

## ENVIRONMENTAL ASSESSMENT

SITE NAME: WinklerEdwards APPLICANT: Kenny Winkler  
 LOCATION: SW of Sec29 T1S R24E COUNTY: Yellowstone

**PROPOSED ACTION: Kenny Winkler proposes to mine 20,000 yards of pit run gravel from 1 acre and 4-acre parts of a 5-acre permit area. Both areas were previously mined with probably less than a total of 10,000 yards removed. Access is from Hillcrest Road. The product would be used for local residential construction jobs.**

**Reclamation would be completed to rangeland by 2028. The bond is for \$5,490.**

A: Significant Unavoidable Impacts B: Insignificant as a result of conditioned mitigation C: Insignificant as proposed  
 L: Long term Impacts S: Short Term Impacts

		POTENTIAL IMPACTS					
		A	B	C	L	S	EXPLANATION
<b>PHYSICAL ENVIRONMENT</b>							
1. <u>TOPOGRAPHY</u>				X	X		The site is on top of a weathered sedimentary ridge with a draw to the west. Two small pits are about 10 feet deep and day light to the west. The eastern pit will be expanded to a total of 4 acres while the western pit will remain about 1 acre and just get organized, sloped, and reclaimed.
2. <u>GEOLOGY</u> ; Stability				X	X		This site is in the Fort Union Formation. The gravel was deposited in recent times.
3. <u>SOILS</u> ; Quality, Distribution				X		X	The soil is of the Shorey Series. They are calcareous sandy loams developed in gravels from sedimentary and metamorphic rocks. The ridge tops have little native soil with a maximum of about 6 inches. During previous mining almost no soils were salvaged. The operator would salvage all available soils from the undisturbed areas and suitable materials for reclamation.  Average annual precipitation is between 10 and 14 inches. Because of the combination of little soil and low average precipitation, reclamation to rangeland could be difficult, but it could be accomplished.
4. <u>WATER</u> ; Quality; Quantity; Distribution				X		X	During severe storms or snowmelt, runoff could flow in the bottom of the draw.  Mining would only be about 20 feet down from the top of the ridge. There are no wells or signs of springs in the area. No groundwater would be impacted.  Runoff from the disturbance would be kept on site by a small berm along the western edge. The site has a very high infiltration rate so precipitation would be impounded briefly. No runoff would impact any surface water.  There would be no impact to water quality or quantity from mining.

						<b>POTENTIAL IMPACTS</b>					
						A	B	C	L	S	EXPLANATION
5. <u>AIR</u> ; Quality								X		X	Fugitive dust would be controlled with the use of water trucks. Air quality impact would be minimal.
6. <u>UNIQUE, ENDANGERED, FRAGILE, or LIMITED</u> environmental resources											The long-billed curlew was identified by the Montana Natural Heritage Program as a species of concern. However, it is considered a shorebird that nests in deep grasses. There is no habitat for this species within several miles of the proposed mine site.
<b>BIOLOGICAL ENVIRONMENT</b>											
1. <u>VEGETATION</u> ; quantity, quality, species								X		X	<p>The top of the ridge has very little vegetation. It is on eroded slopes consisting of sandstones and mudstones with minimal soils. Sagebrush and rubber rabbit brush are the most conspicuous vegetation with a few scattered grasses and forbs. Only about 25 percent of the undisturbed ground is covered. Reclamation would be to a dryland grass mix.</p> <p>The reclaimed vegetative cover of the ridge top would be very sparse because of small amount of soils available. Reclamation would increase productivity a little because the excess salvaged material and excess fines would be distributed over parts of the previous disturbance area. The existing dominant vegetation of shrubs would probably take a number of years to invade and become established.</p> <p>Mining would have minimal impact because of previous disturbance and the small area to be disturbed.</p>
2. <u>TERRESTRIAL, AVIAN, and AQUATIC</u> ; species and habitats								X		X	There is scattered sign that deer and antelope have used the site. Mining would have minimal impact on wildlife mainly because the site has little forage, shelter, or other wildlife value, and there are miles of the other habitat all around.
3. <u>AGRICULTURE</u> ; grazing, crops Production								X		X	Mining would result in a minimal short term reduction of vegetation for grazing.
<b>HUMAN ENVIRONMENT</b>											
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 landowner's home is a quarter mile to the west on the other side of the draw.
4. <u>HOUSING</u> ; quantity/distribution								X		X	
5. <u>HUMAN HEALTH &amp; SAFETY</u>								X		X	
6. <u>COMMUNITY &amp; PERSONAL INCOME</u>								X		X	
7. <u>EMPLOYMENT</u> ; quantity, distribution								X		X	This material would be used in the construction industry.
8. <u>TAX BASE</u> ; state/local tax revenue								X		X	

	POTENTIAL IMPACTS					EXPLANATION
	A	B	C	L	S	
9. <u>GOVERNMENT SERVICES</u> ; demand			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. No signs were evident at depth in the previously disturbed area. If during operations resources were to be discovered, activities would be halted, or possibly temporarily moved to another area until SHPO was contacted and the importance of the site was determined.
12. <u>AESTHETICS</u>			X		X	There are no residences or businesses nearby that would be disturbed by this project.
13. <u>ENVIRONMENTAL PLANS</u> and <u>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	

**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, Yellowstone County Commissioners, Yellowstone County Weed Board, Yellowstone County Commissioners

**ALTERNATIVES CONSIDERED:** Denial

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

APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

Prepared by Jo Stephen, 7/07