

SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT

On an Application for an

OPENCUT MINING PERMIT AMENDMENT

The Montana Department of Environmental Quality (DEQ) prepared this Environmental Assessment (EA) in accordance with requirements of the Montana Environmental Policy Act (MEPA). An EA functions to identify, disclose, and analyze the impacts of a proposed action. This document may disclose impacts that have no legislatively required mitigation measures, or over which there is no regulatory authority.

The state law that regulates gravel mining operations in Montana is the Opencut Mining Act. This law and the rules adopted thereunder place operational guidance and limitations on a project during its lifetime, and provide for the reclamation of land affected by opencut mining operations.

Local governments and other state agencies may have authority over different resources and activities under their regulations. Approval or denial of this Opencut Application will be based on a determination of whether or not the proposed operation complies with the Opencut Mining Act and the rules adopted thereunder. The DEQ approval of this application would not relieve the operator from the obligation to comply with any other applicable federal, state, or county statutes, regulations, or ordinances. The operator is responsible for obtaining any other permits, licenses, approvals, etc. that are required for any part of the proposed operation.

APPLICANT: Fisher Sand and Gravel Co.

SITE NAME: Rice and Sons Pit Area 2

LOCATION: Sections 4 & 9, T18N R57E

COUNTY: Dawson

DATE: February 2011

PERMIT NUMBER: 2081

PROPOSAL: Fisher Sand and Gravel assigned this permit from Rice and Sons, who had mined about 25,000 cubic yards from a 1 ½ acre site. Fisher's amendment adds 30.5 acres, and proposes to mine and crush an additional 300,000 yards of sand and gravel. The total site would be 32.0 acres, with 22.8-acre mining area, and 9.2-acre facility area. Access would be from County Road 555. A reclamation bond would be held by DEQ to ensure final reclamation to dryland cropland by October 2016. This application contains all items required by the Opencut Mining Act and its implementing rules. Proponent commits to properly conducting opencut operations and would be legally bound by the permit.

| IMPACTS ON THE PHYSICAL ENVIRONMENT | |
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| RESOURCE | POTENTIAL IMPACTS AND MITIGATION MEASURES |
| 1. TOPOGRAPHY, GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: | <p>The site is on the flat, second terrace about a mile west of and 60 feet above the Yellowstone River. It is composed of alluvial gravel. Soils are loams, and gravelly sandy loam about a foot deep. Overburden averages 2 feet deep. The site is been used for dryland farming although about half of it has not been used for several years. Precipitation in the area is about 15 inches.</p> <p><i>Impacts:</i> An irreversible and irretrievable removal of gravel from the site would occur. A small impact to the quantity and quality of soils from salvaging, stockpiling, and resoiling activities also would occur, but this would not impair the capacity of the soils to support full reclamation. There is no unusual topographic, geologic, soil, or special reclamation considerations that would prevent reclamation success.</p> |
| 2. WATER QUALITY, QUANTITY AND DISTRIBUTION | <p>There are no natural water features on site. The Yellowstone River is about a mile to the east. An irrigation ditch runs along the east side at the foot of the terrace. There is one residence well along the county road within 1,000 feet of the site belonging to the landowner. Maximum mining depth would be 15 feet.</p> |

| IMPACTS ON THE PHYSICAL ENVIRONMENT | |
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| RESOURCE | POTENTIAL IMPACTS AND MITIGATION MEASURES |
| | <p>The estimated minimum depth to water table is 18 feet. None of the test pits encountered water and the previously mined area did not encounter water. Process water would be hauled daily from an off-site source.</p> <p><i>Impacts:</i> It is highly unlikely that mining would intercept groundwater. The proposed activities would have a minimal effect on the quantity and quality of the surface and groundwater resources.</p> |
| 3. AIR QUALITY | <p>Air quality standards are based upon the Clean Air Act of Montana and pursuant rules and are administered by the DEQ Air Resources Management Bureau (ARMB). Its program is approved by the Environmental Protection Agency (EPA). These rules and standards are designed to be protective of human health and the environment.</p> <p>Air quality permits would be required on the processing equipment before installment. Machinery, such as generators, crushers and asphalt plants, are individually permitted for allowable emissions. Best Available Control Technology (BACT) is the usual standard applied.</p> <p>Fugitive dust is that which blows off the pit floor, stockpiles, gravel roads, farm fields, etc. It is considered to be a nuisance but not harmful to health.</p> <p><i>Impacts:</i> Air quality standards as set by the federal government and enforced by the ARMB would allow minimal detrimental air impacts.</p> |
| 4. VEGETATION COVER, QUANTITY AND QUALITY | <p>The site is used for dryland crops. About half the site has not been farmed for several years and has many annual weeds. Surrounding fields are in crops, seeded hay or pasture grasses. The lower terrace which would not be affected is irrigated fields. Some cottonwoods and native grasses grow along the fences and ditches. No noxious weeds are found on site. The site would be reclaimed to dryland farming by 2016.</p> <p><i>Impacts:</i> No long term detrimental impacts to the vegetation would occur.</p> |
| 5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: | <p>Although the area is used primarily for pasture, it also supports populations of deer, rodents, pheasant, song birds, coyotes, foxes, raptors, insects and various other animal species. Population numbers for these species are not known.</p> <p><i>Impacts:</i> The proposed mine is expected to temporarily displace some individual species and it is likely that the site would be re-inhabited following reclamation to similar habitat.</p> |
| 6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: | <p>The Montana Natural Heritage Program (MNHP) lists 12 species of concern and the Yellowstone River Corridor in the vicinity of the site. The Spiny Softshell is an aquatic turtle and 9 are fish residing in the Yellowstone River. The Least Tern is a bird that resides and nests on the gravel and sand bars within the river shorelines. The Bald Eagle may nest in the cottonwoods off-site, and could hunt the site.</p> <p><i>Impacts:</i> None of the listed species have been found on this site. Even if suitable habitat did exist on this site, the disturbance area would be small and large areas of similar or identical habitat surrounds the site. The possible impact to these species would be minimal.</p> |
| 7. HISTORICAL AND ARCHAEOLOGICAL SITES | <p>The Montana State Historic Preservation Office (SHPO) was notified of the application. It reported no sites have been discovered previously on this property. A pedestrian survey of the area by DEQ personnel did not reveal any artifacts or signs of occupation. No signs were evident at depth in the previously</p> |

| IMPACTS ON THE PHYSICAL ENVIRONMENT | |
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| RESOURCE | POTENTIAL IMPACTS AND MITIGATION MEASURES |
| | disturbed area. <i>Impacts:</i> If during operations resources were to be discovered, activities would be temporarily moved to another area or halted until SHPO was contacted and the importance of the resources was determined. |
| 8. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY | <i>Impacts:</i> Negligible impacts to land, water, air, or energy would occur. |

| IMPACTS ON THE HUMAN POPULATION | |
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| RESOURCE | POTENTIAL IMPACTS AND MITIGATION MEASURES |
| 9. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS | The site is not zoned. |
| 10. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING | One residence is within ¼ mile of the site. <i>Impact:</i> This construction pit is being sited in this area because of the location of the resource and the nearby MDOT contract on Highway 16. |
| 11. AESTHETICS | There is no reason for any other special aesthetic mitigation. |
| 12. QUANTITY/ DISTRIBUTION OF EMPLOYMENT | <i>Impacts:</i> New employment opportunities would be limited. Existing jobs would be extended by the length of the permit. This is a relatively small operation. |
| 13. INDUSTRIAL, COMMERCIAL, AGRICULTURAL ACTIVITIES AND PRODUCTION | <i>Impact:</i> Farming would be temporarily lost until reclamation was reestablished. |
| 14. LOCAL, STATE TAX BASE AND TAX REVENUES, PERSONAL AND COMMUNITY INCOME | Local, state and federal governments would be responsible for appraising the property, setting tax rates, collecting taxes, etc., from the companies, employees, or landowners benefitting from this operation. Following reclamation, it is assumed the tax base would revert to pre-mine levels. |
| 15. DEMAND FOR GOVERNMENT SERVICES | Inspections by DEQ officials are generally conducted in concert with other area activity. |
| 16. HUMAN HEALTH AND SAFETY | Any industrial activity will increase the opportunities for accidental injury. Other government agencies (e.g. MSHA, OSHA) require specific safety measures. As a result, there is no reason to believe that significant safety issues would be present. |

| IMPACTS ON THE HUMAN POPULATION | |
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| RESOURCE | POTENTIAL IMPACTS AND MITIGATION MEASURES |
| 17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES | This activity would not inhibit the use of the identified resources. |
| 18. NATIVE CULTURAL CONCERNS | <i>Impacts:</i> None. |

19. Alternatives Considered:

- A. Denial Alternative: The Department would deny an application that does not comply with the Act and Rules. No impacts to the natural or human environment would occur.
- B. Approval Alternative: The Department would approve an application that complies with the Act and Rules. Impacts of this application are addressed in the body of the EA.

20. Public Involvement, Agencies, Groups or Individuals contacted: Montana State Historic Preservation Office, Montana Natural Heritage Program

21. Other Governmental Agencies which May Have Overlapping or Sole Jurisdiction: Dawson County Commission, Dawson County Weed Control Board, MSHA and OSHA regarding mine safety.

Possible permits required from other programs or agencies: DEQ’s Air Resources Management Bureau regarding air quality, DEQ’s Water Protection Bureau for stormwater or discharge permits, Department of Natural Resources and Conservation for water rights permit.

22. Regulatory Impact on Private Property: The analysis done in response to the Private Property Assessment Act indicates no impact. The Department does not plan to deny the application or impose conditions that would restrict the use of private property so as to constitute a taking.

23. Magnitude and Significance of Potential Impacts: This proposal is not likely to create impacts of significance due to mitigation, restrictions, and oversight mandated by the Opencut Mining Act and pursuant rules and the Montana Clean Air Act.

24. Recommendation for Further Environmental Analysis: EIS No Further Analysis

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Name Title

PRIVATE PROPERTY ASSESSMENT ACT (PPAA) CHECKLIST

DOES THE PROPOSED AGENCY ACTION HAVE TAKINGS IMPLICATIONS UNDER THE PPAA?

| YES | NO | |
|-----|----|---|
| X | | 1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights? |
| | X | 2. Does the action result in either a permanent or indefinite physical occupation of private property? |
| | X | 3. Does the action deprive the owner of all economically viable uses of the property? |
| | X | 4. Does the action deny a fundamental attribute of ownership? |
| | X | 5. Does the action require a property owner to dedicate a portion of property or to grant an easement? (If answer is NO, skip questions 5a and 5b and continue with question 6.) |
| | | 5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests? |
| | | 5b. Is the government requirement roughly proportional to the impact of the proposed use of the property? |
| | X | 6. Does the action have a severe impact on the value of the property? |
| | X | 7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally? (If the answer is NO, skip questions 7a-7c) |
| | | 7a. Is the impact of government action direct, peculiar, and significant? |
| | | 7b. Has the government action resulted in the property becoming practically inaccessible, waterlogged, or flooded? |
| | | 7c. Has the government action diminished property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question? |

Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b.

If taking or damaging implications exist, the agency must comply with § 5 of the Private Property Assessment Act, to include the preparation of a taking or damaging impact assessment. Normally, the preparation of an impact assessment will require consultation with agency legal staff.