

MT DEQ

Draft Environmental Assessment

Amendment 001 for OP#00045 Schellinger Construction Company, Inc.

Table of Contents

COMPLIANCE WITH THE MONTANA ENVIRONMENTAL POLICY ACT	1
PROPOSED ACTION	1
PURPOSE AND NEED FOR PROPOSED ACTION	1
APPLICANT’S PROPOSED ACTION	1
Figure 1: Schellinger Essex Quarry Location.....	2
Figure 2: Proposed permit disturbance area.....	3
Table 1: Seed mix	4
SUMMARY OF POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS	5
1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE	5
Figure 3: Soils map for the Essex Quarry	6
Table 2: Typical Soil Profiles	7
2. WATER QUALITY, QUANTITY, AND DISTRIBUTION	7
3. AIR QUALITY	8
4. VEGETATION COVER, QUANTITY AND QUALITY	9
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS	10
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES	11
7. HISTORICAL AND ARCHAEOLOGICAL SITES.....	13
8. AESTHETICS.....	13
9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY	14
10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES.....	14
11. HUMAN HEALTH AND SAFETY	15
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION.....	15
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT.....	16
14. LOCAL AND STATE TAX BASE AND TAX REVENUES	16
15. DEMAND FOR GOVERNMENT SERVICES.....	16
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS	17
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES.....	17
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING	18
19. SOCIAL STRUCTURES AND MORES	18

20.	CULTURAL UNIQUENESS AND DIVERSITY	18
21.	PRIVATE PROPERTY IMPACTS	19
22.	OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES.....	19
	ALTERNATIVES CONSIDERED	19
	PUBLIC INVOLVEMENT	19
	RESPONSE TO PUBLIC COMMENTS	20
	OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION.....	20
	CUMULATIVE EFFECTS	20
	NEED FOR FURTHER ANALYSIS AND SIGNIFICANCE OF POTENTIAL IMPACTS	21
	Table 3: Summary of potential impacts that could result from Amendment 001 to Operating Permit #00045	22
	SUMMARY	24
	CITATIONS	25

**Hard Rock Mining Bureau
ENVIRONMENTAL ASSESSMENT**

COMPANY NAME: Schellinger Construction Company, Inc.

OPERATING PERMIT: Operating Permit No. 00045

LOCATION: Essex, MT

Township 30N, Range 16W, Sections 33&34

COUNTY: Flathead County

PROPERTY OWNERSHIP: FEDERAL ____ STATE ____ PRIVATE _X_

COMPLIANCE WITH THE MONTANA ENVIRONMENTAL POLICY ACT

Under the Montana Environmental Policy Act (MEPA), Montana agencies are required to prepare an environmental review for state actions that may have an impact on the human environment. The proposed action is considered to be a state action that may have an impact on the human environment and, therefore, the Department of Environmental Quality (DEQ) must prepare an environmental review. This environmental assessment (EA) will examine the proposed action and alternatives to the proposed action, and disclose potential impacts that may result from the proposed and alternative actions. DEQ will determine the need for additional environmental review based on consideration of the criteria set forth in Administrative Rules of Montana (ARM) 17.4.608.

PROPOSED ACTION

DEQ would approve an application for an amendment (Amendment 001) to Operating Permit No. 00045 for Schellinger Construction Company, Inc. (Schellinger) to increase the permit boundary and permitted disturbance boundary at the Essex Quarry.

PURPOSE AND NEED FOR PROPOSED ACTION

DEQ determined that the application for Amendment 001 to Operating Permit No. 00045 is complete and compliant on October 21, 2020. When an application for a proposed operating permit amendment is complete and compliant, DEQ is required under Section 82-4-337(d), Montana Code Annotated (MCA), to detail in writing the substantive requirements of the Metal Mine Reclamation Act (MMRA) and how the proposed action complies with those requirements. The compliance determination finalized on October 21, 2020, sets forth DEQ's determination that the Schellinger proposed operating permit amendment application complies with the substantive requirements of the MMRA. The proposed operating permit would be issued under the MMRA, Title 82, chapter 4, part 3, MCA.

APPLICANT'S PROPOSED ACTION

Background:

The applicant (Schellinger) has applied for Amendment 001 to Operating Permit No. 00045. Amendment 001 would provide for a continuance of the current practice of mining and producing

crushed rock for construction aggregate at the Essex Quarry.

Location:

The Essex Quarry is located on private land, approximately 2.8 miles northwest of Essex, MT. The site is accessed by an established access road off US Highway 2 at mile marker 177 that proceeds west, past the Montana Department of Transportation maintenance yard.

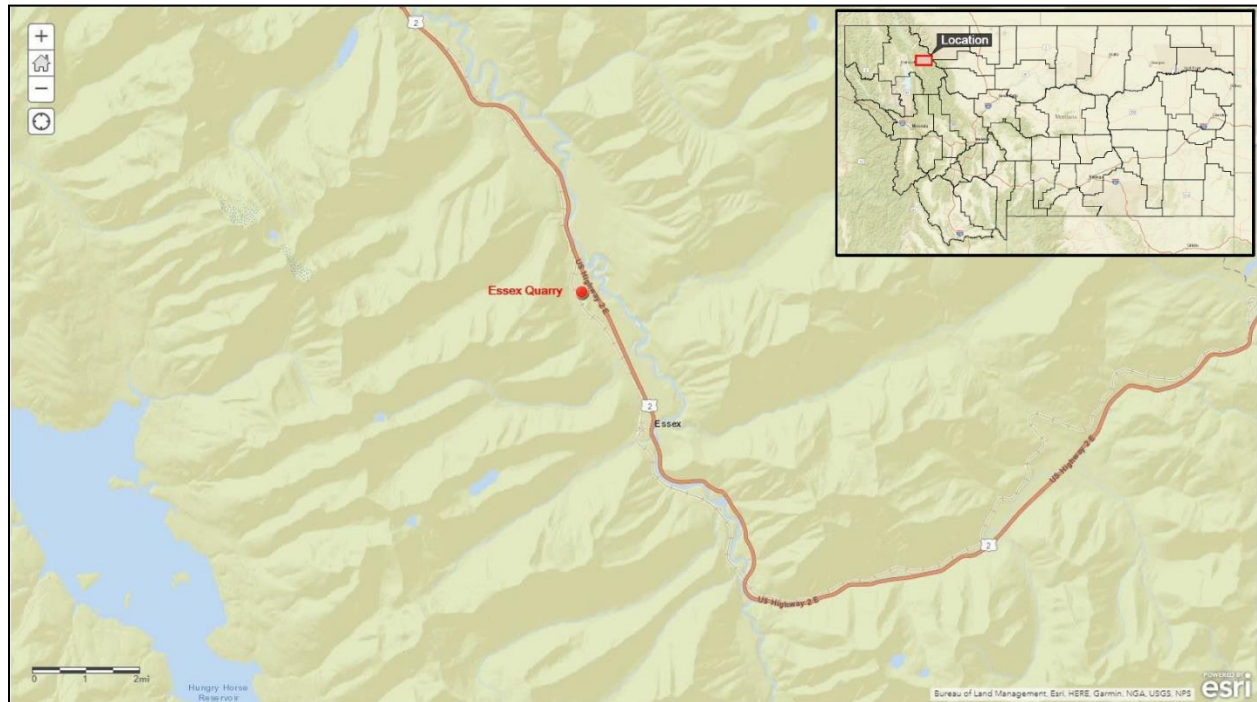


FIGURE 1: SCHELLINGER ESSEX QUARRY LOCATION

Analysis Area:

The area being analyzed as part of this environmental review includes the immediate project area (Figure 2) as well as immediate downstream water sources and neighboring lands surrounding the analysis area as reasonably appropriate for the impacts being considered.

Scope of Activity:

The proposed amendment would increase the current permit area from 39.9 acres to 60.5 acres, and would increase the current permitted disturbance from 34.0 acres to 38.9 acres (Figure 2). The proposed final reclamation date for the site is December 31, 2060.

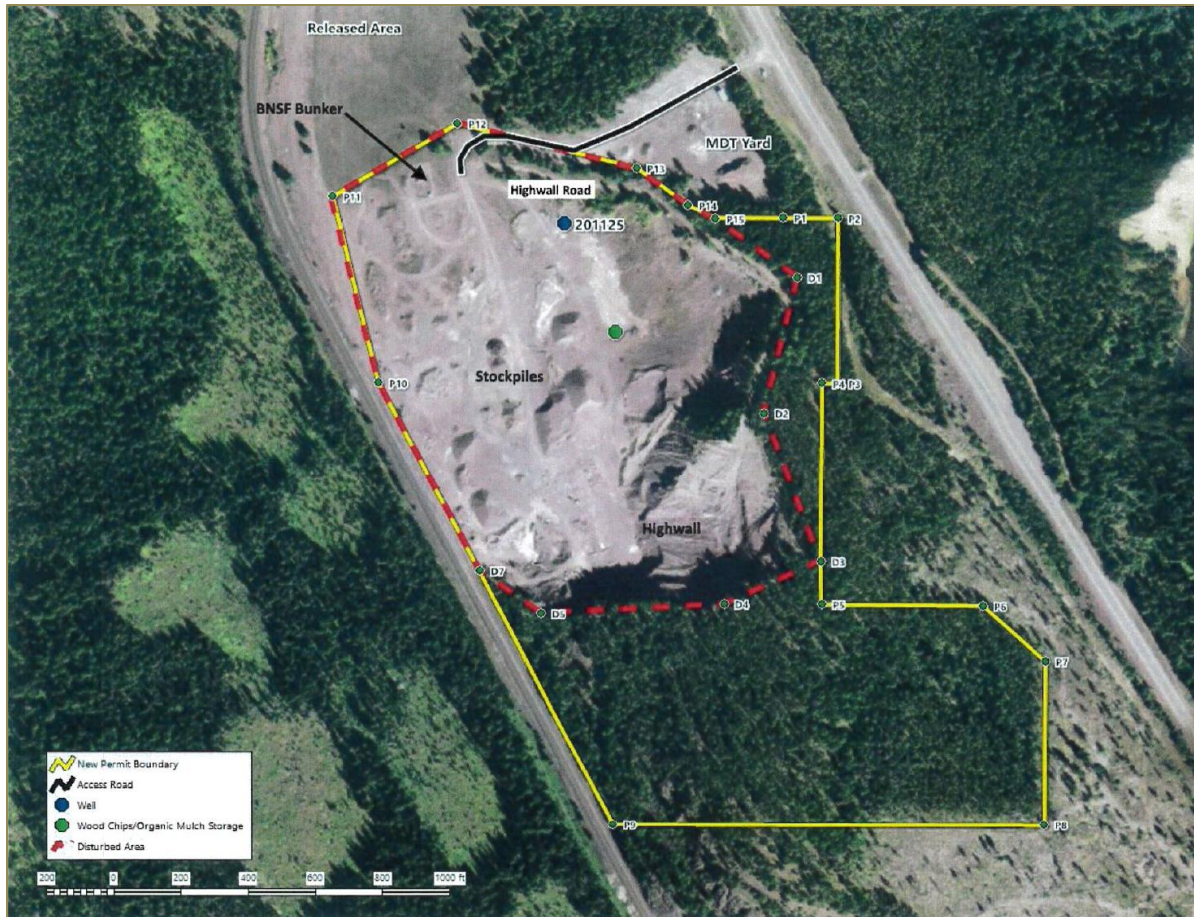


FIGURE 2: PROPOSED PERMIT DISTURBANCE AREA

Activities at the site would be a continuance of the current practice of mining and producing crushed rock for construction aggregate. No additional roads or facilities would be constructed on site. The proposed mining would allow the continued excavation of the current quarry highwall. Similar to current operations, blasting of the highwall would be performed every 2-3 years. A professional blasting contractor would be hired to do the blasting. A mobile crusher would be used on the quarry site to help create the desired product size. Approximately 400 tons of material would be mined per year, processed, and stockpiled for removal as needed.

Duration of Activity:

Mining activity would take place year-round, as needed. Due to the remote location of the site and the lack of any residential areas nearby, the site could be operated 24 hours a day, 7 days a week if needed. The operator would mine the site until the anticipated final reclamation date of 2060, approximately 40 more years.

Personnel and Equipment:

The quarry would be expected to employ 6 people on site during working hours, which are on an as needed basis. Portable crushers, screens and asphalt plants would process the blasted aggregate as it is needed for road construction products and retail aggregate sales. Loaders and excavators would be used to stockpile and load material. Dozers would be used for reclamation or site

development purposes. Material would be removed by belly dump trailers, and end dumps and side dumps. Sometimes rock trucks would be used to move material to the MDT sanding stockpile that is located on the mine access road. Occasionally, rail cars of material would be loaded for the railroad's use.

Reclamation Plan:

The BNSF bunker and laydown area would be left after mining is complete for landowner use. The remaining site would be reclaimed to forested land and rangeland with rocky outcrops. The disturbance area, with exception of the highwall, would be graded at a maximum 3:1 slope and blended into the surrounding topography and drainage ways. The quarry highwall would remain at closure as habitat for birds and rodents. Toe berms with a maximum 2:1 slope would be formed at the base of the highwall.

Topsoil and crusher fines, amended with organic material at a rate of 10 cubic yards per acre, would be spread to a depth of 6 to 8 inches for reclamation of the graded areas. A DEQ-approved seed mix would be drilled into reclaimed soils at a rate of 24 lbs. Pure Live Seed (PLS) per acre or broadcast at a rate 100 percent higher than the drilling seed rate (Table 1).

TABLE 1: SEED MIX

Seed Variety	Drill Seeding	Broadcast Seeding
Slender Wheatgrass	6 lbs./acre PLS	12 lbs./acre PLS
Mountain Brome	9 lbs./acre PLS	18 lbs./acre PLS
Bluebunch Wheatgrass	4 lbs./acre PLS	8 lbs./acre PLS
Blue Wildrye	5 lbs./acre PLS	10 lbs./acre PLS
Total	24 lbs/acre PLS	48 lbs/acre PLS

SUMMARY OF POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS:

The impact analysis will identify and estimate whether the impacts are direct or secondary impacts. Direct impacts occur at the same time and place as the action that causes the impact. Secondary impacts are a further impact to the human environment that may be stimulated, or induced by, or otherwise result from a direct impact of the action ((ARM) 17.4.603(18)). Where impacts would occur, the impacts analysis will also estimate the duration and intensity of the impact.

The duration is quantified as follows:

- Short-term: Short-term impacts are defined as those impacts that would not last longer than the life of the project, including final reclamation.
- Long-term: Long-term impacts are impacts that would remain or occur following project completion.

The intensity of the impacts is measured using the following:

- No impact: There would be no change from current conditions.
- Negligible: An adverse or beneficial effect would occur but would be at the lowest levels of detection.
- Minor: The effect would be noticeable but would be relatively small and would not affect the function or integrity of the resource.
- Moderate: The effect would be easily identifiable and would change the function or integrity of the resource.
- Major: The effect would alter the resource.

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?

The area is dominated by Middle Proterozoic sedimentary group including Mount Shields Formation, Shepard Formation, and Snowslip Formation (Harrison et al., 2002). The Mount Shields formation is characterized by an upper part of quartzite, siltite, and argillite in mud-cracked couples and couplets with abundant salt casts, while the lower part is composed of light gray, flat-laminated, feldspathic, fine-grained quartzite. Dominant lithology of the Shepard Formation is tan-weathering, dolomitic, green siltite and argillite in couplets and microlaminae. Similarly, the Snowslip Formation is composed of green and red siltite and argillite in couplets (USGS, 2020).

The area has a cold and dry climate with a mean annual precipitation of 40.69 inches (USGS StreamStats, 2020) and an average of 198.8 inches of snowfall per year (Western Regional Climate Center, 2020). Andic Cryochrepts, glaciated mountain ridges (soil ID 57-8) makes up the majority of the soil in the active highwall area and the proposed expansion area, while Dystric Eutrochrepts, till substratum (soil ID 27-7) is the remainder of the existing permit disturbance area soil (Figure 3).



FIGURE 3: SOILS MAP FOR THE ESSEX QUARRY

Typical profiles for the quarry soils are found in Table 2.

TABLE 2: TYPICAL SOIL PROFILES

Soil Horizon	Dystric Eutrochrepts	Andic Cryochrepts
A	N/A	1-5 inches: Gravelly Ashy Silt Loam
Bs	3-9 inches: Very Gravelly Silt Loam	5-13 inches: Very Gravelly Ashy Silt Loam
2Bw	9-31 inches: Extremely Cobbly Sandy Loam	13-33 inches: Extremely Gravelly Silt Loam
2C	31-60 inches: Very Cobbly Loamy Sand, Very Gravelly Loamy Sand, Extremely Gravelly Sand Loam	N/A

Direct Impacts:

At the mining and processing site, soil horizons would be disrupted on the quarry floor and on the top of the highwall. The quartzite highwall would remain post-closure. Salvaged soil and/or crusher fines amended with organic material would be replaced on the quarry floor and laydown/stockpile areas, and then contoured to match the surrounding topography as much as possible. The area would then be seeded. Erosion control would be accomplished using sediment control structures and a variety of BMPs as needed, including silt fences, straw wattles, or vegetative buffers.

No fragile soils or unstable geologic features are present at the site. There would be no special reclamation considerations. Surface soil disturbance could allow for the establishment of weeds. Weed control would be required to control the spread of noxious weeds. Noxious weeds are further addressed in “Section 4. Vegetation Cover, Quantity and Quality” (Table 3). Impacts to the geology, soil quality, stability and moisture would be short-term and minor and therefore would not be significant (Table 3).

Secondary Impacts:

Based on the definition in ARM 17.4.603(18), secondary impacts are further impacts to the human environment that may be stimulated, or induced by, or otherwise result from a direct impact of the action. No secondary impacts to the geology and soil quality, stability and moisture would be expected.

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?

Groundwater

The only well within 1,000 feet of the permit area is a well owned by Schellinger (GWIC ID 201125) that is located in the northern part of the permit area (Figure 2). The well is 250 feet in depth and has a static water level of 46 feet below the quarry floor. The well is used for onsite dust control.

Direct Impacts:

There would be no acid rock drainage associated with the waste rock or overburden and no other source of objectionable discharge to groundwater. No water would be used for processing or during the mine operation, except what would be used for dust control. The applicant would be bound to all applicable state and federal rules regarding water quality and quantity. Groundwater quality would not be impacted by sediment, however, could be impacted by other by-products of operation, including spilled fuel and nitrate residual from potential blasting. Impacts to water quality, quantity, and distribution would be short-term and minor and would not be significant as a result of the proposed operations (Table 3).

Secondary Impacts:

Based on the definition in ARM 17.4.603(18), secondary impacts are further impacts to the human environment that may be stimulated, or induced by, or otherwise result from a direct impact of the action. No secondary impacts to groundwater quality, quantity, or distribution would be expected.

Surface Water

There are no surface water features or ephemeral drainages within 1,000 feet of the main permit area. The Middle Fork of the Flathead River lies approximately 1,400 feet east of the permit boundary, and is separated from the permit area by Highway 2.

Direct Impacts:

BMPs would control storm water runoff and reduce opportunity for sediment and/or spilled petroleum products from leaving the permitted disturbance area. Any surface water that may leave the site during a heavy storm event could carry sediment from disturbed soils, but is unlikely to reach any surface water features (Table 3). Schellinger is not required to operate under the Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity at the Essex Quarry for the proposed permit amendment. Impacts to surface water would be short-term and negligible and would not be significant as a result of the proposed operations (Table 3).

Secondary Impacts:

Based on the definition in ARM 17.4.603(18), secondary impacts are further impacts to the human environment that may be stimulated, or induced by, or otherwise result from a direct impact of the action. No secondary impacts to surface water quality, quantity, or distribution would be expected.

3. AIR QUALITY

Would pollutants or particulate be produced? Is the operation influenced by air quality regulations or zones (Class I airshed)?

Dust particulates would be produced or become airborne during operations. Fugitive dust from mining, loading, hauling, or crushing would be controlled by watering as needed. The quantity of water used for dust control is dependent on environmental conditions such as rainfall, wind, time of year, and overall surface conditions.

The operator would be expected to maintain compliance with Montana laws regarding the need to take reasonable precautions to control airborne particulate matter according to the ARM 17.8.308.

Gaseous products of combustion (oxides of nitrogen and carbon monoxide) would result from this operation, specifically from gas and diesel fuel-fired equipment. The mobile crushing and screening equipment used at the quarry is registered under the DEQ Air Quality Crushing and Screening, Concrete, and Asphalt Plant registration program.

Direct Impacts:

There would be some exhaust fumes and dust produced by the on-site equipment and mine activity. Dust control (water or magnesium chloride) would be employed to meet particulate emission requirements. The level of gaseous emissions from the site would be minimal due to the small number of fuel-fired equipment in use at the sites. Impacts to air quality would be short-term and minor and would not be significant as a result of the proposed operations (Table 3).

Secondary Impacts:

Based on the definition in ARM 17.4.603(18), secondary impacts are further impacts to the human environment that may be stimulated, or induced by, or otherwise result from a direct impact of the action. No secondary impacts to air quality would be expected.

4. VEGETATION COVER, QUANTITY AND QUALITY

Would vegetative communities be significantly impacted? Are any rare plants or cover types present?

The vegetation of the permit and surrounding areas is characterized by Conifer-dominated forest and woodland systems: specifically, Rocky Mountain Subalpine Dry-Mesic Spruce-Fir Forest and Woodland, Rocky Mountain Mesic Montane Mixed Conifer Forest, and Rocky Mountain Dry-Mesic Mixed Conifer Forest. Engelmann spruce and subalpine fir make up a substantial part of the Rocky Mountain Subalpine Dry-Mesic Spruce-Fir Forest and Woodlands system, along with seral Douglas-fir, lodgepole pine, western larch, and hybrid Engelmann spruce-white spruce. The understory is comprised of shrubs, forbs, and graminoids. The Rocky Mountain Mesic Mixed Conifer Forest ecology is dominated by western hemlock, western red cedar, and grand fir, while the Rocky Mountain Dry-Mesic Mixed Conifer Forest system is a more variable montane conifer forest consisting of combinations of Douglas-fir, western larch, grand fir, ponderosa pine, and/or lodgepole pine, with a minor aspen occurrence (MTNHP, 2020).

A search of the Montana Natural Heritage Program (MTNHP) identified species occurrences and observations near the proposed amendment area for 2 vascular plant species of concern (SOC), Whitebark Pine and Moonworts (specific observation of Western Moonwort), and 1 moss SOC, Shreber's Dicranella Moss. Additionally, possible habitat for 47 vascular plant, 1 lichen, and 1 moss SOC or potential species of concern (PSOC) was identified. Orange Hawkweed, Meadow Hawkweed, Oxeye Daisy, Common St. John's-wort, Yellow Toadflax, Spotted Knapweed, Canada Thistle, Dalmatian Toadflax, and Cheatgrass, all noxious weeds, have been observed near the permit and proposed amendment area (MTNHP, 2020).

Plant SOC that have been observed near the proposed amendment area are discussed below. None of the SOC occurred or were observed in the permit area or proposed amendment area.

Direct Impacts:

Due to a wide range of suitable habitat surrounding the area, including Flathead National Forest and Glacier National Park, and small amount of disturbed acreage proposed in Amendment 001, impacts to SOC should be minimal. Land disturbance at the site may result in propagation of noxious weeds (Table 3). Any surface disturbances would be reclaimed and seeded with an appropriate seed mix (see Table 1). The project area would be subject to the Flathead County Weed Management Control Plan. Impacts to vegetative cover, quantity or quality resulting from this project would be short-term and minor and would not be significant (Table 3).

Secondary Impacts:

Based on the definition in ARM 17.4.603(18), secondary impacts are further impacts to the human environment that may be stimulated, or induced by, or otherwise result from a direct impact of the action. No secondary impacts to vegetation cover, quantity and quality would be expected.

5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS

Is there substantial use of the area by important wildlife, birds or fish?

Common wildlife around the permit and proposed amendment area consists of black bear, coyotes, deer, elk, fox, moose, raptors, rodents, songbirds, upland birds, and wolves. A search of the MTNHP identified potential habitat for 82 mammal, reptile, invertebrate, bird, and amphibian SOC, PSOC, or sensitive species. SOC that have recorded occurrences near the proposed amendment area include Westslope Cutthroat Trout, Bull Trout, Harlequin Duck, Varied Thrush, Grizzly Bear, Wolverine, Canada Lynx, Pacific Wren, Brown Creeper, Evening Grosbeak, Pileated Woodpecker, Fisher, Alberta Snowfly, Cordilleran Forestfly, and Northern Rocky Mountains Refugium Stonefly. Additionally, SOC, PSOC, and Special Status Species that have been observed near the proposed amendment area include Boreal Owl, Rufous Hummingbird, Tennessee Warbler, Bald Eagle, Gray-crowned Rosy-Finch, Northern Goshawk, Golden Eagle, Lake Trout, and Pygmy Whitefish (MTNHP, 2020).

The Westslope Cutthroat Trout, Bull Trout, Lake Trout, and Pygmy Whitefish have a habitat requirement for open water, which is not found within the permit boundary. Threatened Species, Sensitive Species, and Special Status Species are further discussed in “Section 6. Unique, Endangered, Fragile, or Limited Resources.”

Direct Impacts:

Impacts to wildlife and birds would potentially include temporary displacement of the animals, although habitat found within the project area is common throughout the larger ecosystem. Animals most likely have been previously displaced by the existing permit area and would not be further displaced by the small increase in disturbance area proposed in the amendment. Any displaced animals could find other suitable habitat nearby and return to the project area shortly after the project conclusion. Impacts to terrestrial and avian life and habitat would be short-term and minor and would not be significant. There are no aquatic habitats in the proposed permit area, so no impact on aquatic life would be expected.

Secondary Impacts:

Based on the definition in ARM 17.4.603(18), secondary impacts are further impacts to the

human environment that may be stimulated, or induced by, or otherwise result from a direct impact of the action. No secondary impacts to terrestrial, avian, or aquatic life or habitats that could be stimulated or induced by the direct impacts analyzed above would be expected.

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?

Species of concern and species of potential concern are addressed in “Section 4. Vegetation Cover, Quality and Quantity” and “Section 5. Terrestrial, Avian, and Aquatic Life and Habitats”. Threatened Species, Sensitive Species, and Special Status Species that have occurred or been observed near the proposed amendment area include Westslope Cutthroat Trout, Bull Trout, Harlequin Duck, Grizzly Bear, Wolverine, Canada Lynx, Fisher, Whitebark Pine, Bald Eagle, Western Toad, and Golden Eagle (MTNHP, 2020). The Westslope Cutthroat Trout, Bull Trout, and Harlequin Duck have a habitat requirement for open water, which is not found within the permit boundary. Habitat for the terrestrial species is discussed below.

Grizzly Bear (*Ursus arctos horribilis*) – Grizzly Bears are primarily found in the western part of Montana in meadows, seeps, riparian zones, mixed shrub fields, closed timber, sidehill parks, snow chutes, and alpine slabrock habitats (Montana Field Guide, 2020). The home range of an adult bear may encompass up to six hundred square miles. They do not migrate, but follow food sources to higher elevations in the summer and lower elevations in the winter. Grizzly Bears are primarily found in large tracts of relatively undisturbed land. The Grizzly Bear is listed as a Threatened Species under the Endangered Species Act (USFWS, 2020). Due to a wide range of suitable habitat near the area and existing disturbance proximal to the proposed amendment area, impacts to this species should be minimal.

Wolverine (*Gulo gulo*) – The Wolverine is found in western Montana, as well as throughout Alaska and northern and western Canada. Suitable habitat is alpine tundra and boreal and mountain forests. Mostly large, isolated tracts of wilderness support the diverse prey base required to support the Wolverine, which prefers medium to scattered timber areas. The home range of the Wolverine, a solitary animal, can cover several hundred square miles. Wolverines were nearly extinct in Montana in the early 1900s but have increased in numbers and range since that time. Wolverines are listed as a Sensitive Species by the Bureau of Land Management (Montana Field Guide, 2020). Due to a wide range of suitable habitat near the area and existing disturbance proximal to the proposed amendment area, impacts to this species should be minimal.

Canada Lynx (*Lynx canadensis*) – The Canada Lynx is found in the northern Rocky Mountains and in many parts of Canada and Alaska, generally in subalpine forests. Canada Lynx are listed as Threatened under the Endangered Species Act. In the South Fork Flathead area, near the proposed amendment area, the Canada Lynx was mostly observed in fire-created, densely stocked young stands of lodgepole pine, which is ideal habitat for the Snowshoe Hare, the primary winter food of the lynx. They prefer thick cover for stalking and security (Montana Field Guide, 2020). Therefore, impacts to this species should be minimal due a wide range of

suitable habitat near the area and existing disturbance proximal to the proposed amendment area.

Fisher (*Pekania pennati*) – Fishers are found in northwestern Montana, parts of the Pacific Northwest, and in Canada. They primarily occupy dense coniferous or mixed forests and avoid open areas. Ideal habitat for Fishers are forest tracts of 245 acres or more, interconnected with other regions of similar habitat. Similar to the Canada Lynx, the Snowshoe Hare is an important food source for the Fisher. Fishers were extinct in Montana in the 1930s, but have since been reintroduced. Fisher in the Northern Rocky Mountains of western Montana were removed from listing under the Endangered Species Act in 2017 and are currently listed as a Sensitive Species (Montana Field Guide, 2020). Due to a wide range of suitable habitat near the area and existing disturbance proximal to the proposed amendment area, impacts to this species should be minimal.

Whitebark Pine (*Pinus albicaulis*) – Whitebark Pine is found in major mountain ranges of western and central Montana. Populations in western North America have been threatened by mountain pine beetle and white pine blister rust outbreaks. The species is listed as Sensitive by the Bureau of Land Management (Montana Field Guide, 2020). Due to the small amount of added disturbance proposed in this amendment, impacts to this species should be minimal.

Bald Eagle (*Haliaeetus leucocephalus*) – The Bald Eagle in Montana is primarily found in forested, mountainous areas along rivers and lakes, especially during the breeding season. Important year-round habitat includes wetlands, major water bodies, spring spawning streams, ungulate winter ranges, and open water areas. The Bald Eagle is listed as a Special Status Species. General objectives of habitat management for Bald Eagles in Montana include: maintaining prey bases; maintaining forest stands currently used or suitable for nesting, roosting, and foraging; planning for future potential nesting, roosting, and foraging habitat; and minimizing disturbances from human activities in nest territories, at communal roosts, and at important feeding sites (Montana Field Guide, 2020). Therefore, impacts to this species should be minimal due to existing disturbances that have taken place.

Western Toad (*Anaxyrus boreas*) – The Western Toad is found in western Montana, as well as the Pacific west and northwestern parts of the United States and western Canada. The toad is known to migrate between aquatic breeding and terrestrial nonbreeding habitats, which may include meadows, woodlands, and montane wetlands. Over the last few decades the population has been in decline primarily due to widespread fungal infection, and is now listed as a Sensitive Species (Montana Field Guide, 2020). Impacts to this species should be minimal due to lack of suitable habitat in and near the permit and proposed amendment area.

Golden Eagle (*Aquila chrysaetos*) – The Golden Eagle resides throughout western North America from the Arctic to central Mexico. Golden Eagles nest on cliffs and in large trees (occasionally on power poles), and hunt over prairie and open woodlands (Montana Field Guide, 2020). The Golden Eagle is listed as a Sensitive Species; management involves sustaining native grasslands and shrub-steppe habitats required for hunting prey. Due to a wide range of suitable habitat near the area and existing disturbance proximal to the proposed amendment area, impacts to this species should be minimal.

No wetlands have been identified in the proposed permit area.

Direct Impacts:

Impacts would potentially include temporary displacement of animals (Table 3), although habitat within the project area is common throughout the larger ecosystem and any animals displaced could find other nearby suitable habitat and return to the project area shortly after the project conclusion. Impacts would potentially include increased disturbance of habitat where Whitebark Pine may be present. Impacts to unique, endangered, fragile or limited environmental resources would be short-term and minor and would not be significant (Table 3).

Secondary Impacts:

Based on the definition in ARM 17.4.603(18), secondary impacts are further impacts to the human environment that may be stimulated, or induced by, or otherwise result from a direct impact of the action. No secondary impacts to unique, endangered, fragile, or limited environmental resources that could be stimulated or induced by the direct impacts analyzed above would be expected.

7. HISTORICAL AND ARCHAEOLOGICAL SITES

Are any historical, archaeological or paleontological resources present?

The proposed mine site is entirely located on private land. The Montana Cultural Resource Database under the State Historic Preservation Office indicates that one resource, a historic railroad, is near the proposed amendment site. The railroad is still in operation and is not within the proposed permit boundary.

Direct Impacts:

Impacts to historical, archaeological, or paleontological resources are not likely to occur.

Secondary Impacts:

Based on the definition in ARM 17.4.603(18), secondary impacts are further impacts to the human environment that may be stimulated, or induced by, or otherwise result from a direct impact of the action. No secondary impacts to historical and archaeological sites would be expected.

8. AESTHETICS

Is the proposed operation on a prominent topographic feature? Would it be visible from populated or scenic areas? Would there be excessive noise or light?

The proposed amendment area would be located on private land. The Essex Quarry permit site and proposed amendment area are not visible from any residential areas and are shielded from viewers on Highway 2 by forest cover. Noise from operations and blasting (performed once every 2-3 years) would add to existing highway and railway noise in the area. No residential or recreational areas are nearby, so noise impact on nearby receptors is not expected.

Direct Impacts:

Impacts to aesthetics would be short-term and minor and would not be significant (Table 3).

Secondary Impacts:

Based on the definition in ARM 17.4.603(18), secondary impacts are further impacts to the human environment that may be stimulated, or induced by, or otherwise result from a direct impact of the action. There would be no secondary impacts to the sites as there are few residences in the area.

9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY

Would the proposed operation use resources that are limited in the area? Are there other activities nearby that would affect the project?

Current mining operations at the site use diesel fuel power for equipment and the mobile generators which power the crushing and screening equipment. An onsite fuel island would be used to store diesel fuel for the equipment. Any water needed for dust suppression would come from the onsite well. No water is needed for current operations beyond dust suppression. The proposed amendment operations would not expand any use of resources that are limited in the area.

Direct Impacts:

Any impacts on the demand on environmental resources of land, water, air or energy would be short-term and minor and would therefore not be significant as a result of the proposed operations.

Secondary Impacts:

Based on the definition in ARM 17.4.603(18), secondary impacts are further impacts to the human environment that may be stimulated or induced by, or otherwise result from a direct impact of the action. No secondary impacts to environmental resources of land, water, air or energy would be expected.

10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES

Are there other activities nearby that would affect the proposed operation?

There are no activities in the area that would affect the proposed amendment. DEQ searched the following websites or databases for nearby activities that may affect the project, however no other projects were identified:

- Montana Department of Natural Resource and Conservation
- Montana Department of Environmental Quality
- Montana Department of Transportation
- Flathead County
- United States Department of Interior Bureau of Land Management
- United States Forest Service

Aside from the current quarry operations, the surrounding land is used for transportation and wildlife habitat.

Direct Impacts:

Impacts on other environmental resources are not likely to occur as a result of the proposed operations.

Secondary Impacts:

Based on the definition in ARM 17.4.603(18), secondary impacts are further impacts to the human environment that may be stimulated or induced by, or otherwise result from a direct impact of the action. No secondary impacts to other environmental resources would be expected as a result of the proposed work.

11. HUMAN HEALTH AND SAFETY

Would this proposed operation add to health and safety risks in the area?

The applicant would be required to adhere to all applicable state and federal safety laws. Industrial work such as the work proposed by the applicant is inherently dangerous. The Mine Safety and Health Administration (MSHA) has developed rules and guidelines to reduce the risks associated with this type of labor. The Essex Quarry site is located on private land with a sign to warn the public against entry. No public access would be allowed to the proposed amendment area. Signs would be posted at the tops of the highwall to warn trespassers and employees of danger.

Direct Impacts:

No impacts to public health and safety would result from the proposed action. However, short-term and minor impacts on worker human health and safety would be involved during mining operations.

Secondary Impacts:

Based on the definition in ARM 17.4.603(18), secondary impacts are further impacts to the human environment that may be stimulated or induced by, or otherwise result from a direct impact of the action. No secondary impacts to human health and safety would be expected as a result of the proposed work.

12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION

Would the proposed operation add to or alter these activities?

There are two BLM Oil and Gas lease area located within two miles of the proposed amendment area. The proposed amendment operations are not expected to impact the activities at the oil and gas lease areas.

Direct Impacts:

As noted in the cumulative impacts analysis below, this project would add to the impacts of mining in the existing permit area, however all disturbance related to the proposed amendment would be reclaimed at the conclusion of the project. Impacts on the industrial, commercial, and agricultural activities and production in the area would be minor and short-term, and would not be significant.

Secondary Impacts:

Based on the definition in ARM 17.4.603(18), secondary impacts are further impacts to the human environment that may be stimulated or induced by, or otherwise result from a direct impact of the action. No secondary impacts to industrial, commercial and agricultural activities and production

would be expected as a result of the proposed work.

13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT

Would the proposed operation create, move or eliminate jobs? If so, what is the estimated number?

The Essex quarry is currently operating under the Hard Rock Mine Operating Permit No. 00045. The workforce is not expected to either increase or decrease as a result of the proposed permitting action. Denial of the operating permit may result in the loss of jobs for those currently employed at the site, as the mine could not expand into the proposed amendment area.

Direct Impacts:

All activities would be conducted by current Schellinger employees. No additional work force is anticipated. If market conditions fluctuate, the work force may marginally increase or decrease. No lasting positive or negative impacts to employment would be expected from this project.

Secondary Impacts:

Based on the definition in ARM 17.4.603(18), secondary impacts are further impacts to the human environment that may be stimulated, or induced by, or otherwise result from a direct impact of the action. No secondary impacts to quantity and distribution of employment would be expected as a result of the proposed work.

14. LOCAL AND STATE TAX BASE AND TAX REVENUES

Would the proposed operation create or eliminate tax revenue?

The sale of construction aggregate creates local jobs, providing tax revenue to the state and/or the federal government. The landowner may receive royalties from the operation.

Direct Impacts:

The production and work force would not be anticipated to increase from the existing unpermitted operations to the proposed permit operations, and no change in tax revenues would be anticipated. Continued operation of the site proposed amendment area would result in short-term, minor impacts to the local and state tax base and tax revenues and would not be significant. Denial of the operating permit would result in loss of jobs and subsequently loss of tax revenue.

Secondary Impacts:

Based on the definition in ARM 17.4.603(18), secondary impacts are further impacts to the human environment that may be stimulated, or induced by, or otherwise result from a direct impact of the action. Minor beneficial secondary impacts to local and state tax base and tax revenues would be expected as a result of the proposed work.

15. DEMAND FOR GOVERNMENT SERVICES

Would substantial traffic be added to existing roads? Would other services (fire protection, police, schools, etc.) be needed?

The site is on private land and operations would be a continuance of current activities. The site is located off US Interstate Highway 2.

Direct Impacts:

The site is currently in operation as a permitted mine site. No increase in employment or production is anticipated from the proposed amendment. All traffic related to the mine operation, including heavy equipment and semi-truck traffic would utilize Highway 2, and may cause minor, short-term impacts to the road surface or to traffic patterns.

Secondary Impacts:

Based on the definition in ARM 17.4.603(18), secondary impacts are further impacts to the human environment that may be stimulated, or induced by, or otherwise result from a direct impact of the action. No secondary impacts to the demand for government would be expected as a result of the proposed work.

16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS

Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?

The proposed amendment area is on private land which has been used in the past for wildlife habitat and is adjacent to the existing permitted mine operations. The amendment area would be subject to the Flathead County Weed Management Control Plan. There are no known zoning or other restrictions in place.

Direct Impacts:

DEQ is not aware of any other locally-adopted environmental plans or goals that would impact this proposed project or the project area. Impacts from or to locally-adopted environmental plans and goals would not be expected as a result of this project.

Secondary Impacts:

Based on the definition in ARM 17.4.603(18), secondary impacts are further impacts to the human environment that may be stimulated, or induced by, or otherwise result from a direct impact of the action. No secondary impacts to the locally-adopted environmental plans and goals would be expected as a result of the proposed work.

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?

The site is located on private property and there are no recreational or wilderness areas in the proposed amendment boundaries. The permit and proposed amendment area border USFS Flathead National Forest land. Glacier National Park is located east of the permit area, across Highway 2 and the Middle Fork Flathead River. The USFS Paola River Access Boating Site is approximately 2 miles north of the mine and proposed amendment site.

Direct Impacts:

The proposed amendment does not affect access to nearby wilderness or recreational areas. Visitors to the Flathead National Forest or Middle Fork Flathead River may experience some noise

from the mine, but this would not increase in frequency due to the proposed amendment. Impacts to the quality of recreational activities would be short-term and minor and would not be significant (Table 3). No direct impacts to access to recreational and wilderness activities would be expected from the proposed operation.

Secondary Impacts:

Based on the definition in ARM 17.4.603(18), secondary impacts are further impacts to the human environment that may be stimulated, or induced by, or otherwise result from a direct impact of the action. No secondary impacts to access and quality of recreational and wilderness activities would be expected as a result of the proposed work.

18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING

Would the proposed operation add to the population and require additional housing?

As noted above in “Section 13, Quantity and Distribution of Employment,” the mine site would not be expected to add to or decrease the local population or employment of Schellinger.

Direct Impacts:

No direct impacts to density and distribution of population and housing would be expected from the proposed operation.

Secondary Impacts:

Based on the definition in ARM 17.4.603(18), secondary impacts are further impacts to the human environment that may be stimulated, or induced by, or otherwise result from a direct impact of the action. No secondary impacts to density and distribution of population and housing would be expected as a result of the proposed work.

19. SOCIAL STRUCTURES AND MORES

Is some disruption of native or traditional lifestyles or communities possible?

Direct Impacts:

The proposed operation would occur entirely on private land. No disruption of native or traditional lifestyles would be expected.

Secondary Impacts:

Based on the definition in ARM 17.4.603(18), secondary impacts are further impacts to the human environment that may be stimulated or induced by, or otherwise result from a direct impact of the action. No secondary impacts to social structures and mores would be expected as a result of the proposed work.

20. CULTURAL UNIQUENESS AND DIVERSITY

Would the action cause a shift in some unique quality of the area?

Direct Impacts:

There are no unique qualities that would be affected by the proposed operations. The proposed amendment site has been previously used for woodland and wildlife habitat and would be

reclaimed after mine operations cease. No impacts to cultural uniqueness and diversity would be expected from this project.

Secondary Impacts:

Based on the definition in ARM 17.4.603(18), secondary impacts are further impacts to the human environment that may be stimulated, or induced by, or otherwise result from a direct impact of the action. No secondary impacts to cultural uniqueness and diversity would be expected as a result of the proposed work.

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. Does the proposed regulatory action restrict the use of the regulated person's private property? If not, no further analysis is required. Does the agency have legal discretion to impose or not impose the proposed restriction or discretion as to how the restriction would 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.

The proposed project would take place on private land owned by Schellinger. DEQ has determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements under the Metal Mine Reclamation Act and demonstrate compliance with those requirements, or have been agreed to by the applicant. Therefore, DEQ's issuance of an Operating Permit would not have private property-taking or damaging implications for the regulated person (Schellinger)'s private property.

22. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES

Due to the nature of the proposed activities, and the limited operations, no further direct or secondary impacts would be anticipated from these proposed activities.

ALTERNATIVES CONSIDERED

In addition to the proposed actions, DEQ also considered the "no action" alternative. The "no action" alternative would deny Amendment 001 of Schellinger Operating Permit No. 00045. Schellinger would lack the authority to expand operations on the property beyond what is allowed under the currently approved Operating Plan. Any potential impacts that would be authorized under the proposed amendment would not occur. However, DEQ does not consider the "no action" alternative to be appropriate because Schellinger has demonstrated a willingness to comply with all applicable rules and regulations in the submitted proposal as required for permit issuance. The no action alternative forms the baseline from which the impacts of the proposed action can be measured.

PUBLIC INVOLVEMENT

Scoping for this proposed action consisted of internal and external efforts to identify substantive issues and/or concerns related to the proposed operation. Internal scoping consisted of internal

review of the environmental assessment document by DEQ staff.

Notice of the application for Amendment 001 was published June 30, 2020. External scoping is ongoing and will include a public comment period which will end on December 8, 2020. External scoping efforts also included queries to the following websites/databases/personnel:

- Montana Department of Environmental Quality (DEQ)
- Montana Cadastral Mapping Program
- USDA NRCS Soil Survey
- Montana Natural Heritage Program (MTNHP)
- Montana State Historic Preservation Office (SHPO)
- Montana Department of Natural Resource and Conservation (DNRC)
- Montana Department of Transportation
- United States Department of Interior Bureau of Land Management (BLM)
- United States Forest Service (USFS)
- United States Fish & Wildlife Service (USFWS)
- Flathead County
- US Geological Society – Stream Stats
- Montana Groundwater Information Center (GWIC)
- Montana Bureau of Mines and Geology (MBMG)
- United States Geological Survey (USGS)

RESPONSE TO PUBLIC COMMENTS

Scoping for this proposed action will include a 30-day public comment period. The public will be notified of the opportunity for comment through a DEQ-issued press release and posting on the DEQ website. Substantive public comments will be considered before DEQ issues the final EA.

OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION

The proposed project would be fully located on private land. All applicable state and federal rules must be adhered to, which, at some level, may also include other state, federal, or tribal agency jurisdiction.

CUMULATIVE EFFECTS

Cumulative impacts are the collective impacts on the human environment within the borders of Montana of the Proposed Action when considered in conjunction with other past and present actions related to the Proposed Action by location and generic type. Related future actions must also be considered when these actions are under concurrent consideration by any state agency through preimpact statement studies, separate impact statement evaluation, or permit processing procedures.

This environmental review analyzes the proposed project submitted by the applicant. Any impacts from the proposed operation would be short-term and would be fully reclaimed, while allowing certain structures to remain that have a post mining use at the conclusion of the proposed operation. Thus, the proposed project would not contribute to long-term cumulative effects on the area. Other

than the existing Essex Quarry operations, DEQ has identified no mining projects in the area.

Two active BLM oil and gas lease sites were identified within two miles of the proposed amendment area. No other DNRC, BLM, or USFS regulated projects were identified in the project vicinity. DEQ considered all impacts related to this project and secondary impacts that may result. Cumulative impacts related to this project are identified in the Table 3. Cumulative impacts related to this project would not be significant.

NEED FOR FURTHER ANALYSIS AND SIGNIFICANCE OF POTENTIAL IMPACTS

When determining whether the preparation of an environmental impact statement is needed, DEQ is required to consider the significance criteria set forth in ARM 17.4.608, which are as follows:

1. The severity, duration, geographic extent, and frequency of the occurrence of the impact;
2. The probability that the impact would occur if the proposed action occurs; or conversely, reasonable assurance in keeping with the potential severity of an impact that the impact would not occur;
3. Growth-inducing or growth-inhibiting aspects of the impact, including the relationship or contribution of the impact to cumulative impacts;
4. The quantity and quality of each environmental resource or value that would be affected, including the uniqueness and fragility of those resources and values;
5. The importance to the state and to society of each environmental resource or value that would be affected;
6. Any precedent that would be set because of an impact of the proposed action that would commit the department to future actions with significant impacts or a decision in principle about such future actions; and
7. Potential conflict with local, state, or federal laws, requirements, or formal plans.

TABLE 3: SUMMARY OF POTENTIAL IMPACTS THAT COULD RESULT FROM AMENDMENT 001 TO OPERATING PERMIT #00045

Potential Impact	Affected Resource and Section Reference	Severity ¹ , Extent ² , Duration ³ , Frequency ⁴ , Uniqueness and Fragility (U/F)	Probability ⁵ impact will occur	Cumulative Impacts	Measures to reduce impact as proposed by applicant	Significance (yes/no)
Erosion of disturbed soil	Soil 1. Geology	<p>S-high: All proposed disturbance area could be susceptible to erosion.</p> <p>E-medium: Total surface disturbance would be increase from 34.0 acres to 38.9 acres over the next 25 years.</p> <p>D-Until disturbed land is fully reclaimed, including additional growing seasons for vegetation re-establishment.</p> <p>F-During occasional storm events.</p> <p>U/F-Not unique or particularly fragile.</p>	Possible	Erosion would add to cumulative impacts associated with potential erosion on existing roads and mined surfaces.	Schellinger, would manage erosion control using sediment control structures and a variety of Best Management Practices (BMPs), including silt fences, straw wattles, or vegetative buffers.	No
Weed propagation associated with surface disturbance	Soil & Vegetation 1. Geology 4. Vegetation	<p>S-high: All disturbed surfaces would be susceptible to weed propagation.</p> <p>E-medium: Total surface disturbance would increase by 4.9 acres. Land in the immediate project area that would also be susceptible to weed propagation as a result of weeds growing at the mine site would be approximately 50 acres.</p> <p>D- Until disturbed land is fully reclaimed, including additional growing seasons for vegetation re-establishment.</p> <p>F-Twice: After excavation and after reclamation.</p> <p>U/F-Not unique or particularly fragile.</p>	Possible	Weed propagation from this project would add to any other area weeds that already exist within and near the proposed project area.	Weed control would be a requirement of the operating permit. The project would be subject to the Flathead County Weed Management Control Plan. Schellinger would be expected to follow the approved reclamation plan.	No

Potential Impact	Affected Resource and Section Reference	Severity ¹ , Extent ² , Duration ³ , Frequency ⁴ , Uniqueness and Fragility (U/F)	Probability ⁵ impact will occur	Cumulative Impacts	Measures to reduce impact as proposed by applicant	Significance (yes/no)
Dust and equipment exhaust	Air 3. Air Quality	<p>S-medium: Dust and other particulate would be generated during construction/reclamation, crushing, and driving on/off site. Engines would produce some exhaust fumes.</p> <p>E-medium: Dust and exhaust fumes would be generated in proximity of moving/working equipment, and from dry exposed soil associated with new haul road and trench area.</p> <p>D- Until mining operations cease, and disturbed land is graded and soiled.</p> <p>F-Daily: During mining and initial reclamation operations.</p> <p>U/F-Not unique or particularly fragile.</p>	Certain	Dust and exhaust would add to the cumulative impacts from other vehicles/engines operating in the area, and to potential natural wildfire smoke moving through the area.	The crusher is registered DEQ Air Quality Crushing and Screening, Concrete, and Asphalt Plant registration program. Dust suppression would be provided by the mine site's water truck as necessary. OEM exhaust controls would be utilized on mechanized equipment.	No
Displacement of fragile resource (Species of Concern, Species of Special Concern)	5. Terrestrial, Avian, and Aquatic Life and Habitats 6. Unique, endangered, fragile, or limited resources	<p>S-low: Increase of 4.9 acres of disturbance; surrounding area includes suitable habitat.</p> <p>E-low: Total surface disturbance would be 38.9 acres, increased from 34.0 acres.</p> <p>D- Until disturbed land is fully reclaimed, including additional growing seasons for vegetation re-establishment.</p> <p>F-During mining activity, which is expected to occur during as needed for the life of mine, and reclamation operations.</p> <p>U/F-Unique.</p>	Probable	Displacement of Species of Concern as a result of this project would add to the cumulative impacts associated with the adjacent agricultural land, residential development, and recreational areas.	None.	No

1. Severity describes the concentration at which the impact may occur. Levels used are low, medium, high.
2. Extent describes the land area over which the impact may occur. Levels used are small, medium, and large.
3. Duration describes the time period over which the impact may occur. Descriptors used are discrete time increments (day, month, year, and season).
4. Frequency describes how often the impact may occur.
5. Probability describes how likely it is that the impact may occur without mitigation. Levels used are: impossible, unlikely, possible, probable, certain.

SUMMARY

The severity, duration, geographic extent, and frequency of the occurrence of the impacts associated with the proposed activities would be limited. Schellinger Construction Co. Inc., is proposing to increase the current permit boundary by 20.6 acres and increase permitted disturbance from 34.0 acres up to 38.9 total acres with a life of mine of about 40 years. The proposed amendment would be a continuance of current construction aggregate mining activities at the site.

DEQ has not identified any significant impacts associated with the proposed activities for any environmental resource. Approving Amendment 001 to Operating Permit #00045 does not set any precedent that commits DEQ to future actions with significant impacts or a decision in principle about such future actions. If the applicant submits another operating permit application, DEQ is not committed to issuing those authorizations. DEQ would conduct an environmental review for any subsequent authorizations sought by the applicant that require environmental review. DEQ would make a permitting decision based on the criteria set forth in the MMRA. Approving Amendment 001 to Operating Permit #00045 does not set a precedent for DEQ's review of other applications for operating permits, including the level of environmental review. The level of environmental review decision is made based on a case-specific consideration of the criteria set forth in ARM 17.4.608.

Finally, DEQ does not believe that the proposed activities by the applicant have any growth-inducing or growth-inhibiting aspects or conflict with any local, state, or federal laws, requirements, or formal plans.

Based on a consideration of the criteria set forth in ARM 17.4.608, the proposed activities are not predicted to significantly impact the quality of the human environment. Therefore, preparation of an environmental assessment is determined to be the appropriate level of environmental review under the Montana Environmental Protection Act.

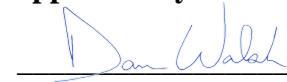
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11/09/2020

Signature

Date

Dan Walsh, Bureau Chief
Hard Rock Mining Bureau, DEQ

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