

ENVIRONMENTAL ASSESSMENT

6/8/99

Project Name: Lake Creek Site
 Proponent: Troy Sand & Gravel

Proposed Implementation Date: currently underway

Type and Purpose of Action: The applicant proposes to mine, crush and haul 100,000 cubic yards of sand and gravel from a pit located 2 miles southeast of the town of Troy. There will be 3.0 acres mined and 2.9 acres disturbed for facilities and roads. Mining will result in a site that is level with the grade of the county road on the west side of the property and daylighted out toward the reservoir to the west. The pit will be reclaimed to residential homesites after grading the backslopes to at least a 3:1, replacing all topsoil and re-seeding to grasses.

Location: SW 1/4 NE 1/4 Section 19, T31N, R33W

County: Lincoln

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 mine is located in a glacial outwash terrace left from the last great release of water from the Glacial Lake Missoula around 12,000 years ago. The deposit consists of stratified layers of alluvium and glacial outwash sand, gravel and cobbles that cover the deeper Precambrian rocks. The billion year old Precambrian rock of the Belt Series sandstone, mudstone and limestone rocks, sometimes injected with black basalt, forms both the Cabinet Mountain range south of the site and the Purcell Range north of the site.</p> <p>There is an average of approximately six inches of fairly well drained, sandy clay loam topsoil, with some forest duff, which overlies the glacial sands and gravels. Local terrace slopes demonstrate reasonable stability, and ripping after activities are complete should alleviate soil compaction. All soil material will be salvaged and stockpiled away from the affected land. Topsoil has been lost in areas where previous mining has occurred. Following mining, grading and ripping, the overburden (if any) and soils will be replaced, disked and seeded to stabilize the soil and prevent erosion.</p> <p>There are no compactible or unstable soils present, unusual geologic features, or 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] Groundwater is known to be located near the floor of the finished site as seen in the nearby reservoir, but it is anticipated to be at least three feet deeper than the floor of the finished mine area. No water is anticipated in the pit area. The nearest major surface water is the reservoir located less than 100 feet to the west. Water for use on the crusher and to control dust will be taken from the reservoir under an existing water right. The site will be graded and maintained with internal drainage to prevent stormwater from flowing off-site and into state waters.</p> <p>All fuel, lubricants and chemicals will be kept within a sealed earthen bermed storage area, and any accidental spills or major leaks from equipment operating in the pit will immediately be excavated, removed from the site and properly disposed of. Therefore, the quality and quantity of the groundwater should not be impacted.</p>
<p>3. AIR QUALITY: Will pollutants or particulate be</p>	<p>[Y] Screens, crushers, dozers and trucking equipment typically cause</p>

<p>produced? Is the project influenced by air quality regulations or zones (Class I airshed)?</p>	<p>dusty conditions in disturbed soil sites. Water bars, road watering and other dust controls will be used as necessary. The site is not located within a Class 1 airshed. 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 OOO (Nonmetallic Mineral Processing Plants). Subpart OOO sets an opacity limitation on fugitive dust emissions from the gravel crushing and handling operations.</p> <p>Air Quality Permit #3022-00 includes conditions limiting the opacity from the plant, as well as requiring water spray bars to control air pollution. If the permitted equipment is used in conjunction with any other equipment owned or operated by Troy Sand and Gravel, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons/year during any rolling 12-month time period.</p>
<p>4. VEGETATION COVERS, QUANTITY AND QUALITY: Will vegetative communities be permanently altered? Are any rare plants or cover types present?</p>	<p>[Y] Native vegetation consists of Ponderosa pine, Douglas fir, pinegrass, kinnikinnick and Oregon grape and all vegetation would be removed. The site would be planted with species compatible with the proposed reclaimed use upon completion of regrading and retopsoiling. There are no known rare or sensitive plants in the area. Some native seed may remain viable in the salvaged topsoil and germinate. Under ideal conditions, desirable native species from undisturbed, adjacent land will re-invade the site. There is a moderate infestation of spotted knapweed, thistle and orange hawkweed, legally defined noxious weeds. Weeds will be sprayed as required by the Lincoln County Weed Board.</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>[Y] Although the area is used primarily for logging, residential and some grazing, small, medium and large mammals, various species of birds, insects and various other animal species are seen in the area. Various animals and birds frequent the mine site at times. Human use of the area has intensified in the past two decades with the increase in residential and commercial activity. The proposed mine is not expected to significantly degrade wildlife populations. See number 6 below.</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 literature search and site evaluations have not revealed any other endangered or threatened plant or animal species on site that would be significantly impacted. The Air Quality Environmental Assessment states that “The Montana Natural Heritage Program (MNHP) has been contacted in an effort to identify any species of special concern associated with the proposed site location. Search results have concluded there are several such environmental resources in the area. Area in this case will be defined as the township and range of the proposed site, with an additional one-mile buffer. These species of special concern include the Coeur d’Alene Salamander, Common Loon, Harlequin Duck, Bald Eagle, Grizzly Bear, White Sturgeon, Geyer’s Biscuitroot, Shinyleaf Gooseberry, and Mountain Moonwort. While these resources are found in specific habitats within the defined area, the MNHP search did not indicate any species of special concern located directly on the proposed site. Therefore, it is unlikely that any of the previously listed species will be adversely affected by the proposed project.</p> <p>The Montana Natural Heritage Program did not indicate the Bull Trout as a species of special concern in the area. However, based on the 1996 Lower Kootenai River Drainage Bull Trout Status Report, prepared by the Montana Bull Trout Scientific Group, it appears that Bull Trout do reside upstream of the Lake Creek Reservoir in Bull Lake, and move downstream, via Lake Creek, to Keeler and Stanley Creeks for spawning. Stanley Creek is located approximately ten (10) miles upstream of the Lake Creek Reservoir and the pit; Keeler Creek is located approximately</p>

	<p>five (5) miles upstream of Lake Creek Reservoir and the pit.</p> <p>Further, the Troy Dam, located approximately 3/4 of a mile downstream from the proposed operating site has acted as a fish passage barrier for most of this century preventing the migration of fish from the Kootenai River to any point on Lake Creek above the dam. There do not appear to be Bull Trout populations migrating farther downstream than Keeler Creek nor does there appear to be a Bull Trout population living in Lake Creek Reservoir behind the Troy Dam.</p> <p>The Lake Creek gravel pit has been in existence, and equipment has been operated at the site for years prior to the June 10, 1998, listing of the Bull Trout as a Threatened Species under the Federal Endangered Species Act (ESA). No new sedimentation impacts, the major issue of concern regarding Bull Trout populations in the Lake Creek drainage, are expected in association with crushing/screening operations in the Lake Creek pit. Therefore, it is not expected that the Bull Lake/Lake Creek Bull Trout population will be affected by the crushing/screening operation in the Lake Creek pit.”</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, this site has been previously disturbed by modern man, thus destroying the integrity of resources that may have existed. A cultural resource survey was done and no cultural, historical or archeological resources were discovered. Should a significant archaeological or historical value be found, the operation would be routed around the site of discovery for a reasonable time until salvage can be made. The State Historic Preservation Office would 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 will be a deterioration of aesthetics while the operation is under way. However, reclamation will leave the site in a landscape condition that is compatible with the surrounding area. There is and has been an alteration of the viewshed as a result of this existing sand and gravel mine and other man made modifiers. The site is visible by traffic along the county road. Floodlights from dark period operations would increase visibility and awareness of the operation. Negative influences of night lights to those living southeast of the operation will be negligible due to their location above on the bench.</p> <p>Noise will be perceptible to locals in the area when equipment is active. 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. These impacts are intermittent and of relatively short duration, but can be quite noticeable at times, especially at night, due to the echo effect across the reservoir.</p> <p>The proponent has committed to the following in the proposed Plan of Operations:</p> <ol style="list-style-type: none"> 1. Prior to conducting crushing and/or screening operations outside of the Monday through Friday 7:00 a.m. to 7:00 a.m. approved hours of operation, the proponent will contact the Montana Department of Environmental Quality, Michael L. and Sylvia Balboni and Scott and Teresa L. Curry in writing a minimum of 3 days before beginning operation. The letter will contain the name of the operator, type of equipment, and days and times of such operation. 2. Truck traffic will not be routed through the Wilderness Plateau

	<p>Subdivision unless deliveries of products are being made to customers within the subdivision.</p> <p>3. Stockpiled material will be placed to block crusher noise from the reservoir.</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>	[N]
<p>10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other studies, plans or projects on this tract?</p>	[N]
IMPACTS ON THE HUMAN POPULATION	
RESOURCE	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, loaders, crushers and screens will create hazards, but the operator must comply with all MSHA and OSHA regulations. 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>[Y] The acreage listed in the Type and purpose of Action will be taken out of grazing and limited wildlife habitat, and put into industrial/commercial use. Upon completion of mining, the land will be reclaimed to residential property.</p>
<p>13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.</p>	[N]
<p>14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?</p>	[N]
<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. 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] This site has been approved by the Lincoln County Commissioners.</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>	[N]
<p>18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?</p>	[N]
<p>19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?</p>	<p>[N] While the surrounding area has built up as rural/residential, the gravel pit has been in existence for many years. In order to soften impacts on local residents, the operator has agreed to contact the DEQ as well as the most affected local residents at least three days in advance of crushing outside the normal (7:00 a.m. to 7:00 p.m., Monday to Friday) hours of operation, to avoid hauling through the Wilderness Plateau Subdivision, and to stockpile material between the crusher and the reservoir.</p>
<p>20. CULTURAL UNIQUENESS AND</p>	<p>[N] The site was used as a gravel pit by Champion and Andy's</p>

DIVERSITY: Will the action cause a shift in some unique quality of the area?	Construction in the past and will be reclaimed to a residential site when finished.
21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N]

22. Alternatives Considered:

No Action: The permit would not be approved and impacts already existing would continue without benefit of regulation and monitoring.

Approval of Application as submitted: The pit would be permitted and regulated under existing laws.

23. Public Involvement, Agencies, Groups or Individuals contacted:

State Historic Preservation Office, Montana Heritage Program, Lincoln County Commissioners, Montana Bull Trout Scientific Group, United States Department of Agriculture - Forest Service, Kootenai National Forest, Three Rivers Ranger District (Bull Lake Estates Access Draft Environmental Impact Statement). A copy of the Plan, map, water well report, application and the department’s DRAFT Environmental Assessment was sent out on May 5, 1999 for comments to local residents who expressed a desire to be informed. No comments were received. The DRAFT EA is adopted as final.

24. Other Governmental Agencies with Jurisdiction, List of Permits Needed: Department of Environmental Quality, Permitting and Compliance Division, Air and Waste Management Bureau for air quality permit.

25. Magnitude and Significance of Potential Impacts:

Impacts are unlikely to be significant on the general environment because of the size and location of the project, the lack of rare or unique wildlife species or habitat, and because of special requirements written into the Plan of Operations to protect air and water quality and to mitigate impacts to the local residents.

26. Regulatory impact on private property: The analysis conducted in response to the Private Property Assessment Act indicates no impact since this Plan of Operations would not require Special Stipulations” in order to comply with the Opencut Mining Act.

Recommendation for Further Environmental Analysis:

EIS More Detailed EA No Further Analysis

EA Prepared By: Rod Samdahl

Title: Reclamation Specialist

Approved By: Jerry Burke

Title: Supervisor, Opencut Mining Program, IEMB

Signature

Date