

ENVIRONMENTAL ASSESSMENT

Project Name: Raines Site.

Proposed Implementation Date: October 5,1998

Proponent: Riverside Contracting, Inc.

Type and Purpose of Action: The applicant proposes to mine, crush, stockpile and haul a total of approximately 45,000 cubic yards of sand and gravel and batch hot asphalt from a 9.1 acre pit which is located 10 miles east of the town of Thompson Falls. Topsoil will be removed and stockpiled, and after mining, the pit will be reclaimed to pasture. The pit will be graded to 3:1 slopes and will be seeded to grasses.

Location: SW¼NE¼, Sec. 23, T21N, R28W

County: Sanders

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>[N] The topsoil is approximately six inches of silty loam. Local terrace slopes demonstrate fair stability. All soil material will be salvaged and stockpiled away from the affected land. Following mining, grading and ripping, the soils will be replaced and seeded. Microbes will re-colonize 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] There are approximately 3 water wells in the area in section 23 that range from 20 to 57 feet in depth and yield 6 to 30 gallons per minute. Groundwater is shallow and wells are recharged from the hills above. The Clark Fork River is located across the state Hwy 200, 1/4 mile to the south which will not be impacted by mining. The site will be mined to a depth of 10 feet which is above the groundwater.</p> <p>Special precautions will be taken to minimize possible contamination of the groundwater. Any accidental spills or leaks from equipment will be excavated and disposed, and any bulk fuel stored on site will contained within an earthen berm. 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 zones (Class I airshed)?</p>	<p>[Y] Air quality will be degraded under this operation. Crushers, asphalt plants, loaders, dozers and trucking equipment typically cause dusty conditions in disturbed soil sites. The operator must take whatever action necessary to reduce dust during hot, dry periods. The site is not located within a Class 1 airshed. No wash plant is proposed for the pit site. Asphalt production also degrades the air quality but the operator must obtain air quality permits and abide by state air quality regulations.</p> <p>Applicable federal regulations for air quality which are implemented by the state are the Standards of Performance for New Stationary Sources, 40 CFR Part 60, Subpart I(Asphalt & Concrete Plants) and Subpart OOO (Nonmetallic Mineral Processing Plants). Subpart I sets particulate and opacity limitations on emissions from the asphalt plant. The particulate limitation must be verified by performance (stack) testing. Subpart OOO sets an opacity limitation on fugitive dust emissions from the gravel crushing and handling operations.</p>
<p>4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be permanently altered? Are any rare plants or cover types present?</p>	<p>[Y] Vegetation covers 90% of the ground (some bare spots on the bench) and consists of pasture grass which lies on a level slope with a bench through the middle, and all vegetation will be removed during mining. The regraded area will be re-planted with grasses for pasture and to protect the replaced soils. There is a moderate infestation of spotted knapweed, a legally defined noxious weed. No rare plants or cover types were identified and none were identified during a ground search. There are no known rare or sensitive plants in the area. No mining will be done within 100 feet of any live stream, riparian or isolated wetland habitat areas.</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 grazing, it also supports populations of deer, bears, goats, rodents, song birds, coyotes, foxes, insects and various other animal species. The proposed mine will displace these species during mining activity, but most use will resume use of the area upon reclamation. There are rookeries of blue herons along the Clark Fork River, and osprey nests in trees nearby. Mining activities are not expected to significantly degrade wildlife populations. Seed head gall flies have been introduced to the tract to provide biological control of noxious weeds.</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] Bald eagles and blue herons are known to range all along the Clark Fork River Valley, but no nesting sites are known on or near the proposed permit area. No adverse effects are anticipated on the eagles as a result of this proposed action. Human use of the area has intensified in the past two decades with the increase in residential and commercial activity. The Natural Heritage Program literature search have not revealed any endangered or threatened plant or animal species that would be directly affected.</p>
<p>7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?</p>	<p>[N] Although there are important cultural values in the general area, a surface reconnaissance did not discover any cultural, historical or archeological resources. The operator will give appropriate protection to any values or artifacts discovered in the affected area. If significant resources are found, the operation will 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] The site is along Hwy. 200 which occupies a narrow river bench between high, rocky cliffs and the Clark Fork River. There will be a deterioration of aesthetics while the operation is under way. There is also noise and light from truck traffic hauling to various projects. The site is highly visible to homes and local traffic. However, reclamation will return the area to a visually acceptable landscape.</p> <p>Noise levels are generally within the range of 60 to 90 decibels measured on-site, decreasing with distance. As a comparison, sound levels for ordinary activities such as close conversation at 60 decibels and music from a radio at 70 decibels are considered to be moderate. Levels above 90 decibels are severe, and prolonged exposure can lead to hearing loss. Floodlights from dark period operations would increase visibility and awareness of the operation. There is noise from equipment such as crushers, asphalt plants, dozers, loaders and truck traffic hauling to various areas. These impacts are high intensity but intermittent and of relatively short duration.</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	[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>[Y] Heavy equipment and facilities including trucks and loaders will create hazards, but the operator must comply with all MSHA and OSHA regulations. The operator will employ proper precautions to avoid accidents. Signage and flaggers would reduce traffic dangers during times of heavy truck traffic entering and leaving the site. Excessive and prolonged noise and light could increase stress and induce difficulty sleeping. Both of these effects may be considered harmful to human health if the activities are continuous. This proposed operation is expected to create these impacts sporadically and for short periods; it therefore should not significantly affect human health.</p>
<p>12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?</p>	<p>[N] The site is currently used for grazing. The acreage listed in the Type and purpose of Action will be taken out of grazing and put into industrial/commercial use. Upon completion of mining, the land will be reclaimed to its previous use.</p>
<p>13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.</p>	<p>[N]</p>
<p>14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?</p>	<p>[N]</p>
<p>15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc) be needed?</p>	<p>[Y] The operation will 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.</p>
<p>16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?</p>	<p>[Y] Zoning has been approved by the county.</p>
<p>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?</p>	<p>[N]</p>
<p>18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?</p>	<p>[N]</p>

Montana Bureau of Mines and Geology
09/28/1998
Water Well Log Data, Raines gravel site

Location: 21N 28W 23 AAC
Site Name: RAINES TWILA
Depth: 20.0
Yield: 6.0
Static Water Level: 15.00
Pumping Water Level: 15.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.) Type
0.00 20.00 6.00
0.00 0.00 0.00
Year drilled: 1996
Driller: WILLIAMS

Location: 21N 28W 23 ACC
Site Name: ROULSTON SAMUEL J.
Depth: 57.0
Yield: 30.0
Static Water Level: 17.00
Pumping Water Level: 20.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.) Type
0.00 0.00 6.00
Year drilled: 1980
Driller:

Location: 21N 28W 23 BBD
Site Name: DOTY JAMES
Depth: 24.0
Yield: 0.0
Static Water Level: 18.00
Pumping Water Level: 0.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.) Type
0.00 0.00 0.00
Year drilled: 1915
Driller: