

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: Valley Sand & Gravel, LLC

COUNTY: Lewis & Clark

SITE NAME: Saw Tooth Ranch

DATE: August 2011

LOCATION: Sections 27 & 28, T21 N, R7 W

PROPOSAL: The applicant proposes to permit a new, short-term gravel pit to mine, screen, crush, stockpile and transport 30,000 cubic yards of gravel from a five-acre site located five miles northwest of Augusta.

A reclamation bond would be held by DEQ to ensure that final reclamation of the site to Rangeland/Pasture would be completed by October 2014.

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 relatively flat pastureland with a swale located on the south side of the proposed site, an ephemeral drainage to the west, and an irrigation ditch that runs north of the site. A small seasonal stock pond is located to the north as well.</p> <p>The site is located east of the Front Range on what appears to be glacial lake deposits with 0 to 2% slopes.</p> <p>The onsite soils consist of stony loam soil and no overburden. The operator will replace 7 inches of soil and 0 inches of overburden.</p> <p>The site receives approximately 14 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,</p>

IMPACTS ON THE PHYSICAL ENVIRONMENT	
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	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.
2. WATER QUALITY, QUANTITY AND DISTRIBUTION	<p>A seasonal stock pond is located northeast of the site. An ephemeral drainage and an irrigation ditch are located west of the site. The irrigation ditch runs from the west toward the northeast. No wells are located within 1,000 feet of this site. Groundwater is not expected to be encountered at this site during mining activities. The operator plans to use magnesium chloride for dust mitigation.</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> 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 installation. 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 prairie Junegrass, green needle grass, blanket flower, alfalfa, sagewort, crested wheatgrass, and various other wheatgrasses and bunchgrasses; and provides approximately 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, 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 eight species of concern in the vicinity of the site:</p> <p>Plains Spadefoot (<i>Spea bombifrons</i>) are gray or brown amphibians with darker mottling on the back and white on the belly. No other adult frog or toad in Montana has a combination of vertical pupils, bony “boss” or lump between the</p>

IMPACTS ON THE PHYSICAL ENVIRONMENT	
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	<p>eyes, large black spades on the hind feet, and a lack of prominent parotoid glands. Their year-round range extends from Helena all the way to eastern Montana and covers most of the state. This species is usually found in areas with soft sandy/gravelly soils near permanent or temporary bodies of water.</p> <p>Common loon (<i>Gavia immer</i>) is a large and mainly aquatic bird. The feet are located far back on the body and are large, webbed, and sweep to the side rather than forward under the belly. This trait makes it difficult for Common Loons to walk on land but allows more efficient swimming underwater. The sexes are indistinguishable based on plumage. Adults are primarily black with a broad patch of vertical white stripes on the side of the neck. The eye is red. In Montana, spring migration begins in early to mid-March. Fall migration starts in late August and may continue through October in Montana. Common Loons will not generally nest on lakes less than about 13 acres in size or over 5000 feet in elevation. Successful nesting requires both nesting sites and nursery areas. Generally, Common Loons dive from the surface and feed mainly on fishes but are opportunistic and will eat any suitable prey they can readily see and capture including amphibians and various invertebrates.</p> <p>Long-billed curlew (<i>Numenius americanus</i>) is a large North American shorebird. Adults have a very long bill curved downwards, a long neck and small head. The bird usually feeds in flocks, with food consisting of crabs and various other small invertebrates.</p> <p>Clark's Nutcracker (<i>Nucifraga columbiana</i>) is a jay-sized corvid that is crowlike in build and flight, with moderate sexual size dimorphism. The bird is light to medium gray with varying amounts of white around the eyes, on forehead and on chin; white around vent and at base of tail; wings and tail glossy black. The bird has a long, pointed, black bill with short nasal bristles and makes a distinctive grating call audible at great distance.</p> <p>Sprague's pipit (<i>Anthus spragueii</i>) is a sparrow-sized bird. Its summer range includes the eastern three-quarters of the state. It arrives in Montana in early May and breeds shortly thereafter. Fall migration begins at the end of August. This bird prefers native, medium to intermediate height prairie and, in a shortgrass prairie landscape, can often be found in areas with taller grasses.</p> <p>Baird's sparrow (<i>Ammodramus bairdii</i>) is a prairie songbird. In summer it is found in Montana, most commonly east of the Continental Divide. It migrates to the Southwestern U.S. and Northern Mexico for winter. This bird depends upon dry, shortgrass prairie habitat with small, scattered shrubs and matted vegetation.</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> <p>Bobolink (<i>Dolichonyx oryzivorus</i>) is a small new world blackbird and the only member of the genus <i>Dolichonyx</i>. These birds migrate to Argentina, Bolivia and Paraguay. Bobolinks forage near the ground, and mainly eat seeds and insects. They prefer tall prairie grass and other open areas with dense grass, but can also be found in hay fields.</p> <p><i>Impacts:</i> None of the listed species have been found on this site. Even if</p>

IMPACTS ON THE PHYSICAL ENVIRONMENT	
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	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.
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. SHPO feels that there is a low likelihood that cultural properties will be impacted, and therefore do not recommend a cultural resource inventory 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	County zoning clearance has been obtained.
10. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING	<p>As seen on the aerial photo of the surrounding area, there are no nearby residences.</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 a county road project.</p>
11. AESTHETICS	<p>The site is located in a common pastureland 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 three years to complete.</p> <p>There are no nearby residences and therefore no need for restrictions on hours of operation, noise, etc.</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 pastureland use. Upon completion of mining, the land would be reclaimed to Rangeland/Pasture.</p> <p><i>Impacts:</i> Pastureland 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 pastureland activities would cease.</p>
14. LOCAL, STATE TAX BASE AND TAX REVENUES, PERSONAL AND COMMUNITY	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.

IMPACTS ON THE HUMAN POPULATION	
RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
INCOME	
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.

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.

21. Other Governmental Agencies which May Have Overlapping or Sole Jurisdiction include, but may not be limited to: Lewis and Clark County Planning Department (zoning), Lewis and Clark 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).

22. Regulatory Impact on Private Property: The analysis done in response to the Private Property Assessment Act indicates no impact. The Department does not plan to deny the application or impose conditions that would restrict the use of private property so as to constitute a taking.

23. Magnitude and Significance of Potential Impacts: This proposal is not likely to create impacts of significance due to mitigation, restrictions, and oversight mandated by the Opencut Mining Act and pursuant rules and the Montana Clean Air Act.

24. Recommendation for Further Environmental Analysis: [] EIS [X] No Further Analysis

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Name Title

EA Reviewed By: JJ Conner Opencut Mining Program Unit Coordinator
Name Title

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

VALLEY [REDACTED] SAND & GRAVEL LLC
 SAW TOOTH RANCH [REDACTED]
 S27/S28, T21N, R07W
 5 ACRE PERMIT AREA [REDACTED]
 DRAFTED BY: TYLER EMMERT, P.E. 6-28-11
 LEWIS & CLARK COUNTY
 AERIAL PHOTO NRIS 2009



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 Professional Engineers & Surveyors
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 Helena, MT 59601
 Phone: (406) 324-3884
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 E-Mail: stahty@stahty.com

NO.	DATE	ISSUE/REVISION	BY

SITE MAP
 SA W TESTA RANCH
 AUGUSTA, MT
 LEWIS AND CLARK COUNTY
 N 1084-2111, S44 CENTERLINE, SECTION 10&11, T21N, R07W
 8/29/2011 4:18 PM

DESIGNED: TDE
 DRAWN: TDE
 CHECKED: JLS
 DATE: 8-16-11

SHEET
C2

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