

## ENVIRONMENTAL ASSESSMENT

**Project Name:** St. John Source **Proposed Implementation Date:** December 1, 2000

**Proponent:** Empire Sand and Gravel

**Type and Purpose of Action:** Empire proposes to mine and crush 300,000 yards of gravel from a 33-acre rangeland site. They would also operate an asphalt plant and screen. The product would be used for a highway projects in the vicinity over the next 2 years. Mining would occur to a depth of 20 feet. The site would be reclaimed to rangeland by the Fall of 2002.

**Location:** NE of the SE of Sec 32 T5N R34E **County:** Yellowstone

**N = Not present or No Impact will occur.**

**Y = Impacts may occur (explain under Potential Impacts).**

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
<p><b>1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:</b> Are fragile, compactible or unstable soils present? Are there unusual geologic features? Are there special reclamation considerations?</p>	<p>[ N ] This flat, rangeland site is located adjacent to the Interstate, and lies atop a Quaternary terrace. The terrace is over 100 feet high on the east side and over 200 feet above the Yellowstone River on the north.</p> <p>The soils are of the "Haverson" and "Lambert" series, fairly deep, consisting of about 12 inches of silty clay loam topsoil and up to 24 inches of silty clay loam subsoils and overburden. Scrapers and other available equipment would be used for salvaging the soil materials.</p> <p>Annual precipitation is about 13 inches evenly spread throughout the year. The site does get good snow cover most years.</p> <p>The southern edge of the site was mined in 1979. Reclamation reestablished very well.</p>
<p><b>2. WATER QUALITY, QUANTITY AND DISTRIBUTION:</b> Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?</p>	<p>[ N ] No surface water is close to the site. The Yellowstone River lies about ¾ mile to the north, and is several hundred feet below the site. The Victory Ditch is about 500 feet to the southeast and meanders along the foot of the terrace. No wells or springs are visible in this section. Test pits did not intercept any groundwater. It is likely that the groundwater level is about the elevation of the Victory Ditch, or 150 feet below the mine site. No groundwater or surface water would be impacted by this operation.</p> <p>The existing road to the site goes next to the Highway Department stockpile and requires no improvements. Any portion of the trail across the site that does not get mined out will remain after reclamation.</p> <p>The fuel storage facility would be bermed and lined. No trash would be buried on-site. Reject materials would be placed by the highwall and buried. Because of the depth to groundwater, asphaltic materials would be buried with the reject materials, and then buried with at least 3 feet of overburden and topsoil.</p> <p>The site would be reclaimed to a shallow bowl with 5:1 slopes so that no runoff would escape and grazing could continue.</p> <p>No impacts are expected from this project.</p>
<p><b>3. AIR QUALITY:</b> Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?</p>	<p>[ N ] No designated Class I or Class II airsheds exist in the area. A water truck would be available for dust control on-site. The crusher is equipped with sprayer nozzles, the hot plant has a bag house. No impacts to air quality are expected.</p>
<p><b>4. VEGETATION COVER, QUANTITY AND QUALITY:</b> Will vegetative communities be permanently altered? Are any rare plants or cover types present?</p>	<p>[ N ] The site is presently used as rangeland and has a good cover of range grasses, including wheatgrasses, with a little sagebrush and yucca. The site would be reclaimed to a shallow bowl slanting away from the terrace face. The nature of the soils holds moisture and would allow good revegetation.</p>

	<p>This area would return to rangeland use after reclamation.</p> <p>No noxious weeds were seen on site; the county would control or eliminate any weeds that should invade the site.</p> <p>No rare species or cover types were found during a field inspection, and none were reported in an NRIS search.</p>
<p><b>5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:</b> Is there substantial use of the area by important wildlife, birds or fish?</p>	<p>[ N ] Wildlife such as deer, coyotes, and upland game birds do not use the site much. This site is adjacent to the Highway stockpiles, a Yellowstone county pit, and the Interstate, so it is not prime habitat. The small disturbance area would have little impact on wildlife.</p>
<p><b>6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:</b> Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?</p>	<p>[ N ] The Montana Natural Heritage Program has no listings for the site. No wetlands are present on the site. No species of special concern are present.</p> <p>A bald eagle nest is located several miles away to the west and a heron rookery several miles to the east, both along the Yellowstone. Neither of these nesting areas would be affected at all by this project.</p>
<p><b>7. HISTORICAL AND ARCHAEOLOGICAL SITES:</b> Are any historical, archaeological or paleontological resources present?</p>	<p>[ N ] The State Historical Preservation Office has no listings for this area. During a field survey no evidence was found to indicate that any surface or subsurface cultural resources exist on site. If some resource were discovered, operations would be shifted to another area for a reasonable time period to allow for assessment of the new find.</p>
<p><b>8. AESTHETICS:</b> Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?</p>	<p>[ N ] The site is located on top of the terrace and bounded by the Interstate and the Highway stockpiles.</p> <p>Noise from the operation would blend into the Interstate traffic and other ambient noise from local operations and have little impact. The operation cannot be seen or heard from the Yellowstone River. The plan calls for the pit to be open for 2 years.</p> <p>Visual impacts would be fairly small. The site would be visible from the Interstate but at least partially blocked by the Highway stockpiles when travelling from the west. Traffic coming east would be coming up the terrace and would not see the site until reaching the top of the hill.</p>
<p><b>9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:</b> Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project?</p>	<p>[ N ] This location has several gravel operations nearby. The test pit data indicates that the whole terrace top has quality gravel.</p>
<p><b>10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES:</b> Are there other studies, plans or projects on this tract?</p>	<p>[ N ]</p>

<b>IMPACTS ON THE HUMAN POPULATION</b>	
<b>RESOURCE</b>	<b>POTENTIAL IMPACTS AND MITIGATION MEASURES</b>
<p><b>11. HUMAN HEALTH AND SAFETY:</b> Will this project add to health and safety risks in the area?</p>	<p>[ N ] During the times when the county is hauling out of the pit, truck traffic on the county road could create a minor increase in the safety risk.</p>
<p><b>12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION:</b> Will the project add to or alter these activities?</p>	<p>[ N ]</p>
<p><b>13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:</b> Will the project create, move or eliminate jobs? If so, estimated number.</p>	<p>[ N ] Most of the product from this operation would be used on county road projects. There would be no impact to employment.</p>
<p><b>14. LOCAL AND STATE TAX BASE AND TAX REVENUES:</b> Will the project create or eliminate tax revenue?</p>	<p>[ N ] There would be no effect on taxes.</p>

<b>15. DEMAND FOR GOVERNMENT SERVICES:</b> Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc) be needed?	[ N ] Truck traffic generated by this project would impact local residents during construction activity and could be annoying to the public, but it would not be dangerous or overburden the county's infrastructure.
<b>16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:</b> Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[ N ]
<b>17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:</b> Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	[ N ] The recreational potential of this site is low because it is private ground. Impacts are not anticipated.
<b>18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:</b> Will the project add to the population and require additional housing?	[ N ]
<b>19. SOCIAL STRUCTURES AND MORES:</b> Is some disruption of native or traditional lifestyles or communities possible?	[ N ]
<b>20. CULTURAL UNIQUENESS AND DIVERSITY:</b> Will the action cause a shift in some unique quality of the area?	[ N ]
<b>21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:</b>	[ N ]

**22. Alternatives Considered:**

Alternative I: Alternate location of the site. Another pit location could be farther from the proposed use sites of the product, and thus would increase transportation costs and risks unnecessarily from this alternative.

Alternative II: Denial. This alternative would result in denying the use of a resource to the landowner.

**23. Public Involvement, Agencies, Groups or Individuals contacted:** Montana Natural Heritage Program, State Historic Preservation Office, Yellowstone County Weed Control District, Yellowstone County Commissioners,

**24. Other Governmental Agencies with Jurisdiction, List of Permits Needed:** Mine Safety & Health Administration for safety permit; Montana Department of Labor & Industry, Bureau of Safety for safety permit; MtDEQ Air and Waste Management Bureau for air quality permits,

**25. Magnitude and Significance of Potential Impacts:** Impacts are unlikely to be significant on the general environment because of the small area of disturbance and the short duration of the project.

**26. Regulatory Impact on Private Property:** The analysis conducted in response to the Private Property Assessment Act indicates no impact.

**Recommendation for Further Environmental Analysis:**

EIS                       More Detailed EA                       No Further Analysis

EA Checklist Prepared By: Jo Stephen Title: Reclamation Specialist

Approved By: Jerry Burke

Title: Opencut Mining Program Supervisor, IEMB

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Signature

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Date