

LHC, Inc.
Opencut Permit #3473

Clearwater-State site
Missoula County, MT

April 2023
Environmental Assessment

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Montana Department of Environmental Quality
Air, Energy, & Mining Division
Mining Bureau
ENVIRONMENTAL ASSESSMENT (EA)

COMPANY NAME: LHC, Inc.
EA DATE: April 2023
PROJECT: Clearwater-State
PERMIT/LICENSE: 3473
AMENDMENT #: 0
LOCATION: 47.046788, -113.389934 **COUNTY:** Missoula

PROPERTY OWNERSHIP: FEDERAL STATE PRIVATE

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 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 issue Opencut Permit OC#3473 (permit) to LHC, Inc. (Applicant) if DEQ has determined that LHC, Inc. has met the criteria set forth in 82-4-432, Montana Code Annotated (MCA). If approved, the permit to conduct mining activities would be granted until December of 2040. The application for OC#3473 was submitted on March 27, 2023. The applicant has revised and resolved outstanding deficiencies regarding their application, and addressed all of the deficiencies on April 27, 2023.

PURPOSE AND NEED

DEQ's purpose and need in conducting this environmental review is to act upon LHC, Inc.'s application for a permit to conduct mining activities in compliance with the Opencut Mining Act. Pursuant to 82-4-432, MCA, the application was determined to be complete on March 28, 2023.

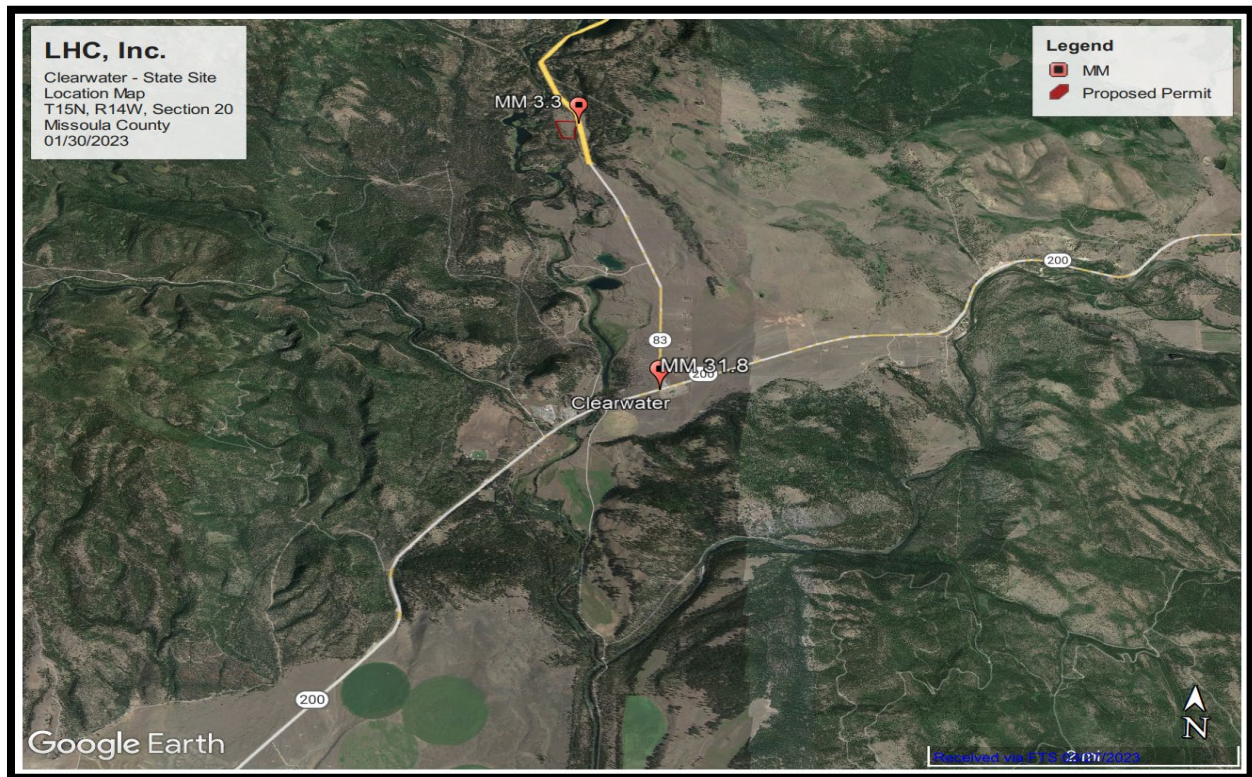
Table 1: Summary of activities proposed in application.

Summary of Proposed Activities in application	
General Overview	<p>The Applicant proposes to mine, screen, crush, stockpile, and transport material from a 21.2-acre site located approximately 3.25 north of the Clearwater Junction, MT. The site would be on DNRC School Trust Lands. The Applicant has submitted a bond for a maximum highwall height of 20 feet, which typically correlates to depth of mining. Typical opencut excavating, hauling, and processing equipment will likely be used on site (described below). Final Reclamation would be complete by December 2040.</p> <p>At the conclusion of mining, the site would be reclaimed to ‘cropland/farmland, rangeland, and or pasture’.</p> <p>The proposed site would be eligible for Phase I Release after ripping/deep-tilling and disking areas within the proposed permit area that are affected by compaction, restoring slopes to 3:1 or flatter slope, replacing salvaged soil and overburden, and seeding the site with the appropriate seed mix. The site would be eligible for Phase II Release after two full growing seasons have passed and after the site is reclaimed to Phase I Release requirements, and vegetation is well-established. The Applicant may file to extend the final reclamation date if the Applicant wishes to continue to mine the site.</p>
Proposed Dimensions	
Total permitted acreage	21.2 acres with a bond for up to 1,000 linear feet of highwall that would be up to 20 feet high.
Facilities and surface disturbance	There is an apiary within the proposed site boundary that would be moved off site if the permit is issued.
Specific Proposed Activities	
Duration and timing	<p>Start Date: Start date is defined as the date on which DEQ issues the Opencut Permit. §§ 82-4-432(10)(c), (14)(d), MCA.</p> <p>Final Reclamation Date: December 2040</p> <p>Final reclamation date is defined as the date that applicant identifies in the application for a permit.</p> <p>The applicant has not proposed any specific hours of operation, so this environmental review is analyzing the effects of operations taking place for 24 hours per day and seven days per week. However, it is probable that the permit issued by the DNRC Trust Lands Minerals Management Bureau will contain restrictions and/or constraints (such as hours of operation, etc.) that the Opencut Act does not require.</p> <p>Upon final reclamation, the site would be reclaimed to ‘cropland/farmland, rangeland, and or pasture’.</p> <p>Phase I and Phase II reclamation requirements are required to be met prior to the December 2040 reclamation date stated in the application. The Applicant may file to extend the final reclamation date if the Applicant wishes to continue to mine the site.</p>

Equipment	Typical opencut excavating/hauling equipment includes a backhoe, bulldozer, dump/haul truck, excavator, loader, scraper, and skidsteer. Typical opencut processing equipment includes an asphalt plant, crusher, pug mill, screen, and conveyor. Processing equipment may be stationary or mobile (moves with highwall as mining progresses across the site. Equipment could also be moved on and off the site as needed by the Applicant.
Location and Analysis Area	Location: Error! Reference source not found. Distance from nearest town/city: Approximately 3.25 miles north of Clearwater Junction, MT. Analysis Area: The area being analyzed as part of this environmental review includes the immediate project area as well as neighboring lands surrounding the analysis area, as appropriate for the impacts being considered. Refer to Location Map below.
Structures	No new structures are proposed for this project. The permit does not describe any existing structures.
Project Water Source	As this is a Dryland site, it is unknown whether water would be used on site or what the source of water would be.
Supplemental Lighting	To comply with MSHA regulations, it is assumed that artificial light sources would be used on site during periods of operations when no sunlight is available.
Air Quality	Any applicable air quality permits for equipment would also be obtained prior to commencement of mining activities. The applicant is required to comply with the applicable local, county, state, and federal requirements pertaining to air quality.
Water Quality	The applicant is required to comply with the applicable local, county, tribal, state, and federal requirements pertaining to water quality.
Erosion Control and Sediment Transport	At the first seasonal opportunity, the Applicant would be required to shape and seed salvaged soil stockpiles that would remain in place for two years or more with an approved perennial seed mix to ensure the stability and protection of soil resources and prevent transport off the site. The applicant is required to comply with the applicable local, county, tribal, state, and federal requirements.
Solid Waste	The applicant is required to comply with the applicable local, county, state, and federal requirements pertaining to solid waste.
Cultural Resources	The applicant has not proposed any actions that would reduce any potential impacts to cultural resources. The applicant is required to comply with the applicable local, county, tribal, state, and federal requirements pertaining to cultural resources.
Aesthetics	There would be a temporary alteration of aesthetics while mining is underway.
Hazardous Substances	Asphalt Plant production materials would also be stored on site. The applicant is required to comply with the applicable local, county, tribal, state, and federal requirements pertaining to hazardous substances.
Weed Control	Noxious weeds are required to be controlled on site at all times throughout the life of the permit.

<p>Operation Requirements</p>	<p>The proposed opencut operation would need to comply with the Act and Rules governing permitted opencut operations. The activities proposed by the Applicant may be subject to additional regulatory oversight and operating conditions at federal, state (such as the DNRC Minerals Management Bureau), tribal, county, and/or local levels. The proposed activities examined in this EA do not necessarily meet operational or regulatory requirements beyond those set forth in the Act and Rules.</p>
<p>Reclamation Plans</p>	<p>Upon commencement of mining, 24 inches of soil be salvaged from the area where opencut activity would occur and stockpiled within the bonded area, for reclamation purposes.</p> <p>Upon final reclamation, 24 inches of soil would be replaced in areas that have been affected by mining and mining related activities. The site would be reclaimed to ‘cropland/farmland, rangeland, and or pasture’ as listed in the application. A seed mix type would be selected by the Landowner.</p> <p>The proposed site would be eligible for Phase I Release after ripping/deep-tilling and disking areas within the proposed permit area that are affected by compaction, restoring slopes to a 3:1 or flatter, replacing soil and seeding the site. The proposed site would be eligible for Phase II Release after two full growing seasons have passed after the site is reclaimed to Phase I Release standards, and vegetation is well established. Phase I and Phase II reclamation requirements are required to be met prior to the December 2040 reclamation date stated in the application. The Applicant may also file to extend the final reclamation date if the Applicant wishes to continue to mine the site.</p>

Figure 1: Project Location Map



SUMMARY OF POTENTIAL IMPACTS:

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 will be described.

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 pre-impact statement studies, separate impact statement evaluation, or permit processing procedures. The projects identified in Table 1 were analyzed as part of the cumulative impacts assessment for each 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 Applicant proposes to mine material from a 21.2-acre site located on DNRC School Trust Lands north of the Clearwater Junction, MT. The site is situated on a stream terrace that is derived from alluvium. The onsite soils mapped by the Natural Resources Conservation Service (NRCS) consist of predominately Perma gravelly loam, 0-4% slopes and Totelake gravelly loam, 8-30% slopes ([NRCS](#), Nov.2022). This area receives 15-22 of precipitation per year and is located at approximately 3,950 feet above mean sea level ([NRCS](#), Nov.2022). As part of reclamation, the Applicant would replace 24 inches of soil as stated in the permit application.

Direct Impacts: An irreversible and irretrievable removal of open-cut materials from the site would occur. The Applicant has proposed that 24 inches of soil would be salvaged for final reclamation across the 21.2-acre site and stockpiled within the proposed permit boundary for final reclamation. A small impact to the quantity and quality of soils from salvaging, stockpiling, and resoiling activities also would occur, but this would not impair the capacity of the soils to support final reclamation of the site. There are no unusual or fragile topographic, geologic, soil, or special reclamation considerations that would prevent reclamation success, nor are there any such features of statewide or societal importance present.

The information provided above is based on the information that DEQ had available at the time of completing this EA. Available information was obtained from the permit application, site inspection, analysis of aerial photography, topographic maps, geologic maps, soil maps, and other research tools listed in the reference section below. Based on this information, DEQ does not anticipate an impact to geology and soil quality, stability and moisture. No unusual or unstable geologic features are present, and no fragile or particularly erosive or unstable soils are present.

Impacts to topography would be minor and long-term.

Secondary Impacts: No secondary impacts to topography, geology, 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?

Prior to submitting the application, the Applicant was required to provide three test holes. The applicant did not encounter ground water or surface water in these test holes which were dug to 14 feet below ground surface. The Applicant has submitted a bond for a highwall that is a maximum of 20 feet high, which typically correlates to the depth of planned mining. The site is located on a terrace that sits at an elevation of approximately 3,950 feet while Elbow Lake (Clearwater River) is situated about 100 feet lower in elevation at roughly 3,850 feet. Based on static water level of wells located in the surrounding area as well as the difference in elevation between the proposed site and that of Elbow Lake, disturbance would occur above groundwater. There are no defined modern surface water channels within the proposed project area, although there are abandoned channels both within the permit area and to the east across Highway 83, likely from before the Clearwater incised into its current position. Elbow Lake (Clearwater River) is located 1,250 horizontal feet to the west at its closest point.

The operator has submitted a bond for crushing asphalt on site. In accordance with the bond, a maximum of 5,000 cubic yards of asphalt can be stockpiled onsite. During the final reclamation process, on-site asphalt stockpiles would be removed from the site and disposed of in a lawful manner or recycled into useful products which are removed from the site.

Petroleum products would likely be present onsite as fuel, lubricant, asphalt production, etc. The Opencut Act does not directly have any control over these products or how they are stored, but the operator would be subject to all federal, state, etc. laws regarding storage, water quality, etc.

Twenty-four (24) inches of soil would be salvaged for reclamation. At the first seasonal opportunity, the Applicant would be required to shape and seed any soil stockpiles that would remain in place for two years with an approved seed mix. Upon final reclamation, the land surface would be resoiled, revegetated and graded to slopes of 3:1 or flatter.

Direct Impacts: The information provided above is based on the information that DEQ had available to it at the time of completing this EA. Sources include the permit application, analysis of aerial photography, topographic maps, site inspections, a site inspection, and other research tools. Based on this information, DEQ does not anticipate an impact to surface water or groundwater quality or quantity and distribution management.

During the beginning stages of mining, surface water that may leave the site during a heavy storm event could carry sediment. Although Dryland Opencut applications do not specify site topography or drainage patterns during or after mining, the depression caused by mining activities would likely cause runoff to drain internally into the site. Precipitation and surface water runoff leaving the site would generally be expected to infiltrate into the subsurface. The nearest surface water is a pond that is located approximately 670' south of the proposed project area. Elbow Lake (Clearwater River) runs north-south to the west and is 1,250 feet away at the closest point.

The Applicant would be required to obtain all other necessary permits to comply with any other applicable federal, state, tribal, county or local regulations, or ordinances and permits, licenses, and approval for the operation. As long as the Applicant complies with the conditions of any necessary water quality permits, any impacts to the surface water would be short-term and would be negligible as a result of the proposed action.

Secondary Impacts: No secondary impacts to water quality, quantity and distribution would be expected.

Opencut laws do not regulate water quality or quantity. However, Applicants are required to comply with all laws relating to water, such as the federal Clean Water Act and the Montana Clean Water Act, and to obtain all required permits, such as an MPDES permit. It is anticipated that the proposed opencut operation would have a negligible impact on water quality and water quantity.

3. AIR QUALITY:

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

Nonmetallic mineral processing sites can consist of portable asphalt plants, rock crushers, screens, conveyor belts, and portable generator sets. The proposed permitting action would allow for the mining, screening, crushing, stockpiling, and transportation of material from an undisturbed area to local areas where the material is needed for construction activities as well as using the mined material to produce hot mix asphalt for road construction.

In the hot mix asphalt production process, mined and screened material is mixed with hot oil in a rotating drum to both dry the aggregate and mix the aggregate with hot asphalt oil. The aggregate/hot oil mixture is then dumped into trucks and transported to the job site.

Opencut laws do not regulate air quality, however, Applicants are separately required to comply with all laws relating to air, such as the Federal Clean Air Act, National Ambient Air Quality Standards set by the Environmental Protection Agency (EPA) and the Clean Air Act of Montana.

Direct Impacts: Fugitive dust from point source mining activities could be generated from mining, conveying, screening, and crushing. Fugitive dust from non-point source mining activities could be generated from the pit floor, soil stockpiles, equipment used onsite and gravel roads used for access. Dust consisting of particulate matter (PM), and particulate matter with an aerodynamic diameter of less than 10 microns (PM₁₀), and particulate matter with an aerodynamic diameter of less than 2.5 microns (PM_{2.5}) could be generated from mining of sand and gravel as well as crushing and screening of material. Dust impacts from mining activities would be mitigated by the revegetation of soil stockpiles. Water may be used to control dust on site. Under normal opencut operations, utilization of an asphalt plant is project driven and typically an asphalt plant would not be operated continuously. Emissions from the operation of standard mining equipment used onsite could also temporarily impact air quality.

Minor impacts to air quality, including odor, could be expected due to an asphalt facility emitting a limited amount of air pollutants. Impacts from mining activities would be mitigated by the revegetation of soil stockpile. Any impacts to the air would be short-term and would be negligible

as a result of the proposed permit application based on commitments and certifications made by the Applicant in the application.

Secondary Impacts: Negligible impacts from asphalt plants could be expected with the proposed action in the event of an equipment malfunction.

4. VEGETATION COVER, QUANTITY AND QUALITY:

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

There are no rare or sensitive plants or cover types known to be present within the proposed permit boundary although the Montana Natural Heritage Program identifies that they occur or can occur in the area. No known fragile or unique resources or values, or resources of statewide or societal importance, are present within the proposed permit boundary.

Onsite vegetation consists of timber species and various grasses based on observations made during a site inspection and with aerial photography of the area. Common mullein was also identified on site. The estimated cover in undisturbed areas provides greater than 90% cover as estimated from aerial photography and by observations made during the site inspection.

Existing vegetation would be removed as 24 inches of soil is stripped and salvaged. The site would be replanted with a seed mix designated by the Landowner at the time of reclamation. The post mining land use for this site would be ‘cropland/farmland, rangeland and/or pasture’ with slopes restored to 3:1 or flatter and a seed mix specified by the Montana Department of Natural Resources and Conservation.

Additionally, the applicant is required to submit notification to the weed board in the county or counties in which the proposed opencut operation is located.

Direct Impacts: Based on information included in the permit application, site inspection, and analysis of aerial photography in the DEQ Opencut Web Mapping Application, DEQ does not anticipate an impact to rare plant vegetation cover, quantity, and quality.

The Applicant would be required to control weeds throughout the project area during the life of the permit.

Secondary Impacts: Land disturbance at the site may result in propagation of noxious weeds. Noxious weeds would be required to be controlled throughout the life of the permit. Final release of the site and permit termination would not happen if noxious weeds were not controlled at the site. Soil stockpiles that would remain in place for more than two years are required to be seeded at the first seasonal availability. Any surface disturbances would be reclaimed and seeded with an appropriate seed mix. If the Permit were approved, weed control during and after mining would be a requirement.

5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:

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

The proposed permit area is primarily forested land and is part of the Montana School Trust Lands managed by the Department of Natural Resources & Conservation (DNRC). Based on available

information, it also likely could support individual members of populations of black bears, coyotes, elk, deer, fox, raptors, rodents, songbirds, etc. Additionally, public comments about the proposal noted populations of osprey, bald eagles, golden eagles, grizzly bears, black bears, mountain lions, otters, stoats, fox, beavers, common loons, trumpeter swans, herons, deer, elk, wood ducks, mallard ducks, mergansers, buffleheads, red tail hawks, sandhill cranes, and Canadian geese. Population numbers for species listed in this section are not known, but all commonly occur in the region.

Public comments have also noted that the area is a migration corridor for species, due to the shallow water at the mouth of Elbow Lake and the presence of the Blackfoot-Clearwater Wildlife Management Area across Highway 83. Due to this value to wildlife, the area is designated as Resource Protection 1 in the Seeley Lake Regional Plan adopted by the Missoula County Board of County Commissioners in 2010. The land use classification system is designed to protect important resource land and areas of natural hazard, and Resource Protection 1 designation is intended to provide the “greatest potential resource protection on lands with the highest values for biodiversity, fish and wildlife habitat, forest production, recreation, wetlands, and other resources”. The Plan recommends that areas designated as such should remain undeveloped, but if development occurs, it should be accompanied by measures that minimize impacts to natural resources. However, Missoula County indicated that the site was not zoned.

Direct Impacts: The proposed mine could temporarily displace some individual members of species during operation of the proposed project, and it is likely that the site could be re-inhabited following reclamation to ‘cropland/farmland, rangeland and/or pasture’ as listed in the proposed permit application, with slopes restored to 3:1 or flatter. Any displaced animals could find other suitable habitat nearby and return to the project area shortly after the project conclusion. Although some wildlife and wildlife habitat may be impacted until the project disturbance is reclaimed, ample non-developed land exists around the proposed site for the temporarily displaced animals, including the Blackfoot-Clearwater Wildlife Management Area located across Highway 83. Habitat fragmentation from the Proposed Project is expected to be limited due to the relatively small size of the proposed site area and the lack of surrounding development that would impinge on the existing wildlife corridor. The surrounding area east of the proposed site is used recreationally with several cabins that are either privately owned or leased from DNRC. Impacts to biota and habitats, which are resources of significant statewide and societal importance, would likely be temporary and negligible.

Secondary Impacts: No secondary impacts to terrestrial, avian and aquatic life and habitats 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?

The proposed project would not be in core, general or connectivity sage grouse habitat, as designated by the Sage Grouse Habitat Conservation Program (Program) at: <http://sagegrouse.mt.gov>. Impacts to sage grouse, including cumulative impacts, would not be significant. The Proposed Project is on Montana School Trust Lands managed by the Department of Natural Resources & Conservation. It is directly adjacent to land managed by the

Department of Fish, Wildlife, and Parks, including the Blackfoot-Clearwater Game Range.

The Montana Natural Heritage Program (MNHP) lists the following 25 species of concern in the vicinity of the site:

Westslope Cutthroat Trout (*Oncorhynchus clarkia lewisi*) One of two subspecies of native cutthroat found in the state of Montana. Westslope Cutthroat Trout are common in both headwaters, lake and stream environments. They feed primarily on aquatic insect life and zooplankton. Cutthroat spawn in the spring in running water, burying their eggs in a nest called a redd. The eggs hatch in a few weeks to a couple of months. The newborn fry frequently migrate back to lakes to rear after 1 to 2 years in their native stream. Westslope Cutthroat Trout is a trout with small, non-rounded spots, with few spots on the anterior body below the lateral line. Coloration varies, but generally is silver with yellowish hints, though bright yellow, orange, and especially red colors can be expressed to a great extent.

Bull trout (*Salvelinus confluentus*) is a threatened species of fish that can be found in the Clark Fork and Flathead drainages of western Montana. Sub-adult and adult fluvial bull trout reside in larger streams and rivers and spawn in smaller tributary streams, whereas adfluvial bull trout reside in lakes and spawn in tributaries. Bull trout can grow to lengths of 37 inches and weights of 20+ pounds.

Beck Water-marigold (*Bidens beckii*) is an aquatic perennial herb with lower stems that are submerged and upper portions usually emergent. Flowering occurs in late August-September. Habitat includes still or slow-moving water of lakes, rivers, and sloughs in the valleys, 0.1-3 m deep.

Howell's Gumweed (*Grindelia howellii*) is a short-lived perennial in the sunflower family with stems up to 90 cm in length that are woody at the base and clustered on a taproot. Habitats include vernal moist, lightly disturbed soil adjacent to ponds and marshes, as well as similar human-created habitats, such as roadsides and grazed pastures.

Evening Grosbeak (*Coccothraustes vespertinus*) is a large, robust finch with a massive, conical greenish-yellow bill. Although gregarious in winter, this species is secretive during the breeding season and little is known about its breeding biology. The Evening Grosbeak breeds in mixed coniferous and spruce-fir forests of western Montana. In fall and winter, this species is irruptive and is much more widespread, occurring throughout the state. This species feeds upon invertebrates, especially larvae, and a wide variety of seeds and fruits.

Clark's Nutcracker (*Nucifraga columbiana*) is a jay-sized corvid that is crowlike in build and flight, with moderate sexual size dimorphism. Total length of adults 27.0 to 30.1 cm. Mass 106 to 161 g. Males slightly larger than females. Sexes similar in appearance. Light to medium gray, with varying amounts of white around eyes, on forehead, and on chin; white around vent and at base of tail; wings and tail glossy black; secondaries broadly tipped with white forming a white patch; outer rectrices white. Folded wings nearly reach tip of tail. Long, pointed, black bill with short nasal bristles. Distinctive grating call audible at great distance (Tomback 1998).

Cassin's Finch (*Carpodacus cassinii*) is the largest of the North American *Carpodacus* finches. Adult males have rose-red coloration on the head throat and upper breast, the crown is bright

pinkish-red contrasting with the paler nape and back. Females have an overall brownish plumage. Cassin's finches are short-distance elevational or latitudinal migrants in some parts of their range, the movements somewhat irregular and possibly dependent on food supply. Cassin's finches occur in every major forest type and timber-harvest regime in Montana, including riparian cottonwood, but are especially common in ponderosa pine and postfire forests; they occur less often in lodgepole pine, sagebrush, and grassland. Foods include seeds, especially of grasses, composites, conifers, alders, and birches, as well as buds, leaves, and invertebrates. In general a single-brooded species has 4 to 5 eggs per clutch, with an incubation period of 12 to 14 days.

Pileated Woodpecker (*Dryocopus pileatus*) is the largest woodpecker in North America. Large size and prominent red crest distinguish this woodpecker from all other woodpecker species in Montana. These woodpeckers do not migrate but may move to lower elevations in autumn. They prefer late successional stages of coniferous or deciduous forests, as well as younger forests that have large scattered dead trees. Diet consists primarily of wood-dwelling ants and beetles that are extracted from down woody material and from standing live and dead trees.

Preble's Shrew (*Sorex preblei*) is small, even for a shrew and has a long-pointed snout and small eyes. Most Preble's Shrews in Montana have been captured in sagebrush-grassland habitats and tends to occupy arid and semi-arid habitats. The Preble's Shrew's diet consists of insects and other small invertebrates (worms, mollusks, centipedes, etc).

Black-backed Woodpecker (*Picoides arcticus*) are at the large end of the medium-sized woodpeckers. The back of the head, neck, back, and wings (upperparts) are all black and the chin, throat, breast and belly (underparts) are white. Black-backed Woodpeckers are a resident species in Montana, where their breeding range encompasses their year-round range. The habitat of Black-backed Woodpeckers in Montana is early successional, burned forest of mixed conifer, lodgepole pine, Douglas-fir, and spruce-fir. The bulk of the diet of Black-backed Woodpeckers is wood-boring beetle larvae.

Hoary Bat (*Lasiurus cinereus*) is a large lasurine (20 to 35 g) with long pointed wings and heavily-furred interfemoral membrane. Hoary Bat is the largest bat species found in Montana. Its dorsal pelage is a mixture of browns and grays, tinged with white, giving the bat a frosted or hoary appearance. Hoary Bat is migratory and only a summer resident in Montana, and occupies forested areas. They are reported to favor moths but stomach contents of 7 individuals captured in Carter County revealed beetles, moths, true bugs, leafhoppers, lacewings and true flies. They are also carnivorous, and have been reported to attack, kill, and eat pipistrelle bats.

Bald eagle (*Haliaeetus leucocephalus*) is a bird of prey found in North America that is most recognizable as the national bird and symbol of the United States of America. This sea eagle has two known sub-species and forms a species pair with the white-tailed eagle. Its range includes most of Canada and Alaska, all of the contiguous United States and northern Mexico. It is found near large bodies of open water with an abundant food supply and old-growth trees for nesting.

Long-eared Myotis (*Myotis evotis*) Ears are black and the longest of any other North American bat in the genus *Myotis*; > 0.84 inches (>21 millimeters). When bent forward, ears extend > 5 millimeters beyond the tip of the nose. Wingspan of 10-12 inches (25-30 centimeters) and weighs 0.2-0.3 inches (5-8 grams). Coat color is dull brown to straw-colored with individual hairs black at the base (Adams 2003). Occupy a wide range of rocky and forested habitats over a broad

elevation gradient (Jones et al. 1973). Summer day roosts include abandoned buildings, bridges, hollow trees, stumps, under loose bark, and rock fissures. Hibernacula include caves and abandoned mines. The species has been observed hibernating in a mine in riverbreaks habitat in northeastern Montana (Swenson and Shanks 1979).

Brown Creeper (*Certhia americana*) The Brown Creeper is the only tree creeper in North America. A combination of brown and white coloration, very small size, and tree-creeping behavior distinguish this species from all other North American birds. They are more common in mature western red cedar-western hemlock, spruce-fir, and mixed conifer forests in western Montana and Idaho.

Fringed Myotis (*Myotis thysanodes*) is a bat that is distinguished by well-developed fringe of hairs on the posterior margin of the uropatagium. The bat's habitat consists of desert shrublands, sagebrush-grassland, and woodland habitats. The bat's primary food source is moths, but it also eats other smaller insects.

Lewis's woodpecker (*Melanerpes lewis*) is a medium sized woodpecker, approximately 10 to 11 inches in length. Lewis's woodpeckers are quieter than other woodpeckers as they usually only call during the breeding season. Important habitat features include an open tree canopy, a brushy understory with ground cover, dead trees for nest cavities, dead or downed woody debris, perch sites and abundant insects.

Great Blue Heron (*Ardea herodias*) is the largest heron in North America, 60 cm tall and 97 to 135 cm long. Its upper parts are gray, and the fore-neck is streaked with white, black, and rust-brown. Great Blue Herons breed from southern Alaska southeast across central Canada to Nova Scotia and south to Guatemala, Belize, and the Galapagos Islands. Most Montana nesting colonies are in cottonwoods along major rivers and lakes; a smaller number occur in riparian ponderosa pines and on islands in prairie wetlands. Great Blue Herons eat mostly fish but also amphibians, invertebrates, reptiles, mammals, and birds. Disturbance by humans and loss of protected colony sites are major threats.

Little Brown Myotis (*Myotis lucifugus*), also known as Little Brown Bat, has a cinnamon-buff to dark brown color above, and buffy to pale gray below. This species is resident year-round in Montana, but may be partially migratory because known winter aggregations are much smaller than the apparent size of summer populations. They are found in a variety of habitats across a large elevation gradient. They commonly forage over water and mostly feed on insects. They roost in attics, barns, bridges, snags, loose bark, and bat houses. These bats can live more than 30 years. Females have one young per year.

Common loon (*Gavia immer*) is a large and mainly aquatic bird. The feet are located far back on the body and are large, webbed, and sweep to the side rather than forward under the belly. This trait makes it difficult for Common Loons to walk on land but allows more efficient swimming underwater. The sexes are indistinguishable based on plumage. Adults are primarily black with a broad patch of vertical white stripes on the side of the neck. The eye is red. In Montana, spring migration begins in early to mid-March. Fall migration starts in late August and may continue through October in Montana. Common Loons will not generally nest on lakes less than about 13 acres in size or over 5000 feet in elevation. Successful nesting requires both nesting sites and nursery areas. Generally, Common Loons dive from the surface and feed mainly on fishes but are

opportunistic and will eat any suitable prey they can readily see and capture including amphibians and various invertebrates.

Long-billed curlew (*Numenius americanus*) is a large North American shorebird. Adults have a very long bill (4.4–8.6 in) curved downwards, a long neck and small head. It is the largest nesting sandpiper in North America. Migration northward from wintering grounds is in March-April. Its summer breeding range includes all of Montana. Nests on the ground in dry prairies and moist meadows, usually in flat area with short grass. Fairly opportunistic feeding on various insects (grasshoppers, beetles, caterpillars, etc.) and some berries. During migration also feeds on crayfishes, crabs, snails, and toads.

Grizzly Bears (*Ursus arctos*) have a massive head with a prominent nose, rounded inconspicuous ears, small eyes, short tail and a large, powerful body. The facial profile is concave and there is a noticeable hump above the shoulders. The claws on the front feet of adults are about 4 inches long and slightly curved. They vary in color, though the most prevalent coloration in Montana is medium to dark brown underfur, with light to medium grizzling on the head and back. Adult males can weigh around 200 kilograms, and adult females can weigh 130 kilograms. Grizzly bears often exhibit discrete elevational movements from spring to fall. They primarily use meadows, seeps, riparian zones, mixed shrub fields, closed timber, open timber, sidehill parks, snow chutes, and alpine slabrock habitats. Historically, the Grizzly Bear was primarily a plains species occurring in higher densities throughout most of eastern Montana.

American Bittern (*Botaurus lentiginosus*) is a brown, medium-sized heron, 60-85 cm long, with a stout body and neck and relatively short legs. American bitterns are migratory and breed across a large portion of Canada and the U.S. They favor large freshwater wetlands with tall emergent vegetation such as cattails and bulrushes. American Bitterns eat mainly insects, amphibians, crayfish, small fish and small mammals, occasionally garter snakes at pond margins.

Fisher (*Martes pennanti*) is a medium-sized mammal with a long, low stocky body and relatively long and heavily furred tail. The fisher occupies dense coniferous or mixed forests and tends to reside in tree hollows, under logs, in ground or rocky crevices or in the branches of conifers. The fisher's diet consists of small mammals, birds and fruit.

Canada Lynx (*Lynx Canadensis*) is a medium sized cat with silver-gray to grayish-brown upperparts and a white belly and throat. Lynx have long legs and a relatively short, compact body. Lynx inhabit subalpine forests and avoid large openings, but often hunt along edges in areas of dense cover. The Lynx's primary food consists of the snowshoe hare, although they also diet on squirrels and other small mammals.

Freshwater Sponge (*Ephydatia cooperensis*) is a light tan color and grows as a hard, disc-shaped encrustation on the undersides of rocks and logs. Rangewide, *Ephydatia cooperensis* is currently known from 3 lakes in the northern Rocky Mountains of Montana. Sponges feed by a coordinated filter feeding mechanism of waving cilia together to cause a current where they derive and ingest particles or organisms such as algae, diatoms or microorganisms.

The MNHP also identified that the following important Animal Habitat:

Bat Roost (Non-cave) – Confirmed area of occupancy based on the documented presence of adults

or juveniles of any bat species at non-cave natural roost sites (e.g. rock outcrops, trees), below ground human created roost sites (e.g. mines), and above ground human created roost sites (e.g. bridges, buildings).

Direct Impacts: The Sage Grouse Habitat Conservation Program has stated that the proposed project would not occur in core, general or connectivity sage grouse habitat. Therefore, impacts to sage grouse would be negligible.

The project area would be located in a rural, non-wilderness area. While potential habitat for some individuals of the threatened and endangered species listed above may exist, the surrounding area is comprised of large undeveloped spaces. Even if suitable habitat did exist on this site, the disturbance area would be small in relation to the large areas of similar or identical habitat surrounding the site. The impact to aquatic species is expected to be non-existent as the proposed project is not expected to impact water quality or quantity resources where these species exist. Terrestrial species that would utilize the area as their habitat have expansive areas that would not be greatly affected by the proposed project as the impact would be minimal, compared to their overall habitats. The possible impact (including cumulative impacts) to these species would be short-term and negligible.

Secondary Impacts: No secondary impacts to sage grouse or sage grouse habitat would be expected. 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 Applicant is required to submit proof of consultation with the State Historic Preservation Office (SHPO) as part of the permitting process and to give archaeological and historical resources legally required protection. SHPO has recommended that a cultural resource inventory be conducted, and requested the operator work with the DNRC archeologist.

Direct Impacts: If resources were discovered during operations, it would be the Applicant's responsibility to determine the next steps as required by law. No impacts to historical and archeological sites would be expected.

Secondary Impacts: No secondary impacts to historical and archaeological sites are anticipated.

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?

The proposed site is in an undeveloped area primarily composed of public lands. Operations would occur entirely on Montana State Trust Lands managed by the DNRC. There are several cabins located to the west of the proposed site. A site inspection and analysis of topographic maps show that all cabins located off Elbow Loop are at a lower elevation (approximately 40-50 vertical feet) than the proposed site and are at least 1000 feet away from the western boundary. This would limit both visual and noise effects of the site on those utilizing the cabins.

The Montana Opencut Mining Act does not regulate hours of operation, but for the purposes of MEPA analysis, it is assumed that the proposed operation would occur at the maximum capacity of 24 hours per day, 7 days per week. If the Applicant would be operating during times of no sunlight, artificial light sources would be used on site to comply with MSHA regulations.

Noise is defined as unwanted and objectionable sound. Sound levels are usually measured and expressed in decibels (dB), which are logarithmic units that can be used to conveniently compare wide ranges of sound intensities. The A-weighted decibel (dBA) scale of frequency sensitivity accounts for the sensitivity of the human ear, which is less sensitive to low frequencies, and correlates well with human perceptions of the annoying aspects of noise. On the logarithmic decibel scale, a 70 dBA sound level is approximately twice as loud as a 60 dBA sound level and four times as loud as a 50 dBA sound level. (PG&E Cressey-Gallo 115 kV Power Line Project Initial Study).

Typical Sound Levels Measured in the Environment		
Examples of Common, Easily Recognized Sounds	Decibels (dBA, at 50 feet)	Subjective Evaluations
Near Jet Engine	140	Deafening
Threshold of Pain (Discomfort)	130	
Threshold of Feeling - Hard Rock Band	120	
Accelerating Motorcycle (at a few feet away)	110	
Loud Horn (at 10 feet away)	100	Very Loud
Noisy Urban Street	90	
Noisy Factory	85	
School Cafeteria with Untreated Surfaces	80	Loud
Near Freeway Auto Traffic	60	Moderate
Average Office	50	
Soft Radio Music in Apartment	40	Faint
Average Residence Without Stereo Playing	30	
Average Whisper	20	Very Faint
Rustle of Leaves in Wind	10	
Human Breathing	5	
Threshold of Audibility	0	
Note: Continuous exposure above 85 dBA is likely to degrade the hearing of most people. Range of speech is 50 to 70 dBA.		
Source: U.S. Department of Housing and Urban Development, The Noise Guidebook, 1985.		

Source: PG&E Cressey-Gallo 115 kV Power Line Project Initial Study

Typical Construction Equipment Noise Levels						
Equipment Description	Acoustical Usage Factor (%)	Specified Lmax at 50 feet (dBA)	Specified Lmax at 100 feet (dBA)	Specified Lmax at 1,000 feet (dBA)	Specified Lmax at 2,000 feet (dBA)	Specified Lmax at 4,000 feet (dBA)
All Other Equipment > 5 horsepower	50	85	76	56	50	44
Auger Drill Rig	20	85	72	52	46	40
Backhoe	40	80	70	50	44	38
Crane	16	85	71	51	45	39
Dump Truck	40	84	74	54	48	42
Grader	40	85	75	55	49	43
Pickup Truck	40	55	45	25	19	13
Tractor	40	84	74	54	48	42

Notes: dBA = A-weighted decibels; Leq = equivalent sound pressure level Equation to calculate Lmax at 1,000, 2,000 and 4,000 feet is as follows: $Leq(h) = Lmax + 10 \cdot \log(A.U.F.) - 20 \cdot \log(D/Do)$ where: Lmax = Maximum noise emission level of equipment based on work cycle at D/Do (decibel). A.U.F. = Acoustical usage factor, which accounts for the percent time that equipment is in use over the time period of interest (1 hour). D = Distance from the equipment to the receptor (feet). Do = Reference distance (generally, 50 feet) at which the Lmax was measured for the equipment of interest (feet). Source: FHA 2006

Source: PG&E Cressey-Gallo 115 kV Power Line Project Initial Study

Direct Impacts: There would be a temporary alteration of aesthetics while mining is under way. Those using the nearby cabins would incur some amount of visual and noise effects, particularly while traveling on Elbow Loop. The viewshed of Highway 83, the Seeley Lake Cemetery, and other nearby recreation and wilderness areas could also have a temporary alteration of aesthetics while mining is under way.

Noise associated with the project may be heard by receptors located in an area where sound related to the project has not been fully diminished by distance or another sound dampening feature. As shown on the tables above (entitled: *Typical Sound Levels Measured in the Environment* and *Typical Construction Equipment Noise Levels*) shows the noise potentially experienced by receptors in the vicinity of the Proposed Project. The further a receptor is from the Proposed Project in distance begins to lessen the noise impact to the receptor. Those receptors in the immediate vicinity of the Proposed Project would have a higher noise impact than those who are further from the Project. The applicant would be required to comply with any and all federal, state, tribal, county and local laws and ordinances limiting the exposure of noise to workers and surrounding neighbors. Noise is typically regulated at the local, tribal, and/or county level through zoning.

This project is planned to take 17 years to complete. Impacts to aesthetics and noise would continue through the life of the permit and would be moderate.

Secondary Impacts: No secondary impacts to aesthetics are anticipated.

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?

The opencut operation would mine natural deposits from the site. No unusual demands on land, water, air, or energy are anticipated from the proposed opencut operation. Unusual demands examples include: rerouting creeks, rebuilding of roads, or relocated specific utilities. Upon reclamation, the impacts would be negligible as the site would be reclaimed to ‘cropland/farmland, rangeland and/or pasture’ with slopes restored to 3:1 or flatter.

Direct Impacts: Based on the analysis of available data and certifications made by the Applicant, DEQ does not foresee any unusual demands on land, water, air or energy from this opencut operation. Therefore, no direct impacts are anticipated.

Secondary Impacts: Increased acreage in the immediate area would be utilized for Opencut operations.

10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES:

Are there other activities nearby that will affect the project?

The proposed site is immediately surrounded by forest, rangeland, and a wildlife management area, with recreational cabins located to the west. Elbow Lake (Clearwater River) is also located to the west of the proposed site.

Direct Impacts: Based on the analysis of available data and on the certifications made by the Applicant, DEQ does not foresee any impacts on other environmental resources from this opencut operation. Therefore, no direct impacts are anticipated.

Secondary Impacts: No secondary impacts to other environmental resources are anticipated as a result of the proposed project.

11. HUMAN HEALTH AND SAFETY:

Will this project add to health and safety risks in the area?

Aerial imagery, a site inspection, and public comment indicate approximately 29 cabins in the vicinity of the site. All cabins are located at least 1000 feet away from the proposed project area. Based on the certification submitted by the Applicant, there are fewer than 10 occupied dwelling units within ½ mile of the proposed permit boundary. An occupied dwelling unit is defined by the Opencut Mining Act as “as a structure with permanent water and sewer facilities that is used as a home, residence, or sleeping place by at least one person who maintains a household that is lived in as a primary residence” [82-4-403(7), MCA].

Discussion with the operator indicated that LHC, Inc. would apply for an Approach Permit from MDT in order to access Highway 83 directly from the northwest portion of the proposed site at a location that gives at least 1000 feet of visibility in either direction. The operator also indicated that there is no plan to utilize Elbow Loop for haul trucks entering and exiting the site.

The Applicant is required to comply with all laws and regulations associated with this activity, including obtaining required permits from the Montana Department of Transportation.

Impacts to other resources such as air and water are discussed above.

Direct Impacts: Occasional increases in construction-related traffic may occur. The daily traffic that would be leaving the site can vary greatly. The location of the proposed site was chosen by the applicant because of the location of the resource and to provide material primarily for MDT highway projects, including the Salmon Lake Highway Reconstruction Project. Impacts are anticipated to be moderate and short-term.

Secondary Impacts: No secondary impacts to health and safety are anticipated.

12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION:

Will the project add to or alter these activities?

The acreage listed in the proposal would be taken out of forest and rangeland use. The apiary on site would be removed if the permit is approved. Upon completion of mining, the land would be reclaimed to 'cropland/farmland, rangeland and/or pasture' with slopes restored to 3:1 or flatter.

Direct Impacts: Forest and rangeland area would be reduced as soil stripping and operations progress across the site. If the entire site is permitted and established for mining and mine-related activities, all current activities would cease, but would be restored when the site is reclaimed. Impacts on the industrial, commercial, and agricultural activities and production in the area would be minor and long-term.

Secondary Impacts: No secondary impacts to industrial, commercial, and agricultural activities and production are anticipated as a result of the proposed work.

13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:

Will the project create, move or eliminate jobs? If so, estimated number.

Existing employees would mainly be utilized for this operation. There is low potential that this project would create a significant number of new jobs.

Direct Impacts: New employment opportunities would be limited. No lasting positive or negative impacts to employment would be expected from this project.

Secondary Impacts: No secondary impacts to quantity and distribution of employment are anticipated as a result of the proposed work.

14. LOCAL AND STATE TAX BASE AND TAX REVENUES:

Will the project create or eliminate tax revenue?

The proposed site is located on Montana State Trust Lands, which are managed by the DNRC to yield revenue to support Montana public education institutions. Additionally, the proposed project would have a limited increase in tax revenue related to the payroll taxes from new and/or existing

employees residing and/or working in the area.

Direct Impacts: The Minerals Management Bureau of the DNRC would be responsible for managing and administering required permits and collecting revenue from the Applicant benefitting from the operation. Following reclamation, it is assumed that revenues would return to pre-mine levels.

Secondary Impacts: No secondary impacts to tax revenues are anticipated as a result of the proposed openpit operation.

15. DEMAND FOR GOVERNMENT SERVICES:

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

The proposed operation would remove material from the 21.2-acre site over 17 years. Based on the proposed area and discussions with the Applicant, it is expected that haul trucks would utilize Highway 83 to enter and exit the site. The Montana Openpit Mining Act does not regulate local haul roads. For the proposed operation, it is the jurisdiction of the Montana Department of Transportation (MDT) to regulate impacts that would occur to roads in state jurisdiction. Occasional increases in construction-related traffic may occur. Local roads may be improved. Impacts would be short-term and moderate. Traffic load would depend on site activity and is unknown at this time.

Direct Impacts: Occasional increases in construction-related traffic may occur. Local roads may be improved. Impacts would be short-term and moderate. Traffic load would depend on site activity and is unknown at this time.

Secondary Impacts: No secondary impacts to government services are anticipated as a result of the proposed openpit operation.

16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:

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

The proposed operation would occur within Missoula County on Montana State Trust Lands managed by the Department of Natural Resources & Conservation (DNRC).

The site is also located in a land use area designated as Resource Protection 1 in the Seeley Lake Regional Plan adopted by the Missoula County Board of County Commissioners in 2010. The land use classification system is designed to protect important resource land and areas of natural hazard, and Resource Protection 1 designation is intended to provide the “greatest potential resource protection on lands with the highest values for biodiversity, fish and wildlife habitat, forest production, recreation, wetlands, and other resources”. The Plan recommends that areas designated as such should remain undeveloped, but if development occurs, it should be accompanied by measures that minimize impacts to natural resources. However, Missoula County indicated that the site was not zoned.

Direct Impacts: Missoula County zoning clearance has been obtained. The site is not zoned. Thus, impacts from or to locally-adopted environmental plans and goals would not be expected as a result

of this project.

It is probable that the permit issued by the DNRC Trust Lands Minerals Management Bureau will contain restrictions and/or constraints (such as hours of operation, etc.) that the Opencut Act does not require.

Secondary Impacts: No secondary impacts to locally adopted environmental plans and goals are anticipated as a result of the proposed work.

The opencut operation is required to comply with zoning plans. The Applicant is required to comply with all laws and to obtain all required permits. The anticipated impacts to any zoning plan are negligible, if any.

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?

Nearby public lands are accessed by MT Highway 83 as well as Elbow Loop. The proposed project would not limit access to wilderness or recreational areas nearby. No wilderness or recreational areas would be accessed through the project area.

Direct Impacts: Based on the information provided by the applicant and review of an aerial photo of the surrounding area, DEQ anticipates that impacts to wilderness and recreation areas would be minor and short-term. Access to wilderness or recreation areas is not an issue at this site.

Secondary Impacts: No secondary impacts to wilderness or recreational areas are anticipated.

18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:

Will the project add to the population and require additional housing?

Aerial imagery, a site inspection, and public comment indicate approximately 29 cabins in the vicinity of the site. All cabins are located at least 1000 feet away from the proposed project area. Based on the certification submitted by the Applicant, there are fewer than 10 occupied dwelling units within ½ mile of the proposed permit boundary. An occupied dwelling unit defined by the Opencut Mining Act as “as a structure with permanent water and sewer facilities that is used as a home, residence, or sleeping place by at least one person who maintains a household that is lived in as a primary residence” [82-4-403(7), MCA].

Direct Impacts: This commercial pit is being sited in this area because of the location of the resource, and to provide materials for local projects. The project would not add to the population or require additional housing. Therefore, no impacts to density and distribution of population and housing are anticipated.

Secondary Impacts: No secondary impacts to density and distribution of population and housing are anticipated as a result of the proposed opencut operation.

19. SOCIAL STRUCTURES AND MORES:

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

Based on the information provided by Applicant, DEQ is not aware of any native cultural concerns that would be affected by the proposed activity, as also described in Section 7 Historical and Archaeological section above.

The site is located approximately 600 feet south of the Seeley Lake Cemetery and would likely be visible by visitors to the cemetery.

Direct Impacts:

The proposed operation could have a minor impact on the neighbors' lifestyles surrounding the proposed permit area. There may also be impacts to visitors to the cemetery. Direct impacts could be from resulting changes in industrial noise and air quality, but the severity of those impacts would vary with their distance from the proposed opencut operation. The impacts would be short-term with the life of the operation.

Secondary Impacts: No secondary impacts to social structures and mores are anticipated as a result of the proposed opencut operations.

20. CULTURAL UNIQUENESS AND DIVERSITY:

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

Based on the information provided by Applicant, DEQ is not aware of any unique qualities of the area that would be affected by the proposed activity.

Direct Impacts: No impacts to cultural uniqueness and diversity are anticipated from this project.

Secondary Impacts: No secondary impacts to cultural uniqueness and diversity are anticipated 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 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.

The proposed project would take place on State School Trust Lands managed by the Department of Natural Resources (DNRC). DEQ's approval of Opencut Permit #3473, with conditions, would affect the applicant's real property. DEQ has determined, however, that the permit conditions are reasonably necessary to ensure compliance with applicable requirements under the Opencut Mining Act and demonstrate compliance with those requirements or have been agreed to by the

applicant. Therefore, DEQ's approval of Opencut Permit #3473 would not have private property-taking or damaging implications.

Montana's Private Property Assessment Act, Section 2-10-101, et seq., MCA establishes an orderly and consistent internal management process for state agencies to evaluate their proposed actions under the "Takings Clauses" of the United States and Montana Constitutions, as those clauses are interpreted and applied by the United States and Montana Supreme Courts.

Section 2-10-104, MCA required Montana's Attorney General to develop guidelines, including a checklist, to assist state agencies in identifying and evaluating proposed agency actions that may result in the taking or damaging of private property. In turn, Section 2-10-105(1) and (2), MCA set out a process for each State Agency to evaluate whether a State action may result in an unconstitutional taking of private property. Those provisions direct that:

- A. Each state agency shall assign a qualified person or persons in the state agency the duty and authority to ensure that the state agency complies with this part. Each state agency action with taking or damaging implications must be submitted to that person or persons for review and completion of an impact assessment. The state agency may not take the action unless the review and impact assessment have been completed, except that the action with taking or damaging implications may be taken before the review and impact assessment are completed if necessary to avoid an immediate threat to public health or safety.
- B. Using the attorney general's guidelines and checklist, the person shall prepare a taking or damaging impact assessment for each state agency action with taking or damaging implications that includes an analysis of at least the following:
 - i. the likelihood that a state or federal court would hold that the action is a taking or damaging;
 - ii. alternatives to the action that would fulfill the agency's statutory obligations and at the same time reduce the risk for a taking or damaging; and
 - iii. the estimated cost of any financial compensation by the state agency to one or more persons that might be caused by the action and the source for payment of the compensation.

DEQ has utilized the Montana Attorney General's Checklist and analytical Flowchart revised in January 2011 to evaluate the legal impact to property rights resulting from the proposed project (Attachment 1). These flowchart questions have been applied by DEQ to the proposed project area, which takes place on public lands managed by DNRC, as follows:

- Does the action pertain to land or water management or environmental regulation affecting private real property or water rights? Answer: No.
- Does the action result in either a permanent or indefinite physical occupation of private property? Answer: No.
- Does the action deprive the owner of all economically beneficial use of the property? Answer: No.

- Does the action require a property owner to dedicate a portion of property or to grant an easement? Answer: No.
- Does the action deny a fundamental attribute of ownership? Answer: No.
- Does the action have a severe impact on the value of the property? Answer: No.
- Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally? Answer: No.

Given the results from the legal flowchart questions, DEQ has determined that the permit conditions are reasonably necessary to ensure and demonstrate compliance with applicable requirements of the Opencut Mining Act, Section 82-4-301, et seq., MCA, and have been sought by the Applicant and private property Owner. Therefore, no taking or damaging of private property rights will occur because of DEQ's approval of the Permit Application.

22. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:

Due to the nature of the proposed Opencut activities, and the limited project duration, no further direct or secondary impacts would be anticipated from this project.

PROPOSED ACTION ALTERNATIVES:

In addition to the proposed action, DEQ also considered the "no action" alternative. The "no action" alternative would deny the approval of Opencut Permit #3473. The applicant would lack the authority to conduct opencut activities. Any potential impacts that would be possible due to the issuance of an Opencut permit would not occur. However, DEQ does not consider the "no action" alternative to be appropriate because the applicant has demonstrated compliance with all applicable rules and regulations as required for approval. The no action alternative forms the baseline from which the impacts of the proposed action can be measured.

CUMULATIVE IMPACTS:

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. The proposed project would occur in a rural area that is primarily used for recreation and wildlife habitat. The cumulative impacts analysis area is approximately 5 miles from the proposed action. Due to the distance between these other opencut sites and the proposed project, there would not be any cumulative impacts to other resources except that there could be additional traffic, noise, and visual impacts to receptors in the vicinity of these sites. Any impacts from the project would be temporary and would be fully reclaimed at the conclusion of the project pursuant to § 82-4-432 MCA. Thus, the proposed project would not contribute to the long-term cumulative impacts of mining in the area. DEQ identified other mining or exploration projects in the area. In the table

below identifying other opencut operations and their distance from the proposed project are outside of the cumulative analysis area for the proposed project.

DEQ-regulated projects located near the proposed project site include:

Operator Name	Site Name	Opencut Number	Distance from Proposed Project	Site Originally Permitted
Richards Development Company	Richards Pit 2	1615	3.2 miles south	May 2008
Montana Dept. of Transportation	Greenough	121	3.2 miles south	May 1985
Riverside Contracting, Inc.	Reinoehl	1593	3.0 miles southeast	May 2005

There are three MDT projects in the vicinity: The Clearwater Junction Intersection project, the Seeley Lake-South Highway Reconstruction project, and the Salmon Lake Highway Reconstruction project. The site is located on School Trust Lands managed by the DNRC Mineral Management Bureau, which is responsible for their own permitting process on the proposed project. FWP has upcoming projects in the area: the Salmon and Placid Lake State Parks Chip Seal and Re-Stripe project and the Salmon and Placid State Parks Entry Stations Rehabilitations Project. No other DNRC, FWP, MDT, BLM, USFS, or county 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 would not be significant.

CONSULTATION:

DEQ engaged in internal and external efforts to identify substantive issues and/or concerns related to the proposed project. Internal scoping consisted of internal review of the environmental assessment document by DEQ staff and a site inspection.

External scoping efforts also included queries to the following websites/ databases/ personnel:

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

PUBLIC INVOLVEMENT:

DEQ has received, reviewed, and considered public comment on this permit application since first

receiving the application in March 2023.

OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION:

The proposed project would be located on Montana State Trust Lands managed by the DNRC. All applicable state and federal rules must be adhered to, which, at some level, may also include other state, federal, or tribal agency jurisdiction.

This environmental review analyzes the proposed project submitted by the applicant. Any impacts from the project would be minor to moderate and would be fully reclaimed at the conclusion of the project and thus, would not contribute to the long-term cumulative effects of mining in the area. Final reclamation would be required within 17 years of completion of the project unless the Applicant applies to extend the reclamation date.

The proposed operation would be located south of the Salmon Lake Highway Reconstruction Project, which is managed by the Montana Department of Transportation and is intended to upgrade the existing roadway to better accommodate current and project traffic, better facilitate bicycle travel, and enhance roadside safety for all users. Material from this site is intended to be utilized for this project.

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 seven 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 will occur if the proposed action occurs; or conversely, reasonable assurance in keeping with the potential severity of an impact that the impact will 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 as a result 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.

The severity, duration, geographic extent and frequency of the occurrence of the impacts associated with the proposed mining activities would be limited. The proposed action would result in the disturbance of about 21.2 acres at the site. The applicant is proposing to mine, screen, crush, stockpile, and transport material. The mine life is proposed to be up to 17 years. The land proposed to be disturbed does not contain unique, endangered, fragile, or limited environmental resources. The surface disturbance would be reclaimed by December 2040, although the Applicant can apply to extend the reclamation date. Impacts to local topography and the viewshed of nearby residents and visitors would be moderate and short-term.

As discussed in this Environmental Assessment, DEQ has not identified any significant impacts associated with the proposed mining activities for any environmental resource. DEQ does not

believe that the proposed mining activities by the applicant would have any growth-inducing or growth-inhibiting aspects, or contribution to cumulative impacts. The proposed operating permit site does not contain unique or fragile resources. There would be minor impacts to geology through removal of rock product, although limited in area. The site would be reclaimed to provide 'cropland/farmland, rangeland and/or pasture'.

Minor impacts to soil would occur through soil salvage, which would disrupt the soil horizon. Where possible, soil would be salvaged and replaced during reclamation, then seeded with a seed mix approved by the landowner.

There are no anticipated impacts to surface or groundwater as a result of this operation.

Impacts to air quality would be minor due to the limited area of operation for dust control and the obligation to comply with all applicable federal, state, tribal, county or local regulations, or ordinances and permits, licenses, and approval for the operation.

Impacts to vegetation would be minor due to reclamation with a seed mix approved by the landowner. Weed control would take place and meet Missoula County standards.

There would be impacts to terrestrial, avian, and aquatic life and habitats. These impacts would be reduced through reclamation to 'cropland/farmland, rangeland and/or pasture'. Impacts during mining would be minor and short-term.

Unique, endangered, fragile, or limited environmental resources have been evaluated. There are no known unique or endangered fragile resources in the project area. SHPO recommends a cultural resource inventory be conducted and that the Applicant work with the DNRC archeologist regarding the proposed projects. Impacts are expected to be minor and short-term.

There would be impacts to viewshed aesthetics as the operation would encompass 21.2 acres. While viewshed aesthetics would be impacted by the proposed operations, the visual disturbance would not dominate the landscape. Over time, disturbances to the viewshed would be less noticeable due to reclamation occurring.

Demands on environmental resources of land, water, air, or energy would be minor. The impacts from the proposed action would be minor and short-term.

Impacts to human health and safety would be moderate and short-term.

As discussed in this EA, DEQ has not identified any long-term or significant impacts associated with the proposed activities on any environmental resource.

Issuance of an operating permit to the applicant 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, amendment, or revision application to conduct additional mining, 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 for in the Opencut Mining Act.

Issuance of the permit to the applicant does not set a precedent for DEQ's review of other applications for permits, including the level of environmental review. The level of environmental review decision is made based on case-specific consideration of the criteria set forth in ARM 17.4.608.

Finally, DEQ does not believe that the proposed mining activities by the applicant would have any growth-inducing or growth-inhibiting aspects that would 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 operation is not predicted to significantly impact the quality of the human environment. Therefore, preparation of an EA is the appropriate level of environmental review for MEPA.

Environmental Assessment and Significance Determination Prepared By:

Ruby Hopkins, Environmental Science Specialist

Environmental Assessment Reviewed by: Bryan Allison, Environmental Science Specialist

Approved by: Whitney Bausch, Opencut Section Supervisor

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