

ENVIRONMENTAL ASSESSMENT
September 25, 2000

Project Name: Williams site
Proponent: Doris & Waldo Williams Family Trust

Proposed Implementation Date: project is underway

Type and Purpose of Action: The proponent has applied for a Mined Land Reclamation Permit that, if approved, would result in the mining, crushing, stockpiling, and transportation of 40,000 cubic yards of sand and gravel or related products from an 8.8-acre site to supply the local market. The proponent has already operated in this pit and is nearly finished. There have been several crusher setups at this site. The proposed site is located approximately ¼ mile northeast of the intersection of Highway 93 and Interstate 90, west of Missoula, but is not visible from public roads and highways. Final reclamation would be approximately September, 2005. The reclaimed use would be a pasture with slopes graded to angles of at least 3:1 or flatter and will be topsoiled and seeded to grass.

Location: SW¼ SW¼ Section 22, T14N, R20W

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 rolling, glacial bench deposited 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 dry pasture located north of the Interstate.</p> <p>Topsoil consists of a dark, organic layer of silty gravelly loam that varies from 10 to 12 inches in depth, all of which would be stripped and stockpiled. Following mining and re-grading, topsoil would be replaced, disked and seeded on the site.</p> <p>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>[N] There is no surface water in the area. The site would be mined to a depth of 20 feet but will stay above groundwater, estimated to be 110 feet below the surface in the proposed pit area. There are six water wells drilled in the section from 140 to 480 feet deep that yield 15 to 220 gallons per minute and have static water levels of 29 to 110 feet. The shallow water table in the one well is not near the minesite, being located down in a low area. The minesite will not effect these wells.</p> <p>Special precautions would be taken to minimize possible contamination of surface and groundwater. If fuel will be stored in the pit, a proper fuel containment structure would be engineered and plans submitted to the DEQ for approval, in advance of installation. Portable equipment with fuel tanks such as loaders, trucks, crusher and screen would be operating in various places within the facility. Any accidental spills or leaks from equipment would be excavated and disposed of. 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</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>influenced by air quality regulations or 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. Water would be applied within the site with a water truck 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 90% of the ground and consists mainly of fescue, wheatgrasses, club moss, lupine 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 commercial businesses, 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.</p> <p>The site is visible by a small number of homes in the local area. Mining and other aspects of the operation including hauling from stockpiles or pit-run gravel from the pit could occur at any time. The crusher was located in the floor of the pit so as to mitigate visual and sound impacts to the nearby residential area. The DEQ did not receive any complaints from past operations at this site.</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</p>

	noise from 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?	[N] The 8.8 acres listed in the Type and purpose of Action were grazed. Following mining and reclamation, the land will be returned to grazing.
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 recre-	[N]

