

## 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:** Schellinger Construction Co., Inc.

**SITE NAME:** Rau Site

**LOCATION:** Section 25, T17N, R2W & Section 30, T17N, R1W

**COUNTY:** Cascade

**DATE:** February, 2010

**PROPOSAL:** The site is located approximately 6 miles southwest of Cascade, Montana, adjacent to Interstate 15. The proponent proposes to mine, crush, stockpile and transport 130,000 cubic yards of gravel from a proposed 29.4 acre permit area for use on an I-15 highway project. The operator would operate the mine within the hours of 7 am to 7 pm, Monday through Friday. A reclamation bond of \$77,135 would be held by DEQ to ensure the final reclamation use of pasture land by November 2011, would be accomplished. This application contains all items required by the Opencut Mining Act and Rules. The proponent commits to properly conduct opencut operations and would be legally bound by the permit.

The proposed Plan of Operation (Section II-D) indicates that "if actual audible noise levels are found to be non-obtrusive to the surrounding area, an amendment will be submitted to expand the hours of operation" beyond 7 am to 7 pm, Monday through Friday. The operator has also informed DEQ that if this permit is approved, it expects to apply to amend the permit in the near future. The anticipated amendment would reportedly include the addition of an asphalt plant, stockpiling and recycling of asphaltic pavement recovered during the highway project, and inclusion of an additional access road (i.e. approximately 3,800 feet of an existing private road that extend southwest from the site to the Hardy Creek interchange). DEQ understands that the operator has obtained a county special use permit to operate an asphalt plant at this site. As part of that application process, the Cascade County Zoning Board of Adjustment held a public hearing on Friday, January 29, 2010. If an operator submits an application to amend an opencut mining permit, the DEQ prepares a Supplemental EA assessing the potential impacts of the activities proposed in that application.

DEQ understands that the I-15 highway project will use an existing Montana Department of Transportation (MDT) maintenance area to stage machinery, equipment, supplies, and materials. This staging area is located approximately 1 mile southwest of the proposed opencut permit area, between the Missouri River and the south side of I-15. Tower Rock State Park is located on the north side of I-15, due west of the staging area. This area has reportedly been used to support highway construction projects during the past 10 years or more. The MDT identified this staging area in the plans for the road construction work.

<b>IMPACTS ON THE PHYSICAL ENVIRONMENT</b>	
<b>RESOURCE</b>	<b>POTENTIAL IMPACTS AND MITIGATION MEASURES</b>
<b>1. TOPOGRAPHY, GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:</b>	<p>The proposed site is located on an alluvial terrace above I-15 and the Missouri River that may be associated with remnant beach deposits from glacial lake Great Falls. There are glacial lake deposits just northeast of the site on lower ground. Bedrock is exposed in roadcuts south and west of the site along I-15.</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.</p> <p>There are no unusual topographic, geologic, soil, or special reclamation considerations that would prevent the reclamation from being successful.</p>
<b>2. WATER QUALITY, QUANTITY AND DISTRIBUTION</b>	<p>The site is located approximately 1,100 feet northwest of the Missouri River. It is situated approximately 200 feet above the elevation of the river. There is a spring approximately 500 feet north of the proposed permit boundary. No mining into groundwater would occur. The operator would haul in water for site activities and install secondary containment beneath its fuel storage tanks to prevent any spills from reaching on-site soils.</p> <p><i>Impacts:</i> Based on the above mitigations, the proposed activities would have minimal effect on the quantity and quality of the surface and groundwater resources.</p> <p>The operator has indicated that if this permit is approved, it expects to apply to amend the permit to add an asphalt plant. Operation of such a plant typically requires storage tanks for asphaltic cement and a generator providing power to keep this material heated. If asphalt spills on the ground it rapidly cools and solidifies, and can be readily recovered and recycled back into the operation. The generator's fuel tank is typically equipped with secondary containment to capture any spills. As a result, future operation of an asphalt plant would be expected to have negligible potential to impact water resources.</p> <p>Regarding the I-15 project staging area located approximately 1 mile southwest of the proposed open-cut permit area, the operator reportedly plans to spray a release agent onto the bed of haul trucks before loading them with hot asphalt at the staging area. The release agent retards the asphalt from sticking to the truck bed and thereby facilitates movement of the asphalt out of the trucks during off-loading. If diesel is used as the release agent, any drips will be contained on an impermeable liner that will be removed from the staging area after use and disposed of at an approved off-site facility. If MDT requires a different release agent, the operator will reportedly use a biodegradable product made for that purpose. As a result of these mitigations, use of a release agent would have minimal potential to impact water resources.</p>

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	<p><i>Cumulative:</i> The proposed gravel pit is a short term project with an expected reclamation date of November 2011 and should have minimal cumulative effects.</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> <p>If an operator successfully amends an opencut mining permit to add an asphalt plant, ARMB's permit and public notice requirements would apply to that plant. As a result, minimal detrimental air impacts would be expected from the operation of an asphalt plant.</p>
<b>4. VEGETATION COVER, QUANTITY AND QUALITY</b>	<p>Site vegetation currently consists of shortgrass prairie grasses, pasture grasses and yucca. The site has 80 – 90% vegetative cover in areas undisturbed by previous mining activity.</p> <p>During reclamation, the operator would grade the pit margins to a slope of 3:1 or less, rip the site to a depth of 12 inches to alleviate compaction, and replace at least 12 inches of overburden material and 8 inches of topsoil across the site. A mixture of pasture grasses would be drilled at the first appropriate opportunity. The operator would be required to control noxious weeds and re-seed if necessary.</p> <p>Revegetation success would be achieved when vegetation capable of sustaining the postmining land use (i.e. pastureland) is established. The Department would not fully release the reclamation bond until this standard is met based on comparisons with vegetation on similar nearby areas that were not disturbed by opencut operations.</p> <p><i>Impacts:</i> No 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, 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>

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<b>6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:</b>	<p>The Montana Natural Heritage Program (MNHP) lists the following 4 species of concern in the vicinity of the proposed site:</p> <p>Square-stem Monkeyflower (<i>Mimulus ringens</i>), Wolverine (<i>Gulo gulo</i>), Gray Wolf (<i>Canis lupus</i>), Bald Eagle (<i>Haliaeetus leucocephalus</i>)</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>
<b>7. HISTORICAL AND ARCHAEOLOGICAL SITES</b>	<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 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>
<b>8. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY</b>	<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
<b>9. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS</b>	<p>The site is currently zoned as agricultural land.</p>
<b>10. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING</b>	<p>As seen on the aerial photo of the surrounding area, the site is located in a relatively rural location, with few homes located within one-half mile of the site.</p> <p><i>Impact:</i> This pit is being sited in this area because of the location of the resource, and to service the I-15 paving project.</p>
<b>11. AESTHETICS</b>	<p>The site is located in a rural setting near interstate highway I-15 and is situated on a terrace approximately 200 feet higher than the Missouri River corridor. The operator would place soil and overburden berms to mitigate noise. Opencut operations would be conducted within the hours of 7 am to 7 pm, Monday through Friday.</p> <p><i>Impact:</i> Based on the elevated position of the site, existing highway noise, and the above mitigations, the aesthetic impact of the proposed opencut operations would be minimal. Once reclamation is completed, the site would exhibit gentle side slopes encircling a flat pasture approximately 15 feet lower in elevation than it was before mining.</p> <p>After its January 29, 2010 public hearing, the Cascade County Zoning Board of Adjustment informed DEQ that the following conditions</p>

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	<p>would apply to the special use permit for operation of an asphalt plant at the site:</p> <ol style="list-style-type: none"> <li>1. That the presence of the temporary hotplant will be limited to six (6) months, beginning with the first day of full operation,</li> <li>2. That any building housing power or power producing machines shall be a distance of at least two hundred (200) feet from all adjacent property or street and highway lines,</li> <li>3. That hotplant operational hours be limited from 7:00 am until 7:00 pm, inclusive,</li> <li>4. That the applicant obtain any other required county or state permits, and comply with regulations associated with any other permits,</li> <li>5. That hotplant days of operation be limited to Monday through Saturday (no operation on Sundays), and</li> <li>6. That the small generator used to keep the oil hot overnight must operate at 75 db's or less as measured at the property lines.</li> </ol> <p>If an operator submits an amendment application to add an asphalt plant to an opencut mining permit and a local permit has been approved, the DEQ typically accepts the local government's permit conditions.</p>
<b>12. QUANTITY/ DISTRIBUTION OF EMPLOYMENT</b>	<i>Impacts:</i> New employment opportunities would be limited. The company will likely use existing employees. This is a relatively short term operation.
<b>13. INDUSTRIAL, COMMERCIAL, AGRICULTURAL ACTIVITIES AND PRODUCTION</b>	<i>Impacts:</i> Agricultural production would be reduced on the site for the life of the permit. It would then be restored to pasture by November, 2011.
<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>	Limited oversight by DEQ officials that are generally conducted in concert with other area activity would occur.
<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.



## 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.