CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name: Harlowton – WCRD Gravel Pit

Proposed Implementation Date: Fall 2022
Proponent: Wheatland County
PO Box 1903
Harlowton, MT 59036

Location: Northwest of Section 24 T8N R15E
County: Wheatland County

I. TYPE AND PURPOSE OF ACTION

Wheatland 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, Wheatland 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, past gravel extraction and the amount of in-situ topsoil is limited.

II. PROJECT DEVELOPMENT

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

Wheatland County has applied for an aggregate take and remove permit from the Montana DNRC. A Montana DEQ Opencut Mining permit application has been submitted by the Minerals Management Bureau of the MT DNRC. If both permits are granted, Wheatland County Road Department will be assigned the Opencut Mining Permit.

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: Wheatland County would be issued a 2-year Montana DNRC take and remove permit to remove gravel from section 24 of Township 8 North, Range 15 East. 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 located within an area with a history of gravel mining disturbances. The existing pit was not fully reclaimed properly, some revegetation has occurred voluntarily. 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, pediment gravel. The member is described as deposits of medium to coarse sand, fine to medium gravel, and silt. Deposited on broad benches as large areas by alluvial braid-plain processes primarily by sheetwash and gravity processes over older flood plains. The member has variable thickness, generally less than two feet.

Soils in the NW quarter of section 24 consist of Delpoint-Cabbart-Yamacall Loams and Cabbart-Crago-Delpoint complex.

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

Any 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.

No action alternative: The current geology and soils in the project area would remain undisturbed, as they currently exist.

Action alternative: The proponent would strip and stockpile the topsoil and overburden from the project area and proceed with mining the subsurface for aggregate resources. Reclamation would be completed upon the expiration of or closing of the pit. Final reclamation would return the site to native range grazing land.
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 eastern border of Section 24 contains a portion of an ephemeral drainage. The pit boundary is one and a quarter mile away from ephemeral drainage. All liquids including fuel tanks would be stored in a secondary-impermeable container.

The site is not located near surface water features. The proposed excavation location is on hill slopes and knobs where groundwater is not expected to be encountered by the proposed project.

A search of the Montana Ground Water Information Center website found there is three wells contained within a one-mile radius of the project location. The well shows that static water level ranges from 59.25 to 163 feet below ground surface. The project would be expected to have no effect on the quality or abundance of groundwater in the area.

No action alternative: The current ground and surface water in the area will not change in abundance or quality.

Action alternative: Due to the apparent elevation of the ground and surface water levels in the surrounding area, and the proposed depth of mining, there would be no anticipated long-term impacts to the quality of the surface or ground water by implementing 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, particulates and dust may occur during mining operations from vehicle and heavy equipment exhaust used during operations. Minimal short-term impacts to air quality would be expected. No long-term impacts to air quality would be expected.

No action alternative: The project area would remain undisturbed and there would be no impact to air quality.

Action alternative: The proponent would mine previously disturbed ground within the project area. This may create a temporary increase in airborne pollutants and dust particulates. However, the increase in pollutants and dust particulates would have minimal short-term effects to the environment.

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 some revegetation around the older workings with native range vegetation. The project area consists of primarily two land cover systems, Grassland system containing Great Plains Mixed Grass Prairie and recently disturbed or modified from previous mining activities.
An inventory of the Montana Natural Heritage Program’s Species of Concern database was conducted for the project area. The search yielded one Species of Concern, Small Dropseed – *Sporobolus neglectus*, noted to be rare in Montana and has been documented within Wheatland County. An inventory of the ArcPro GIS EA layer shows one invasive weed species identified in the area, Leafy Spurge. As part of an aggregate take and remove permit, the permittee is responsible for the management and mitigation of invasive weeds in the pit area.

**No action alternative:** The current vegetation would remain relatively unchanged. Factors unrelated to pit expansion such as overgrazing or weed introduction could change the tract’s vegetative composition.

**Action alternative:** The vegetation in the project area would be stripped along with the available topsoil and overburden. It would be included in the stockpiled topsoil and would provide good organic material to the soil. Upon reclamation, the topsoil and overburden would be replaced on the pit area. The operator would then reseed the project area with a native range grass mixture approved by the Department.

### 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 to a variety of wildlife species. Deer and antelope are present in the vicinity of the project area as well as predatory birds such as hawks. The project vicinity also contains small rodents and mammals along with small to medium sized predators such as foxes and coyotes. The project area consists of native rangeland that provides forage to ungulate species in the area and habitat for burrowing species such as mice, gopher, fox, and coyote. The project area does not contain rivers, streams, tributaries, or trees. The project area is within an area of past gravel mining.

**No action alternative:** The project area would remain undisturbed by mining activities and the forage and habitat for the species in the project vicinity would remain relatively unchanged.

**Action alternative:** The project area would be stripped of vegetation and topsoil, then subsequently mined. This would temporarily decrease the forage and habitat for the species identified above. However, the scope of the project is not substantiative enough to permanently disrupt wildlife in the area. Similar habitat and forage can be found surrounding the project area and could sustain the wildlife species displaced during the mining of the project area.

### 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.*

An inventory of the Natural Heritage Program’s Species of Concern layer yielded no observations of species of concern within a mile of the project area over the last ten years. The project area consists of native range grasses which are abundant in the area.
No action alternative: The project area would not be disturbed, and any species of concern would see little to no change to the current environment.

Action alternative: The project area would be mined, and the rangeland would be temporarily disturbed. The cumulative effects to any species of concern would be negligible. Rangelands are abundant in the project vicinity and animals may utilize surrounding areas during the temporary disturbance, with the ability to return to the site upon reclamation.

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 mostly be contained within the boundary of the pre-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.

No action alternative: The project area would remain undisturbed, and the existing ground would remain unchanged.

Action alternative: The project area would be mined for aggregate resources. No effects to cultural, archeological, or paleontological resources are anticipated resulting from the action alternative. However, if any of these resources are encountered during mining activities it is the operator's responsibility to cease action and call the area office.

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 minimal 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. The project area may be visible from portions of highway 191.

No action alternative: Aesthetics would remain in their current state.

Action alternative: The pit area is located 2 miles to the Northwest of Harlowton, east on US Highway 191. As a final step in the mining plan, the operator would grade the affected land to 3:1 or flatter slopes for rangeland and 5:1 or flatter slopes for farmland and cropland. The operator will replace
permitted amount of overburden and all soils and blend the graded land into the surrounding
topography. The action alternative would have negligible affects to the 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.

No action alternative: There would be no change to demands on environmental resources.

Action alternative: The action alternative would have negligible affects to the environmental 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 Wheatland County Road Department. There is a grazing
lease, number 956, on the tract held with the Montana DNRC’s Trust Lands Management Division.
Montana DEQ will be writing a MEPA document for their review of the opencut application for this
site.

No action alternative: The project area would not be mined.

Action alternative: The project area would be mined for the underlying gravel resource. This would
temporarily render the project area incapable of the possibility of grazing due to the stripping of
vegetation and topsoil. The grazing lessee would be compensated for any losses. Upon reclamation the
area would be returned to grazing land.

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.

No action alternative: Negligible effects

Action alternative: Negligible effects

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.
No action alternative: There would be little to no change in commercial or agriculture activities from the implementation of this alternative.

Action alternative: The action alternative would allow for a reliable aggregate resource to service Wheatland County’s public roads.

**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.

No action alternative: Negligible effects to local employment.

Action alternative: The action alternative would have negligible effects to local employment.

**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 action alternative: Negligible effect

Action Alternative: Negligible effect

**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 action alternative: Traffic patterns and density are not expected to change from the no action alternative.

Action alternative: Traffic patterns are not expected to significantly change from the action alternative. However, there will be an increase in trucks entering and exiting the pit area if the action alternative is selected.

**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 action alternative: The project area would not be mined and therefore zoning and local management plans would not be applicable.

Action alternative: The project area has obtained zoning clearance through Wheatland County. This is obtained as a condition of the DEQ operating permit.

**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 action alternative: There will be no cumulative affects to recreation or wilderness activities if the project area is not mined.
Action alternative: The project area would temporarily render approximately 17.5 acres of public land inaccessible and unusable in terms of recreation. This project area does not provide access to wilderness activities.

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 action alternative: No impact

Action alternative: Negligible impact

22. SOCIAL STRUCTURES AND MORES:
   Identify potential disruption of native or traditional lifestyles or communities.

No action alternative: No impact

Action alternative: Negligible impact

23. CULTURAL UNIQUENESS AND DIVERSITY:
   How would the action affect any unique quality of the area?

No action alternative: No impact

Action alternative: Negligible 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.

No action alternative: Currently, the project area is not being utilized. If the no action alternative is selected, the project area will not generate further revenue.

Action alternative: If the action alternative were selected mining would begin within the project area. The undisturbed project area could generate approximately 50,000yd³ of aggregate. The royalty for gravel on this site would be $2.00/cubic yard. If that price were to remain unchanged over the life of the project, the project area has the potential to create $100,000 for the Trust. Upon reclamation of the gravel pit, the entirety of the pit acreage will be returned to grazing land.
V. FINDING

25. ALTERNATIVE SELECTED:

By constructing this Environmental Assessment, the Department has identified impacts to the environment based on two potential alternatives. The Department has selected the action alternative and will authorize Wheatland County to mine the project area for aggregate resource. The Department believes 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. It also is consistent with the mission of the Montana State Trust Lands Management Division.

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 Lewistown unit office.
3. The pit will be sprayed for noxious and invasive weeds annually. Record of spraying will be submitted to the DNRC Lewistown 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. The permitted area will be fenced to avoid conflict with grazing animals.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

☐ EIS ☐ More Detailed EA ☒ No Further Analysis

EA Checklist Approved By:

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<tr>
<th>Name:</th>
<th>Zack Winfield</th>
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<tbody>
<tr>
<td>Title:</td>
<td>Petroleum Engineer</td>
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Signature: [Signature]

Date: 7/28/2022