

# ENVIRONMENTAL ASSESSMENT

**Project Name:** Raunig

**Proposed Implementation Date:** Fall 98

**Proponent:** Cascade County

**Type and Purpose of Action:** The proponent proposes to mine, crush, stockpile and transport 20,000 cubic yards of sand and gravel from an 8.3 acre site for use on county roads. The site would be reclaimed by recontouring, respreading the topsoil and reseeding the site with grasses. The reclaimed use would be grazing. Reclamation would be completed by November of 2008.

**Location:** NE¼, Sec. 8, T18N, R05E

**County:** Cascade

**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><b>1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:</b> Are fragile, compactible or unstable soils present? Are there unusual geologic features? Are there special reclamation considerations?</p>	<p><b>[N]</b> The proposed operation is located next to a county road on the edge of a bench which faces north. The sand and gravel are of Tertiary valley fill origin. The topsoil is a very cobbly clay loam texture 0 to 6 inches deep on the proposed mine site. Much of the site has been previously mined. There is no overburden. The topsoil would be stripped and stockpiled and after regrading would be evenly replaced. There are no fragile, compactible or unstable soils present or no unusual geologic features or special reclamation considerations. Microorganisms should invade the soil.</p>
<p><b>2. WATER QUALITY, QUANTITY AND DISTRIBUTION:</b> 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><b>[N]</b> There estimated depth to the water table is greater than 100 feet below the proposed pit floor, as estimated from the Mahoney Hill U.S.G.S. Topographical Quadrangle Map. The proposed mining depth is 20 feet. There are no water wells within 1,000 feet of the site. There would be no impact to the groundwater. Any fuel storage tanks would be lined and bermed and be of sufficient size to contain any leaks or spills. The site upon reclamation would be daylighted to the north and the slopes in the other directions would be 3:1 or flatter. Silt fences would be installed if necessary to prevent any off site sedimentation or erosion.</p>
<p><b>3. AIR QUALITY:</b> Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?</p>	<p><b>[Y]</b> Air quality would be degraded. An Air Quality Permit from the Montana Dept. of Environmental Quality would be needed for the crusher.</p>
<p><b>4. VEGETATION COVERS, QUANTITY AND QUALITY:</b> Will vegetative communities be permanently altered? Are any rare plants or cover types present?</p>	<p><b>[N]</b> The site has been recently plowed, but prior to plowing the site was planted in alfalfa and various wheatgrasses. Native species of grasses will be seeded onto the site upon recontouring and retopsoiling. 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. No rare plants or cover types were identified in a ground search or by the Montana Natural Heritage Program file search.</p>
<p><b>5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:</b> Is there substantial use of the area by important wildlife, birds or fish?</p>	<p><b>[N]</b> Various mammals, birds, and reptiles occasionally traverse the site.</p>

<p><b>6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:</b> Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?</p>	<p>[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. No threatened or endangered species or identified habitats were identified by a file search by the Montana Natural Heritage Program.</p>
<p><b>7. HISTORICAL AND ARCHAEOLOGICAL SITES:</b> Are any historical, archaeological or paleontological resources present?</p>	<p>[N] A cultural survey was conducted on the site and no cultural resources were found and clearance has been obtained from the State Historic Preservation Office. 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.</p>
<p><b>8. AESTHETICS:</b> 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>[N] The site is visible from a county road, but reclamation would be concurrent and reclamation would be completed by November of 2008.</p>
<p><b>9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:</b> 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><b>10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES:</b> Are there other studies, plans or projects on this tract?</p>	<p>[N]</p>

<p align="center"><b>IMPACTS ON THE HUMAN POPULATION</b></p>	
<p align="center"><b>RESOURCE</b></p>	<p align="center"><b>POTENTIAL IMPACTS AND MITIGATION MEASURES</b></p>
<p><b>11. HUMAN HEALTH AND SAFETY:</b> Will this project add to health and safety risks in the area?</p>	<p>[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.</p>
<p><b>12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION:</b> Will the project add to or alter these activities?</p>	<p>[Y] 8.3 acres will be taken out of grazing until such time as the site is successfully reclaimed, but reclamation would be concurrent with mining.</p>
<p><b>13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:</b> Will the project create, move or eliminate jobs? If so, estimated number.</p>	<p>[N]</p>
<p><b>14. LOCAL AND STATE TAX BASE AND TAX REVENUES:</b> Will the project create or eliminate tax revenue?</p>	<p>[N]</p>
<p><b>15. DEMAND FOR GOVERNMENT SERVICES:</b> Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc) be needed?</p>	<p>[N] The site will require periodic site evaluations, but these will be done in conjunction with other operations in the area.</p>
<p><b>16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:</b> Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?</p>	<p>[N] County Zoning clearance has been obtained.</p>

<b>17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:</b> Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	[N]
<b>18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:</b> Will the project add to the population and require additional housing?	[N]
<b>19. SOCIAL STRUCTURES AND MORES:</b> Is some disruption of native or traditional lifestyles or communities possible?	[N]
<b>20. CULTURAL UNIQUENESS AND DIVERSITY:</b> Will the action cause a shift in some unique quality of the area?	[N]
<b>21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:</b>	[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, State Historic Preservation Office, & Cascade 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:

**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                       No Further Analysis

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

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

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Signature

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Date