



Brian Schweitzer, Governor
Richard H. Opper, Director

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December 21, 2011

Interested Party List

RE: Draft Checklist EA for Shumaker Trucking & Excavating Contractors, Inc., for an Operating Permit

Dear Reader:

Enclosed for your review and comment is the Draft Checklist Environmental Assessment (CEA) for an operating permit requested by Shumaker Trucking & Excavating Contractors, Inc., (Shumaker) located at PO Box 1279, Great Falls, MT, 59403. Shumaker filed an application for an Operating Permit on June 3, 2011 from the Montana Department of Environmental Quality (DEQ), Environmental Management Bureau in Helena. The application was later revised on October 17, 2011.

Shumaker has proposed expanding a quarry and rock crushing operation currently covered under a Small Miner Exclusion Statement (SMES). This proposed expansion would exceed the acreage allowed under an SMES, and therefore an Operating Permit must be obtained. The crushed rock would be used for aggregate and riprap. The quarry would be excavated using heavy equipment such as excavators, loaders, and dozers, as well as screening equipment. An asphalt plant may be used. Blasting would be required several times per year. A highwall would be left, but would not be visible from Birdtail Creek Road.

The site is about 5 miles south of Fort Shaw, Mt. in Section 35, Township 20 North, Range 2 West in Cascade County. Existing roads would be used to access the proposed quarry site. Increased truck traffic from what currently exists is not expected. The site would consist of a total of about 35.6 acres. The operating permit would allow the quarry to continue to be worked, with total disturbance, including what has already been disturbed, of about 16 acres over the next five years. Mining, screening, or crushing operations would normally take place during daylight hours from 6 AM to 7 PM Monday through Saturday.

The proposed operation has been reviewed for compliance under a Supplemental Programmatic Environmental Assessment (SPEA) for a General Quarry Operating Permit published by the DEQ in February 2004. DEQ has determined that this operation does not meet the requirements listed in the SPEA since there would be more than five acres unreclaimed at any one time. An operating permit may be issued once the application is

develops additional lease agreements on other sites in the future, they would have to apply for an amendment or revision to the operating permit.

Shumaker must obtain an operating permit as the site cannot stay under the five acre disturbed and unreclaimed limit required under the SMES. The operating plan calls for reclamation of all surface disturbances with a post-mining land use of livestock grazing, however, a rock face will remain.

On June 3, 2011 and later revised on October 17, 2011, the Department of Environmental Quality (DEQ) received an application for an operating permit from Shumaker. Shumaker proposes to operate a shonkonite quarry on Shaw Butte. The proposed quarry is approximately 5 miles south of Fort Shaw, Montana, on property owned by the Cascade Hutterite Colony. Shonkonite is a dark igneous rock with blocky crystals of glossy black augite frequently used for road, railroad and construction projects. The quarry would be permitted under the Metal Mine Reclamation Act, Title 82, chapter 4, part 3, Montana Code Annotated (MMRA).

The site has had quarry activity starting prior to 1960. For the last 18 years, Shumaker has conducted quarry activities at the site under a SMES. Shumaker is applying for an operating permit because the proposed operation exceeds the five-acre disturbance limit for a SMES.

On November 14, 2011, DEQ determined that Shumaker's application was complete and compliant. When an application is complete and compliant, DEQ is required under Section 82-4-337(d), MCA, to detail in writing the substantive requirements of the MMRA and how the application complies with those requirements. This document sets forth DEQ's determination that Shumaker's application complies with the substantive requirements of the MMRA. It should be noted that the compliance determination required under Section 82-4-337(d), MCA, is made in conjunction with issuance of a draft permit prior to the environmental review of the proposed mining operation under the Montana Environmental Policy Act, Title 75, chapter 1, Montana Code Annotated (MEPA). Thus, DEQ's compliance determination is made based on DEQ's analysis of the information set forth in Shumaker's application. DEQ may add stipulations to the final permit pursuant to Section 82-4-337(2)(b), MCA, with Shumaker's consent or if the environmental review conducted under MEPA demonstrates that the stipulations are necessary to comply with the substantive requirements of the MMRA.

A. Section 82-4-335(2)(a), MCA

Under Section 82-4-335(2)(a), MCA, a person who engages in the mining of rock products may obtain an operating permit for multiple sites if each of the multiple sites does not:

- (a) operate within 100 feet of surface water or in ground water or impact any wetland, surface water, or ground water;
- (b) have any water impounding structures other than for storm water control;
- (c) have the potential to produce acid, toxic, or otherwise pollutive solutions;

- (d) adversely impact a member of or the critical habitat of a member of a wildlife species that is listed as threatened or endangered under the Endangered Species Act of 1973; or
- (e) impact significant historic or archaeological features.

In regard to subsection (a), Shumaker's application indicates the proposed mining operation would be located in an ephemeral drainage that has been previously quarried. No surface water is located within 1,000 feet of the proposed operation (Application, p. 2) and the operation would not intercept groundwater (Application, p. 2). In addition, there are no wetlands in the proposed permitted disturbance area (Application, p. 2). Based on information contained in the application, DEQ does not believe that any wetland, surface water, or ground water would be impacted.

In regard to subsection (b), the only water impounding structures described in Shumaker's application are soil berms used to collect storm water and sediment and to prevent storm water discharge from the facility (Application, p. 2). This is a water impounding structure allowed under subsection (b).

The proposed quarry complies with subsection (c). Shumaker's application indicates that shonkonite is non-acid producing and has no potential for containing asbestiform minerals (Application, p. 4).

The proposed quarry complies with subsection (d). A printout from the Montana Natural Heritage Program that is attached to Shumaker's application indicates that there are no threatened and endangered species located in the township and range within which the proposed operation is located.

The proposed quarry complies with subsection (e). A report issued by the State Historic Preservation Office is attached to Shumaker's application. The records of the State Historic Preservation Office indicate that there are no previously recorded cultural sites in the area of the proposed quarry operation. Shumaker's application further indicates that it will provide appropriate protection for identified cultural resources that could be affected by the quarry operation and to notify the State Historical Preservation Office and DEQ should cultural resources be found (Application, p. 10.)

Because Shumaker's proposed quarry complies with the criteria set forth in Section 82-4-335(2)(a), MCA, Shumaker would be allowed to include the proposed quarry operation in an operating permit for multiple sites if the other sites also comply with the criteria. While Shumaker's permit application is for a single quarry, it may amend the permit to cover additional rock product mining operations as authorized under Section 82-4-335(2)(a), MCA.

B. Section 82-4-335(6), MCA

Section 82-4-336(1), MCA, provides that lands disturbed by mining must be reclaimed consistent with the requirements and standards set forth in Section 82-4-336, MCA, taking into consideration the site-specific conditions and circumstances, including the postmining use of the mine site. The requirements and standards are set forth below.

1. Section 82-4-336(2), MCA.

Section 82-4-336(2), MCA, requires the reclamation plan to provide that reclamation activities, particularly those relating to the control of erosion, be conducted simultaneously with the operation and in any case must be initiated promptly after completion or abandonment of the operation on those portions of the complex that will not be subject to further disturbance.

The reclamation plan set forth in Shumaker's application satisfies this requirement. It provides that Shumaker will complete reclamation on an area no longer needed for quarry operations within two years after such operations. Final reclamation will be completed upon quarry completion. The reclamation plan assumes that the quarry has a potential life of 50 years or more (Application, p. 10). In addition, the application indicates that Shumaker will keep the open, unreclaimed area to a minimum but still suitable for operations (Application, p. 9).

2. Section 82-4-336(3), MCA.

Section 82-4-336(4), MCA, requires the reclamation plan to provide that reclamation activities be completed not more than two years after completion or abandonment of the operation on that portion of the complex unless DEQ provides a longer period. The reclamation plan set forth in Shumaker's application satisfies this requirement. See discussion of Section 82-4-336(2), MCA.

3. Section 82-4-336(4), MCA.

Section 82-4-336(4), MCA, requires the reclamation plan to provide that the operator may not depart from an approved plan without previously obtaining from DEQ written approval for the proposed change in the absence of emergency or suddenly threatening or existing catastrophe. The reclamation plan set forth in Shumaker's application satisfies this requirement. It affirms that the plan will be followed unless officially amended by DEQ.

4. Section 82-4-336(5), MCA.

Section 82-4-335(5), MCA, requires the reclamation plan to avoid accumulation of stagnant water in the development area to the extent that it serves as a host or breeding ground for mosquitoes or other disease-bearing or noxious insect life. The reclamation plan set forth in Shumaker's application satisfies this requirement. The only accumulation of water would be associated with the soil berms created to prevent storm water discharge (Application, p. 2.). Any storm water collected by the soil berms should be of short duration and not serve as a host or breeding ground for insects. The proposed operation does not include the creation of any ponds (Application, p. 11.)

5. Section 82-4-336(6), MCA.

Section 82-4-336(7), MCA, requires the reclamation plan to require all final grading to be made with nonnoxious, nonflammable, noncombustible solids unless DEQ grants approval for a supervised sanitary fill. The reclamation plan set forth in Shumaker's application satisfies this requirement. The final grading would be made with salvaged overburden and soil (Application, p. 11.), which are nonnoxious, nonflammable, and noncombustible.

6. Section 82-4-336(7), MCA.

When mining has left an open pit exceeding two acres of surface area and the composition of the floor or walls of the pit is likely to cause formation of acid, toxic, or otherwise pollutive solutions on exposure to moisture, Section 82-4-336(7), MCA, requires the reclamation plan to include provisions that adequately provide for:

1. Insulation of all faces from moisture or water contact by covering the faces with material or fill not susceptible itself to generation of objectionable effluents in order to mitigate the generation of objectionable effluents;
2. Processing of any objectionable effluents in the pit before they are allowed to flow or be pumped out of the pit to reduce toxic or other objectionable ratios to a level considered safe to humans and the environment by DEQ;
3. Drainage of any objectionable effluents to settling or treatment basins when the objectionable effluents must be reduced to levels considered safe by DEQ before release from the settling basin;
4. Absorption or evaporation of objectionable effluents in the open pit itself; and
5. Prevention of entrance into the pit by persons or livestock lawfully upon adjacent lands by fencing, warning signs, and other devices that may reasonably be required by DEQ.

While the reclamation plan set forth in Shumaker's application provides that highwalls will remain after reclamation, the highwalls would not likely cause formation of acid, toxic, or otherwise pollutive solutions on exposure to moisture. As indicated above, shonkonite is non-acid producing. Therefore, the reclamation plan does not need to include any of the provisions set forth in Section 82-4-336(7), MCA.

7. Section 82-4-336(8), MCA.

Section 82-4-336(8), MCA, requires a reclamation plan to provide for vegetative cover if appropriate to the future use of the land as specified in the reclamation plan. The reestablished vegetation cover must meet county standards for noxious weed control.

The reclamation plan set forth in Shumaker's application complies with Section 82-4-336(8), MCA. It proposes to return the area disturbed by mining to its premining status as dryland agricultural grazing with the exception of most of the facility area (Application, p. 10). Approximately two acres of the facility area would be returned to dryland agricultural grazing (Application, p. 13). The remaining portion of the facility area would be used postmining to locate product stockpiles left for the landowner's use. The application indicates that the landowner would assume reclamation for the facility area after removal of product stockpiles by importing soil from other locations on property owned by the landowner. Alternatively, the landowner could use the facility area for hay or other ranch-related storage (Application, pp. 9 and 10.).

For the area to be returned to dryland agricultural grazing, the reclamation plan provides that regraded areas would be ripped after overburden and soil are spread to

relieve compaction and prepare the seedbed. The area would be broadcast seeded with an agency-approved seed mix. Fertilizer would be applied at the time of seeding at the rate of 40 pounds of nitrogen and 40 pounds of phosphorous per acre (Application, p. 12.). In the reclamation plan, Shumaker commits to obtain a weed control plan approved by Cascade County or to hire Cascade County to do the weed control (Application, p. 11.).

8. Section 82-4-336(9)(a), MCA.

With regard to disturbed land other than open pits or rock faces, Section 82-4-336(9)(a), MCA, requires the reclamation plan to return all disturbed areas to comparable utility and stability as that of adjacent areas. If the reclamation plan provides that mine-related facilities will not be removed or that the disturbed land associated with the facilities will not be reclaimed by the permittee, the post-mining land use must be approved by DEQ.

The reclamation plan set forth in Shumaker's application complies with Section 82-4-336(9)(a), MCA. As previously indicated, with the exception of a portion of the facility area, the disturbed land will be regraded and returned to dryland agricultural grazing, providing comparable utility and stability as that of adjacent areas. While most of the facility area will not be regraded and seeded, the application indicates that it has a legitimate postmining use by the landowner as a hay or other ranch-related storage area.

9. Section 82-4-336(9)(b), MCA.

With regard to open pits and rock faces, Section 82-4-336(9)(b), MCA, requires the reclamation plan to provide sufficient measures for reclamation to a condition:

1. Of stability structurally competent to withstand geologic and climatic conditions without significant failure that would be a threat to public safety and the environment;
2. That affords some utility to humans or the environment;
3. That mitigates postreclamation visual contrasts between reclamation lands and adjacent lands; and
4. That mitigates or prevents undesirable offsite environmental impacts.

The use of backfilling as a reclamation measure is neither required nor prohibited in all cases. DEQ's decision to require backfill must be based on whether and to what extent the backfilling is appropriate to achieve the standards described in (9)(b).

The reclamation plan set forth in Shumaker's application complies with Section 82-4-336(9)(b), MCA. The reclamation plan indicates that highwalls will remain after closure. These highwalls should be structurally competent to withstand geologic and climatic conditions without significant failure that would be a threat to public safety and the environment, as shonkonite is a very hard rock with limited potential to ravel over time (Application, p. 9). The application also indicates that the golden eagle is one of two raptors noted for the Shaw Butte area. The quarry may ultimately remove the top of the eastern ridge in the permitted area, removing a potential perching and nesting location (Application, p. 3.). The remaining highwalls, however, may serve as perching and

nesting habitat and feeding areas for golden eagles and other raptors. DEQ also believes that remaining highwalls may provide habitat for bats, some species of which have been identified as species of concern. Thus, the remaining highwalls would afford some utility to the environment.

The application indicates that Shaw Butte has a cap of shonkonite in high erosion relief (Application, p. 4). Thus, the visual contrast between the reclamation lands and adjacent lands is mitigated to the extent that there are other shonkonite features in high relief in the area. Additionally, the application indicates that the quarry would not be visible from the Birdtail Creek Road (Application, p. 9). Oblique views of the quarry are attached to the application. The facility area is visible from the road. A portion of the facility area will be regraded and revegetated with the remainder serving as a storage site for the landowner.

Based on its review of the application, DEQ is unable to identify any offsite environmental impacts that are not mitigated or prevented. As previously indicated, shonkonite is a very hard rock with limited potential to ravel over time and is nonacid producing. The only water impoundments are for storm water control, which should prevent offsite impacts. There is no surface water within 500 feet of the access road and within 1,000 feet of the proposed permit area. The closest well is more than 1,000 feet from the quarry. In addition, the proposed mining operation will not intercept groundwater.

While the application indicates that "no areas will be backfilled" (Application, p. 9), DEQ notes that the reclamation plan requires any available blasted rock and overburden to be pushed against highwalls to create berms at the toe of the highwalls (Application, pp. 9, 13). The toe berms are to be regraded to a slope of approximately 2:1 and serve to reduce safety hazards (Application, p. 11). Backfilling to the extent beyond creation of the toe berms is not necessary to achieve the standards set forth in Section 82-4-336(9)(b), MCA, as discussed above.

10. Section 82-4-336(10), MCA.

Section 82-4-336(10), MCA, requires the reclamation plan to provide sufficient measures to ensure public safety and to prevent the pollution of air or water and the degradation of adjacent lands. As indicated previously, shonkonite is a very hard rock with limited potential to ravel. Safety will be enhanced by creation of toe berms at the foot of the highwalls. The potential for impacts to air quality is created by the quarry operation. The application indicates that dust control (water trucks and sprays) would be used with quarrying, screening, and hauling operations as necessary in order to keep dust generated by mining activity and vehicle travel from blowing offsite (Application, p. 9). Crushers brought to the site are required to have an existing Air Quality Permit issued by DEQ (Application, p. 5). As previously indicated, the proposed operation as described in the application does not anticipate impacts to water or adjacent lands.

11. Section 82-4-336(12), MCA.

Section 82-4-336(12), MCA, requires a reclamation plan to provide for permanent landscaping and contouring to minimize the amount of precipitation that infiltrates into

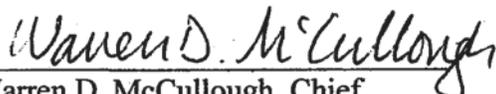
disturbed areas that are to be graded, covered, or vegetated, including but not limited to tailings impoundments and waste rock dumps. The plan must also provide measures to prevent objectionable postmining ground water discharges.

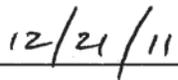
As previously indicated, the application indicates that shonkonite is non-acid producing. Thus, unlike tailings impoundments and waste rock dumps consisting of acid generating material, there is not the need to minimize the amount of precipitation infiltrating the reclaimed areas at the proposed operation to prevent acid mine drainage or the mobilization of other constituents that may impact water resources. Based on information contained in the application, DEQ does not believe that there will any objectionable ground water discharges.

The Draft CEA addresses issues and concerns raised during public involvement and from agency scoping. The agencies have decided to approve the permit as proposed as the preliminary preferred alternative. This is not a final decision. This conclusion may change based on comments received from the public on this Draft CEA, new information, or new analysis that may be needed in preparing the Final CEA

Copies of the Draft CEA can be obtained by writing DEQ, Environmental Management Bureau, P.O. Box 200901, Helena, MT 59620, c/o Herb Rolfes, or calling (406) 444-3841; or sending email addressed to hrolfes@mt.gov. The Draft CEA will also be posted on the DEQ web page: www.deq.mt.gov/ea/mcp.x. Public comments concerning the adequacy and accuracy of the Draft CEA will be accepted until January 27, 2012.

Since the Final EA may only contain public comments and responses, and a list of changes to the Draft CEA, please keep this Draft CEA for future reference.


Warren D. McCullough, Chief
Environmental Management Bureau


Date

EXPANDED CHECKLIST ENVIRONMENTAL ASSESSMENT

COMPANY NAME: Shumaker Trucking & Excavating Contractors, Inc.

LOCATION: 4.7 miles south of Fort Shaw, MT

PROPERTY OWNERSHIP: [] Federal [] State [x] Private
00179

PROJECT: Fort Shaw Quarry

COUNTY: Cascade

OPERATING PERMIT No.

TYPE AND PURPOSE OF ACTION: On May 10, 2011 Shumaker Trucking & Contractors, Inc. (Shumaker) submitted an application to the Montana Department of Environmental Quality (DEQ) for an operating permit for the Fort Shaw quarry. The quarry is currently operated under a Small Miner Exclusion Statement (SMES) but cannot stay under five acres of disturbance, and therefore an operating permit is required. The quarry is located in Section 35, Township 20 North, Range 2 West, in Cascade County, about 4.7 miles south of Fort Shaw, MT.

The quarry rock is shonkinite, a hard, dark igneous rock that is used for aggregate and riprap. Shonkinite has been used in central Montana for various road, railroad, and construction projects as a source of aggregate and rip rap.

The application is for a permit area of 79.6 acres, with 35.6 acres to be disturbed over the life of the mine, which is estimated to be about fifty years. Mining has taken place at the site for the last 18 years under a SMES. The total disturbance, including what has already been disturbed, would be about 16 acres over the next five years.

Equipment used to quarry the shonkinite would likely consist of loaders, dozers, articulated trucks, and excavators. There would also be conveyors, a portable screen/crushing plant, a pugmill, and possibly a portable asphalt plant. Removal of shonkinite would require blasting. This would be performed about twice a year by a certified blaster. Blasting products would not be stored on site.

Asphalt production would be limited from 6 am to 7 pm to minimize disturbance to neighbors. Wind in the area would minimize impacts from asphalt production odors. Work at the quarry and hauling from the site would occur during daylight hours, usually from 6 am to 7 pm, Monday through Saturday. The number and type of trucks would vary, and may require up to 100 truckloads per day during periods of peak activity.

DEQ must review the application, evaluate the potential impacts, and decide if it complies with the Montana Metal Mine Reclamation Act (MMRA) requirements, and the Administrative Rules of Montana 17.24.119.

PROPOSED ACTION: The site has been mined for the last 18 years under a SMES. The operator cannot stay under five acres of disturbance at any one time and therefore must obtain an operating permit. The operating permit would allow the quarry to continue to be worked, with total disturbance, including what has already been disturbed, of about 16 acres over the next five years and up to 35.6 acres over the life of the quarry.

The material from the quarry would be used for aggregate and rip rap. The processing plant would consist of screening and crushing equipment, and may include an asphalt plant. The on-going operations would continue as before, but under an operating permit as the site would be expanded. There would be an area set aside for screening and processing rock, a turn-around for trucks, soil and growth medium stockpiles, and product stockpiles. Water for dust control would be brought in. Storm water would be contained on site. On issuance of an operating permit a

reclamation bond would need to be posted that would cover all disturbances; past, present, and proposed.

The project would employ up to eight people at the quarry. The quarry would normally operate from Monday through Saturday, 6 am to 7 pm, on an as-needed basis.

CHECKLIST ENVIRONMENTAL ASSESSMENT

Environmental Assessment (EA) Legend:

N = Not present or No Impact will occur.

Y = Impacts may occur (explain under Potential Impacts).

NA = Not Applicable

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
<p>1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are soils present which are fragile, erosive, susceptible to compaction, or unstable? Are there unusual or unstable geologic features? Are there special reclamation considerations?</p>	<p>[N] The rock to be removed is shonkinite, a dark, igneous rock studded with blocky crystals of glossy black augite. The shonkinite intruded as blisters of magma that swelled beneath the Eagle sandstone, a formation of late Cretaceous sedimentary rock. Erosion has removed the sandstone leaving the more resistant shonkinite standing in high erosion relief. The shonkinite is non-acid producing, and is considered to be an excellent product for aggregate and rip rap. Shonkinite is a hard rock that has been used for many years in central Montana for various road, railroad, and construction projects.</p> <p>Soil in the area ranges from 0 to 36 inches. Soil was not salvaged in the past. In the future, soil and overburden would be salvaged from new facility and mine areas. Approximately 1,000 cubic yards could be salvaged over the next five years.</p> <p>The site is composed of four soil types; the Castner-Perma-Rock outcrop complex, Cheadle-Hilger complex, Binna-Evanston complex, and a minor area of Fairfield loam. The predominant soil type (covering about 75 percent of the land area and where most of the disturbance from mining would occur) is the Castner-Perma-Rock outcrop complex. The Castner soil is found on slopes of 10 to 60 percent, is well-drained, and ranges from a cobbly loam to an extremely channery loam, with a total depth of up to 16 inches. The Perma soil is found on slopes of 10 to 60 percent, is excessively drained, and ranges from a very cobbly loam to an extremely cobbly sandy loam with a total depth up to 60 inches. The Cheadle-Hilger complex covers about 16 percent of the land area. The Cheadle soil is found on slopes of 10 to 60 percent, is well-drained, and ranges from a stony loam to an extremely channery loam, with a total</p>

IMPACTS ON THE PHYSICAL ENVIRONMENT

	<p>depth of up to 10 inches. The Hilger soil is found on slopes of 10 to 60 percent, is well drained, and ranges from a very stony loam to an extremely stony loam, with a total depth of up to 60 inches. The Binna-Evanston complex covers about 7 percent of the land area. The Binna soil is found on slopes of 5 to 10 percent, is well-drained, and ranges from a loam to a very gravelly loamy sand, with a total depth of up to 60 inches. The Evanston soil is found on slopes of 5 to 10 percent, is well-drained, and ranges from a clay loam to a loam, with a total depth of up to 60 inches. The Fairfield loam covers a minor area and is found on slopes of 4 to 8 percent, is well-drained, and ranges from a loam to a silty clay loam, with a total depth of up to 60 inches.</p> <p>The operator commits to salvaging as much overburden and soil as possible over the remaining life of the quarry. No soil was salvaged under the SMES. The operator assumes 1,000 cubic yards can be salvaged over the first five years of operation. The operator will place a minimum of 6 inches of soil/overburden over the facilities area, excepting product storage stockpiles left for the landowner.</p>
<p>2. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?</p>	<p>[N] There are no surface or groundwater resources present on the site that would be disturbed. Best Management Practices (BMPs), such as small settling basins and soil berms would be used to control runoff from precipitation events. No stormwater would exit the quarry disturbance area.</p> <p>The nearest well is located over 1,000 feet away. There would be minimal potential for nitrate residues from blasting to reach the water table.</p> <p>A tanker truck would bring water to the site for road maintenance and dust control.</p> <p>The estimated depth of mining would be less than fifty feet below the quarry floor. The estimated high water table is greater than fifty feet below the surface of the quarry floor.</p>
<p>3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?</p>	<p>[N] An air quality permit for the site may be required for the asphalt plant and crushers. The asphalt plant and crusher would have their own air quality permits. Dust control would consist of spraying water during mining, screening, and hauling operations.</p> <p>Fugitive dust control BMPs would reduce emissions associated with traffic on access roads in the project area.</p>

IMPACTS ON THE PHYSICAL ENVIRONMENT

<p>4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted? Are any rare plants or cover types present?</p>	<p>[N] The existing vegetation is mostly bluebunch wheatgrass and skunkbrush sumac. Some noxious weeds exist. The operator would obtain a Cascade County Weed Control Plan or commit to hiring Cascade County to conduct weed spraying.</p> <p>A seed mix has been provided by DEQ for revegetating the site. Fertilizer will be applied at the time of seeding at the rate of 40 pounds of nitrogen, and 40 pounds of phosphorus, per acre.</p> <p>There are no known rare or sensitive plant species in the proposed disturbance area.</p>
<p>5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds, or fish?</p>	<p>[N] Mule and whitetail deer are found in the area. The quarry has been worked for over 18 years. No impacts to terrestrial, avian, and aquatic life and habitats are expected.</p>
<p>6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?</p>	<p>[N] The amendment would not cause impacts to any threatened, endangered, or sensitive species or habitats. A review by the Montana Natural Heritage Program revealed two species of special concern that exist in the area, but not within the proposed permit boundary. A golden eagle was last observed in May of 2009 and a greater short-horned lizard was last observed in May of 1985. The rock ridges offer perching areas for golden eagles. The quarry offers potential habitat (sandy/gravelly soils) for the greater short-horned lizard. These habitat types are readily available in the Fort Shaw area.</p>
<p>7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological, or paleontological resources present?</p>	<p>[N] A records search by the State Historic Preservation Office indicated that there are no known cultural areas of concern in the proposed permit area. As noted in the application, the operator would provide protection for archaeological and historical sites if they are discovered.</p>
<p>8. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?</p>	<p>[Y] The area is a historic quarry site, in a remote area, with disturbances going back to at least 1960. The area has been quarried for the last 18 years under a SMES. Disturbed areas would be regraded and seeded, although highwalls would be left. While the facility area would be visible from Birdtail Creek Road that is within about a half a mile of the proposed permit area, the actual quarry would not be visible. Product stockpiles would be left for landowner use. Highwalls would have a height of up to one hundred feet, or more. Shonkinite is a hard rock with limited potential to ravel over time. During reclamation of the site rock would be pushed against the highwalls to minimize safety risks by creating toe berms. Overburden and soil would be spread and seeded. Any remaining product stockpiles would be left for subsequent use by</p>

IMPACTS ON THE PHYSICAL ENVIRONMENT

	<p>the landowner.</p> <p>A temporary asphalt batch plant may be set up on site for a particular contract. Asphalt production would be limited from 6 am to 7 pm to minimize disturbance to neighbors. All materials used to produce asphalt would be placed in containment areas to prevent loss of product. Wind in the area would minimize impacts from asphalt production odors through dispersion.</p> <p>Work at the quarry and hauling from the site would occur during daylight hours, normally from 6 am to 7 pm, Monday through Saturday, campaign style. The number and type of trucks would vary, and may require up to 100 truckloads per day during periods of peak demand.</p> <p>Noise would be generated as material is removed, sized, and loaded into haul trucks. The site, and all the land around it for a distance of more than one-half mile, is owned by one landowner.</p>
<p>9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project?</p>	<p>[N] Water would need to be brought to the site for dust control. Stock water would be hauled by a tanker truck to the site.</p> <p>There are no other active mining sites nearby.</p>
<p>10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other activities nearby that will affect the project?</p>	<p>[N] There are no other activities in the area that would affect this project.</p>

IMPACTS ON THE HUMAN POPULATION

<p>11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?</p>	<p>[N] The project would use existing roads. One comment was received after the public notice of the application for an operating permit was published which expressed concern over wear and tear on the blacktop and gravel roads in the area. Historically, up to 100 truckloads per day have travelled along Highway 200, depending on contracts. No additional impacts from what currently exist are expected with approval of this operating permit.</p>

IMPACTS ON THE HUMAN POPULATION

<p>12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?</p>	<p>[N]</p>
<p>13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.</p>	<p>[N] The current number of employees, up to eight people at the quarry site, is not expected to increase.</p>
<p>14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?</p>	<p>[N] The project would allow employment for a small number of people to continue. This amendment would maintain or add to tax revenue.</p>
<p>15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?</p>	<p>[N] The Proposed Action would not impact government services.</p>
<p>16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?</p>	<p>[N]</p>
<p>17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?</p>	<p>[N] The Proposed Action would not impact any wilderness or recreational areas.</p>
<p>18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require</p>	<p>[N] The Proposed Action would not cause impacts to the density and distribution of population and housing.</p>

IMPACTS ON THE HUMAN POPULATION

additional housing?	
19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N] Approval of the operating permit is not expected to cause impacts to social structures and mores.
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N] Approval of the operating permit is not expected to cause impacts to cultural uniqueness and diversity.
21. PRIVATE PROPERTY IMPACTS: Are we regulating the use of private property under a regulatory statute adopted pursuant to the police power of the state? (Property management, grants of financial assistance, and the exercise of the power of eminent domain are not within this category.) If not, no further analysis is required.	[N] The Proposed Action would not impact private property use.
22. PRIVATE PROPERTY IMPACTS: Does the proposed regulatory action restrict the use of the regulated person's private property? If not, no further analysis is required.	[N] The Proposed Action and Type and Purpose sections above identify the objectives of this environmental assessment.
23. PRIVATE PROPERTY IMPACTS: Does the agency have legal discretion to impose or not impose the proposed restriction or discretion as to how the restriction will be imposed? If not, no further analysis is required. If so, the agency must determine if there are alternatives that would reduce, minimize or eliminate the restriction on the use of private property, and analyze such alternatives.	[Y] The Proposed Action and Type and Purpose sections above identify the objectives of this environmental assessment. See item 22 above.

IMPACTS ON THE HUMAN POPULATION

24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N]
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- 25. **ALTERNATIVES CONSIDERED: NO-ACTION ALTERNATIVE (DENY THE APPLICANT'S PROPOSED ACTION):** The No-Action Alternative would not allow implementation of the proposed amendment. This would mean that the quarry could not expand beyond the five acres of disturbance that is allowed under the SMES. Shumaker would have to reclaim the site to less than five acres.
- 26. **APPROVE THE APPLICANT'S PROPOSED ACTION:** The Proposed Action would allow additional disturbance over the five acre disturbed and unreclaimed limit imposed by the SMES as the quarry is expanded.
- 27. **APPROVE THE AGENCY MODIFIED PLAN:** No mitigations are proposed.
- 28. **PUBLIC INVOLVEMENT:** Legal notices of the receipt of an application for an operating permit were published in the Great Falls Tribune (May 26, June 2nd and 9th, 2011), and Helena Independent Record (May 25, June 1st and 8th, 2011) as well as a public news release. One comment was received that expressed concern over wear on the area roads. This comment is addressed under Section 11, Human Health and Safety. A public news release will be issued on the results of this EA. A legal notice concerning the application and availability of this EA will be published, and a public comment period provided.
- 29. **OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION:** None.
- 30. **MAGNITUDE AND SIGNIFICANCE OF POTENTIAL IMPACTS:** There would be no significant environmental impacts associated with this proposal. As noted, there would be impacts to soil and vegetation on the disturbed acres. These acres, except the stockpile areas, would be reclaimed at closure. Indirect impacts, such as truck traffic to Highway 200 would continue.
- 31. **CUMULATIVE EFFECTS:** There are no other proposals in the area that would add to the cumulative effects from this proposal. The Savoy Quarry on the north side of Shaw Butte is operated under Operating Permit # 00077. It is currently less than five acres in size. It has been largely inactive for many years. No plans exist for expansion at this time.

RECOMMENDATION FOR FURTHER ENVIRONMENTAL ANALYSIS: The agencies have concluded that impacts from the proposed action would be minimal.

EIS More Detailed EA No Further Analysis.

The DEQ has selected the Approve the Applicant's Proposed Action as the preferred alternative.

EA Checklist Prepared By:

Herb Rolfes, DEQ Operating Permits Section Supervisor

This EA was reviewed by:

Patrick Plantenberg, DEQ Reclamation Specialist

Warren McCullough, DEQ, Environmental Management Bureau, Chief

Approved By:

<u>Warren D. McCullough</u>	<u>11/21/11</u>
Signature	Date
Warren D. McCullough, Chief, Environmental Management Bureau, DEQ	

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