

# ENVIRONMENTAL ASSESSMENT

**PROPONENT:** MK Weeden  
**LOCATION:** WSW1/4, Section 2, T18N, R23E

**SITE NAME:** Grimsrud Sand  
**COUNTY:** Fergus

**TYPE AND PURPOSE OF ACTION:** Proponent has submitted a permit application to the Opencut Mining Program for a 5-acre sand mine site. All application materials required under the Opencut Mining Act and the Rules and Regulations thereunder have been submitted. Proponent commits to properly conducting opencut operations and reclaiming the site to a postmining land use of grazing land. Proponent would be legally bound by their permit to appropriately conduct opencut operations and properly reclaim the site. The final reclamation date is 5/2006.

A = significant unavoidable impacts. B = insignificant as a result of conditioned mitigation. C = insignificant as proposed.

	POTENTIAL IMPACTS AND MITIGATIVE MEASURES					
	A	B	C	LONG TERM	SHORT TERM	EXPLANATION
<b>PHYSICAL ENVIRONMENT</b>						
1. <u>TOPOGRAPHY</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The site is located on the west face of a moderate hill, just below a small sandstone outcrop. Sand removal to a maximum depth of 20 feet would alter the topography primarily by lowering the surface and creating longer or new slopes. All surfaces would be graded to 4h:1v or flatter as required for sandy slopes. The site would be graded to blend into the surrounding topography and drainageways.
2. <u>GEOLOGY</u> : stability	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Potential impacts due to the removal of mine material have been reviewed and the Department has determined that the site could be reclaimed to a stable condition.
3. <u>SOILS</u> : quality, distribution	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	There is an average soil thickness of 6 inches and an average overburden thickness of 0 inches in the main permit area. Soil materials would be stripped from all areas to be disturbed and placed on areas prepared for resoiling or stockpiled for later reclamation use. A minimum of 0 inches of overburden and 6 inches of soil would be replaced on mine-level areas. Soil stripped from facility-level areas would be evenly replaced on those areas.
4. <u>WATER</u> : quality, quantity; distribution	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ground water does not appear to be a factor at this site. There are no surface water features or water wells in or near the site.
5. <u>AIR</u> : quality	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	There would be some degradation of air quality while operations are in progress. Proponent must comply with state air quality regulations.
6. <u>UNIQUE, ENDANGERED, FRAGILE, OR LIMITED ENVIRONMENTAL RESOURCES</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	None identified.
<b>BIOLOGICAL ENVIRONMENT</b>						
1. <u>TERRESTRIAL, AVIAN, AND AQUATIC SPECIES AND</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The access road route consists of dryland farmland and crested wheatgrass pasture.

<u>HABITATS</u>					<p>The main permit area consists of crested wheatgrass pasture on the lower 75 percent of the slope, and native rangeland on the upper 25 percent of the slope. The Montana Natural Heritage Program reports the ferruginous hawk, black-tailed prairie dog, and greater sage-grouse as species of special concern in the area. Because the access road and most of the main permit area are either in dryland grain field or crested wheatgrass seeded pasture, the proposed operation would not affect the named animals. Abundant similar habitat exists in the area, as do other habitats more conducive to the named species.</p>
2. <u>VEGETATION</u> : quantity, quality, species	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>The access road route consists of dryland farmland and crested wheatgrass pasture. The main permit area consists of crested wheatgrass pasture on the lower 75 percent of the slope, and native rangeland on the upper 25 percent of the slope. The proposed plan calls for seeding disturbed areas to a native grass mix, although turning the lower access road area back to dryland cropland and seeding the upper access road and main permit area to crested wheatgrass would be acceptable. The Montana Natural Heritage Program reports no species of special concern. Abundant similar habitat exists in the area. No noxious weeds were observed on site. Proponent has contacted the local weed district and would be in compliance with weed district requirements for the proposed open-cut operation.</p>
3. <u>AGRICULTURE</u> : grazing, crops, production	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Small areas of dryland cropland, crested wheatgrass pasture, and native range would be temporarily out of production. This would not substantially impact local agriculture. The site would be reclaimed to native rangeland, or dryland cropland and crested pasture.</p>
<b>HUMAN ENVIRONMENT</b>					
1. <u>SOCIAL</u> : structures, mores	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. <u>CULTURAL</u> : uniqueness, diversity	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. <u>POPULATION</u> : quantity, diversity	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. <u>HOUSING</u> : quantity, distribution	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. <u>HUMAN HEALTH &amp; SAFETY</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>No problems are anticipated. Restricted hours of operation would not be needed at this isolated site.</p>
6. <u>COMMUNITY &amp; PERSONAL INCOME</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. <u>EMPLOYMENT</u> : quantity, distribution	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

8. <u>TAX BASE</u> : local, state tax revenue	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
9. <u>GOVERNMENT SERVICES</u> : demand	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
10. <u>INDUSTRIAL, COMMERCIAL, &amp; AGRICULTURAL ACTIVITIES</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
11. <u>HISTORICAL AND ARCHAEOLOGICAL</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No resources have been identified.
12. <u>AESTHETICS</u> : noise, visual	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The site is in a remote area about a half mile north of the county road. There are no nearby residences.
13. <u>ENVIRONMENTAL PLANS AND GOALS</u> : local, regional	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The proposed operation complies with county zoning regulations.
14. <u>DEMANDS ON ENVIRONMENTAL RESOURCES</u> : land, water, air, energy	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
15. <u>TRANSPORTATION</u> : networks, traffic flows	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The half-mile access road connects to a rural county road. Operator would use the county road to transport mine material to the project area. This activity would not substantially affect transportation in the area.

**ALTERNATIVES CONSIDERED:** The Department would deny an incomplete application or one that does not comply with the Act and Rules. The proponent could then submit a modified application or submit an application for another site.

**PUBLIC INVOLVEMENT:** Agencies and individuals involved in the process included the Montana Natural Heritage Program, State Historic Preservation Office, local zoning authority, county weed control board, and landowner.

**OTHER GROUPS OR AGENCIES CONTACTED OR WHICH MAY HAVE OVERLAPPING JURISDICTION:** DEQ's Air Resources Management Bureau regarding air quality, DEQ's Water Protection Bureau regarding water discharge, DNRC's Water Rights Bureau regarding water rights, and MSHA regarding mine safety.

**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.

**RECOMMENDATION FOR FURTHER ENVIRONMENTAL ANALYSIS:** NO FURTHER ANALYSIS

**INDIVIDUALS OR GROUPS CONTRIBUTING TO THIS EA:** NONE

Approved By: \_\_\_\_\_ Date: \_\_\_\_\_  
(Signature)

Prepared by: Mark Carlstrom