

ENVIRONMENTAL ASSESSMENT

SITE NAME: Carl Johnson APPLICANT: Riverside Contracting
 LOCATION: SW Sec 32 T2N R27E COUNTY: Yellowstone

SYNOPSIS OF PROPOSED ACTION: Riverside Contracting proposes to mine and crush gravel from a 49.2-acre site near Huntley, MT. An asphalt plant is also being requested. Mining would be in several phases. Phase I would include 21.6 acres of disturbance. As mining in Phase I is completed, a map and bond would be submitted for subsequent phases. Reclamation of areas where mining is completed would be conducted concurrently. Maximum depth of mining would be about 12 feet. The crusher and most product stockpiles would be placed on the floor of the pit. Normal hours of operation would be from 7 a.m. to 7 p.m. Monday through Friday. Fueling, maintenance, or a major construction job could be conducted outside those hours. Access would be by an existing road about a half mile long from off Drury Lane. Reclamation of the entire 49.2-acre site would be completed to irrigated pasture by November 2020. The reclamation bond for Phase I is for \$72,914.

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

						POTENTIAL IMPACTS
						EXPLANATION
PHYSICAL ENVIRONMENT						
	A	B	C	L	S	
1. <u>TOPOGRAPHY</u>			X	X		The main permit area is a flat, flood-irrigated field near the edge of the lowest Yellowstone River terrace, about 150 feet above the river which is about a mile to the south. Excavation of 200,000 cubic yards would permanently alter the topography.
2. <u>GEOLOGY</u> ; Stability			X	X		<p>The terraces are formed by Pleistocene or Recent Yellowstone River deposits from 20 to 50 feet deep overlying Cretaceous shales and sandstones.</p> <p>There is a series of six gravel pits along the edge of the terrace that starts with the Ostermiller pit over 2 miles away to the southwest. Other than the landowner's unpermitted small diggings, the closest pit is the Michaels pit about a half mile to the southwest.</p> <p>One subdivision has been developing in the last 5 years near the Ostermiller, Sindelar, Wilson and Bozeman Sand and Gravel pits. Some other homes are along Dover Road, but no homes are within 1,000' from the pit.</p>
3. <u>SOILS</u> ; Quality, Distribution			X		X	<p>The soils in this area are the Bew series. They are fine textured silty clay loams that overlie alluvial gravels. This particular site has only about 6 inches of soil overlying 10 to 15 feet of gravel. In some spots the overburden extends to 30inches.</p> <p>Irrigated sugar beets and corn are the main crops. Average rainfall is between 12 and 14 inches.</p>
4. <u>WATER</u> ; Quality; Quantity; Distribution			X		X	<p>There are no wells on the bench close to this site. Wells on this terrace are no more than 30 feet deep where they hit the underlying shales and sandstones. The water table ranges seasonally from 15 to 20 feet below the fields. They would not go into the water table.</p> <p>Irrigation ditches are elevated 8 to 10 feet above the fields.</p>

					POTENTIAL IMPACTS					
					A	B	C	L	S	EXPLANATION
										<p>Stormwater would drain toward a small coulee on the west. Straw wattles and sedimentation fencing would control erosion from the pit. No rills or other signs of erosion are visible along the access road.</p> <p>Farming and irrigation on the undisturbed portion of the mine site and on surrounding lands would continue.</p> <p>Irrigation water would not be used in the active mining area. This would decrease, to a small degree, infiltration and the amount of water available to vegetation on the bench slope, but would not adversely affect plant growth. Mining in this area would not disturb the water table.</p> <p>A lined and bermed containment area would be placed around and under the fuel tank according to the approved fuel storage guidelines.</p> <p>No asphalt would be buried at this site.</p> <p>Impact to water quality or quantity from mining would be insignificant.</p>
5. <u>AIR</u> ; Quality							X		X	<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. DEQ has an Environmental Protection Agency (EPA) approved air quality program. Permits and permit conditions are established to promote compliance with all applicable air quality rules and standards. These rules and standards are designed to protect human health and the environment.</p> <p>The crusher and asphalt plant have an air quality permit that meets the standards required under the Montana Clean Air Act.</p> <p>Fugitive dust is that which blows off the pit floor, stockpiles, gravel roads, farm fields, etc. It is regulated at mine sites by gauging opacity - measuring visibility through the dust plume.</p> <p>A water truck would be available for dust control on-site and on the access road. It is anticipated that during the hottest summer days an average of 4,000 gal/day of water would be used to control fugitive dust.</p> <p>Magnesium chloride treatment may also be used in heavy traffic areas or on the access and county road. Magnesium chloride is an approved, very widely used dust control agent. There is a wide range of other approved products also available.</p> <p>Air quality impacts, if operations are managed correctly, would be minimal and within air quality standards.</p>
6. <u>UNIQUE, ENDANGERED, FRAGILE, or LIMITED</u> environmental resources							X		X	<p>No species of special concern live on or near this site. This site is farmed and disturbed; it does not provide native habitats.</p> <p>An inquiry to the Montana Natural Heritage Program disclosed that 2 species of concern might live in the general area. The bald eagle uses the Yellowstone Corridor and may have a nest along the river over a mile from the site. The spiny softshell turtle has been found in the Yellowstone River. This site is approximately one mile</p>

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						A	B	C	L	S	EXPLANATION
											from the river.
BIOLOGICAL ENVIRONMENT											
1. <u>TERRESTRIAL, AVIAN</u> , and <u>AQUATIC</u> ; species and habitats								X		X	Deer graze these fields and the bluff off the edge of the terrace. Pheasants, small mammals, waterfowl, song birds and other animals utilize these and surrounding fields. 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	The main permit area is irrigated fields with corn and sugar beets being major crops. Mining would have minimal impact because of the short duration of the project. State law requires that a mine site be reclaimed to some beneficial use, in this case restoring the land to irrigated fields. If a portion of the site is no longer needed for the mining operation, it would be reclaimed before the final reclamation date.
3. <u>AGRICULTURE</u> ; grazing, crop production								X		X	Mining would result in a short term reduction of agricultural production. About 21.6 acres would be taken out of production during the first phase. Production tonnage and value would vary based upon the crop. Concurrent reclamation would help alleviate some of the short term production losses.
HUMAN ENVIRONMENT											
1. <u>SOCIAL</u> ; structures and mores											No impacts anticipated.
2. <u>CULTURAL</u> uniqueness/diversity								X	X		This gravel mine would help provide construction and road building materials for growth east of Billings.
3. <u>POPULATION</u> ; quantity/diversity											No impacts anticipated.
4. <u>HOUSING</u> ; quantity/distribution								X		X	Much development is occurring east of Billings. The benches and foothills farther from town are being broken into small ranchettes and acreage residential sites. This site is over 1,000' from any resident.
5. <u>HUMAN HEALTH & SAFETY</u>								X		X	On-the-job safety is regulated by the Mine Safety and Health (MSHA) Administration. Both federal and state inspectors could visit the site at any time without previous notice. Traffic safety is regulated under both federal and state standards by the Montana Department of Transportation (MDT) with enforcement by the Highway Patrol and local police. See Section 15- Traffic below for a discussion of the possible increase in truck traffic.
6. <u>COMMUNITY & PERSONAL INCOME</u>											No impacts anticipated.
7. <u>EMPLOYMENT</u> ; quantity, distribution											No impacts anticipated.
8. <u>TAX BASE</u> ; state/local tax, <u>LAND VALUES</u>								X		X	Local, state, and federal tax revenue may increase depending on how the land is taxed: conversion to industrial use, the licenses and fees the proponent is required to pay, and whether the proponent adds employees or equipment, increases overall production, or moves employees and equipment from one jurisdiction to another.

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											There are no homes within a quarter mile of the mine site.
9. <u>GOVERNMENT SERVICES</u> ;											No impacts anticipated.
10. <u>INDUSTRIAL, COMMERCIAL</u> and <u>AGRICULTURAL</u> activities											No impacts anticipated.
11. <u>HISTORICAL</u> and <u>ARCHAEOLOGICAL</u>											A June 8, 2006 letter from the State Historic Preservation Office (SHPO) states that SHPO records show no previous recorded cultural resource sites in or around the proposed opencut operation area. A site inspection by a DEQ environmental specialist did not reveal any artifacts, signs of occupation, or other cultural resources. Surface disturbance by farming has decreased the likelihood that such resources could be found on site. 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	<p>The mine would be operated in a depression. Irrigation ditches are raised 8 to 10 feet above the fields. Mining would proceed downward another 12 feet. The floor of the pit would be 20 feet below the top of the irrigation berms. This would provide very good mitigation against noise.</p> <p>Topsoil and overburden would be stockpiled along the south to block noise in that direction. The crusher and asphalt plants would be more than a quarter mile from the nearest homes. The closest home belongs to the landowner.</p>
13. <u>ENVIRONMENTAL PLANS</u> and <u>GOALS</u> ; local and regional											No impacts anticipated.
14. <u>DEMANDS</u> on <u>ENVIRONMENTAL RESOURCES</u> of land, water, air and energy											No impacts anticipated.
15. <u>TRANSPORTATION</u> ; networks and traffic flows								X		X	<p>Traffic: To calculate the mine's average daily trips (ADT) or number of trucks per day, one divides the total amount of gravel to be removed (200,000 cubic yards) by the life of mine (14 years), by the number of work days per year (265) by the size of the trucks (20 yards). Then multiply by two for round trips. Rounding up, this calculation results in fewer than 6 ADT by trucks. If the amount of gravel mined were doubled to allow for Phase II, there would be 11 ADT by trucks. Employee trips would add fewer than 20 ADT more.</p> <p>The construction industry must work when the weather is good and often shuts down for 1 to 2 months in the winter. So summertime numbers, especially if there were a major road job, would be substantially higher.</p>

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, Yellowstone County Commissioners, Yellowstone County Weed Board.

ALTERNATIVES CONSIDERED: Denial

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

APPROVED BY: _____ DATE: _____

Prepared by Jo Stephen, October 2006