CHECKLIST ENVIRONMENTAL ASSESSMENT

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<th>Project Name:</th>
<th>Ruben Gravel Pit</th>
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<td>Proposed Implementation Date:</td>
<td>Spring 2022</td>
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<tr>
<td>Proponent:</td>
<td>Mineral County</td>
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<td>PO Box 550</td>
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<td>Superior, MT 59872</td>
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<tr>
<td>Location:</td>
<td>Southwest of Section 16 T14N R24W</td>
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<td>County:</td>
<td>Mineral County</td>
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I. TYPE AND PURPOSE OF ACTION

Mineral County has applied for an aggregate take and remove permit from the Minerals Management Bureau of the Montana DNRC. This document will analyze the impacts the project will create on the native environment.

If the permit is executed, Mineral County would be granted permission to mine and remove gravel from state lands. The proponent would be allowed to excavate gravel from the ground and sub-surface using heavy machinery and other equipment as deemed necessary.

It shall be noted that this project is proposed to occur in a former gravel mine site, and on surface that has been disturbed prior.

All topsoil would be retained for future use in reclamation.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:
   Provide a brief chronology of the scoping and ongoing involvement for this project.

Mineral County has applied for an aggregate take and remove permit from the Montana DNRC and Opencut Mining permit from the Montana Department of Environmental Quality.

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

   Montana DEQ – Opencut Mining Permit
   Montana DNRC – Aggregate take and remove permit
3. ALTERNATIVES CONSIDERED:

No Action Alternative: The proponent would not be issued an aggregate take and remove permit from the Montana DNRC and would not obtain permission to mine.

Action Alternative: Mineral County would be issued a 2-year Montana DNRC take and remove permit to remove gravel from section 16 of Township 14 North Range 24 West. The permit can be renewed or cancelled at the discretion of the DNRC.

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.

No unique or unusual geologic features are present within the project area. The project area is an existing pit that was not reclaimed properly, some revegetation has occurred voluntarily. There is little to no soil within the project area. If the action alternative is selected, there is an opportunity that the pit is reclaimed properly and can be returned to productive ground upon completion.

The project area consists of one geologic member, alluvium and colluvium. The member is described as dominantly sand, silt, clay, and subordinate gravel, deposited on relatively gentle slopes primarily by sheetwash and gravity processes. Variable thickness, generally less than 10 m (33 ft).

Soils in the NW quarter of section 36 consist of Wellie-Wakepish Families and Lostbasin Family.

Soil characteristics at this site include severe erosion hazard, a moderate resistance to soil compaction, high potential for soil restoration and is poorly suited for roads on the natural surface.

Topsoil and subsoil that is disturbed from the use of trucks or off-road vehicles will be reclaimed to their native state upon completion of the project.

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.

Section 16 contains a portion Rueben Gulch, which is an ephemeral drainage. All liquids including fuel tanks would be stored in a secondary-impermeable container.

The sites are not located near surface water features. Disturbance boundaries would be 200 feet or greater from streams. The proposed excavation and rock processing location are on hill slopes and knobs where groundwater is not shallow and would likely not be encountered by the proposed excavations. Existing roads meet forestry best management practices (BMPs) which is the dominant land use for the area.
A search on the Montana Ground Water Information Center website found there are no wells contained within a one-mile radius of the project location. The project is expected to have no affect on the quality or abundance of groundwater in the area.

Based on the size of the proposed site, buffering vegetation and implementation of drainage BMP’s there is low risk of impacts to water quality, quantity and distribution anticipated from implementation of the Action Alternative.

**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 may occur during mining operations from vehicle and heavy equipment exhaust used during operations. An increase in dust particulates may occur due to mining operations and truck traffic. Minimal short-term impacts to air quality are expected. No long-term impacts to air quality are expected.

**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.

This area was previously used as a gravel pit and has since revegetated with grass and knapweed. Trees surrounding the existing gravel pit site are dominated by ponderosa pine with an occasional Douglas-fir being present. The DNRC Stand Level Inventory indicates tree diameters range from 9-13” DBH” and stand age is 0-99.

There is no Old Growth in the treatment area.

Knapweed, Houndstongue, Mullein and Sulphur Cinquefoil can be found in the area, especially along areas of past disturbance.

No rare plants were identified within the Montana Natural Heritage Program dataset.

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**Comments:**

1. Existing weeds are present along areas of past disturbance. Increased activity in the project area, as well as a more open canopy, could lead to an increased risk of noxious weeds.

2. Proposed excavation would take place within the existing gravel pit footprint. If trees were removed, they would only be removed along the edge of the pit and would have minimal impacts to the timber stand as a whole.

**Vegetation Mitigations:**

- Weeds would be sprayed following gravel pit related activities
- Equipment would be washed prior to entering the site.
- Grass seed would be applied in any excavated areas following operations.
- Attempts would be made to limit removal of merchantable trees from the area adjacent to the existing gravel pit footprint.

**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.

The project area provides habitat for a variety of wildlife species. Deer, elk, and moose likely use the project area much of the non-winter periods; winter range for deer, elk, and moose exists in the project area. Elk security habitats exist in the vicinity. If the action alternative were selected, some short-duration disturbance to terrestrial wildlife could occur. Minor amounts of upland Douglas-fir and ponderosa pine habitats would be removed. Minor amounts of big game summer range and winter range would be removed, but continued use would occur. Minor amounts of cover habitat would be altered, but no appreciable changes to elk security habitats would be anticipated. Collectively, negligible effects to terrestrial wildlife 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.
The project area is outside of any grizzly bear recovery zone or “occupied habitat” area as mapped by grizzly bear researchers and managers to address increased sightings and encounters of grizzly bears in habitats outside of recovery zones (Wittinger 2002). No Canada lynx habitats exist in the project area. Minor amounts of flammulated owl habitats exist in the project area. Hoary bats have been documented in the vicinity and since they can roost in trees, some use of the project area could be possible. Fringed myotis have not been documented in the vicinity but could be present, and since they forage near ground or vegetation, some foraging habitats could exist in the project area, but no known caves, mines, crevices, or other structures used for roosting are known to occur. Habitats for other threatened, endangered, or sensitive species do not exist in the project area.

Some short-duration disturbance to terrestrial wildlife could occur. Minor amounts of upland Douglas and ponderosa pine habitats would be removed. Slight reductions in available habitats for flammulated owls would not appreciably alter use of the vicinity and some foraging habitats would likely be available for flammulated owls. Some negligible reductions in potential hoary bat roosting habitats could occur, but considerable potential roosting habitats exist in the project area. Minor changes in vegetation structural attributes could change overall prey availability for fringed myotis, but considerable foraging habitats would persist in the project and cumulative effects analysis areas. Collectively, negligible effects to flammulated owls, fringed myotis, and hoary bats would be anticipated.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:
Identify and determine effects to historical, archaeological or paleontological resources.

A Class I (literature review) level review was conducted by the DNRC staff archaeologist for the area of potential effect (APE). This entailed inspection of project maps, DNRC's sites/site leads database, land use records, General Land Office Survey Plats, and control cards. The Class I search results revealed that no cultural or paleontological resources have been identified in the APE, but it should be noted that Class III level inventory work has not been conducted there to date.

Because proposed disturbances will be contained within the boundary of the existing gravel pit, no additional archaeological investigative work will be conducted in response to this proposed development. However, if previously unknown cultural or paleontological materials are identified during project related activities, all work will cease until a professional assessment of such resources can be made.

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.

Impacts to aesthetics would be altered during the duration of this project. There will be increased noise from trucks and heavy equipment in the area. There is currently an un-reclaimed gravel pit in the proposed permit area. The proposed action would incorporate the old pit into the final reclamation plan. This would ultimately enhance aesthetics in the area.
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 proponent estimates that 30,000 cubic yards of gravel will be removed from permitted area over 10 years. Gravel is an abundant resource in this portion of the state and there is no concern regarding the amount the proponent has proposed to mine. The project will not utilize or require use of limited resources.

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.

The previous gravel pit permit holder was the USDA Forest Service. The permit number was G-1208-93. There are no other active agreements on the tract. The Montana DEQ will be writing a MEPA document for their review of the opencut application for this site.

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 because of the proposed project, other than the typical occupational hazards that coincide with gravel mining operations.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:
Identify how the project would add to or alter these activities.

The proposed project would positively impact the area. Currently, the un-reclaimed gravel has poor topography and vegetation. The proposed project will flatten slopes and establish better vegetation post-mining.

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.

No significant impact.
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.

No significant impact.

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.

The tract is located within Missoula Unit Habitat Conservation Plan area. The plan specifically outlines the following regarding gravel pits:

1) Water resource specialists will review all new, expanded or reactivated gravel pits located in watershed supporting HCP fish species and make recommendations to reduce the risk of sediment delivery to streams. These recommendations will be integrated into the development of contract specifications, and Plans of Operations (AQ-SD5(1).

2) An HCP Checklist is required for gravel pits.

Andrea Stanley Hydrologist/Soils Geologist completed the first requirement and provided language and stipulations included in this environmental assessment and provisions to be added to a potential permit. Per HCP guidelines, an HCP checklist is not required for this action.

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.

No impact.

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.

No impact.

22. SOCIAL STRUCTURES AND MORES:

Identify potential disruption of native or traditional lifestyles or communities.

No impact.

23. CULTURAL UNIQUENESS AND DIVERSITY:

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

No impact.
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 return to the trust would be $1.50/cubic yard of material removed. If the proponent mined the proposed 30,000 cubic yards at this rate, the return to the trust would be $45,000. Upon reclamation, vegetation will be reestablished and the area.

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<thead>
<tr>
<th>EA Checklist Prepared By:</th>
<th>Name: Zackary Winfield</th>
<th>Date: 5/2/2022</th>
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<tr>
<td></td>
<td>Title: Petroleum Engineer</td>
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V. FINDING

25. ALTERNATIVE SELECTED:

After reviewing the Environmental Assessment, the department has selected the Action Alternative, to issue a new aggregate take and remove permit to Mineral County. 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 because of implementing the selected alternative.

1. All topsoil will be retained and left on-site for reclamation.
2. Seed mixtures will be determined by the unit office.
3. The pit will be sprayed for noxious and invasive weeds annually. Record of spraying will be submitted to the DNRC Unit Office.
4. The site will be kept free of debris and garbage. Only equipment that is actively being used is permitted on the site.
5. Any liquids, including fuel will be kept in a secondary container that is impermeable.
6. Travel will be limited to times when the road conditions are dry.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

- EIS
- More Detailed EA
- X No Further Analysis

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<th>EA Checklist Approved By:</th>
<th>Name: Trevor Taylor</th>
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<tr>
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<td>Title: MMB Bureau Chief</td>
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Signature: [Signature]

Date: 5/2/2022