

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: Helena Sand & Gravel, Inc.

COUNTY: Lewis & Clark

SITE NAME: Airport Hangar Borrow

DATE: June 2010

LOCATION: Section 27, T10 N, R3 W

PROPOSAL: Helena Sand & Gravel proposes to mine approximately 85,000 cubic yard of borrow material from the 11.3-acre site located at the Helena Regional Airport in Helena, MT. No processing equipment would be used during the operation. The borrow material would be used on the centennial trail project. A reclamation bond would be held by DEQ to ensure that final reclamation of the site would be completed by October 2011. The site would be left in a level, vegetated condition that would be suitable for the construction of airplane hangars in the future as demand necessitates.

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>This site is located in the Helena Valley with 2 to 8% slopes in what appears to be an alluvial fan. The west and north sides of the site were previously graded to slope down to the same elevation as the airport. Existing airplane hangars are located to the west of the proposed site. Soil consists of approximately 4-6" gravelly loam. This area receives approximately 11" 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 successful reclamation.</p>

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2. WATER QUALITY, QUANTITY AND DISTRIBUTION	<p><i>Impacts:</i> A borrow ditch is located to the southwest of the proposed mining area. The proposed activities would have a minimal effect on the quantity and quality of the surface and groundwater resources. Water will be hauled in for dust control. An estimated 360,000 gallons of water will be used over the life of the project.</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 it is installed and operated on-site. 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>The vegetation that currently exists onsite consists of crested wheatgrass, blue grama, prairie junegrass, salsify, and other various bunchgrasses. Some noxious weeds are present including leafy spurge, spotted knapweed, and whitetop.</p> <p><i>Impacts:</i> All soil and vegetation will be stripped from the site. The pit floor will not be revegetated as the postmining land use is airport hangars. The slopes leading down from the original elevation will be the only vegetated areas.</p>
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:	<p>Although the area is a small fenced in grassland area, it may supports populations of rodents, song birds, raptors, insects, and various other small animal species. Population numbers for these species are not known.</p> <p><i>Impacts:</i> The proposed mine is expected to displace some individual species and it is unlikely that the site would be re-inhabited following reclamation to airplane hangars.</p>
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:	<p>The Montana Natural Heritage Program (MNHP) lists the following 6 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 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>Bald eagle (<i>Haliaeetus leucocephalus</i>) is a bird of prey found in North America that is most recognizable as the national bird and symbol of the United States of</p>

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	<p>America. This sea eagle has two known sub-species and forms a species pair with the white-tailed eagle. Its range includes most of Canada and Alaska, all of the contiguous United States and northern Mexico. It is found near large bodies of open water with an abundant food supply and old-growth trees for nesting.</p> <p>Brewer’s sparrow (<i>Spizella breweri</i>) is a songbird strongly associated with sagebrush over most of its range. In summer it is found across Montana. This species migrates to the Southwestern U.S. and Northern Mexico for winter. Brewer's sparrows are closely associated with sagebrush, preferring dense stands broken up with grassy areas.</p> <p>Wedge-leaved Saltbush (<i>Atriplex truncate</i>) is an annual with simple to branched stems which are 15-100 cm tall. The alternate, wedge-shaped to oval leaves, 15-40 mm long, have entire margins and short petioles. The foliage is sparsely to densely covered with grayish scales that rub off. Small, unisexual flowers are borne in clusters in leaf axils. Flowering and fruiting occurs in August-September. Habitats include vernal moist, alkaline soil around ponds and along streams in the valleys.</p> <p>Lesser Rushy Milkvetch (<i>Astragalus convallarius</i>) – The distribution of <i>A. convallarius</i> in Montana is limited to two disjunct localities in the state: the Helena Valley vicinity and an area in extreme southwest Montana in Beaverhead County. The species is being negatively impacted by development in the Helena area. Lesser Rushy Milkvetch is a slender herbaceous perennial with 1-6 erect to spreading stems, rising up to 5 dm high from a branching, underground rootcrown. The compound or simple leaves are 2-11 cm long with 0-5 pairs of thread-like leaflets. Leaflets of the upper leaves are usually lacking, giving them a grass-like appearance. Habitat includes grasslands and open ponderosa pine woodlands in the valley and foothills. <i>Festuca scabrella</i>, <i>Festuca idahoensis</i> and <i>Elymus spicatus</i> are common bunchgrass associates.</p> <p>Small Yellow Lady’s-slipper (<i>Cypripedium parviflorum</i>) is a perennial with leafy stems 15-40 cm tall, which arise from short rhizomes. One petal is strongly pouch-shaped and often purple-dotted; the other 2 petals are united into one that is similar to the sepals but slightly longer. The fruit is an elliptic capsule bearing thousands of tiny seeds. Its range extends from Alaska to Nova Scotia, south to Nebraska and Georgia. Habitat includes Fens, damp mossy woods, seepage areas, and moist forest-meadow ecotones in the valley to lower montane zones.</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 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.</p> <p><i>Impacts:</i> If resources were discovered during operations, activities would be temporarily moved to another area or halted until SHPO was contacted and the importance of the resources was determined.</p>

IMPACTS ON THE PHYSICAL ENVIRONMENT	
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8. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY	<i>Impacts:</i> Negligible impacts to land, water, air, or energy would occur.

IMPACTS ON THE HUMAN POPULATION	
RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
9. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS	This site is not zoned.
10. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING	As seen on the aerial photo of the surrounding area, this site is located within the Helena Regional Airport property and is surrounded by industrial and commercial areas. <i>Impact:</i> This pit is being sited in this area because of the location of the resource.
11. AESTHETICS	There are no nearby residents. Approximately 80% of hours of operation will be conducted between 7 pm and 7 am to reduce truck traffic on the roads during business hours.
12. QUANTITY/ DISTRIBUTION OF EMPLOYMENT	<i>Impacts:</i> New employment opportunities would be limited. This is a relatively small operation.
13. INDUSTRIAL, COMMERCIAL, AGRICULTURAL ACTIVITIES AND PRODUCTION	<i>Impacts:</i> The acreage listed in the Proposal would be taken out of grassland use and put into industrial/commercial use. Upon completion of mining, the land would remain an industrial/commercial use.
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 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.

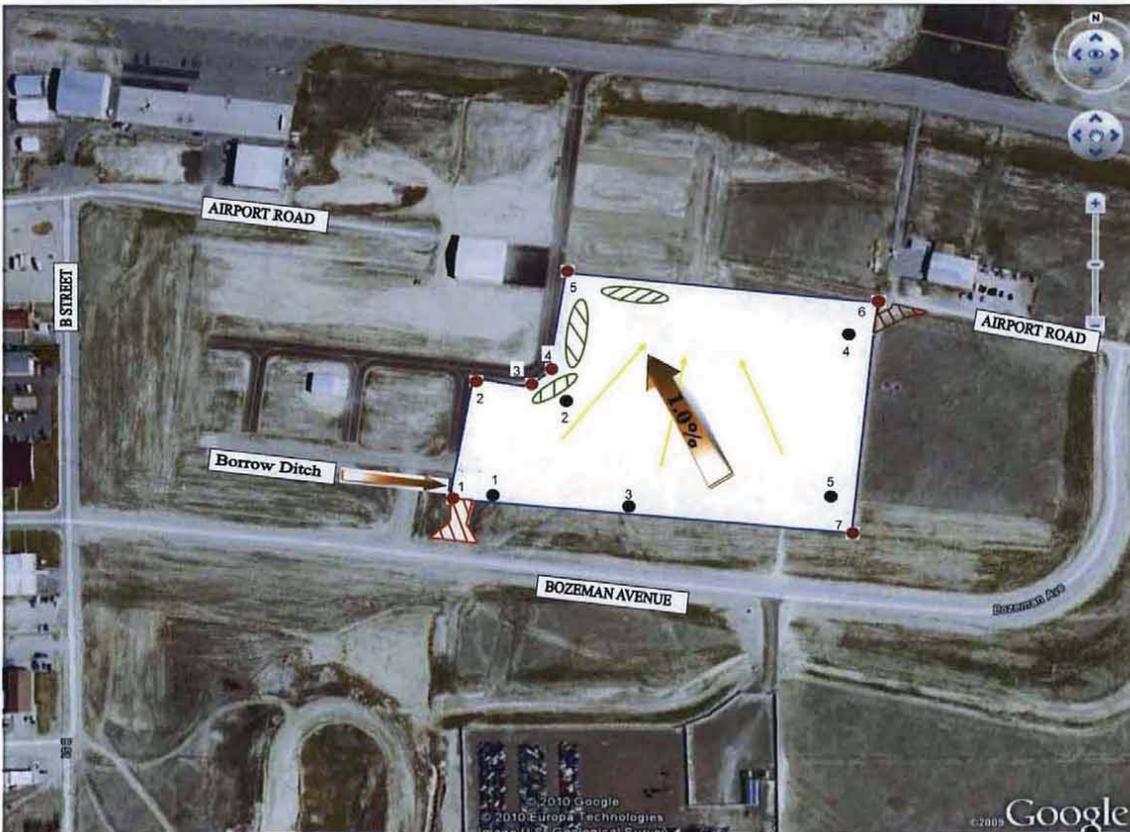
PRIVATE PROPERTY ASSESSMENT ACT (PPAA) CHECKLIST

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.



SCALE 1"= 215 FEET

HELENA SAND AND GRAVEL
 AIRPORT HANGER BARROW SITE
 NW 1/4, NW 1/4, SEC 27, T10N, R3W
 LEWIS AND CLARK COUNTY
 PERMIT AREA
 JUNE 2, 2010

- = AREA BOUNDARY
- = CONSTRUCTION ENTRANCE
- = EXISTING ENTRANCE
- = EXISTING DRAINAGE
- = FINISHED DRAINAGE
- = TOPSOIL STOCKPILES
- = SITE POSTS
- = TEST HOLE

Helena Sand and Gravel		
Airport Hanger Barrow Site		
9-Jun-10		
Sec 27 T10N R03W		
NAD 83		
Lat/Long Decimal Degrees		
Post Point	Latitude	Longitude
1	46.600231	111.974922
2	46.601028	111.974794
3	46.601003	111.974289
4	46.601119	111.974094
5	46.601863	111.973954
6	46.601664	111.971148
7	46.599903	111.971475

Test Hole or Observation Point	Latitude	Longitude
1	46.600172	111.974581
2	46.600878	111.973922
3	46.600172	111.973256
4	46.601230	111.971428
5	46.600236	111.971597

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 JUN 23 2010
 DEQ/EM&B