the proposed action on resources would be negligible.
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 & thickspike wheatgrasses, grama grass, silver sage and yucca, with chokecherry in the coulees; and provides approximately 90% 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, 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 two species of concern in the vicinity of the site:</p> <p>Greater sage-grouse (<i>Centrocercus urophasianus</i>) is the largest of Montana's grouse. In Montana, it ranges primarily in the southwestern and eastern portions of the state. This species does not migrate. Sagebrush is its preferred habitat.</p> <p>Pinyon Jay (<i>Gymnorhinus cyanocephalus</i>) is a small blue crestless bird about 26-29 cm in total length. They are permanent residents in the state of Montana. Their habitat includes low-elevation ponderosa pine and limber pine-juniper woodlands. They are generally omnivorous, with pine seeds forming an important component of the diet. Juniper berries, wild fruits, agricultural grains, and animal matter are also eaten. Loss of ponderosa pine woodlands is probably the greatest threat to Pinyon Jays in Montana.</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>

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
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. SHPO stated that there has been one previously conducted inventory report in the area. Based on the lack of inventory in the area and the ground disturbance required by this undertaking SHPO feels that this project has the potential to impact cultural properties, and, therefore, recommends that a cultural resource inventory be conducted in any areas where there will be new ground disturbance in order 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.</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>County zoning clearance has been obtained. The 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 is one rural farm residence one mile to the east.</p> <p><i>Impact:</i> This county pit is being sited in this area because of the location of the resource, and to service and maintain the roads in this area of the county.</p>
11. AESTHETICS	<p>The site is located in a common grassland 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 long-term, i.e., planned to take 25 years to complete.</p>
12. QUANTITY/ DISTRIBUTION OF EMPLOYMENT	<p>Existing employees would mainly be utilized for this operation. There is low potential that this project would create a significant number of new jobs.</p> <p><i>Impacts:</i> New employment opportunities would be limited.</p>
13. INDUSTRIAL, COMMERCIAL, AGRICULTURAL ACTIVITIES AND PRODUCTION	<p>The acreage listed in the proposal would be taken out of grassland use. Upon completion of mining, the land would be reclaimed to grassland.</p> <p><i>Impacts:</i> Grassland 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 grassland activities would cease.</p>
14. LOCAL, STATE TAX BASE AND TAX REVENUES, PERSONAL AND COMMUNITY INCOME	<p>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.</p>

PRIVATE PROPERTY ASSESSMENT ACT (PPAA) CHECKLIST

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

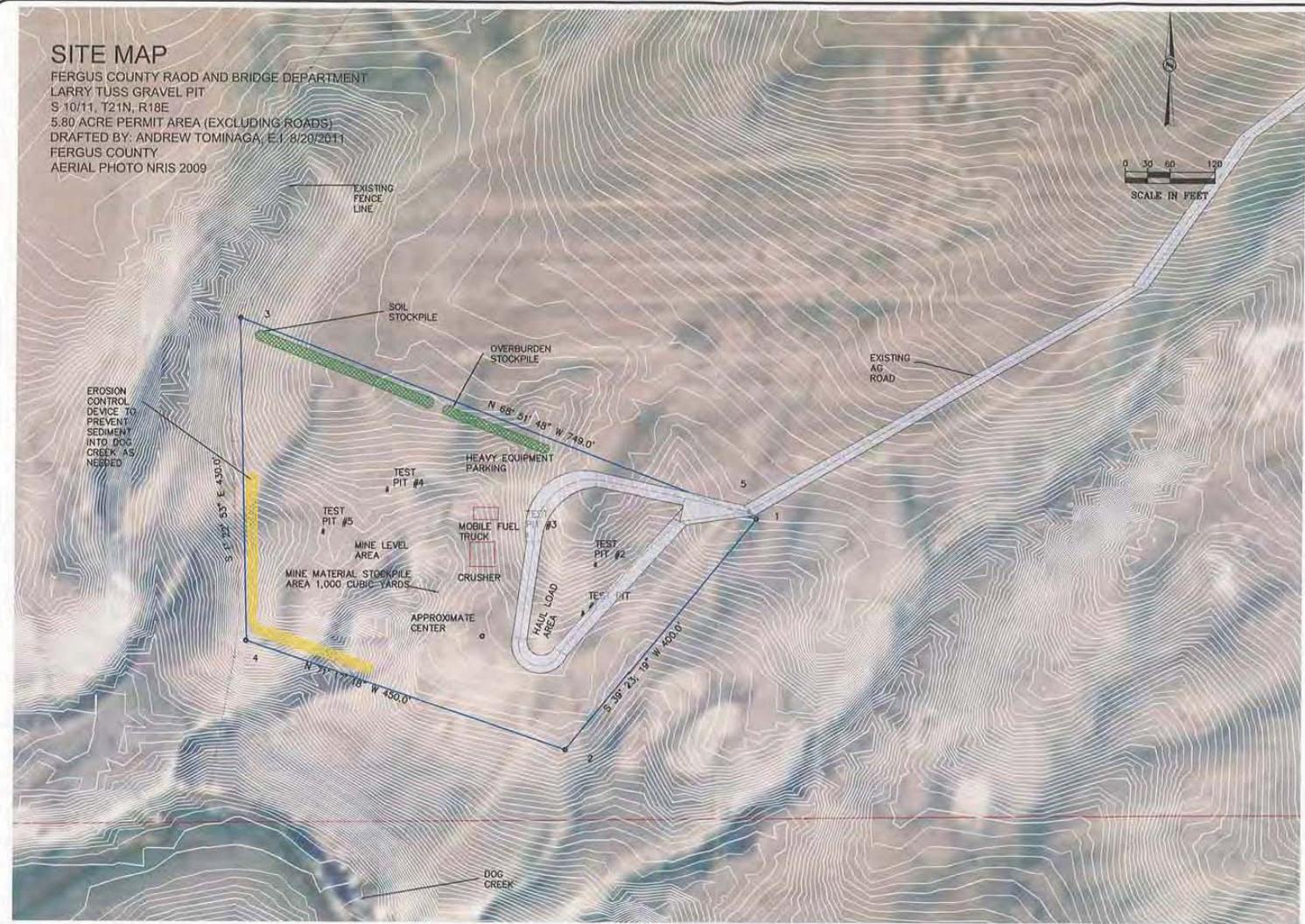
YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	X	3. Does the action deprive the owner of all economically 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 MAP

FERGUS COUNTY ROAD AND BRIDGE DEPARTMENT
 LARRY TUSS GRAVEL PIT
 S 10/11, T21N, R18E
 5.80 ACRE PERMIT AREA (EXCLUDING ROADS)
 DRAFTED BY: ANDREW TOMINAGA, E.I. 8/23/2011
 FERGUS COUNTY
 AERIAL PHOTO NRIS 2009



STAHLY ENGINEERING & ASSOCIATES
 Professional Engineers
 & Surveyors
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 Bozeman, MT 59718
 Phone: (406) 552-4628
 Email: info@stahly.com

3530 Centennial Dr.
 Helena, MT 59601
 Phone: (406) 442-4407
 Email: info@stahly.com

No.	DATE	ISSUE/REVISION	BY
1		DESCRIPTION	X

SITE MAP
 LARRY TUSS GRAVEL PIT
 LEWISTOWN, MT
 FERGUS COUNTY

8/23/2011 1:58 PM
 8/23/2011 1:58 PM
 8/23/2011 1:58 PM

DESIGNED: AST
 DRAWN: AST
 CHECKED: TDE
 DATE: 8-21-11

SHEET
C2