

ENVIRONMENTAL ASSESSMENT

SITE NAME: Craig Mehling

APPLICANT: Fisher Sand and Gravel

LOCATION: SE Sec 9 T1S R33E

COUNTY: Big Horn

PROPOSED ACTION: Fisher proposes to mine and crush gravel from a 22.7-acre site 2 miles north of Hardin, MT. An asphalt plant may also be installed. The site is about 2 miles west of Highway 47. Access is by county roads that almost circle section 9. The product would be used for numerous jobs in and around Hardin and the county. Reclamation would be completed to dryland farming by May 2011. The reclamation bond is for \$79,064.

A: Significant Unavoidable Impacts B: Insignificant as a result of conditioned mitigation C: Insignificant as proposed

	A	B	C	POTENTIAL IMPACTS		
				LONG TERM	SHORT TERM	EXPLANATION
PHYSICAL ENVIRONMENT						
1. <u>TOPOGRAPHY</u>			X	X		Site is in a dryland grain field. The steepest slopes are about 10:1. Previous mining disturbance occurred in the eastern center of the site on an unfarmed knob.
2. <u>GEOLOGY</u> ; Stability			X	X		Unglaciaded, with quaternary alluvial gravels. There are underlying shales, probably the Tongue River shales of the Fort Union formation, which get within a few feet of the surface. Maximum mining depth would be 15 feet in the area of the existing mine disturbances near the center of the site. The site would be reclaimed to a stable landscape.
3. <u>SOILS</u> ; Quality, Distribution			X		X	Soils are of the Harvey Series of silty loams and the Keiser Series of silty clay loams. The dark topsoil layers in both soils are about 6 inches of loam with overburden in some places up to 6 feet deep. These are good dryland farming soils since they hold moisture well in the upper horizons and the underlying gravels drain well. They are not alkali. These soils are worked annually. Good soil salvage would result in no adverse impacts to this soil. Average annual precipitation is about 13 inches.
4. <u>WATER</u> ; Quality; Quantity; Distribution			X		X	One well, previously used for stock water, lies in a small swale at the northern edge of the site near Whitman Coulee. The static water level is about 15 feet. This is probably the collection point for groundwater in the site. This is the area of the lowest mining and the lowest elevation of groundwater. Mining in this area would not disturb the water table here. Stormwater would remain on site. There would be no impact to water quality or quantity from mining.

				POTENTIAL IMPACTS		
	A	B	C	LONG TERM	SHORT TERM	EXPLANATION
5. <u>AIR</u> ; Quality			X		X	The crusher and asphalt plants would have air quality permits. Fugitive dust would be controlled with the use of water trucks. Air quality reduction would be minimal.
6. <u>UNIQUE, ENDANGERED, FRAGILE, or LIMITED</u> environmental resources						The last observations for the Merriam's or Preble's shrews, or the Western Hognose Snake were in 1884, 1884 and 1921 respectively. Because this site is dryland farmed or is disturbed and mostly unvegetated, it does not provide the sagebrush community habitat for these animals.
BIOLOGICAL ENVIRONMENT						
1. <u>TERRESTRIAL, AVIAN, and AQUATIC</u> ; species and habitats			X		X	The nearby Whitman Coulee provides habitat for deer and small mammals. It connects with the Big Horn River about 3 miles to the east. The deer sometimes move into the wheat field to graze. Mining would have minimal impact because of the small area that would be disturbed and the relatively short timeframe for disturbance.
2. <u>VEGETATION</u> ; quantity, quality, species			X		X	Dryland small grains with about 2 acres of disturbed rangeland. Mining would have minimal impact because of the short duration of the project and reclamation to dryland small grains.
3. <u>AGRICULTURE</u> ; grazing, crops Production			X		X	Mining would result in a short term reduction of grain production. About 18 acres would be taken out of production for a maximum of 5 years. The average dryland production is 20 bushels per acre, or about 360 bushels per year or a total of 1800 bushels. Today's cost of wheat is around \$3.80 per bushel. Total lost farming revenue would be about \$6840 gross. With the average royalty on gravel of 50 cents per yard, total revenue generated to the landowner on 200,000 yards of gravel would be \$100,000 net. Reclamation would restore the land to dryland farming in 5 years.
HUMAN ENVIRONMENT						
1. <u>SOCIAL</u> ; structures and mores			X		X	
2. <u>CULTURAL</u> uniqueness/diversity			X		X	
3. <u>POPULATION</u> ; quantity/diversity			X		X	The nearest home is more than a quarter mile to the east on the lower terrace. One or two homes could be impacted by road dust from the county roads.

	POTENTIAL IMPACTS					
	A	B	C	LONG TERM	SHORT TERM	EXPLANATION
4. <u>HOUSING</u> ; quantity/distribution			X		X	
5. <u>HUMAN HEALTH & SAFETY</u>			X		X	With control of air emissions, mining would not affect any residences.
6. <u>COMMUNITY & PERSONAL INCOME</u>			X		X	
7. <u>EMPLOYMENT</u> ; quantity, distribution			X		X	The local construction projects would result in temporary employment in the area.
8. <u>TAX BASE</u> ; state/local tax			X		X	
9. <u>GOVERNMENT SERVICES</u> ;			X		X	
10. <u>INDUSTRIAL, COMMERCIAL</u> and <u>AGRICULTURAL</u> activities			X		X	
11. <u>HISTORICAL</u> and <u>ARCHAEOLOGICAL</u>			X		X	A walkover of the area did not reveal any artifacts or signs of occupation. If during operations resources were to be discovered, activities would be halted and temporarily moved to another area until SHPO was contacted and the importance of the site was determined.
12. <u>AESTHETICS</u>			X		X	
13. <u>ENVIRONMENTAL PLANS & GOALS</u> ; local and regional			X		X	
14. <u>DEMANDS</u> on <u>ENVIRONMENTAL RESOURCES</u> of land, water, air and energy			X		X	
15. <u>TRANSPORTATION</u> ; networks and traffic flows			X		X	This material is for city, county and other local jobs.

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.

PUBLIC INVOLVEMENT: Landowner, Natural Heritage Program, State Historic Preservation Office

OTHER GROUPS OR AGENCIES CONTACTED OR WHICH MAY HAVE OVERLAPPING JURISDICTION:

Air Resources Management Bureau, Mining Safety and Health, MT Dept. of Transportation, Big Horn County Commissioners, Big Horn County Weed Board

ALTERNATIVES CONSIDERED: Denial

RECOMMENDATIONS CONCERNING PREPARATION OF AN EIS: Unnecessary, No Significant Impacts

APPROVED BY: _____ DATE: _____

Prepared by Jo Stephen, August 2006