

ENVIRONMENTAL ASSESSMENT
September 15, 2000

Project Name: Magnolia Site
Proponent: Barbara Howell

Proposed Implementation Date: project is underway

Type and Purpose of Action: The proponent has applied for a Permit that, if approved, would result in the mining, crushing, stockpiling, and transportation of 32,900 cubic yards of sand and gravel or related products from a 7.1-acre site to supply aggregate to the applicant's own local subdivision. The proponent would operate a crusher. The proposed site is located 5 miles south of the town of Frenchtown. Final reclamation would be approximately June 1, 2002. The mine has been fully operated and is nearing closure. Hours of operation are generally from 7:00 a.m. to 5:30 p.m. from Monday to Friday. The site has been stripped and the crusher has come and gone. The reclaimed use will be a leveled pasture with side slopes graded to angles of at least 3:1 or flatter.

Location: NW¼ SE¼ Section 25, T14N, R21W

County: Missoula

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, compactable or unstable soils present? Are there unusual geologic features? Are there special reclamation considerations?</p>	<p>[N] The proposed mine is located in a flat-lying river bench within the Clark Fork River Valley. The deposit consists of stratified layers of water-worked outwash sand and gravel that covers the deeper bedrock. The site is currently a low lying, irrigated pasture.</p> <p>Topsoil consists of a dark, organic layer of silty sandy loam that varies from 6 to 12 inches in depth, all of which has been stripped and stockpiled. The topsoil stockpiles would be seeded with grasses using the approved seed mixture and rate. Following mining, the pit will be filled with overburden and re-graded. Topsoil would be replaced, disked and seeded. There are no fragile, compactable or unstable soils or unusual geologic features. The reclamation of the site poses no special reclamation considerations.</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>[Y] The nearest surface water is The Clark Fork River located 1 mile west of the pit. The River would not be affected by mining.</p> <p>The site would be mined to a depth of 20 feet, 10 feet into the groundwater, creating a temporary pond. The sands and gravels in this area display high permeability. There are two water wells close by the site drilled from 150 feet deep serve the subdivision. No other water wells are located near the pit.</p> <p>Special precautions would be taken to minimize possible contamination of surface and groundwater. All fuel and lubricants would be brought in daily to the site. Portable equipment with fuel tanks such as loaders, trucks, crusher and screen have operated in various places within the facility. Any accidental spills or leaks from equipment would be excavated and disposed of. No waste or trash would be disposed of at the site. With these precautions, the quality and quantity of the groundwater should not be adversely impacted.</p>
<p>3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or</p>	<p>[Y] The site is not located within a Class I Airshed. Air quality would be degraded during operations somewhat and there would be an increase in particulate matter and odor. Dozers, loaders, crushers and trucking</p>

<p>zones (Class I airshed)?</p>	<p>equipment typically cause dusty conditions in disturbed soil sites and operating equipment typically emits odors that may be offensive to some people. However, crushers are regulated for dust emissions, and the equipment used must be tested and approved by DEQ. The proponent must also comply with any additional requirements of the Missoula City/County Health Dept. Spray bars will be used on the crusher and transfer points, and water would be applied within the site as needed to reduce dust.</p>
<p>4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be permanently altered? Are any rare plants or cover types present?</p>	<p>[N] There are no known rare or sensitive plants in the site area. Vegetation covers 85% of the ground and consists mainly of brome, bluegrass, quack grass and knapweed.</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] Although the area is used primarily for pasture and residences, it also supports populations of small mammals, song birds, raptors, insects and various other animal species. Population numbers for these species is not known. There are rookeries of blue herons and nesting sites of ospreys and bald eagles along the Clarks Fork River valley, but none were identified at or near the site.</p> <p>Human use of the area has intensified in the past three decades with residential and commercial activity. The proposed mine is not expected to significantly degrade wildlife populations. Site evaluations have not revealed any other plant or animal species on site that would be significantly impacted.</p>
<p>6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?</p>	<p>[N] The Natural Heritage Program and site evaluations have not revealed any endangered or threatened plant or animal species that would be directly affected. There are no wetlands or species of special concern identified on the site or by the Natural Heritage Program.</p>
<p>7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?</p>	<p>[N] Although there are cultural values in the general area, this site has been previously disturbed by modern man, thus destroying the integrity of resources that may have existed. The operator would give appropriate protection to any values or artifacts discovered in the affected area. If significant resources were found, the operation would be routed around the site of discovery for a reasonable time until salvage can be conducted. The State Historical Preservation Office will 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>[Y] There would be a temporary change in aesthetics while the operation is under way. However, reclamation will return the area to a visually acceptable landscape. A temporary topsoil berm would reduce impacts of both noise and light along the north side of the site. The berm would be planted with grass, and maintained in a weed-free condition for aesthetics.</p> <p>The site is visible by homes in the subdivision and to traffic along the local streets. Hours of operation for the crusher would be 7:00 a.m. to 5:00 p.m., Monday through Friday.</p> <p>On-site noise levels generated by operating equipment at the pit are generally within the range of 60 to 90 decibels, but decrease with distance. As a comparison, sound levels for ordinary activities such as close conversation and music from a radio are 60 decibels and 70 decibels and are considered moderate. Levels above 90 decibels are severe, and prolonged exposure can lead to hearing loss. There is also noise from</p>

	loaders and truck traffic hauling to various projects. These impacts are intermittent and of relatively short duration.
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?	[N]
10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other studies, plans or projects on this tract?	[N]
IMPACTS ON THE HUMAN POPULATION	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[Y] Heavy equipment and operating facilities including scrapers, trucks, loaders and crushers would create hazards, but the operator must comply with all MSHA and OSHA regulations. The operator must employ proper precautions to avoid accidents. Excessive and prolonged noise could increase stress for nearby residents and induce difficulty sleeping. These effects may be considered harmful to human health if the activities are continuous. This proposed operation should not significantly affect human health and would operate under guidelines set by the Missoula County Department of Health.
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[Y] The land is being taken out of pasture temporarily during mining. When reclaimed, it will be restored to pasture.
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?	[Y] The operation would require periodic site evaluations by DEQ staff until such time as the site is successfully reclaimed to the required post-mining use. However, these evaluations are usually performed in conjunction with other area operations.
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[Y] City/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	[N]

