

## CHECKLIST ENVIRONMENTAL ASSESSMENT

<b>Project Name:</b>	Middle Fork Gravel Pit
<b>Proposed Implementation Date:</b>	2016
<b>Proponent:</b>	Granite County Hans Bohrsen, Acting Granite County Surveyor 220 N. Sansome Phillipsburg, MT 59858 (406) 859-3482 <a href="mailto:hbohrnsen@gmail.com">hbohrnsen@gmail.com</a>
<b>Location:</b>	Section 16 – T5N-R15W (Common School Trust)
<b>County:</b>	Granite

### I. TYPE AND PURPOSE OF ACTION

The proponent has applied to the Department of Natural Resources and Conservation (DNRC) for a gravel permit from the section of State Trust Land noted in the title. The project is located in T5N-R15W-Sec 16. This gravel will be used intermittently over 20 years for road construction. The total pit size is approximately 9.197 acres and the total volume of material removed should be 63,250 cubic yards.

### II. PROJECT DEVELOPMENT

#### 1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

*Provide a brief chronology of the scoping and ongoing involvement for this project.*

Granite County Road Department  
Hans Bohrsen, Acting Granite County Surveyor  
State of Montana Department of Environmental Quality (DEQ): Opencut Mining Permit  
State of Montana DNRC: Surface and Mineral Owner. Minerals Management Bureau staff; Petroleum Engineer, Trevor Taylor, and Mineral Resource Specialist, Heidi Crum, completed a field evaluation of the site on July 8, 2015. Brian Robbins, Anaconda Unit Manager, met the proponent on site on October 16, 2015.  
Granite County Weed District: Weed Management Plan  
Lessee and adjacent landowners

#### 2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

State of Montana DEQ – Opencut Mining Plan of Operation and Application

#### 3. ALTERNATIVES CONSIDERED:

No Action Alternative: The proposed gravel permit would not be granted. Current non-motorized recreational use and grazing leasing would continue.

Action Alternative: The gravel permit would be granted to Granite County to take and remove gravel from trust land.

### III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" if no impacts are identified or the resource is not present.*

#### 4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

*Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.*

This section consists mostly of undivided tertiary sedimentary rock on the uplands. The lower elevations, where the proposed gravel pit site is located, are alluvium (Holocene age) from modern channels and floodplains with various sizes of boulders, gravel, sand and silt. South of the proposed gravel pit site (approximately ¼ mile) lies a concealed fault with unknown series of movement that runs through the north half of this section. No unique or unstable geology occurs at the proposed gravel pit site.

Soil types at the proposed gravel pit site include Krutar loam and Lone Rock-Sarbo complex, both at 2-4 percent slopes. Krutar loam contains approximately 8 inches of loam topsoil with gravelly loams at 8-13 inches, very gravelly loams at 13-21 inches and very cobbly loamy sands at 21-60 inches. Lone Rock-Sarbo complex contains approximately 7 inches of cobbly loam topsoil, very cobbly sandy loam at 7-11 inches and very cobbly sand at 11-60 inches. These soils have a slight erosion hazard potential, high restoration potential, and good trafficability ratings.

The proposed gravel pit site and access road are located in NW¼NW¼ of Section 16. The access road is a maintained county road, Moose Lake Road, and the proposed pit is just off of this road with an existing approach. No other access roads will need to be constructed for this pit.

This site was previously mined by an unknown entity and the topsoil was not saved from the 4 acres of the old mine site to use for reclamation. This lack of topsoil is no fault of the proponent. The proposed pit will expand to the west of the old mine site, increasing the pit size by approximately 5 acres to make the entire site 9.197 acres. An existing depression in the old mine site will not be further disturbed and the new expansion will be contain slopes to allow this depression to serve as a collection for runoff. Therefore, runoff is expected to be internal to the pit site.

Any topsoil and subsoil shall be stripped and stockpiled for use in reclamation. Reclamation will require the slopes of the area be put back to a natural contour with erosion control techniques. Reclamation would improve conditions on the 4 acres that were previously mined. Short and intermediate effects would be stockpiling of topsoil that should be reseeded to reduce potential erosion and noxious weeds. Surface soil depths range from 9 -14 inches on the undeveloped 5 acre portion of the proposed pit expansion on the west side of the site. Before the expansion, the surface soils from the 5 acres expansion would be stripped and then during reclamation spread over the entire site. The final reclamation depth of surface soils would be 6+ inches over the entire 9.197 acre site. Reclamation studies have shown that 90 percent of soils productive capacity to support grassland sites is maintained when 6 inches or more of surface soils are retained on sites such as coal reclamation.

**5. WATER QUALITY, QUANTITY AND DISTRIBUTION:**

*Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.*

The proposed gravel pit site is located 1/3 mile to the southwest of the East Fork of Rock Creek and 1/3 mile east of Middle Fork of Rock Creek, which is located in Section 17. A man-made irrigation canal runs through this tract on the east and north side of the gravel pit site. There will be a 50 foot setback from the irrigation canal with a perimeter fence. There are no streams in neither the existing gravel pit or the proposed expansion area that could deliver sediment to streams or surface waters. Within the existing 4 acre gravel pit, there is a small wetland area in the existing pit that is less than ½ acre and supports sedges and willow species.

A number of domestic wells are within a mile of the proposed gravel pit. Many are 30-60 feet deep, a few 150-180 feet, and a couple that are deeper than 180 feet. Static water levels average 35 feet deep. The floor of the existing pit is approximately 14 feet deep below the surrounding lands and is not planned for additional excavation. All runoff is internal to the pit and infiltrates through the gravels. Surface and groundwater will be given appropriate protection from deterioration of water quality and quantity that could be caused by mining and reclamation activities. No cement mixing or asphalt mixing is planned for this site. All fuel, oil and waste will be kept out of the pit area. Any spills will be excavated and removed immediately. Based on the project design and protection measures, it is unlikely there would be any measurable effects to surface or groundwater by reclamation of the old pit and the proposed expansion to the west, and low risk of direct, indirect or cumulative impacts.

**6. AIR QUALITY:**

*What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.*

An increase in airborne pollutants and particulates would occur from machinery during proposed gravel activities. Minor impacts to air quality are expected. However, mining activities will not be constant during the 20 year expected life of the proposed gravel pit. The proponent plans to use this pit as needed for road construction. Mining equipment will not be on-site continuously. A crusher, grizzly and screen, along with excavating and hauling equipment will be moved on and off-site as needed.

**7. VEGETATION COVER, QUANTITY AND QUALITY:**

*What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.*

The proposed gravel pit site is composed of Montane Grasslands, Sagebrush Steppe and has agricultural lands directly to the east. The proposed gravel pit is located directly off of an existing county road, Moose Lake Road. Ground disturbance will take place on approximately 9.197 acres. During development of the pit expansion, the surface soils would be stripped and a portion spread over the old pit site of 4 acres at a depth of 6+ inches and reseeded to reclaim the old pit site along with the expansion. All additional topsoil will be removed from the area of pit expansion and set aside to be used for future reclamation. When the permit expires, the proponent will replace all topsoil on the 9.197 acre site which includes the previously mined site and the expansion. Reclamation of the site will return the land to a natural slope and reseed the area with a native grass seed mixture which shall be approved by the DNRC Anaconda Unit Office prior to seed application. Proponent will monitor

site, throughout the entire permit, and control weeds for a period of 3 years after the gravel pit is reseeded. No significant impacts to vegetation are expected to occur from the proposed activity.

**8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:**

*Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.*

A variety of big game, small mammals, raptors, upland game birds and songbirds use this area and activities from the proposed project could temporarily disrupt wildlife movement and patterns. However, proposed activities are fairly close to existing, open roads, and as such the area likely doesn't receive extensive use by many of the wildlife species more sensitive to human disturbance. A minor amount of grassland habitat would be removed with the proposed activities, but considerable amounts of these habitats would persist on the DNRC-managed parcel into the future. Big game winter range attributes would not be appreciably altered; no changes in thermal cover and minor changes in available forage for wintering big game would be anticipated.

**9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:**

*Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.*

A search was conducted using the Montana Natural Heritage Program database to identify point observations of species of concern in the section of the proposed activity. The project area is approximately 1.5 miles from a documented golden eagle nest. In 2006, one nestling was located in the nest and in 2009 this nest was documented as empty. Continued use has been possible, but the status of use and success is unknown.

This section is not located within the Sage Grouse general habitat or core habitat area boundaries.

**10. HISTORICAL AND ARCHAEOLOGICAL SITES:**

*Identify and determine effects to historical, archaeological or paleontological resources.*

Moose Lake Road is a registered historic site, Smithsonian #24GN0858. While gravel equipment will travel on this county road, the proposed gravel pit will be separated from this road by the borrow ditch and the fence. The gravel pit will be set back from the fence line next to Moose Lake Road by 25 feet.

DNRC Archaeologist, Patrick Rennie was also consulted regarding the nature of the proposed action and the potential to impact historical and archaeological resources; there are no cultural resource concerns with the proposed project.

A field evaluation was also conducted by DNRC Engineer, Trevor Taylor, and Mineral Resource Specialist, Heidi Crum, on July 8, 2015. No identifiable historical or archaeological items were found to be at, or near the location of the proposed gravel pit.

**11. AESTHETICS:**

*Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.*

The pit site is 1/3 mile south of Skalkaho Road, and directly off of Moose Lake Road, which has a fair amount of traffic in summer months as it is an access road to Forest Service lands. Skalkaho Road is a direct route between Phillipsburg and Hamilton, MT.

Aesthetics may be impacted as the pit would be visible from the traffic that utilizes both of the roads mentioned above.

Gravel pit excavation would only occur during 7:00a.m.-7:00p.m. Monday through Friday and some noise is expected during the operation.

**12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:**

*Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.*

The proposed project would have an impact on the land (approximately 9.197 acres), would use an insignificant amount of water for gravel excavation as there would be no dewatering on-site, and would affect the air quality due to airborne dust particles resulting from vehicles traveling to and from the gravel pit. No cumulative effects to environmental resources have been identified as a result of mining for gravel.

**13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:**

*List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.*

No other environmental documents were found that pertain to Sections 36 in T2N-R1W.

**IV. IMPACTS ON THE HUMAN POPULATION**

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" if no impacts are identified or the resource is not present.*

**14. HUMAN HEALTH AND SAFETY:**

*Identify any health and safety risks posed by the project.*

No human and health safety risks were identified as a result of the proposed project other than the typical occupational hazards that coincide with drilling operations.

**15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:**

*Identify how the project would add to or alter these activities.*

The proposed project is not expected to alter current or future industrial, commercial, and agricultural activities and production.

**16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:**

*Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.*

The proposed project would not create, move, or eliminate jobs.

**17. LOCAL AND STATE TAX BASE AND TAX REVENUES:**

*Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.*

None.

**18. DEMAND FOR GOVERNMENT SERVICES:**

*Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services.*

None.

**19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:**

*List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.*

No known zoning or management plans exist for this area.

**20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:**

*Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.*

None.

**21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:**

*Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.*

None.

**22. SOCIAL STRUCTURES AND MORES:**

*Identify potential disruption of native or traditional lifestyles or communities.*

None.

**23. CULTURAL UNIQUENESS AND DIVERSITY:**

*How would the action affect any unique quality of the area?*

None.

**24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:**

*Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.*

The proponent has provided \$25 for a gravel permit and will pay \$1.25 per cubic yard in royalties.

The existing grazing lease on the State Section listed above provides approximately \$3,556 in annual revenue from Section 16 that goes to Common Schools.

<b>EA Checklist Prepared By:</b>	<b>Name:</b> Heidi Crum	<b>Date:</b>
	<b>Title:</b> Mineral Resource Specialist	

**V. FINDING**

**25. ALTERNATIVE SELECTED:**

After reviewing the Environmental Assessment, I have selected the Action Alternative, to issue a Gravel Permit. I believe this alternative can be implemented in a manner that is consistent with the long-term sustainable natural resource management of the area and generate revenue for the common school trust.

**26. SIGNIFICANCE OF POTENTIAL IMPACTS:**

I conclude all identified potential impacts will be mitigated by utilizing the stipulations listed below and no significant impacts will occur as a result of implementing the selected alternative.

**27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:**

EIS       More Detailed EA       No Further Analysis

<b>EA Checklist Approved By:</b>	<b>Name:</b> Monte Mason	<b>Date:</b>
	<b>Title:</b> MMB Bureau Chief	
<b>Signature:</b> /s/ Monte Mason		<b>Date:</b> 12/24/15