

ENVIRONMENTAL ASSESSMENT

Project Name: Watson

Proposed Implementation Date: January 1999

Proponent: Empire Sand & Gravel, Inc.

Type and Purpose of Action: The proponent proposes to mine, crush, stockpile and transport 184,000 cubic yards of sand and gravel from a 30.9 acre site for use in overlaying a stretch of Interstate 90 with asphalt. The site would be reclaimed by recontouring, respreading the topsoil and reseeding the site with grasses. The reclaimed use would be rangeland. The proposed operation is ½ mile east of Livingston. There would be an asphalt plant located on site and the site would be reclaimed by the spring of 2000.

Location: E½, Sec. 18, T2S, R10E

County: Park

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>1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are fragile, compactible or unstable soils present? Are there unusual geologic features? Are there special reclamation considerations?</p>	<p>[Y] The proposed operation is located on a bench on the south side of the Yellowstone River valley. The proposed operation would be located in an area currently used as rangeland. The topsoil is a rocky silt loam, up to 12 inches deep. The overburden varies in depth from 1 foot to 3 feet deep and averages 2.5 feet. The topsoil and the overburden would be stripped and stockpiled separately and after regrading the overburden and then the topsoil would be evenly replaced. There are no fragile, compactible or unstable soils present and there are no unusual geologic features. There is one special reclamation consideration which is due to the amount and intensity of the wind in the area. SOIL-SEMENT or other latex products used for the same purpose, would be sprayed on any disturbed areas including topsoil and overburden stockpiles to help prevent wind erosion and control dust. All retopsoiled and seeded areas would have a tackifier applied to prevent wind erosion and dust. Microorganisms should reinvade the soil.</p>
<p>2. WATER QUALITY, QUANTITY AND DISTRIBUTION: 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] The depth to the water table is estimated to be greater than 100 feet. The seasonal high and low water tables are unknown. The proposed operation would be mined to a depth of approximately 16.5 feet. There are no water wells within 1,000 feet of the site. There will be no impact to the groundwater. The Yellowstone River is more than 1,000 feet to the north and west. The proposed gravel pit would mine through the upper end of a drainage which carries water during high precipitation events and spring run off of snow melts. The proponent proposes to place a berm on the lower end to prevent storm water from being discharged from the site during the operating of the pit. The proposed reclamation of the site would include the reestablishment of the drainage, including the installing of coconut matting to trap sediment and prevent erosion. Any accidental spills of petroleum-based products would be immediately cleaned up and the contaminated material properly disposed. The site upon reclamation would be daylighted to the north with 5:1 or flatter slopes in the other directions. Best management practices should prevent any impacts to surface water.</p>

<p>3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?</p>	<p>[Y] Air quality would be degraded. The proponent would need to obtain Air Quality Permits from the Montana Dept. of Environmental Quality as processing facilities and an asphalt plant are involved with the proposed operation. A latex-based product would be applied to all disturbed areas including the haul road, stockpiles (soil, overburden, and mineral), and facility areas to control dust. A tackifier would be applied to all newly topsoiled and seeded areas to prevent wind erosion and dust.</p>
<p>4. VEGETATION COVERS, QUANTITY AND QUALITY: Will vegetative communities be permanently altered? Are any rare plants or cover types present?</p>	<p>[N] The site is currently native range with the grasses consisting of fescue, prairie junegrass, and blue gramma. There is a considerable amount of club moss growing on the site. Vegetative cover varies from 20 to 30%. Grass species (native and nonnative) which would be compatible with the proposed land use of rangeland would be seeded on the site after recontouring and retopsoiling are completed. A tackifier would be applied to all retopsoiled areas to prevent wind and water erosion. A literature search was done by the Montana National Heritage Program and no rare plants or cover types were identified and none were identified during a ground search.</p>
<p>5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?</p>	<p>[N] Various mammals, birds, and reptiles occasionally traverse the site. The literature search done by the Montana National Heritage Program noted the presence of the bald eagle as present in the general area, but due to man caused activities in the general area the effects of the foraging activities of the eagles. There are two nesting sites located in the general area, with the closest being 2.5 air miles northeast of the proposed operation. There are two peregrine falcon historic eyries located three and four miles south of Livingston. These eyries are located approximately five miles south of the proposed operation and would not be impacted by the operation.</p>
<p>6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or an endangered species or identified habitat present? Any wetlands? Species of special concern?</p>	<p>[N] A ground search was conducted and no threatened or endangered a species or identified habitats were found on the site. No wetlands are present. See Section 5.</p>
<p>7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?</p>	<p>[N] A cultural resource survey was conducted by Gar Woods. If the operator of the proposed operation discovers any cultural resources the operation must be routed around the site of discovery for a reasonable amount of time until salvage can be made. The State Historical Preservation Office must be promptly notified.</p>
<p>8. AESTHETICS: 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 visible from Interstate 90, but it is a short term operation and will be reclaimed by the spring of 2000.</p>
<p>9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project?</p>	<p>[N]</p>
<p>10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other studies, plans or projects on this tract?</p>	<p>[N]</p>

IMPACTS ON THE HUMAN POPULATION	
RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[Y] There will be increased hazards because of equipment activity and hauling of the sand and gravel. The applicant must comply with OSHA and MSHA regulations however, proper precautions will be taken to avoid accidents.
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[N] 30.9 acres will be taken out of rangeland until such time as the site is successfully reclaimed.
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[N]
14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[N]
15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc) be needed?	[N] The site will require periodic site evaluations, but these will be done in conjunction with other operations in the area.
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[N] County Zoning clearance has been obtained.
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	[N]
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N]
19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N]
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N]
21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N]

22. Alternatives Considered:

Alternative # 1: Denial. The owner of the gravel resource would be denied full utilization of his property at this time.

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

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:

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

