ENVIRONMENTAL ASSESSMENT

Project Name: George Berge **Proposed Implementation Date:** Summer 98
Proponent: Fisher sand & Gravel Co.
Type and Purpose of Action: The proponent proposes to mine, crush, sort, stockpile, and transport 214,000 cubic yards of borrow, sand and gravel from a 34.70 acre site for the reconstruction of Highway 2. The site would be reclaimed by recontouring, respreading the topsoil and reseeding the site with grasses and grain. The reclaimed uses would be grainfield and wetland and pond for a wildlife habitat. Reclamation would be completed by the fall of 1999.
Location: W½SW¼ & SW¼ NW¼, Sec. 27, T27N, R44E **County:** Valley

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?	**[N]** The proposed operation is located in sands and gravels of an alluvial nature and lies within the Missouri River drainage 3/4 mile north of Frazer. The topsoil is of a sandy loam texture 12 inches deep. There is up to 3 feet of a clay overburden. The topsoil and overburden would be stripped and stockpiled and after regrading the overburden followed by the topsoil, would be evenly replaced. Microorganisms should reinvade the soil. There are no unusual geologic or special reclamation considerations.

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?	**[N]** The nearest surface water is Little Porcupine Creek which lies within 50 feet of the proposed operation. The nearest water well is approximately 600 feet north of the site and belongs to the landowner. According to the landowner the well is 20 feet deep and is not used for domestic purposes. The proponent proposes to create a wetland and pond on the proposed mine area north of the site. The wetland and pond would be created by removing gravel with a dozer and/or frontend loader to a depth of 2 to 3 feet into the low water table. Conveyors would be brought in to span the creek to convey gravel from the proposed pit north of the creek to the crusher and pit area south of the creek. The proposed pit area south of the creek would be mined to within 3 feet of the high water table. After reclamation the southern area would be a depression with of 5:1 or flatter slopes. The slopes closest to the creek would be 10:1 at both the northern and southern excavations. No disturbances would occur within 50 feet of the creek banks. All fuel storage areas would be bermed and the berms of sufficient size to contain any leaks or spills. The proponent has contacted the EPA to obtain a Stormwater Discharge Permit. There should not be any impact to any ground or surface water.
3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	**[Y]** Air quality would be degraded. The proponent must comply with air quality standards and Air Quality Permits obtained.
4. VEGETATION COVERS, QUANTITY AND QUALITY: Will vegetative communities be permanently altered? Are any rare plants or cover types present?	**[Y]** The entire area has been cultivated in the past. The site north of the creek is seeded in crested wheatgrass. The area south of the creek is used for grain production. Native species of grasses would be seeded onto the site north of the creek and the area south of the creek would be returned to grain production. A literature search was done by the Montana National Heritage Program and no rare plants or cover types were identified and none were identified during a ground search.
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	**[N]**
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]** Ground and literature searches were conducted and no threatened or endangered a species or identified habitats were found on the site. No wetlands are present.

7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	**[N]** A cultural survey was conducted on the site and no cultural resources were found. If the operator of the proposed operation discovers any cultural resources the operation must be routed around the site of discovery for a reasonable amount of time until salvage can be made. The State Historical Preservation Office must 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]** The proposed operation would be visible from Highway 2 and the residents of Frazer, but would be a short term operation with final reclamation completed by the fall of 1999.
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	POTENTIAL IMPACTS AND MITIGATION MEASURES
11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	**[Y]** There will be increased hazards because of equipment activity and hauling of the sand and gravel. The applicant must comply with OSHA and MSHA regulations however, proper precautions will be taken to avoid accidents.
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	**[N]** Approximately 8 acres, north of the creek, would be reclaimed to a wetland and pond and the area south of the creek, approximately 26 acres, would be returned to grain production.
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?	**[N]** The site will require periodic site evaluations, but these will be done in conjunction with other operations in the area.
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	**[N]** 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:

Alternative # 1: Denial. The owner of the gravel resource would be denied full utilization of his property at this time.

23. Public Involvement, Agencies, Groups or Individuals contacted: Montana Natural Heritage Program & Phillips County Commissioners & Weed Control District

24. Other Governmental Agencies with Jurisdiction, List of Permits Needed: Mine Safety & Health Administration for safety permit; Montana Department of Labor & Industry, Bureau of Safety for safety permit: Permitting and Compliance Division for crusher permit.

25. Magnitude and Significance of Potential Impacts: Impacts are unlikely to be significant on the general environment because of the small amount of disturbance and short duration 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 [X] No Further Analysis

EA Checklist Prepared By: Jerry Burke Title: Supervisor, Opencut Mining Program, IEMB

Approved By: Steve Welch Title: Industrial and Energy Minerals Bureau Chief

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Signature Date