CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Shumaker Gravel Pit Permit Renewal and Expansion (G-1202-91)
Proposed Implementation Date:	2013-2014
Proponent:	Shumaker Trucking & Excavating Contractors, P.O. Box 1279 Great Falls, MT 59403 Ph: 727-3537
Location:	WSW, SESW, SWNESW, SWSWSE, Section 16 – T19N-R2E (Common School Trust)
County:	Cascade

I. TYPE AND PURPOSE OF ACTION

The proponent has applied to the DNRC for a Gravel Permit renewal to continue mining operations within the existing pit in Areas 4 & 5, to carry on with reclaiming portions of Areas 4 & 5, and to expand mining operations into Area 1 (see attached map), consisting of 10.5 acres of sand and gravel reserves located to the north of existing operations.

II. PROJECT DEVELOPMENT

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

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

MMB Petroleum Engineer, Trevor Taylor, Helena Unit Manager, Andy Burgoyne, and Helena Central Land Office Manager, Hoyt Richards, conducted a field review on July 1st, 2013. Scoping was performed by contacting the Montana Natural Heritage Program and DNRC Archaeologist Patrick Rennie.

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

Shumaker is required to obtain and comply with an Opencut Mining Permit from the Montana DEQ.

3. ALTERNATIVES CONSIDERED:

No Action Alternative: Do not renew the permit.

Action Alternative: Renew the Gravel Permit and authorize the continued operation of the gravel permit area pursuant to the DEQ open cut mining permit and the additional DNRC Gravel Permit stipulations in Section 26 of this EAC.

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.

Geology in the proposed project expansion area consists entirely of a terraced alluvial deposit consistent with the existing pit to the south. The deposit in this area is described by the Montana Bureau of Geology and Mines as light brown to light gray, unconsolidated, stratified, and moderately to well sorted sand and gravel to a depth of up to 20 feet. The overlying soils at the proposed pit expansion area include silty clay loam on the north end of the proposed expansion area and fine sandy loam on the south portion of the expansion area. Soils on the site will be stripped and stockpiled for reclamation once mining is complete. The NRCS rates the native soils located at the expansion area as having a high probability of restoring functional and structural integrity after disturbance.

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 gravel pit is located on top of a terrace located between the Missouri and Smith Rivers. The proposed expansion area is 0.5 from the Missouri River and 0.7 miles from the Smith River. Multiple roads are located between the gravel pit operation and both rivers, diverting runoff from flowing directly down-gradient into the river. Cultivated fields also exist between the gravel operation and both rivers, and would act as a filter strip and would impede surface water runoff from flowing into the rivers. The existing road infrastructure, cultivated fields, and DEQ requirements preventing storm water runoff pollution, effectively protect surface water quality.

The gravel pit is located 0.6 miles from the nearest water well (GWIC Id: 168709), which shows a static water elevation of approximately 125'-135' lower than the gravel pit elevation. The significant elevation buffer between groundwater and the gravel pit isolates groundwater from degradation from gravel pit operations.

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.

Gravel pit operations will cause fugitive dust pollution. The size of the expanded operations are not to exceed existing and historic disturbances, thus pollution caused from dust should remain at similar levels as in the past. Overlying soils existing at the proposed expansion area are rated by the NRCS as having a moderate to high resistance to fugitive dust formation. Truck traffic to and from the pit has increased over recent months, causing more dust pollution from the access road. Dust from the access road will be mitigated by spraying water or magnesium chloride 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.

Vegetation and topsoil will be completely removed in areas actively being mined for sand and gravel. Disturbed area shall not be greater than 25 acres at any one time. Topsoil is currently, and will continue to be stockpiled and saved until mining in a particular area has been completed, at which time the area will be reclaimed. Mitigation of any impacts on vegetation are as follows: The proponent will replace topsoil in mined areas and seed any disturbed areas with native grass seed, whereas the composition of the mix shall be approved by the Helena Unit Office prior to application. Proponent will monitor sites and control weeds for a three-year period after reclamation has been completed. A review of the Natural Heritage Tracker database did not indicate the existence of rare plant species.

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, and songbirds use this area. Proposed project activities could disrupt wildlife movement and patterns during the term of operations and final reclamation. Due to the existing operations occurring at this site since 1991 and the fact that the gravel pit is proposed to remain relatively the same size, additional effects as a result of the proposed expansion of the pit are expected to be insignificant.

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 endangered, threatened, or candidate species within one mile of the proposed activity and no species were found.

A similar search for the Montana species of concern within one mile of the proposed activities resulted in the following species which were all spotted in a cultivated field near the junction of Ten Mile Road and Jayhawk Lane by the Missouri River:

American White Pelicans - 22 Pelicans were seen on August 10th – August 18th, 2011.

Golden Eagles - A Golden Eagle was spotted on December 24th, 2011 and on December 20th, 2010, and three Golden Eagles were seen on August 28th, 2010.

A Long-Billed Curlew was observed on May 25th, 2011.

A Great Blue Heron was spotted on August 28th, 2010.

A Sharp-Tailed Grouse was observed on January 11th, 2012.

Impacts to Endangered, Fragile, or Limited Environmental Resources are mitigated as discussed below:

1. The location of the existing and proposed pit expansion areas are inside of a pit located on top of a terrace, which nearly eliminates visibility and reduces noise to species located down along the river,

2. The access road for nearly all vehicle traffic to and from the pit area utilizes Millegan Road, which bypasses the location at which the above species were spotted, which was just off of 10 Mile Road.

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

On August 6th, DNRC Archaeologist, Patrick Rennie, Trevor Taylor, and James Burgoyne visited the site of the proposed expansion area and found no historical, archaeological, or paleontological resources that would be affected by the expansion of the 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 gravel pit site and proposed expansion area are located in 19N-2E, Section 16 between two paved roads, Millegan Road and 10 Mile Road. Due to the gravel pit location on top of the terrace, little can be seen from Millegan Road, which is located down along the Smith River. 10 Mile Road runs adjacent to the west and south edges of the gravel pit on top of the terrace and provides visual access to the pit operations. The gravel pit is located in a sparsely populated area; although, the town of Ulm is located 2 miles to the north and the town of Great Falls is located 8.5 miles to the northeast. This gravel pit has been operated since 1991 and is expected to remain approximately the same size; therefore, levels of noise, light, and appearance should all remain relatively the same as in the past.

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.

None.

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.

None.

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.

None.

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

This gravel operation provides sand and gravel which are an important resource in the construction of highways and roads in the Great Falls vicinity.

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.

None.

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.

The gravel pit operation has and will contribute to Local and State tax revenues from income generated as a result of gravel sales from the pit.

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.

The Smith and Missouri Rivers are in the vicinity of the gravel pit operation, but are separated from the gravel operation by topography and an existing network of county roads; therefore, no effects are anticipated to recreational 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.

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 royalty rate on gravel would be adjusted upon renewal to reflect royalties from other pits in this part of the State. A step royalty term is proposed: $0.80/cubic yard, effective January 1st, 2013 through July 31st, 2013, after which the royalty would be increased to $1.15/cubic yard effective through December 31st, 2014. Removal of 400,000 cubic yards from the permit area would generate an estimated $400,000 in royalties for the Common School Trust beneficiaries.

EA Checklist Prepared By:	**Name:**	Trevor E. Taylor	**Date:**	August 13th, 2013
	Title:	MMB Petroleum Engineer		

V. FINDING

25. ALTERNATIVE SELECTED:

After reviewing the Environmental Assessment, I have selected the Action Alternative, to issue the Gravel License renewal. 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.
Stipulations:

1. For site reference numbers, refer to the attached map dated 4/20/2009 from the current DEQ Plan of Operation, signed October 22, 2009.

2. Approved mine areas for the beginning of this renewal period include the following:

   - A1, totaling 10.5 acres,
   - A4, totaling 6.5 acres, but including 4.2 acres of overburden and reject piles,
   - A5, totaling 14.9 acres, but potentially conflicting with the landing strip under LUL-8487, issued to Cascade County
   - The Facility Area, totaling 32.8 acres

3. "Undisturbed Till Bonded" area A2 (31.6 acres) shall not be entered without prior written approval by the Department and complete reclamation of current mine areas A4 and/or A5.

4. Total amount of disturbed, unreclaimed land shall not exceed 25 acres at any time.

5. If deemed necessary by the Department, Permittee shall install a functional temporary fence to promote prompt and effective revegetation of reclaimed areas.

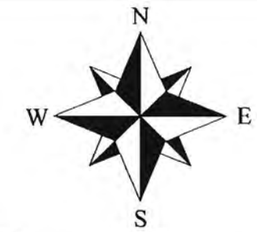
6. Weed control specifications in the DEQ Plan of Operation section I-J state "Weed control measures include equipment washing prior to mobilization in the pit and yearly weed control and maintenance by contracting with Cascade County Weed District for yearly maintenance." In addition, Permittee shall submit an annual report showing the acres treated, amounts of chemicals used, and a list of the weed species treated. Annual weed control reports shall be sent to the Helena Unit Office no later than December 31 of each year.

7. DEQ Plan of Operation sections II-H, 3 and III-B indicate that reject piles (rounded off and reclaimed) and mine material stockpiles may be left in place following operations. However, the Department does not allow this practice. At final completion of this permit, all mined material shall be paid for and removed from the site. Waste material shall be spread in the pit areas and recontoured to DNRC Helena Unit specifications prior to covering with topsoil and reseeding.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

[ ] EIS	[ ] More Detailed EA	[X] No Further Analysis

EA Checklist Approved By:	**Name:** Monte Mason **Title:** MMB Bureau Chief	
Signature: /s/ Monte Mason		**Date:** 8/20/13



Pit Location
Township 19 N Range 2 E
SW 1/4 of Section 16

A4+A5 =	Mine Area	21.4 Acres
Remainder =	Facility Area	32.8 Acres
	Access Roads	1.4 Acres
A3 =	Partial Release	16.2 Acres
A1+A2 =	Undisturbed	42.1 Acres
	Total Area	113.9 Acres

Notes:
1. Product Stockpiles Locations are Approximate and May Vary on Location and Size Depending on Production Requirements.
2. The Crusher will Move to Various Areas in the Pit to Follow Available Gravel Deposits.

Shumaker
Trucking and Excavating Contractors, Inc.
PO Box 1279 Great Falls, Montana 59403-1279
Ph:(406)727-3537 Fax:(406)727-9995

Subject Ulm DNRC State Land Pit

Date 11/12/09 Page 1 of 1

RECEIVED
DEC 04 2009
DEQ/EMB