

## CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name: Turah Site Proposed Implementation Date: 5/15/96Proponent: Russell Construction, Inc.

Type and Purpose of Action: The applicant proposes to expand its existing permit from 7.8 to 17 acres to mine, crush, stockpile and transport an additional 220,000 cubic yards of sand and gravel. The pit is located at Turah, 9 miles east of Missoula. The estimated start-up date is May 15, 1996, and will result in a pond approximately 15 feet deep. The pit will be reclaimed to a fishery with residential homesites nearby after grading the slopes to at least a 3:1. The pit is in an old, pre-regulation, mined out gravel source and has no topsoil to replace.

Location: SE¼ Section 35, T13N, R18W 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
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?	[Y] The proposed mine is located on a relatively level glacial outwash terrace left from the last retreating glacier around 10,000 years ago. Some patches of the 12,000 year old Lake Missoula sediments are found nearby. The deposit consists of stratified layers of alluvium and glacial outwash sand, gravel and cobbles that cover the deeper outcrops. The billion year old Precambrian rock of the Belt Series sandstone, mudstone and limestone rocks surround the deposit. The Clark Fork River runs through the length of this valley that was formed by a major east-west fault, reaching across Missoula to Spokane.  Topsoil has been lost due to previous mining. Following mining, the pond slopes will be graded and dressed up to provide for fishing access.

<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] The proponent may be required to obtain a Stormwater Discharge Permit from the Montana Department of Environmental Quality, to assure the protection of surface waters including the marshes formed by washing gravel. The nearest pre-mining surface water is the Clark Fork River located ½ mile to the south which will not be impacted by mining.</p> <p>The site will be mined to a depth of 15 feet which intercepts nearly 13 feet of groundwater. Groundwater is shallow in the area, very near the old pit floor. The sands and gravels display high permeability. Special precautions will be taken to minimize possible contamination of the groundwater. All fuel and bulk lubricants will be kept within a lined, earthen-bermed fueling location. Any accidental spills or leaks from equipment will be excavated and disposed of. No waste or trash will be disposed of at the site. With these precautions, the quality and quantity of the groundwater should not be adversely impacted.</p> <p>Hydrologic impacts of the proposed expansion are not likely to cause any measurable change in the groundwater quality or water levels on property surrounding the site. This assumption is based on the fact that there will be no de-watering of the pit.</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 not be degraded any further as there will not be an increase in particulate matter due to the proposed expansion. Crushers, screens and trucking equipment typically cause dusty conditions in disturbed soil sites and this expansion of an existing permit will not necessarily cause an increase in equipment and machinery use.</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 000 (Nonmetallic Mineral Processing Plants). Subpart 000 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] 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. There is a moderate infestation of spotted knapweed, a legally defined noxious weed.</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 mining, it also supports populations of deer, waterfowl, rodents, song birds, coyotes, foxes, insects and various other animal species. Population numbers for these species is not known. There are rookeries of blue herons along the Clark Fork River, and osprey and bald eagles have been seen nearby. The creation of a pond with fish stocked in it will provide increased fishing opportunities for these species.</p> <p>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. 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 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.</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 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 located in a scenic, but not unique area. There will be a temporary deterioration of aesthetics while the operation is under way. However, reclamation will return the area to a visually acceptable landscape.</p> <p>There is and has been an alteration of the viewshed as a result of this existing and other current and historical sand and gravel mining. The site is visible by homes in the local area and to traffic along the county road. Floodlights from dark period operations increase visibility and awareness of the operation, but there would not be any change from the current operation due to this expansion. Traffic along the road will be able to see the operation, as it has for many years.</p> <p>Noise will not increase from present levels 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. There is also noise from truck traffic hauling to various projects.</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>
<p><b>IMPACTS ON THE HUMAN POPULATION</b></p>	
<p><b>RESOURCE</b></p>	<p><b>[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES</b></p>
<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 wash plants create hazards, but the operator must comply with all MSHA and OSHA regulations.</p> <p>The approval of this amendment would have little effect on the rate or volumes of traffic or the equipment used already existing under the current plan. Approval of this amendment will increase the volume of legally extractable mineral and will therefore increase the life of the mine in years. An increase in the rate of extraction resulting from marketing and increased demand for product could have a shortening effect on the life of the mine as well. The operator currently complies with all MSHA and OSHA regulations regarding heavy</p>

	<p>equipment and facilities including crushers, trucks and loaders.</p> <p>Excessive and prolonged noise and light could increase stress for nearby residents and induce difficulty sleeping. Both of these effects may be considered harmful to human health if the activities are continuous. This proposed expansion is not expected to increase the levels or intensities of these impacts. It therefore should not significantly affect human health. The operator will employ proper precautions to avoid accidents.</p>
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[N]
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] To this date it has not been shown that the current operation has resulted in a reduction in taxable value of property and it is not anticipated that this expansion would alter past assessments. The presence of an industrial site in the midst of an agricultural/rural residential area has the potential to reduce the desirability of surrounding land as a location to live a rural lifestyle, and therefore the marketability of improved and unimproved real estate may be diminished as some prospective buyers would not purchase these properties. The area proposed to be expanded for mining has been used as a gravel source for many years however, so it could be assumed that because residential building has encroached around this site, those purchasers did not find the use objectionable.
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 will require periodic site evaluations by DSL 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?	[N]
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?	[N]

18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N]
19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N]
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N]
21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N]

## 22. Alternatives Considered:

1. Denial: Pit would not be expanded and impacts would not increase at this location. The owner of the gravel resource would be denied full utilization of his property at this time.

2. Approval: The expansion will improve the site which was mined previously without topsoil salvage. The pond will enhance aesthetics and increase wildlife habitat.

23. Public Involvement, Agencies, Groups or Individuals contacted: None.

## 24. Other Governmental Agencies with Jurisdiction, List of Permits Needed:

Montana Department of Environmental Quality for Air Quality Permit and Stormwater Discharge Permit; Mine Safety and Health Administration for safety permit; Montana Department of Labor & Industry, Bureau of Safety for safety permit.

25. Magnitude and Significance of Potential Impacts: Impacts are unlikely to be significant because the increase in acreage will not require an increase in equipment and/or activity. The resulting reclaimed area will be larger, but the pond will offer suitable aesthetic character and wildlife habitat. Impacts are unlikely to be significant on the general environment because of the size and location of the project.

26. Regulatory impact on private property: The analysis conducted in response to the Private Property Assessment Act indicates no impact.

## Recommendation for Further Environmental Analysis:

EIS       More Detailed EA       No Further Analysis

EA Checklist Prepared By: Rod Samdahl      Reclamation Specialist  
Name      Title

Approved By: \_\_\_\_\_  
Name      Title

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Signature      Date