

CHECKLIST ENVIRONMENTAL ASSESSMENT
February 11, 1997

Project Name: McIntosh siteProposed Implementation Date: 2/1/97Proponent: Fisher Sand & Gravel Co.

Type and Purpose of Action: The applicant proposes to mine, crush, stockpile and transport 62,000 cubic yards of sand and gravel from a 4 acre pit located 14 miles north of the town of Havre. The estimated start-up date is February 1, 1997 and will result in a pit no deeper than 14 feet. The pit will be reclaimed to grassland after grading the slopes to at least a 3:1, replacing all topsoil and reseeding.

Location: S½NE¼, N½SE¼ Sec. 23, T35N, R15ECounty: Hill

N = Not present or No Impact will occur.

Y = Impacts may occur (explain under Potential Impacts).

| IMPACTS ON THE PHYSICAL ENVIRONMENT | |
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| 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? | <p>[Y] The proposed mine is located in rolling farmland situated in the glacial debris of the high plains left from the last retreating continental glacier. The Quaternary alluvium, consisting of sand and gravel, covers underlying Tertiary mud and sandstones deposited around 60 million years ago.</p> <p>Up to 12 inches of fairly well drained, silty clay loam topsoil and zero to 24 inches of silty overburden overlies the glacial sands and gravels, and local slopes demonstrate reasonable stability. All soil material will be salvaged and stockpiled away from the affected land. Following mining, grading and ripping, the overburden and soils will be replaced, disced and seeded to stabilize the soil and prevent erosion. Microbes will re-colonize the soil.</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>[N] The proponent may be required to obtain a Stormwater Discharge Permit from the Montana Department of Environmental Quality, Permitting & Compliance Division to assure the protection of surface waters. The nearest surface water is Statons Coulee located 100 feet north of the pit. The site will be mined to a depth of 14 feet which is intended to be at least three feet above the depth of the water table. Therefore, the quality and quantity of the ground and surface water should not be impacted.</p> |
| 3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)? | <p>[Y] Air quality will be degraded and there will be an increase in particulate matter. Crushers, screens and trucking equipment typically cause dusty conditions in disturbed soil sites.</p> |
| 4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be permanently altered? Are any rare plants or cover types present? | <p>[Y] Native vegetation consists of fescue, needleandthread, silver sage with some introduced crested wheatgrass which lie on a gentle, north-facing slope. Vegetation covers 100% of the ground and will be removed and planted with wheatgrass species compatible with grazing. Some native seed will remain viable in the salvaged topsoil and will re-generate. Under ideal conditions, native species from undisturbed, adjacent land will re-invade the site.</p> |

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| 5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish? | [N] Although the area is used primarily for grazing, it also supports populations of deer, game and non-game birds, rodents, raptors, insects and various other animal species. |
| 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? | [N] The Natural Heritage Program literature search and site evaluations have not revealed any endangered or threatened plant or animal species. |
| 7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present? | [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. |
| 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? | [Y] 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. |
| 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 |
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| 11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area? | [Y] Heavy equipment and facilities including trucks, loaders, crushers, asphalt and wash plants will create hazards, but the operator must comply with all MSHA and OSHA regulations. The operator will employ proper precautions to avoid accidents. |
| 12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities? | [Y] The acreage listed in the Type and purpose of Action will be taken out of agricultural/grazing and put into industrial/commercial use. Upon completion of mining, the land will be returned to its previous use. |
| 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 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. |

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| 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 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 permitted and impacts would not occur at this location. Aggregate would be hauled from a greater distance increasing fuel use, gaseous emissions and project costs. The owner of the gravel resource would be denied full utilization of his property at this time.

2. Approval of the amendment with mitigating conditions: The Plan of Operation has been written with mitigating conditions. Mitigation measures include water protection, fuel containment, topsoil protection and weed control.

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

State Historic Preservation Office, Montana Heritage Program, County Weed Control District, County Commissioners for zoning.

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 on the general environment because of the size and location of the project, lack of critical wildlife species and/or habitat and lack of residential development.

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 Openpit Mining Act.

25. Magnitude and Significance of Potential Impacts:

Impacts are unlikely to be significant because of the small amount of disturbance, short duration of the project, and mitigated measures proposed.

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

Signature

Date

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