

ENVIRONMENTAL ASSESSMENT

Project Name: Bernhardt Gravel Site Proposed Implementation Date: Ongoing

Proponent: Empire Sand & Gravel, Box 1215, Billings MT 59103-1215

Type and Purpose of Action: The operator has applied for an amendment to add 6.7 acres to an existing 39-acre gravel mine site. The site is located in a flat farmland area that's undergoing conversion to suburbia. The site is in an area that's undergone mining for years and it's well-suited for a gravel mining operation; no problems are foreseen. The estimated life of this long-term operation is through 3/1/09. If the plan is properly followed, the site should be easily reclaimed to the postmining land use of farmland or rangeland.

Location and County: About 2.0 miles west of Billings in the WNW22, T1S, R25E, Yellowstone County.

N = Not present or insignificant impact.
Y = Significant impact may occur (explain).

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
<p>1. TOPOGRAPHY, AND GEOLOGIC AND EDAPHIC CHARACTERISTICS, SUITABILITY, AND STABILITY: Are there unusual geologic features? Are fragile, compactible, or unstable soils present? Is the proposed soil material handling adequate? Are there exceptional mining and reclamation considerations?</p>	<p>N - The site on a flat terrace above the Yellowstone River valley floor in a relatively flat farmland and suburban area.</p> <p>The site is in the sedimentary plains portion of the state; no unusual geologic features were observed during the premine site inspection.</p> <p>Ample soil material exists to replace the required 3-foot soil profile.</p> <p>There are no exceptional mining and reclamation considerations.</p>

<p>2. WATER RESOURCE LOCATION, QUANTITY, QUALITY, AND PROTECTION: Are surface or ground water resources present? Is there the potential for degradation of water quality or quantity? Could water wells be affected? Are there exceptional mining and reclamation considerations?</p>	<p>N - Surface water in the area consists of Canyon Creek about a quarter mile south, Hogan's Slough about a half mile north, and various irrigation ditches. The operation does not negatively impact any of these surface water resources. Clean pit groundwater discharge makes its way to Canyon Creek.</p> <p>Private wells exist within 1,000 feet of the site on the north, west, and east sides. Empire installed four monitoring wells in fall of 1992 to monitor and prevent water quantity impacts to the private wells. To date, routine monitoring has not detected an impact.</p> <p>Empire will leave a 1-foot gravel layer on the pit floor to facilitate drainage and will install designed drainage ditches at the bases of the highwalls so that the reclaimed site may be well drained. The clean intercepted groundwater will drain into Canyon Creek.</p>
<p>3. AIR QUALITY: Will pollutants or particulate be produced? Do air quality regulations apply?</p>	<p>N - Pollutants and particulates will be produced on a temporary basis by mining and reclamation operations. Operators are required to comply with state air quality regulations.</p>
<p>4. PRESENT LAND USE, VEGETATIVE COMPOSITION AND COVER, AND PROPOSED POSTMINING LAND USE: Will vegetative communities be permanently altered? Are any rare plants or vegetative communities present? Are there exceptional mining and reclamation considerations?</p>	<p>N - The present land use is farmland. The postmining land use will be farmland or rangeland.</p> <p>No rare plants or rare vegetative communities were observed during the site visit. If the Montana Natural Heritage Program report indicates such resources in the area, the Department will take necessary steps to ensure protection.</p> <p>The Department will notify the county weed control board about the operation. The operator has committed to controlling any on-site noxious weeds.</p> <p>There are no exceptional mining and reclamation considerations.</p>
<p>5. TERRESTRIAL, AVIAN, AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by common or rare mammals, birds, fish, or other animal species?</p>	<p>N - No common species or evidence of their occupation were observed during the site visit. Neither were rare species or evidence of their occupation observed.</p> <p>If the Montana Natural Heritage program report indicates such resources in the area, the Department will take necessary steps to ensure protection.</p>

<p>6. UNIQUE, ENDANGERED, FRAGILE, OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Species of special concern? Wetlands?</p>	<p>N - The author is not aware of any unique, endangered, fragile, or limited environmental resources at or around the site.</p> <p>If the Montana Natural Heritage program report indicates such resources in the area, the Department will take necessary steps to ensure protection.</p>
<p>7. HISTORICAL AND ARCHAEOLOGICAL SITES: Has the site been surveyed by a cultural resource professional or paraprofessional? Are any historical or archaeological resources present?</p>	<p>N - No cultural resources were observed during the various site inspections.</p> <p>If cultural resources are found during the operation, the operator has committed to routing any disturbance around the site of discovery for a reasonable time until salvage can be made, and to promptly notifying the State Historic Preservation Office.</p>
<p>8. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? What facilities will be on site? Will there be excessive noise or light?</p>	<p>N - The site is in an area experiencing suburban build-up. Empire's equipment mainly operates in the pit, screening sight and sound. In addition, Empire has committed to placing sight and sound berms along Hesper and 48th Street West.</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 or be affected by the project?</p>	<p>N - There will not be a significant demand or impact on environmental resources or other projects as a result of this operation.</p>
<p>10. OTHER ENVIRONMENTAL ASPECTS OR IMPACTS: Are there other studies, plans, or projects on this tract? Will waste disposal be properly handled? Is reclamation guaranteed by a bond?</p>	<p>N - The author is not aware of any other environmental aspects or impacts. The operator has committed to proper waste disposal. The operator has posted \$343,382 to guarantee reclamation.</p>

IMPACTS ON THE HUMAN POPULATION

RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
<p>11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?</p>	<p>N - The site is in an agricultural-suburban area. The project should not increase health and safety risks in the area if the operator/landowner manage the site in a responsible manner. The operator is required to comply with OSHA and MSHA regulations.</p>
<p>12. INDUSTRIAL, COMMERCIAL, AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?</p>	<p>N - Industrial, commercial, or agricultural activities in the area will not be significantly affected by the operation.</p>

13.	QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move, or eliminate jobs?	N - The quantity or distribution of employment in the project area will not be significantly affected by the operation.
14.	LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	N - Local and state tax revenues have not been significantly affected by similar operations in the state.
15.	DEMAND FOR GOVERNMENT SERVICES: Will substantial changes in road use occur? Will other facilities and services (e.g., fire protection, police, schools) be affected or needed?	N - Trucks will use county roads to carry mineral to project areas. No other government services should be affected or needed.
16.	LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there federal, state, county, city, tribal, and/or private zoning or management plans in effect?	N - The author is not aware of any other environmental plans or goals. The local zoning authority has been contacted and clearance obtained.
17.	ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are recreational or wilderness areas nearby or accessed through this tract? Is there recreational potential within the tract?	N - Access to or the quality of recreational lands or opportunities in the area will not be affected by the operation. There is minimal recreational potential within the tract.
18.	DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the area's population and require additional housing?	N - The density and distribution of population or housing in the area will not be significantly affected by the operation.
19.	SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	N - The local social structure or mores will not be significantly affected by the operation.
20.	CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	N - The local cultural uniqueness or diversity will not be significantly affected by the operation.
21.	OTHER SOCIAL AND ECONOMIC CIRCUMSTANCES:	N - None.

22. Alternatives Considered: Denial in which the owner of the mineral would be denied full utilization of their property at this time.

23. Public Involvement, Agencies, Groups or Individuals contacted: Montana Natural Heritage Program, county weed control board, State Historic Preservation Office, and local zoning authority.

24. Other Governmental Agencies with Jurisdiction, List of Permits (that may be) Needed: Montana Department of Environmental Quality for Air Quality and Stormwater Discharge Permits; United States Department of Labor for safety permit; Montana Department of Labor & Industry for safety permit.

25. Magnitude and Significance of Potential Impacts: Negative impacts during mining should be insignificant and implementation of the mining and reclamation plan should return this area to an aesthetically pleasing and useful condition.

