DEQ
Montana Department of Environmental Quality

Air, Energy & Mining Division

IRIS METALS MONTANA LLC

EXPLORATION LICENSE NO. 00902

Amendment No. 1

FINLEY BASIN EXPLORATION PROJECT

GRANITE COUNTY, MT

July 29, 2026

Draft Environmental Assessment

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PROJECT OVERVIEW

COMPANY NAME:	Iris Metals Montana LLC.
EA DATE:	July 29, 2026
PROJECT:	Finley Basin Exploration Project
PERMIT/LICENSE:	Exploration License No. 00902
AMENDMENT #:	Amendment 1 (AMD1)

Location

(46.366061°, -113.068511°) County: Granite

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 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. DEQ may not withhold, deny, or impose conditions on the permit based on the information contained in this Environmental Assessment. § 75-1-201(4), Montana Code Annotated (MCA).

Proposed Action

DEQ would approve Amendment 1 (AMD1) to Exploration License No. 00902 (Exploration License) for Iris Metals Montana LLC (Applicant) – Finley Basin Exploration Project, if DEQ has determined that the Applicant has met the criteria set forth in 82-4-332, MCA. As outlined in 82-4-332, MCA in addition to a complete and acceptable application, the applicant must also file with the department a reclamation and revegetation bond in a form and amount as determined by the department 82-4-332(3), MCA. If approved, the license to conduct exploration activities would be granted for a period of one year, at which time, the Applicant could renew the Exploration License annually.

The Applicant proposes this action to assess the commercial potential of an ore deposit using surface and underground exploration methods on United States Forest Service (USFS) land located in Granite County, Montana, approximately 11.2 miles east of Philipsburg, MT.

The Plan of Operations submitted on June 24, 2026, proposes 10 drill pads, 16 drill holes, 4 internal sumps, and a total drill hole length of 23,210 linear feet. The 16 drill holes would be a result of diamond core drilling. A process in which a hollow diamond bit cuts a narrow circular ring in the subsurface material. This allows solid, cylindrical pieces of rock to be extracted so that the geological characteristics of the area may be further studied. As seen in the figure below, the core samples are often cut in half lengthwise for additional study or to be placed in storage to preserve the samples.

Figure 1. Rock core samples

Photo taken in 2019 at the Drill Core Library run by the Minnesota Department of Natural Resources. Included as educational material to show the scale of standard core samples. The samples shown above are only for example and are not associated with the proposed action.

The 4 drill pads accessible by land vehicles would be constructed up to 20 feet long and 20 feet wide on the surface of the ground. The 4 internal drill sumps would be constructed up to 6 feet long, 4 feet wide, and 2 feet deep adjacent or slightly downslope of the 4 drill sites accessible by land vehicles. The sumps would temporarily contain drill fluids and cuttings (fragments of rock liberated downhole during the coring process and carried back to the surface by the recirculated drilling mud) generated during drilling activities. Sumps would be located within areas of existing historic disturbance. The Applicant would route return water from the drill via a hose to a containment pan/cyclone at the drill rig to remove most solids, and the clarified return fluid would then be directed to the sumps for settling and temporary storage.

The 6 drill sites accessible only by helicopter or by foot would be constructed of wooden platforms, up to 1,600 board feet of rough sawn lumber, with finished dimensions of 15 feet long and 20 feet wide. Sumps would not be constructed at these 6 drill sites, but they would rather be supported by enclosed portable tankage only. The Applicant would route return water from the drill via a hose to a containment pan/cyclone at the drill rig to remove most solids, and the clarified return fluid would then be directed to the tanks for settling and temporary storage. In their application, the Applicant provided Figures 2 and 3 as examples of typical wooden platforms used in exploration.

Figure 2. Typical helicopter supported diamond drill rig.

Note: the figures shown above are only for example and not associated with the proposed action.

Figure 3. Wooden platform arrangement for drill program.

Note: the figure above also shows the construction of access roads to the platforms. The Applicant has proposed to access their platforms by helicopter or by foot only. No new road construction would occur at the proposed site. The figures shown above are for example and are not associated with the proposed action.

Figure 4. Wooden drill site platform.

Note: the figures shown above are only for example and are not associated with the proposed action.

A laydown area 100 feet by 100 feet on the surface of the ground is proposed to intermittently store up to 4 pallets of drilling and construction materials during exploration activities. The Applicant proposes to improve pre-existing roads up to 1,964 feet long by 10 feet wide to facilitate operations.

The Applicant is proposing up to 0.77 acres of total new surface disturbance. The Applicant proposes that the exploration operations be completed no later than **November 31, 2026**, and the reclamation operations be completed no later than **December 31, 2027.**

The Applicant has proposed several measures (Finley Basin Minerals Project, Exploration Plan of Operations) to reduce potential impacts to the resource sections outlined below. These measures are discussed in detail in the resource sections.

Purpose and Need

DEQ's purpose and need in conducting this environmental review is to act upon the Applicant's application for an Exploration License Amendment to conduct mineral exploration activities in compliance with the Metal Mine Reclamation Act (MMRA) (Sections 82-4-301, et seq., MCA). On June 24, 2026, the Applicant submitted a complete application for an Exploration License (Exploration License No. 00902) and Amendment (AMD1). Pursuant to 82-4-332(2), MCA, the application was complete and acceptable.

Table 1: Summary of Activities Proposed in Application

Summary of Proposed Activities in Application	
General Overview	Iris Metals Montana LLC proposes surface and underground exploration activities on United States Forest Service (USFS) lands located in Sections 11 and 14, Township 7 North, Range 12 West, located in Granite County, Montana, approximately 11.2 miles east of Philipsburg, MT. The proposed action would include a total of 10 drill site locations, 16 drill holes, 4 internal sumps, and 1 laydown area. Total depth of all drill holes would be up to 23,210 linear feet. The 4 drill pads accessible by land vehicles would be constructed up to 20 feet long and 20 feet wide, each site with a maximum of 2 drill holes reaching a maximum depth of 1,970 feet. Road improvements would be made on pre-existing roads to access these 4 drill pads. The other 6 drill pads would be accessed via helicopter or by foot, with helicopter flight frequency averaging up to 10 round-trip flights from Philipsburg, MT per day initially, decreasing to up to 4 round trips from Philipsburg, MT per day during normal operations. The Applicant is proposing up to 0.77 acres of total new surface disturbance. The Applicant proposes that the exploration operations be completed no later than August 31, 2027, and the reclamation operations be completed no later than December 31, 2027. Final reclamation of all surface disturbances must be completed no later than two years following the conclusion of exploration activities.
Proposed Dimensions	
Vehicle Accessible Drill pads (#)	4
Drill pad dimensions (xy)	20 feet by 20 feet
Internal Drill Sumps (#)	4
Internal Drill Sump Dimensions (xyz)	6 feet by 4 feet by 2 feet
Drill pads Accessible by Helicopter (#)	6
Drill platform dimensions (xy)	15 feet by 20 feet

Quantity of Building Material per Drill Platform	1,600 board feet with 15% waste factor
Drill Holes (#)	16
Maximum Drill Hole Depth (z)	1,970 feet
Cumulative Drill Hole Length (z)	23,210 feet
Area of Road Improvements	1,964 feet by 10 feet
Total new surface disturbance	**0.77 acres**
Specific Proposed Activities	
Duration and timing	The Applicant proposes that the exploration operations be completed no later than August 31, 2027, and the reclamation operations be completed no later than December 31, 2027. Work hours are estimated to be up to 24 hours per day (2 x 12-hour shifts), up to 7 days per week. Work would be performed from May through November, as seasonal conditions allow. Final reclamation of all surface disturbances must be completed no later than 2 years following the conclusion of exploration activities.
Equipment	Exploration and Reclamation operations would be completed with the following equipment: • 2 – Track mount and fly rig drill rigs • 1 – 4x4 4,000-gallon Water Truck • 1 – 4x4 1,000 gallon Water Truck • 1 – 4x4 100 gallon Fuel Truck • 1 – Backhoes (Cat 420 or similar) • 2 – Trailer mounted or heli-portable generators/light plants • 3 – Trucks (4x4 Ford F150 or similar) • 1 – 2-inch portable gas powered water pump • Helicopter
Location and analysis area	**Location:** 46.366061°, -113.068511° **Distance from the nearest town/city:** On USFS lands in Sections 11 and 14, Township 7 North, Range 12 West, located in Granite County, Montana, approximately 11.2 miles east of Philipsburg, MT. **Analysis Area:** The area being analyzed for this environmental review includes the immediate project area, immediate downstream water sources, and neighboring lands surrounding the analysis area within a reasonable distance for the impacts being considered. Refer to Location Map and any other maps below.

Personnel on-site	• 1 – Managing Geologist • 1 – Operating Supervisor • 2 – Water Truck Driver • 8 – Drill Rig Operators (Up to 4 per rig) • 16 - Helpers (Up to 8 per rig) • 2 – Contract Supervisors
Structures	• 2 – 100-gallon fuel tanks • 3 – 3,000-gallon water containers • 1 – Portable toilet • 1,000 feet of 2-inch diameter poly water lines
Proposed action water source	The Applicant proposes that drilling water would be sourced from an irrigation canal located at 46.471224°, -113.232357°, or from drill holes that encounter groundwater. Water would be transported from the irrigation canal to the drill sites using a 4,000-gallon water truck. For drill sites otherwise not accessible by land-based vehicles, water would be transported in water containers via helicopters or via temporary water lines from drill holes with a submersible pump installed. The Applicant proposes to use up to 12,000 gallons per day during drilling operations.
Air quality	The Applicant proposes that all equipment would utilize factory emission controls. Water would be used as necessary on disturbed areas and access roads to minimize fugitive dust. If fugitive dust is observed, vehicles would travel at a reduced speed, and trips would be reduced as necessary. The Applicant is required to comply with the applicable local, county, state, and federal requirements pertaining to air quality.
Supplemental Lighting	The Applicant proposes that a portable light plant would be used from dawn to dusk. To minimize fugitive light from leaving the drill pads during night operations, the Applicant proposes to implement Best Management Practices (BMPs), such as downward facing lights, light shrouds and shields, and directional lighting.
Water quality	To minimize sediment transport from the drill pads, the Applicant has proposed the use of the following BMPs: water diversions, straw wattles, silt fence, secondary containment, and implementing a spill prevention/response program. The Applicant is required to comply with the applicable local, county, state, and federal requirements pertaining to water quality.
Erosion control and sediment transport	To minimize sediment transport from the drill pads, the Applicant has proposed the use of the following BMPs: water diversions, straw wattles, and silt fence. The Applicant is required to comply with the

	applicable local, county, state, and federal requirements pertaining to water quality.
Solid waste	The Applicant proposes that any solid waste produced by the operation would be bagged, removed, and hauled to the Granite County Solid Waste Facility in Philipsburg, MT. The Applicant is required to comply with the applicable local, county, state, and federal requirements pertaining to the disposal of solid waste material.
Cultural resources	The Applicant proposes that the Applicant would not knowingly disturb, alter, injure, or destroy any historical or archaeological site, structure, building or object on Federal lands. If any previously undiscovered cultural resources are exposed as a result of project-related activities, the Applicant proposes to cease mineral exploration activities, leave such discoveries intact, and notify the Forest Service District Ranger. The Applicant proposes to not proceed until notified in writing by the Forest Service District Ranger that compliance with the provisions for mitigating unforeseen impacts as required by 36 CFR 228.4(e) has been satisfied. The Applicant is required to comply with the applicable local, county, state, and federal requirements pertaining to cultural resources.
Hazardous substances	The Applicant proposes to use: • 2 – 100-gallon sealed diesel exchange tanks, flown via helicopter to drill sites as necessary • 2 – 5 gallons of lubricants • BMP's to minimize the release of petroleum products and solvents include the use of: spill kits, regular equipment maintenance, secondary containment, and proper and secured storage The Applicant proposes to: • Maintain all areas in a safe, neat and workmanlike manner. • Verify that all waste is properly labeled, stored, and disposed of pursuant to 43 CFR 8365.1-1(b)(3). • No sewage, petroleum products, or refuse would be dumped from any equipment or vehicle. • Temporary containment for stored materials would include sealed drums or other containers with proper secondary containment. • Dispose of petroleum-contaminated soils generated from a spill within a closed bin and transport the material off-site for proper disposal at a permitted facility.

	• Take the portable toilet off-site for service and maintenance, or a contractor may service the facilities on site on a weekly basis. The Applicant would not bury human waste and toilet chemicals on site. The Applicant must adhere to all applicable local, county, state, and federal regulations concerning hazardous substances.
Reclamation Plans	**Concurrent Reclamation:** The Applicant proposes that reclamation would begin within inactive drill pad areas at the earliest practicable time; such as when moving from one drill pad area to another, recognizing time would be required to allow for sumps to dry before reclamation can be completed. The Applicant would regrade and recontour any new disturbances (e.g., sump areas) to stable configurations and slopes that approximate the pre-disturbance topography and drainage, to the extent possible. Once salvaged material is placed on recontoured areas, the Applicant proposes to monitor disturbed areas to ensure soil stabilization through natural revegetation. Disturbed areas that have not naturally revegetated after 3 years would be seeded with native species as determined by the USFS. Revegetation monitoring would occur based on seasonal growth patterns, precipitation, and weather conditions. The Applicant would conduct annual revegetation monitoring (including noxious weed monitoring and treatment, as needed), maintenance, and reporting, for at least three (3) years following closure and revegetation activities, or until revegetation success has been achieved and release of the reclamation performance bond (with approval by the USFS and DEQ). **Final Reclamation:** The Applicant proposes to continue concurrent reclamation of the exploration disturbances as the project progresses until no more disturbances are left to be completed. The Applicant proposes to, as necessary, regrade and recontour any new disturbances (e.g., sump areas) to stable configurations and slopes that approximate the pre-disturbance topography and drainage, to the extent possible. Recontoured surfaces would be blended to match adjacent topography to the extent feasible and relevant. The Applicant proposes to use a backhoe to regrade and reshape any new disturbance in preparation for growth media replacement. Remaining tire tracks or ruts would be lightly scarified to knock down and smooth any ruts and left in a rough state as necessary to relieve compaction and inhibit soil loss from runoff. As necessary, the Applicant would regrade and reshape any areas where equipment have been removed at the end of the exploration program to avoid any ground depression. Once salvaged material is placed on recontoured areas, the Applicant proposes to monitor disturbed areas to ensure soil

	stabilization occurs through natural revegetation. Disturbed areas that have not naturally revegetated after 3 years would be seeded with native species as determined by the USFS. The Applicant would be required to minimize the spread of noxious weeds, and sufficient vegetation to consider the disturbances reclaimed must be achieved within 2 years of the completion or abandonment of the proposed action to maintain compliance with Section 82-4-332, MCA. **Weed Control Plan:** The Applicant proposes to: • Wash vehicles, drill rigs, and heavy equipment prior to entering the project area • Avoid areas of known invasive, non-native, and noxious weeds during periods when the weeds could be spread by vehicles • Pre-treat areas proposed for use in the exploration plan The Applicant would contact the minerals administrator for specific chemical restrictions and/or recommended products for use in pre- and post-exploration activity noxious weed treatments. The Applicant would monitor revegetation success and the presence of noxious weeds annually for 3 years. **Structures to Remain:** The Applicant does not propose any structures or disturbances to remain unreclaimed.
	Cumulative Impact Considerations
General setting	The project area features forest and woodland, shrubland, and subalpine grassland to alpine sparse and barren environments in mountainous terrain. USFS maintained and historical exploration roads are present within the analysis area.
Past actions	Past actions in the area include exploration or hand sampling-based prospecting for lode deposits periodically from the 1970's to present. Exploration drilling in the area has been conducted by other exploration companies like Union Carbide Corporation from 1974 to sometime in the 1980's (USGS, 1981).
Present actions	**Exploration:** No other exploration projects authorized by DEQ are present within the analysis area. **Other:** Some recreationalists participate in travel and outdoor recreation in the greater project area. Local travel takes place along the pre-existing public USFS roads.
Related future actions	The Applicant may submit additional applications to amend the exploration license, which DEQ would review pursuant to the MMRA and rules adopted under the MMRA at that time. Any subsequent approvals would undergo a separate environmental review under MEPA.

Figure 5. Project Location Map

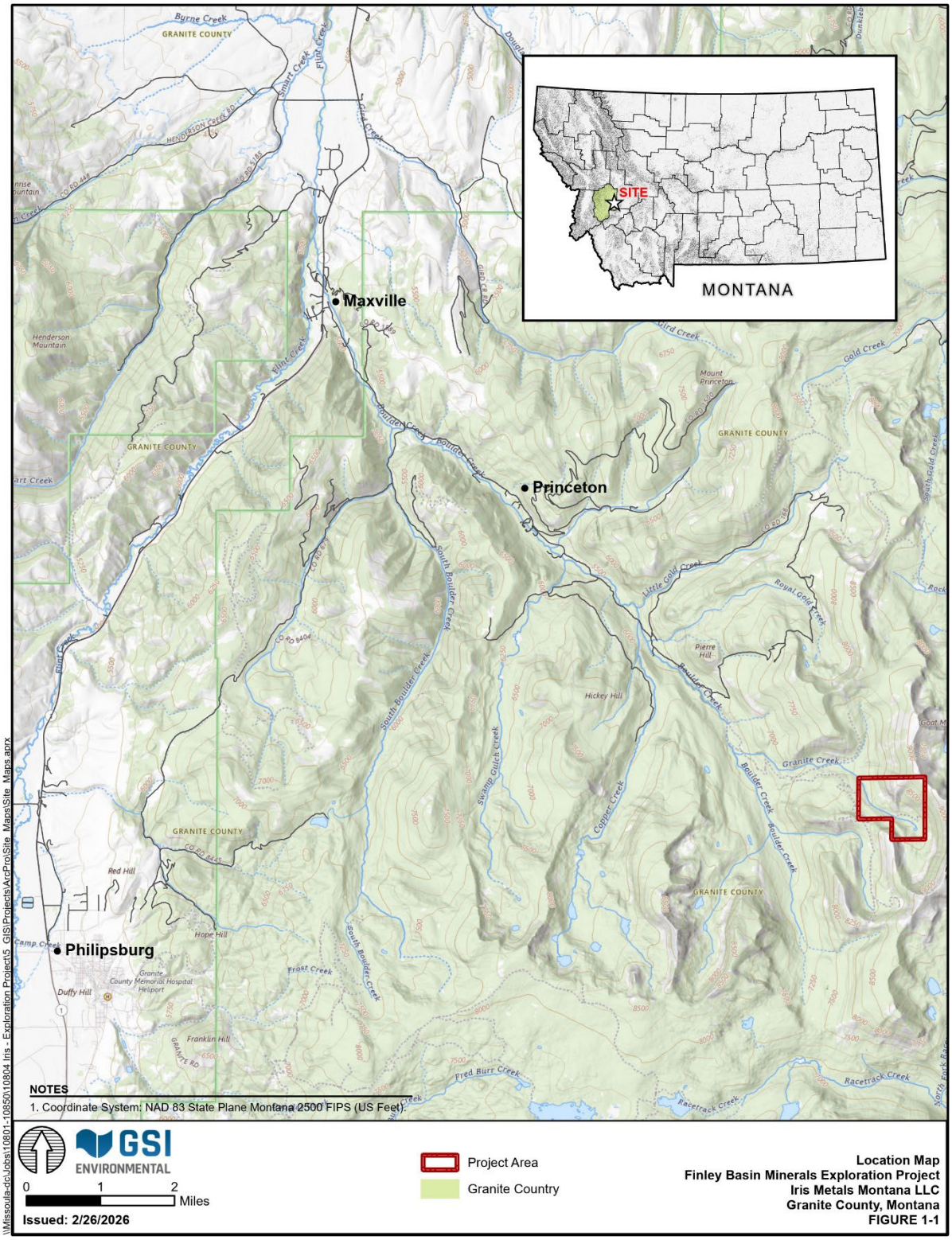
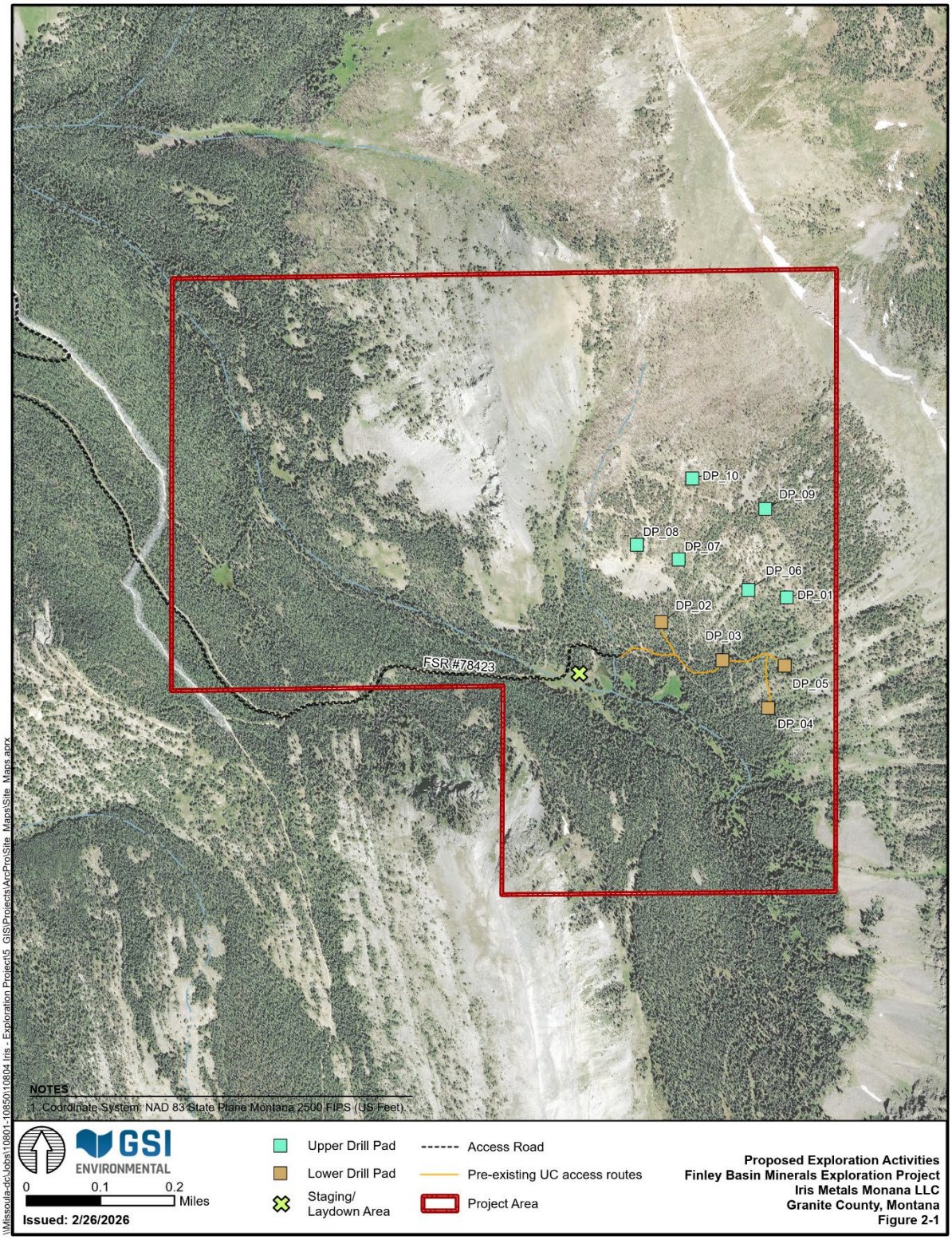


Figure 6. Detailed Site Map



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 proposed actions identified in **Table 1** were analyzed as part of the cumulative impacts assessment for each resource.

1. Geology and Soil Quality, Stability, and Moisture

The area of proposed exploration would be located on United States Forest Service (USFS) land, within the Beaverhead Deer Lodge National Forest, along the border of the historic Princeton-South Boulder Creek District, approximately 11.2 miles east of Philipsburg, in Granite County, Montana.

Princeton – South Boulder Creek Mining District History and Geology

The area of proposed exploration would be located on public lands managed by the USFS within the Princeton – South Boulder Creek Mining District, which is located on the western side of the Flint Creek Range in Finley Basin, near the town of Maxville, in Granite County, MT.

The area is in a mountainous area composed of tilted sedimentary rocks dating from the Algonkian to Mesozoic ages. Biotite granite has intruded into these rocks. Fissure veins in the granite and sedimentary rocks outcrop to the surface. Although not easily categorized, these veins are for the most part fissure fillings, but in some the wall rock has been mineralized. Some veins, including the Powell and Tussel veins were faulted after deposition of the ore. Gold, silver, copper and lead were the main mineral values (Emmons and Calkins 1913; Sahinen 1935).

Beginning in 1974, mineral exploration by Union Carbide Corporation within the study area has identified about 1 million tons (0.9 million t) of tungsten resources averaging more than 0.6 percent tungsten trioxide in tactite along the contact of the Royal stock in the Finley Basin area (E.E. Nelson, oral commun., 1981). Additional tungsten resources likely occur in a similar tactite zone at Union Carbide Corporation's Thompson Lake prospect, and possibly at the company's North Fork Granite Creek prospect. Silver, copper, and zinc minerals are associated with tungsten in quartz veins on the ridge at the head of Deerlodge Basin north of Finley Basin (USGS, 1981).

Soil Types

The erosion hazard ratings described below indicate the hazard of soil loss from off-road and off-trail areas after disturbance activities that expose the soil surface. The ratings are based on

slope, soil erosion factor K, and an index of rainfall erosivity (R). The soil loss is caused by sheet or rill erosion in off-road or off-trail areas where 50 to 75 percent of the surface has been exposed by some kind of disturbance (Natural Resource Conservation Service, 2026).

Soil types in the project area with a moderate erosion hazard rating for disturbances located off-road or off-trail include:

- Rock outcrop-Sig-Jeru families, complex, moderately steep trough bottoms (222.9 acres),
- Waldbillig-Bata families-Rock outcrop complex, moderately steep trough bottoms (148.5 acres),
- Rock outcrop-Sig-Klutch families, complex, very steep cirques (126.6 acres),
- Klutch family-Rock outcrop-Elvick family, complex, steep glaciated mountain slopes and ridges (47.2 acres),
- Arrowpeak family-Rock outcrop-Sebud family, complex, steep ridges and mountain slopes (37.3 acres)
- Whitore-Tropal families-Rock outcrop complex, very steep cirques (33.0 acres)
- Garlet-Tropal-Whitore families, complex, steep glaciated mountain slopes and ridges (30.4 acres), and
- Klutch family-Rock outcrop-Sig family, complex, very steep trough walls (27.4 acres).

Soils with a moderate erosion hazard rating indicate that some erosion would be likely and that erosion-control measures may be needed (Natural Resources Conservation Service, 2026).

The remainder of the soil types in the project area include:

- Rubble land-Rock outcrop-Crawfish family, complex, cirque headwalls (Not Rated, 43.9 acres),
- Rock outcrop-Tropal family-Rubble land complex, very steep trough walls (Not Rated, 37.4 acres), and
- Garlet family-Rock outcrop-Bata family, complex, steep glaciated mountain slopes and ridges (slight erosion hazard rating, 0.2 acres).

Soils with a slight erosion hazard rating indicate that erosion is unlikely under ordinary climatic conditions (Natural Resource Conservation Service, 2026). No unusual or unstable geologic features are present, and no fragile or distinctly erosive, unstable soils are present.

The Applicant would strip and salvage the top 8-12 inches of vegetation and/or soil from areas of new disturbance to be used in reclamation. Soil would be stockpiled adjacent to any constructed sumps to reduce the handling of soil.

The analysis area for geology and soils in the project area and immediately surrounding landscape in Granite County, Montana (Table 1). The Applicant must comply with the applicable local, county, state, and federal requirements for erosion control and sediment transport. The Applicant proposes the use of silt fence, water diversions (straw bale check dams), secondary containment, spill prevention/response, and straw wattles as best management practices (BMPs) to minimize erosion and sediment transport offsite.

Direct Impacts:

The proposed action would result in the displacement of soil and rock to the dimensions of the drill pad sumps and as described in Table 1. The Applicant proposes to construct 4 new drill pads 20 feet by 20 feet, 6 drilling platforms 15 feet by 20 feet, 4 drill pad sumps and drill up to 16 holes, with each sump measuring approximately 6 feet by 4 feet by 2 feet deep, and potential road improvements up to 1,964 feet long by 10 feet wide, with a total of 0.77 acres of new surface disturbances. Drill holes would not exceed 1,970 feet in depth, with a combined total not to exceed 23,210 feet. Rock would be removed during drilling, although the volume or mass of the resulting core or rock chip samples from drilling would be negligible. As described in ARM 17.24.106, all drill holes must be plugged prior to removing the drill rig from a hole unless removing the drill rig is necessary for the hole plugging operation or unless otherwise approved by the department. The Applicant would generally plug the drill holes with bentonite and then cap the top 5-10 feet with cement.

Secondary Impacts:

The proposed action could result in soil disturbance and minor subsequent erosion of disturbed soil, and sediment could be transported off-site via stormwater. Surface soil disturbance could allow for the establishment of weeds. Weed control during and after exploration activities is a requirement. Noxious weeds are further addressed in “Section 4. Vegetation Cover, Quantity, and Quality.”

Cumulative Impacts:

Cumulative impacts to soil stability from the proposed action, including increased potential for soil erosion and area instability, could impact soil stability from previous exploration activities conducted by Union Carbide Corporation. The additional disturbance of up to 0.77 acres, some on previously disturbed ground, with the application of erosion control BMPs and reclamation, is expected to make only a minor, short-term contribution to the cumulative effects on soil stability and geologic conditions and would not measurably change long term geologic or soil stability characteristics in the project area vicinity.

2. Water Quality, Quantity, and Distribution

Surface Water and Runoff:

The greater project area is located in the headwaters of Granite Creek, within a 1-square mile sub-basin of the Granite Creek drainage basin, within the landform known as Finley Basin. This basin receives a mean annual precipitation of 43 inches (StreamStats, 2026). The project area is bounded by Granite Creek to the south/southwest and an unnamed intermittent stream to the east. The proposed drill pads and laydown area would be located in Section 14, Township 7 North, Range 12 West and the nearest drill pad would be located approximately 620 feet upgradient from Granite Creek.

The Applicant would confine drill fluids to internal drill sumps and external fluid tanks if additional storage is needed, or where construction of the drill sumps is not proposed (i.e., helicopter and foot accessible drill sites, Figure 5).

The Applicant would monitor the conditions of the drill sumps to ensure that the drill cuttings are contained within the sumps. Should the observed condition indicate that sump containment is inadequate and there are emergency conditions, the Applicant would modify the existing sump or build additional sump capacity or add tankage to incorporate in the drilling fluid management system. If emergency conditions do not exist, the Applicant would seek additional approval by the agencies prior to modifying sump capacity.

Consistent with ARM 17.24.107(1), drilling mud and other nontoxic lubricants would be removed from the site or allowed to percolate into the ground prior to backfilling the sump. The Applicant would allow the sumps to dry prior to backfilling after completion of drilling activities.

In their application, the Applicant stated they would use water with non-toxic and biodegradable drilling fluids and additives, as necessary. The Applicant stated Safety Data Sheets (SDSs) for all drill additives would be available upon their selection of a drilling contractor and prior to commencement of exploration activities. The Applicant and its contractor would only use fluids approved for drilling.

The proposed Finley Basin Exploration project area is adjacent to the following wetland and riparian classifications: 18 acres of palustrine systems, encompassing emergent (PEM), and scrub-shrub (PSS), and aquatic bed classifications (PAB) (MTNHP, 2026). The Applicant stated in their application that environmentally sensitive features, such as riparian areas and wetlands, would be avoided and they would avoid any instream work.

Groundwater: Drill Site Areas

Groundwater would likely be encountered during drilling operations. The static groundwater level could be assumed to be equal to the elevation of Granite Creek. Granite Creek lies within a bowl-shaped basin which would likely produce a gaining stream. Granite Creek immediately downstream of the drill pad areas has a local surface elevation of up to approximately 7,700 above mean sea level (amsl). The lowest drill pad elevation and highest drill pad elevation proposed is estimated to be approximately 7,850 amsl, and 8,550 amsl, respectively. The deepest proposed drill hole may reach up to 1,970 feet below the ground's surface, or as deep as 5,880 amsl, which would intercept the interpreted groundwater level. The Applicant has proposed to comply with ARM 17.24.106 regarding scenarios where drilling operations would interact with the groundwater table, but if the groundwater is intercepted, the Applicant must comply with the drill hole plugging rules detailed in ARM 17.24.106 to maintain compliance.

The Applicant would verify that all waste is properly labeled, stored, and disposed of pursuant to 43 CFR 8365.1-1(b)(3). At the end of exploration activities, the Applicant would haul all refuse and exploration materials/supplies off site, consistent with applicable regulations. The Applicant would clean up any oil, material, or chemicals that could spill during exploration activities. After cleaning, oil, fluids, or chemicals would be removed from the site and disposed of through an approved used oil collector, hazardous waste transporter, or disposal service in accordance with

all applicable Federal, State, and local regulations. The Applicant has committed to disclose any additional costs associated with disposing these materials to support DEQ bonding requirements.

Groundwater: Water Supply Areas

Water necessary for drilling operations would be sourced from either one existing irrigation ditch located on private land, located in the northwest 1/4 of Section 4, Township 8 North, Range 13 West outside of Maxville, MT, or when groundwater is encountered during drilling, the Applicant proposes to install a pump and temporarily use available water for drilling in accordance with Section 85-2-306, MCA.

The capacity, purpose and beneficial use associated with the irrigation canal's water right are currently unknown, as water-right information for this source has not been provided by the Applicant. Proof of water right ownership is not a requirement under MMRA for obtaining an exploration license. However, an exploration license requires that the Applicant conduct exploration activities in compliance with all applicable state and federal laws, including Montana water rights law administered by the Department of Natural Resources and Conservation (DNRC). Water would be used on-site during drilling operations and for dust control as necessary. The Applicant proposes that approximately 12,000 gallons of water per day would be utilized during drilling operations and would be transported to the drill site by a 4,000-gallon water truck, or by tanks flown to drill sites via helicopter. Water would be used to cool and lubricate the drill bit, clean the bit-rock interface to optimize cutting performance, and to carry drill cuttings out of the hole. Wet drilling also suppresses dust for safer working conditions for drilling personnel.

The capacity, purpose, and beneficial use associated with the drill hole groundwater water right are currently unknown, as water-right information for this source has not been provided by the Applicant. The Applicant must comply with Section 85-2-306, MCA by submitting a Notice of Intent to Appropriate Groundwater (Form 602I) prior to putting the water to use (DNRC, 2026). As analyzed above in "Groundwater: Drill Site Areas", it is likely that drill operations would encounter groundwater. The Applicant must comply with the drill hole plugging rules detailed in ARM 17.24.106, the water beneficial use requirements detailed in Section 85-2-306, MCA, and any other local, state, or federal rules and regulations regarding well development and groundwater beneficial use to maintain compliance.

Direct Impacts:

Surface Water and Runoff:

Precipitation and surface water would generally be expected to infiltrate into the shallow subsurface and be retained within pore spaces in the unsaturated soil or vadose zone and potentially utilized by vegetation. Infiltrating runoff is not expected to reach the groundwater table in sufficient quantity to impact the aquifer or influence water quality beyond baseline conditions.

However, storm water leaving the sites during heavy storms could carry sediment from the disturbed soils and non-sediment contaminants from drilling operations. To comply with ARM 17.24.105, the Applicant must confine drilling fluids as well as waste cuttings from drilling operations to the drill site by the use of storage tanks or sumps or dispose of the fluids or waste in accordance with an approved plan. In the event that an inadvertent release of drilling fluid to the surface took place, it would be a violation of ARM 17.24.105 and a violation would be issued to the Applicant, following the regular compliance structure. Practically, the drilling fluids would be handled similarly to a fuel or water release. The drilling fluids would likely act as a thin mud or paste with increased viscosity (i.e., decreased fluidity), and would likely be contained within the drill pad area by the stormwater and sediment controls described in the Surface Water and Runoff section above. The Applicant also proposes the use of erosion control BMPs to minimize sediment transport off site and maintain surface water quality, including water diversions, straw wattles, and silt fence.

Groundwater:

The drilling and plugging processes are not expected to affect the groundwater quantity or quality or disturb other water users in the greater project area. The Applicant proposes drilling to a maximum depth of 1,970 feet from the surface. Except for potentially shallow drillholes, it is expected that groundwater would be encountered during drilling operations. However, the hydrologic setting (i.e., the distance between groundwater and the surface, in a transmissive unconfined aquifer) indicates that artesian flow would not be expected to occur from the drillholes, eliminating the potential impacts from uncontrolled flow of groundwater and groundwater-containing drilling fluids coming back up to the surface.

All exploration drill holes would be required to be reclaimed in accordance with ARM 17.24.106, which includes plugging with bentonite (clay rock composed mostly of montmorillonite, a swelling-clay mineral.) or a similar compound from the bottom of the hole to within five to ten feet of the surface, and with cement from the top of the bentonite to the surface. The proposed surface drilling activity, and the resulting drill holes prior to plugging, are unlikely to influence the elevation or the quality of groundwater.

Proposed Action Water Source:

The proposed activities at the water source (irrigation canal) include the withdrawal of up to 12,000 gallons of water per day, filling a water transport truck to convey water from the source location to the drilling project area, and transferring water in water containers to drill pad areas via helicopter. In the event of an uncontrolled transfer of water or water spillage, the action proposed could have similar impacts to surface water runoff from a stormwater producing event, as described above. The transfer of water would be controlled by piping and valving at the water source. The withdrawal of up to 12,000 gallons of water per day from the water source (an irrigation canal), would likely represent similar demand from the irrigation ditch compared to other commercial uses the irrigation ditch is otherwise used for. The proposed withdrawal from the irrigation ditch is unlikely to measurably affect aquifer storage or the distribution of water among existing users in the area.

Additionally, the applicant proposes to supplement the project's water source with groundwater pumped from drill holes that encounter groundwater at the project site. In a typical groundwater withdrawal scenario, the primary variables considered to evaluate impacts include the depth the water is pumped, the rate of pumping, the recharge rate of the aquifer, the transmissivity of the aquifer (or how easily the groundwater can move through the aquifer), and volume of water to be extracted. Potential impacts to the surrounding environment could include producing a cone of depression, reduced streamflow of Granite Creek, and the potential degradation of water quality in the aquifer. No other beneficial use of groundwater in the surrounding area is present.

The Applicant is required to comply with the applicable local, county, state, and federal requirements pertaining to water quality.

Secondary Impacts:

Storm water from a precipitation event would generally be expected to infiltrate into the subsurface, however, storm water leaving the sites could carry sediment from the disturbed soils and non-sediment contaminants from drilling operations. The Applicant proposes the use of water diversions, straw wattles, silt fence, secondary containment, and spill response/prevention as BMPs to minimize erosion and transport of sediment and non-sediment contaminants off-site.

Cumulative Impacts:

Cumulatively, the proposed exploration drilling could add a small, temporary increment of disturbance to a watershed already affected by historical exploration in the water drainage basin. Because the proposed action would: disturb only a limited area, 0.77 acres, on or near previously disturbed ground, implement erosion and sediment control BMPs, use and store drilling fluids in sumps or tanks, reclaim all drill holes in accordance with ARM 17.24.106, and obtain up to approximately 12,000 gallons per day of water from an existing irrigation canal or drill holes that encounters groundwater, its contribution to cumulative impacts on surface water and groundwater quality are expected to be minor.

3. Air Quality

Anaconda Pintler Wilderness is the closest Class 1 Airshed to the project area, at about 21 miles due southwest. The immediate area complies with the National Ambient Air Quality Standards. This proposed action would not be expected to impact the immediate areas airshed.

The Applicant proposes to apply water to roads, reduce traffic volume, and maintain factory emissions controls on all equipment and vehicles as BMPs to minimize impacts to air quality. Wet drilling would suppress dust for safer working conditions for drilling personnel. The Applicant is required to obtain any other necessary permits related to air quality as required by state, local, and federal law.

Direct Impacts:

Dust particulates would be produced or become airborne during exploration and reclamation operations. Mechanized equipment would produce some exhaust fumes. Dust would also be

produced while traveling along existing roads to and from the project area, and while helicopter operations approach the ground's surface during arrival, departure, and loading at the Riddick Field Airport in Philipsburg, MT and at the proposed project area, and produce airborne dust from the propellers thrust (propeller wash). The operator would be expected to maintain compliance with Montana's law regarding the need to take reasonable precautions to control airborne particulate matter.

Although the proposed action could result in fugitive dust and equipment exhaust, it would not be expected to impact the Anaconda Pintler Wilderness Class 1 Airshed due to the small scale of activity and distance between the proposed action and the airshed, in conjunction with implementation of BMPs.

Secondary Impacts:

No secondary impacts to air quality would be expected from the proposed action. Emissions control and dust reduction measures address the principal air quality pathways, and no high emission processes such as milling, concentrating, or continuous heavy haulage would be authorized under this exploration license.

Cumulative Impacts:

Cumulative impacts to air quality from the proposed action could add to impacts from existing land-based traffic, air traffic, and general recreational activities in Philipsburg, MT and in the greater project area in the vicinity of the proposed action. The incremental air-quality contribution of this short-term, small-scale exploration program is expected to be negligible. Equipment emissions and fugitive dust are limited by the terms of the proposed action and are temporary. Because exploration activities are temporary, limited in extent, and do not involve high-emission processes, the residual emissions are expected to be low and localized, with no measurable degradation of regional air quality.

4. Vegetation Cover, Quantity, and Quality

Land cover in the greater project area mapped using the Montana Natural Heritage Program (MTNHP, 2026) varies and is dominantly classified as Forest and Woodland, Shrubland, Grassland, and Sparse and Barren, Recently Disturbed or Modified, and Alpine systems. These systems include:

- Whitebark Pine - Subalpine Larch Forest and Woodland (28%, 712 acres),
- Lodgepole Pine Forest (221%, 549 acres),
- Rocky Mountain Douglas-fir Forest (8%, 193 acres),
- Dry Spruce-fir Forest (7%, 171 acres),
- Mountain Big Sagebrush Shrubland (7%, 169 acres),
- Montane – Subalpine Mesic Grassland and Meadow (6%, 148 acres),
- Rocky Mountain Cliff, Scree, and Rock Outcrops (5%, 129 acres),
- Recently Burned Forest (4%, 109 acres),
- Montane – Subalpine Dry Grassland (4%, 99 acres),
- Mesic Spruce-fir Forest (3%, 86 acres),

- Alpine Turf and Fellfield (3%, 66 acres),
- Alpine Bedrock and Scree (2%, 51 acres), and
- Additional limited land cover equal to or less than 1% each (MTNHP, 2026)

A search of MTNHP in the greater project area identified habitat and potential habitat for 21 vascular plant/lichen Species of Concern (SOC) and 4 Species of Potential Concern (SOPC). The USFS Species of Conservation Concern in Forests search identified 2 vascular plant or lichen SOC and 16 vascular plants or lichen classified as sensitive. The BLM has classified 1 vascular plants as sensitive and 0 as threatened.

The Applicant would strip and salvage the top 8-12 inches of vegetation and/or soil from areas of new disturbance to be used in reclamation. Soil would be stockpiled adjacent to any constructed sumps to reduce the handling of soil. The Applicant would rely on natural revegetation. However, if natural revegetation does not occur within three years following reclamation in these areas, the Applicant would reseed disturbed areas consistent with agency-approved recommendations. The Applicant would monitor revegetation success and the presence of noxious weeds on an annual basis for three years post-reclamation.

The Applicant has also committed to the following weed control measures:

- Pre-treatment of any areas proposed for reuse in the Project area, including Union Carbide Corporation's preexisting access routes and existing drill pads, where noxious and invasive weeds are known to occur, if any.
- Concurrent reclamation efforts.
- Washing vehicles, drill rigs, and heavy equipment prior to entering the project area.
- Avoiding areas of known invasive, non-native, and noxious weeds during periods when the weeds could be spread by vehicles.
- Use of weed-free hay bales for check dams which would prevent the distribution of newly introduced weeds via stormwater.

The Applicant is required to comply with the Beaverhead-Deerlodge National Forest Noxious Weed Control Final Environmental Impact Statement (USFS, 2002). Any eradication of noxious weed infestations that require the use of herbicide applications would require coordination with USFS specialists.

Direct Impacts:

The vegetation cover as described above would be removed or disturbed on vegetated ground within the 0.77 acres of surface disturbance proposed. Exploration activities that could affect the vegetation cover, quantity, and quality include the grubbing, scraping, trampling, and removal of vegetative cover not already affected by previous actions to develop drill pads, drill sumps, road improvements, wooden platforms, laydown area, and other proposed action disturbances related to exploration activities. Due to the limited disturbance area, 0.77 acres, the exploration activities are unlikely to cause broad, long-term loss of native vegetation or habitat and the population or ecosystem scale in the Finley Basin.

Secondary Impacts:

Land disturbance at the site may result in the propagation of noxious weeds. Any surface disturbances would be pre-treated before activities began, reclaimed concurrent with operations, and seeded with a native species as determined by the USFS if the area has not naturally vegetated within 3 years of exploration activities ceasing. The project area would be subject to the 2017 Montana Noxious Weed Management Plan and any additional measures required by the Granite County Weed Control Board.

No broad secondary impacts to vegetation cover, quantity, or quality would be expected because weed control is a condition of an exploration license, and the Applicant would be required to minimize the spread of noxious weeds, and sufficient vegetation to consider the disturbances reclaimed must be achieved within 2 years of the completion or abandonment of the proposed action to maintain compliance with Section 82-4-332, MCA.

Cumulative Impacts:

Cumulative impacts on vegetation cover, quantity, and quality from the proposed action could add to existing impacts from existing roads and from previous exploration activities conducted by Union Carbide Corporation in the 1970-80's within the project area. Reclaimed areas are expected to re-establish cover comparable to surrounding disturbed lands.

5. Terrestrial, Avian, and Aquatic Life and Habitats

No area within the greater project area is considered General Habitat for sage grouse. The BLM has not identified any areas within the greater project area as General Habitat Management Areas.

The proposed action has the potential to temporarily impact 0.77 acres of terrestrial, avian and/or aquatic habitat and temporarily displace species occurring within the proposed disturbance area. The primary types of activities which could affect wildlife occurrence and habitat use include noise and night lighting (disturbance) from exploration drilling, helicopter operation, removal of vegetation for drill and helipad sites, and use of pre-existing roads.

Common wildlife, such as birds, mammals, amphibians, and invertebrates, may utilize the project area and may be temporarily displaced while machinery and equipment are operating. Displaced wildlife are expected to find other suitable habitats in the surrounding undeveloped area and return to the project area following completion of exploration and reclamation activities.

Per the application, proper food storage would be required of all personnel working in the proposed project area to prevent attracting bears and other wildlife. The Applicant would ensure employees and contractors adhere to the recommendations set forth in the most recent USFS food storage order while operating in the proposed project area (R1-2023-02 - Food/Wildlife Attractant Storage Order).

The Applicant would cease all activities in the event an Endangered Species Act (ESA)-listed or sensitive wildlife species active den, nest, maternity colony, reproductive site or grounds is found in or near the proposed project area during project implementation and report to the USFS.

The Applicant would use temporary fencing and would construct each drill sump such that there would be a slope at one end to allow wildlife egress (in the event wildlife accesses the sump). The Applicant would backfill each sump after drilling is complete at that site or as soon as the sumps are dry.

The Applicant would avoid impacts to Federally protected birds – including migratory birds, raptors, and bald and golden eagles – during mineral exploration activities described in the application. Active nests would not be disturbed or removed unless specifically authorized by the U.S. Fish and Wildlife Service (USFWS) or USFS, which is only allowed in limited situations such as when human safety is at risk.

If active nest sites for threatened, endangered or sensitive species were identified, the Applicant would report such activity to the USFS to determine appropriate management actions based on species needs and site-specific considerations.

Direct Impacts:

Impacts on terrestrial, avian, and aquatic life and habitats may include increased ambient noise levels from the drilling equipment, excavation equipment, transportation equipment, and result in temporary displacement in the project area. Impacts to noise levels are further discussed in "Section 8. Aesthetics."

Wildlife could experience increased orientation or disorientation from additional illumination and be attracted to or repulsed by the increased light glare. This increased light could affect foraging, reproduction, communication, and other behaviors (Longcore and Rich, 2024). Any impact that could occur to terrestrial, avian, and aquatic life due to lighting impacts would last for the duration of low light activities under the proposed action.

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.

Cumulative Impacts:

Cumulative impacts to terrestrial, avian, and aquatic life and habitats from the proposed action could add to existing impacts from recreational use in the area.

6. Unique, Endangered, Fragile, or Limited Environmental Resources

A search of the MTNHP identified habitat and potential habitats for 18 bird, invertebrate, amphibian, fish, and mammal SOC, and 10 SOPC (MTNHP, 2026). Habitat for these species is common and not unique to the project area.

The analysis area included the habitat for 7 SOC of vascular plants, birds, and mammals that have been observed, occur as a resident year-round, or are generally known to be present in the greater project area. Those species include:

- Vascular Plants
    - Lackschewitz' Fleabane (Present)
    - Whitebark Pine (Present)
    - Simple Kobresia (Present)
- Mammals
    - Wolverine (Resident Year-Round)
    - Grizzly Bear (Resident Year-Round)
    - Fisher (Resident Year-Round)
- Bird
    - Black Rosy-Finch (Resident Year-Round)

Habitat for all other species within the project area is common throughout the larger ecosystem, and any displaced animal could find other suitable habitats in the surrounding undeveloped area and return to the project area after the proposed action's conclusion.

Direct Impacts:

The proposed action would result in the new disturbance of up to 0.77 acres. Impacts to unique, endangered, fragile, or limited environmental resources could include increased ambient noise levels from drilling operations, excavating equipment operations, transportation operations, and result in temporary displacement in the project area. Impacts to noise levels are further discussed in "Section 8. Aesthetics." The proposed action is not proposing to disturb wetlands or riparian habitat.

The 6 upper drill sites would be supported by helicopters, with helicopter flight frequency averaging up to 10 round-trip flights from Philipsburg, MT per day initially, decreasing to up to 4 round trips from Philipsburg, MT per day during normal operations.

The "Guide to Effects Analysis of Helicopter Use in Grizzly Bear Habitat" (USDA Forest Service and USDI Fish and Wildlife Service 2009), hereafter called "The Guide," provides guidance for assessing impacts of helicopter activity on grizzly bears. The Guide states that evidence suggests that grizzly bears may respond to aircraft flying at relatively low altitudes (less than 500 meters above ground level (AGL)), with or without landings, in occupied habitat. Effects may include awareness of the aircraft, flight response, or temporary displacement from the area. Effects from helicopters are generally considered insignificant if the flights are short duration, do not persist over long periods of time, and do not cause injury, reduced productivity, or significant interference with normal behavior. Activities with such characteristics may include maintenance or supply of drill rig operations and generally are not likely to adversely affect grizzly bears. If low altitude flights take place over an extended period and include multiple passes each day such that the effects are not relaxed, the operation generally may adversely affect grizzly bears. If repeated, low altitude flights continue into multiple seasons, the effects upon grizzly bears may become more long-lasting than just temporary displacement. Activities with these characteristics may include prolonged maintenance or servicing of drill rigs and other exploration operations.

Flights occurring above 500 meters AGL and not involving landing in grizzly bear habitat are not expected to affect grizzly bears. The Guide states that even if the guidance leads to a particular effects determination, extenuating circumstances may be present that justify a higher or lower effect determination.

Extended duration of helicopter landings at high elevation whitebark pine habitat would negatively impact grizzly bears because the flights would take place from November 31, 2026, to December 31, 2027, and include multiple passes and landings/take-offs each day (4 to 10 trips per day). The effect could result in displacement of grizzly bears within 500 meters of landing areas. However, as the proposed project falls within the Beaverhead Deerlodge National Forest, the size of the area grizzly bears would be displaced from is small compared to the size of a grizzly bear home range, and there are no barriers that would preclude a grizzly bear from moving around the disturbance to suitable habitat in any direction.

Both wolverines and fishers are generally associated with remote, isolated areas away from human development. While the proposed action falls with the elevation range used by wolverine, the sites would be accessed by preexisting roads, which receive a modest level of motorized use by recreationalists. The drilling operations would add to the human presence in the area with extended duration of noise, lights, vibrations, and general human presence from November 31, 2026, to December 31, 2027. Short-term disturbance and displacement of individual wolverines and fishers could potentially occur in and adjacent to the drill sites.

Secondary Impacts:

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.

Cumulative Impacts:

SOC within the cumulative impact analysis area may be disturbed or displaced due to habitat loss/degradation, noise, and human presence. Cumulative impacts on other unique, endangered, fragile, or limited environmental resources from the proposed action could add to existing impacts from local traffic and recreational activities in the project areas immediate vicinity. However, cumulative impacts are expected to be minimal because there is an abundance of alternate habitat for species dispersal so they can avoid the exploration activity areas.

7. Historical and Archaeological Sites

The Montana Cultural Resource Database under the State Historic Preservation Office (SHPO) indicates that there are inventoried and historical sites within the greater project area. If any structures are within the disturbance area, and are over fifty years old, SHPO recommends that they be recorded, and a determination of their eligibility be made prior to any disturbance taking place.

The proposed exploration activities are located on USFS lands. The Applicant proposes to not knowingly disturb, alter, injure, or destroy any historical or archeological site, structure, building, or object on federal lands. If the Applicant discovers any previously undiscovered cultural

resources are exposed as a result of exploration and reclamation activities, the Applicant proposes to cease exploration activities, leave such discoveries intact, and notify the District Ranger. The applicant proposes to not proceed until notified in writing by the District Ranger that compliance with the provisions for mitigating unforeseen impacts as required by federal regulations has been satisfied. The Applicant is required to comply with the applicable local, county, state, and federal requirements pertaining to cultural resources.

Direct Impacts:

Unidentified cultural or historic resources could be disturbed by exploration activities. The unanticipated-discovery protocol discussed above addresses the risk that undocumented sites connected to this cultural landscape could be disturbed by exploration activities.

Secondary Impacts:

No secondary impacts on historical or archaeological sites would be expected from the proposed action given the small disturbance footprint, the discovery protocol, and the concurrent reclamation measures.

Cumulative Impacts:

No cumulative impacts on historical and archaeological resources would be expected from the proposed action. The small disturbance footprint, the use of existing drill site disturbance, the use of existing roads, and concurrent reclamation minimize the number of areas requiring disturbance and the duration of ground disturbing activities, thereby limiting the cumulative potential for any incremental impact on the region's cultural resource record.

8. Aesthetics

The proposed activities would occur on lands managed by the USFS. The project area is located adjacent to existing USFS roads, however, the area is sparsely populated, typical to the remote forest and alpine setting in the adjacent lands. The project area would be visible to the public traveling along local USFS roads and/or recreationists in the area with an unobstructed view. There would be no permanent change to the topography or the viewshed. Noise associated with the proposed action may be heard where sound related to the proposed action has not been fully diminished by distance or another sound-dampening feature.

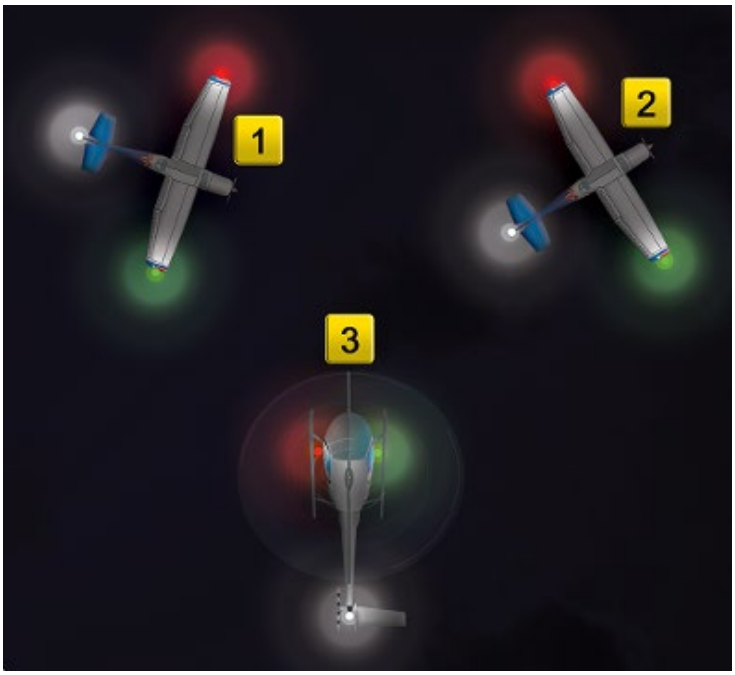
The Applicant has not proposed a specific helicopter flight path for the proposed action. However, the Applicant has described the helicopter flight path as avoiding direct overflights of local structures. In general, this would require the flight path to depart from the Riddick Field Airport located in Philipsburg, MT in an easterly direction, before turning north towards the greater project area and the proposed action area. The Applicant estimates that during initial exploration operations, approximately 2 to 10 round trip flights per day from the Riddick Field Airport to the proposed project area would occur to deliver material and facilitate the proposed action. The Applicant also estimates that an average of 2 to 4 round-trip flights per day would occur during active exploration. Additionally, the Applicant estimates that additional flight time would be required within Finley Basin to periodically move and reconstruct platforms and move

equipment between the 6 helicopter and foot accessible drill pads. The Applicant proposes that all helicopter operations would be in accordance with Federal Aviation Administration (FAA) requirements.

In order to see other aircraft more clearly, regulations require that all aircraft operating during the night hours have special lights and equipment. The requirements for operating at night are found in Title 14 of the Code of Federal Regulations (14 CFR) part 91. In addition to aircraft lighting, the regulations also provide a definition of night flight in accordance with 14 CFR part 91, currency requirements, fuel reserves, and necessary electrical systems.

Position lights enable a pilot to locate another aircraft, as well as help determine its direction of flight. The approved aircraft lights for night operations are a green light on the right cabin side or wingtip, a red light on the left cabin side or wingtip, and a white position light on the tail. In addition, flashing aviation red or white anticollision lights are required for all flights, if equipped on the aircraft and in an operable condition (in accordance with 14 CFR Section 91.209(b), which aids in the identification during night conditions). These flashing lights can be in a number of locations but are most commonly found on the top and bottom of the cabin (FAA, Helicopter Flying Handbook).

Figure 7. Aircraft position lights



The Applicant proposes to perform 2, 12-hour shifts, 24 hours a day. Two portable light plants (Table 1) would be deployed at the project area as necessary for low light operations, up to 8 hours per day. Light pollution controls proposed include the use of downward-facing, shielded lights and directional lighting. Portable light towers are widely used on a variety of construction sites. The primary advantages of portable lights are their ability to be positioned at different sections within and across the work zone. The mounting heights typically range from six feet to a fully extended 30 feet and the light pole is usually rotatable 360 degrees. Other lighting systems

used that could be used during operation would be lights on headlights from equipment and trucks (Nafakh, Davila, Zhang, et. Al, 2022).

Light impacts can be described in several forms. These forms of light impacts are described as spill light, glare, and sky glow. Spill light or stray light is the amount of light that leaves a specific site. Spill light can be controlled by taking measurement of vertical illuminance at the property boundary line or the edge of the road allowance (Nafakh, Davila, Zhang, et. al, 2022). Glare is the light that shines horizontally. Sky glow is a term that refers to the increased sky brightness caused by electric light scattering into the atmosphere, most notably from outdoor lighting in urban areas (Nafakh, Davila, Zhang, et. al, 2022).

Direct Impacts:

The proposed action would be temporarily visible to or heard by the sparsely populated surrounding area and to receptors located at observation points that are unobstructed by topography or forested vegetation. The helicopter would be temporarily visible to or heard by the general population within the vicinity of the helicopter flight path while the helicopter is approaching, flying overhead, and departing the area of the receptor. The intensity of noise would correlate to atmospheric conditions and the distance between the helicopter and receptor, with sound diminishing as the distance increases. Receptors along the helicopter flight path could potentially see and hear the helicopter 20 times per day during initial exploration operations.

The proposed sites would be visible from portions of USFS roads in the vicinity of the drill pads, sumps, and laydown area. Aesthetic impacts from exploration and reclamation activities would include views of heavy equipment like the drill rig, excavations, passenger vehicles, and miscellaneous equipment related to drilling and reclamation. The light plant may be visible to receptors during low-light operations. Noise associated with the proposed action could be heard where sound related to the proposed action has not been fully diminished by distance or another sound dampening feature. Sources of noise could include the operation of heavy equipment, construction activities, vehicle travel, and air travel. Final reclamation would be required with 2 years of completion of the proposed action.

Secondary Impacts:

No secondary impacts to area aesthetics would be expected from the proposed work.

Cumulative Impacts:

Cumulatively, the proposed action would add a short-term increment of visible equipment, construction activity, lighting, and noise in the project area, within a landscape effected by travel and previous exploration activities. These visual and noise effects are expected to be moderate to minor, and temporary, with final reclamation required within 2 years after exploration concludes.

9. Demands on Environmental Resources of Land, Water, Air, or Energy

Proposed action water would be supplied from an irrigation ditch located in the northwest 1/4 of Section 4, Township 8 North, Range 13 West outside of Maxville, MT. The Applicant has not disclosed the water right or additional information regarding the irrigation ditch. Proof of water right ownership is not a requirement under MMRA for obtaining an exploration license. However, an exploration license requires that the Applicant conduct exploration activities in compliance with all applicable state and federal laws, including Montana water rights law administered by the Department of Natural Resources and Conservation (DNRC). Additionally, the Applicant proposes to submerse a pump into a drill hole if a drill hole intercepts water and withdraw water as necessary in compliance with Section 85-2-306, MCA. The Applicant proposes that approximately 12,000 gallons of water per day would be utilized during drilling operations and would be transported to the drill site by a 4,000-gallon water truck or airlifted via helicopter in water tanks to the drill sites otherwise inaccessible by land vehicles. No other local land, water, air, or energy resources would be used as part of this proposed action.

Direct Impacts:

The proposed action would consume up to 12,000 gallons of water resources per day during drilling activities and during conditions requiring water application for dust suppression. No direct impacts of land, air or energy are expected from this proposed action.

Secondary Impacts:

No secondary impacts to environmental resources of land, water, air, or energy would be expected.

Cumulative Impacts:

Cumulatively, the proposed action's use of up to 12,000 gallons of water per day of irrigation ditch water would add to existing demands on the water table and could affect overall water availability or water table capacity in the immediate vicinity. No additional cumulative impacts on the environmental resources of land, air or energy are expected from the proposed action.

10. Impacts on Other Environmental Resources

DEQ searched the following websites or databases for nearby activities that may affect the proposed action, however no other projects were identified:

- Montana Department of Natural Resource and Conservation (DNRC)
- Montana Department of Environmental Quality (DEQ)
- Montana Department of Transportation (MDT)
- Granite County
- United States Department of Interior, Bureau of Land Management (BLM)
- United States Forest Service (USFS)

Direct Impacts:

No direct impacts on other environmental resources would be expected from the proposed action.

Secondary Impacts:

No secondary impacts on other environmental resources would be expected from the proposed action.

Cumulative Impacts:

No cumulative impacts to other environmental resources would be expected from the proposed action.

11. Human Health and Safety

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 Occupational Safety and Health Administration (OSHA) has developed rules and guidelines to reduce the risks associated with this type of labor. The proposed action would occur on remote USFS land, and few members of the public may be in the project area during exploration and reclamation operations. The Applicant proposes that all helicopter operations would be in accordance with FAA requirements.

Direct Impacts:

Direct impacts to human health and safety to the Applicant's exploration staff could occur from this proposed action, however compliance with OSHA standards would substantially reduce risk. The respiration of exhaust fumes and the ingestion of dust generated by equipment during exploration operations and reclamation would be minimized with proper personal protection equipment. Increases in operation-related traffic would likely occur. The daily traffic that would be leaving the site could vary greatly.

The use of helicopters in mountainous terrain while carrying slung loads could be dangerous. Human health and safety of the helicopter crew would be dependent on a variety of conditions including low-light operations, changing atmospheric conditions, and operations at altitude. The Applicant must comply with all human health and safety requirements according to local, state, and federal laws and regulations.

Secondary Impacts:

Fugitive dust that leaves the project area and is not dispersed by air movement could be deposited near the project area, which could cause irritation with varying degrees of severity to receptors who come into contact with that dust. Additionally, helicopter operations at low altitude could disturb fine particulate matter and produce excessive dust in the propeller's wash.

ARM 17.8.308 would require the Applicant to take reasonable precautions to control airborne particulate matter.

Dust impacts from the proposed action would be minimized by implementing wet drilling and applying water to travel/working surfaces.

Cumulative Impacts:

No cumulative impacts on human health and safety would be expected from the proposed action.

12. Industrial, Commercial, and Agricultural Activities and Production

No other industrial, commercial, or agricultural activities are known to occur in the project area.

Direct Impacts:

No direct impacts to industrial, commercial and agricultural activities and production in the area would be expected from the proposed action.

Secondary Impacts:

No secondary impacts to industrial, commercial, and agricultural activities and production in the area would be expected from the proposed action.

Cumulative Impacts:

No cumulative impacts on the industrial, commercial, and agricultural activities and production in the area would be expected from the proposed action.

13. Quantity and Distribution of Employment

Existing employees would likely be utilized for this proposed project. The Applicant proposes that 1 managing geologist, 1 operating supervisor, 1-2 water truck drivers (per shift), 1-4 drill rig operators per drill rig, 2-8 helpers per drill rig, and 1-2 contract supervisors (per shift) would be onsite during operations. It is not anticipated that this proposed action would create, move, or eliminate jobs.

Direct Impacts:

Direct impacts on quantity and distribution of employment would not likely result from this proposed action. The proposed action plan calls for several limited-duration contracted and otherwise employed people. No lasting positive or negative impacts to employment would be expected from this proposed action.

Secondary Impacts:

No secondary impacts to quantity and distribution of employment would be expected from the proposed action.

Cumulative Impacts:

No cumulative impacts on the quantity and distribution of employment would be expected from the proposed action.

14. Local and State Tax Base and Tax Revenues

The proposed action would have a limited increase in tax revenue related to the payroll taxes from the proposed action.

Direct Impacts:

Some positive, yet limited, benefit to the local and state economy could result from this proposed action. However, due to the nature of the minimal tax revenue from income, the purchase of local goods and services, or expenses, minimal impacts would be expected from this proposed action. The significance assessment is presented in Table 2.

Secondary Impacts:

No secondary impacts to local and state tax base and tax revenues would be expected from the proposed action.

Cumulative Impacts:

No cumulative impacts to local and state tax base and tax revenue would be expected from the proposed action.

15. Demand for Government Services

It is not anticipated that substantial ground based traffic or services would be necessary as part of this proposed action. The proposed action would be located on public and private lands using private, county, and public access roads. Site access would rely on existing roads and road improvements to drill pad locations.

Aerial traffic or services would be part of the proposed action as a helicopter is proposed to make daily flights to and from the Riddick Field Airport in Philipsburg, MT to the project area in Finley Basin. All operations would be subject to local, seasonal restrictions as they apply.

Direct Impacts:

Direct impacts to the demand for government services would occur regarding air traffic and federal oversight. Daily helicopter trips from the Riddick Field Airport in Philipsburg, MT, to the project area in Finley Basin, would increase air traffic during exploration activities and could increase the demand on surveillance and air traffic coordination in the immediate air space. The Applicant must comply with all local, state, and federal regulations regarding air traffic and air travel.

Secondary Impacts:

No secondary impacts to the demand for government services would be expected from the proposed action.

Cumulative Impacts:

No cumulative impacts to demand on government services would be expected from the proposed action.

16. Locally Adopted Environmental Plans and Goals

The proposed activities would occur on public land. The project area would be subject to any plans or rules set forth by the USFS, Granite County, and the 2017 Montana Noxious Weed Management Plan.

Direct Impacts:

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

Secondary Impacts:

No secondary impacts from or to locally adopted environmental plans and goals would be expected because of the proposed work.

Cumulative Impacts:

No cumulative impacts from or to locally adopted environmental plans and goals would be expected from the proposed action.

17. Access to and Quality of Recreational and Wilderness Activities

The proposed exploration activities would occur on USFS lands. There are recreational opportunities for the general public in the project area, although there are no maintained formal access points to recreational opportunities within or adjacent to the project area.

Direct Impacts:

The proposed action would occur on USFS lands within the Beaverhead Deer Lodge National Forest, managed by the United States Forest Service. No impacts to the access of recreational activities are expected. A commonly desired quality of public lands used by recreationists is the isolation and distance from human activity. The quality of recreational activities within the immediately surrounding USFS lands, along the access roads, and along the helicopters flight path could be impacted similarly in scale, quality, and duration as the impacts described in Section 8. “Aesthetics”.

Secondary Impacts:

No secondary impacts to the access and quality of recreational opportunities would be expected from the proposed action.

Cumulative Impacts:

No cumulative impacts to the access or quality of recreational opportunities would be expected from the proposed action.

18. Density and Distribution of Population and Housing

Granite County had a population of approximately 3,309 people as of the census conducted by the United States Census Bureau in 2020.

Direct Impacts:

Due to the short-term project duration and the temporary nature of the activity, no impact to population density and housing would be expected from this proposed action.

Secondary Impacts:

No secondary impacts to population density and housing would be expected from the proposed action.

Cumulative Impacts:

No cumulative impacts to population density and housing would be expected from the proposed action.

19. Social Structures and Mores

The surrounding areas contain a mix of sparse residential and undeveloped national forest use, and the proposed short-term exploration would be consistent with this existing character. Due to the short-term project duration and location on previously disturbed land, it is not anticipated that this proposed action would disrupt native or traditional lifestyles or communities.

Direct Impacts:

No direct impacts on social structures and mores would be expected from the proposed action.

Secondary Impacts:

No secondary impacts on social structures and mores would be expected from the proposed action.

Cumulative Impacts:

No cumulative impacts to social structures and mores would be expected from the proposed action.

20. Cultural Uniqueness and Diversity

The proposed action would be conducted in an area that has been affected by historical mining. Given the proposed action's small scale, short duration, and location on previously disturbed land, it is not expected to alter the cultural character, uniqueness, or diversity of the affected communities.

Direct Impacts:

No direct impacts to cultural uniqueness and diversity would be expected from the proposed action.

Secondary Impacts:

No secondary impacts to cultural uniqueness and diversity would be expected from the proposed action.

Cumulative Impacts:

No cumulative impacts to cultural uniqueness and diversity would be expected from the proposed action.

21. Private Property Impacts

None of the proposed action would take place on private lands. DEQ's approval of AMD1 to Exploration License No. 00902, with conditions, would not 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 Metal Mine Reclamation Act and demonstrate compliance with those requirements or have been agreed to by the Applicant. Further, if the application is complete, DEQ must take action on the permit pursuant to ARM 17.24.119. DEQ, therefore, does not have discretion to take alternative action that would have less impact on private property. Therefore, DEQ's approval of an amendment to License No. 00902 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 action. These flowchart questions have been applied by DEQ to the proposed project area, which takes place on private land owned by the Applicant, as follows:

- Does the action pertain to land or water management or environmental regulation affecting private real property or water rights? Answer: Yes.
- 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 Metal Mine Reclamation Act, Section 82-4-301, et seq., MCA, and have been sought by the Applicant. 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 exploration activities and the limited project duration, no further direct or secondary impacts would be anticipated from this proposed action.

23. Greenhouse Gas Analysis

When greenhouse gases (GHGs) are emitted by any source, they become well-mixed globally due to their long lifetimes in the atmosphere (i.e., tens of years for methane to thousands of years for carbon dioxide) and atmospheric mixing, primarily driven by differential heating and synoptic-scale weather patterns, which distribute the gases throughout the planet, leading to a relatively uniform concentration of these gases across the globe. In general, GHG emissions from sources that are not considered a fossil-fuel activity, as defined by § 75-1-220, MCA, contribute to an overall negligible increase of GHG concentrations in the global atmosphere, not local airsheds, causing a marginal global greenhouse effect (i.e., solar energy trapped in the earth's atmosphere from GHGs, resulting in higher average surface temperatures). Localized industrial source GHG emissions do not have direct impacts on climate, public health and associated impacts to the environment on a local or statewide scale.

DEQ is required to evaluate GHG emissions for statutorily defined fossil fuel activities. 2025 Mont. Laws ch. 348, § 1. However, this exploration activity is excluded from the definition of fossil fuel activities and therefore a GHG assessment is not mandatory. *Id.*, § 4(7)(b)(iii). Instead, to determine if a GHG assessment is needed, DEQ applies the normal MEPA standard of whether GHG emission impacts are potentially significant because of a proposed action, in this case exploration activities. ARM 17.4.609(3)(d)–(e).

DEQ concludes that the authorization of exploration activities pursuant to 82-4-332, MCA, would likely have negligible effect on increased GHG entering the atmosphere, and therefore any additional assessment of GHG is not necessary for purposes of this EA.

PROPOSED ACTION ALTERNATIVES

Pursuant to ARM 17.4.609, when an applicant proposes an action with the potential to have an impact on the Montana environment, the associated EA must include a description of reasonable alternatives. For the purposes of MEPA, and the minimum requirements of ARMs 17.4.607 and 17.4.609 for EAs, the alternatives analysis must include the "no action" alternative. The "no action" alternative represents the baseline condition in which the proposed activity does not occur. However, if the applicant demonstrates compliance with all applicable rules and regulations required for approval, the "no action" alternative would not be appropriate. Rather, the "no action" alternative forms the baseline from which the impacts

of the proposed action can be measured. Pursuant to section 75-1-201(4)(a), MCA, DEQ “may not withhold, deny, or impose conditions on any permit or other authority to act based on” an environmental assessment. Therefore, if an application meets all the requirements for permit approval, DEQ cannot require any alternative to the project as described in the permit application, including a “no action” alternative.

No Action Alternative:

In addition to the proposed action, DEQ also considered the "no action" alternative. Under the "no action" alternative, DEQ would not approve AMD1 to Exploration License No. 00902, and data from AMD1 exploration activities would not be collected. Baseline conditions would persist. No additional 0.77 acres of disturbance from drilling up to 16 drill holes would occur, and any other potential impacts authorized under AMD1 would not occur. However, DEQ does not consider the “no action” alternative appropriate because the Applicant has demonstrated compliance with all applicable rules and regulations as required for a complete and acceptable determination. For purposes of MEPA, the no-action alternative forms the baseline from which the proposed action's impacts can be measured.

CONSULTATION

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

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)
- Granite 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 Environmental Protection Agency (EPA)
- United States Department of Interior, Bureau of Land Management (BLM)
- United States Forest Service (USFS)

PUBLIC INVOLVEMENT

The draft EA will be available to the public through the DEQ website, and the public will have 15 days to submit comments on the draft EA. The final EA will also be posted to the DEQ website once completed.

OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION

The proposed action would be located on lands managed by the USFS. 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 action submitted by the Applicant. Any impacts from the action would be short-term and would be fully reclaimed at the conclusion of the proposed action, and thus, would not contribute to the long-term cumulative effects of mining in the area. No other DNRC, BLM, or USFS-regulated projects were identified in the immediate project vicinity.

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.

As described in this EA, the proposed action would authorize additional surface and underground exploration activities that would disturb up to approximately 0.77 acres, on USFS lands.

The EA analysis indicates that, with implementation of applicable BMPs and compliance with federal, state, and local requirements, the remaining impacts on Montana's environment of the proposed action would be low to moderate in intensity, localized in extent, and short term in duration. Applicable BMPs are described throughout the EA in resource sections and Table 1 and 2.

BMPs to minimize erosion, sediment movement, and water resource impacts include: specific drill depth requirements, water diversions, silt fence, straw wattles, secondary containment and spill prevention and response kits. Additionally, where possible, reclamation would include returning disturbed ground to the original slope, covering the area with stockpiled topsoil, and monitoring for noxious weeds. Weed control would be used to control the spread of noxious weeds.

BMPs to minimize impacts to air quality include: the application of water to roads, maintaining factory emissions controls, and reduced traffic volume.

Further, reclamation of disturbed lands to comparable utility and stability as adjacent undisturbed land would minimize impacts to wildlife and habitats.

Geology/soils, water, and air resources would experience only small, temporary increments of additional disturbance and emissions within an area already affected by previous exploration activities and reclamation is required within two years after exploration is complete. The proposed action would primarily use an existing water source (up to 12,000 gallons per day) and would plug exploration drill holes in accordance with ARM 17.24.106.

For social and economic resources, the EA concludes that the proposed action would have only limited, short term positive effects on local employment and tax revenues, would not displace existing industrial, commercial, or agricultural activities, and would be generally consistent with the project area. The limited impacts on employment, tax base, housing, neighborhood character, and demand for government services are note expected to result in substantial growth inducing or growth inhibiting effects or conflicts with locally adopted plans, goals, or regulations under ARM 17.4.608 The EA also finds that the proposed action would not result in substantial changes to social structures, cultural uniqueness and diversity, or private property impacts, and would not conflict with local, state, or federal laws, requirements, or formal plans.

Approval of the proposed action 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 additional license, amendment, or operating permit applications to conduct further exploration or mining, DEQ would conduct a separate permitting and environmental review process and make a permitting decision based on the criteria set forth in the MMRA and applicable MEPA requirements. Issuance of this amendment does not predetermine the level of environmental review for any future proposals; that determination would be made on a case specific basis using the criteria in ARM 17.4.608.

Based on consideration of the criteria set forth in ARM 17.4.608, and the analysis presented in this EA, DEQ has determined that the proposed action, AMD1 to Exploration License No. 00902, is not expected to significantly impact the quality of Montana’s environment. Preparation of an EA is therefore the appropriate level of environmental review under MEPA, and an EIS is not required for this action.

Table 2: Assessment of Significance (ARM 17.4.608)

Affected Resource and Section Reference	Potential Impact	Severity[1], Extent[2], Duration[3], Frequency[4], Uniqueness and Fragility (U/F)	Probability impact will occur[5]	Cumulative impacts	Measures to reduce impact as proposed by Applicant	Significance (yes/no)
1. Geology and Soil Quality, Stability, and Moisture	A. Displacement/excavation of rock and soil, drilling. B. Erosion of disturbed soil and weed propagation	**A. Severity-Medium:** Of the 0.77 acres of ground that would be disturbed, the improvements to the road and excavation of the drill sumps would result in the displacement and movement of rock and soil. Drill cuttings/core and samples would be removed. **Extent-Small:** Total surface area susceptible to displacement would be less than 0.77 acres. Up to 23,210 linear feet of core would be removed. **Duration- Short Term:** Up to 2 years after completion or abandonment of exploration activities plus growing seasons. **Frequency:** Daily **Unique/Fragile:** Not unique or particularly fragile. **B. Severity-Medium:** Of the ground that would be disturbed, all disturbance would be susceptible to erosion and propagation of weeds. **Extent-Small:** Total surface disturbance susceptible to erosion and weed propagation would be less than 0.77 acres. **Duration- Short Term:** Up to 2 years after completion or abandonment of exploration activities plus growing seasons. **Frequency:** During occasional storm events. **Unique/Fragile:** Not unique or particularly fragile.	A. Certain B. Possible	Erosion could add to cumulative impacts associated with potential erosion on existing roads, and from previous exploration activities conducted under Union Carbide Corporation within the proposed project area.	The Applicant proposes the use of; • Water diversions; • Silt fence; • Straw wattles; and • Secondary containment as best management practices (BMPs) to minimize erosion and sediment transport off-site. - Reclamation would be performed immediately after the conclusion of exploration operations. Weed control is further discussed in "Section 4. Vegetation Cover, Quantity, and Quality".	No
2. Water Quality, Quantity, and Distribution	Erosion of disturbed soil into waterways, intercepting the groundwater table in the project area, and 12,000 gallon per day withdrawal at the proposed action water source.	**Severity-Low:** Of the ground that would be disturbed, all disturbance would be susceptible to erosion. The maximum depth proposed is 1,970 feet, which would intercept the water table. Up to 12,000 gallons per day would be consumed during drilling operations. **Extent-Small:** Total surface disturbance susceptible to erosion would be less than 0.77 acres. **Duration- Short Term:** Up to 2 years after completion or abandonment of exploration activities plus growing seasons and during drilling activities. **Frequency:** During occasional storm events, and during general drilling operations. **Unique/Fragile:** Not unique or particularly fragile.	Possible	Erosion could add to cumulative impacts associated with potential erosion on existing roads, and from previous exploration activities conducted by Union Carbide Corporation within the project area. Intercepting the groundwater table during drilling operations could add to cumulative impacts associated with previous exploration activities conducted by Union Carbide Corporation. Proposed water withdrawals at the proposed action water source could add to the cumulative impacts to the aquifer by nearby water users.	The Applicant proposes the use of the above BMPs to minimize erosion and sediment transport off-site. -Drilling could intercept the groundwater table. The Applicant is required to reclaim drill holes in accordance with ARM 17.24.106. - Reclamation would be performed immediately after the conclusion of exploration operations.	No
3. Air Quality	Erosion of disturbed soil/windblown emissions, e.g.,	**Severity-High:** Dust and other particulates would be generated during exploration operations and while driving on and off-site and	Certain	Dust and exhaust generated from this proposed action would temporarily add to the cumulative	The Applicant proposes the use of;	No

Affected Resource and Section Reference	Potential Impact	Severity[1], Extent[2], Duration[3], Frequency[4], Uniqueness and Fragility (U/F)	Probability impact will occur[5]	Cumulative impacts	Measures to reduce impact as proposed by Applicant	Significance (yes/no)
	equipment exhaust, helicopter propeller wash	while the helicopter operates at low altitudes. Mechanized equipment would produce exhaust fumes. **Extent-Small:** Dust and exhaust fumes would be generated near moving/working equipment. **Duration- Short Term:** Up to 2 years after completion or abandonment of exploration activities plus growing seasons. **Frequency-Daily:** During exploration and reclamation operations. **Unique/Fragile:** Not unique or particularly fragile.		impacts from the other vehicles and engines operating in the area and to general recreational activities in the greater project area in the use of public lands near the proposed action.	• application of water to roads • reduced traffic volume • maintaining factory emissions controls on all equipment and vehicles as BMPs to minimize the impacts to air quality.	
4. Vegetation Cover, Quantity, and Quality	A. Displacement of vegetation B. Weed propagation associated with surface disturbance	**Severity-Medium:** The ground disturbed would be subject to the displacement of vegetation and the potential to propagate weeds. **Extent-Small:** Total surface disturbance subject to the displacement of vegetation and the potential to propagate weeds would be less than 0.77 acres. **Duration-Short Term:** Up to 2 years after completion or abandonment of exploration activities plus growing seasons. **Frequency-Twice:** After exploration and after reclamation activities. **Unique/Fragile:** Not unique or particularly fragile.	A. Certain B. Probable	The displacement of vegetation would add to cumulative impacts from previous exploration activities conducted by Union Carbide Corporation within the project area. Weed propagation generated from the proposed action would temporarily add to the cumulative impacts in other areas where weeds already exist within and near the proposed action area.	• Any ground disturbed by exploration activities would be monitored for weeds and revegetation. • Weed control measures proposed by the Applicant include working with a local weed control contractor.	No
5. Terrestrial, Avian, and Aquatic Life and Habitats	Increased ambient noise and the displacement of animals	**Severity-Medium:** 0.77 acres of disturbance and associated activities would cause temporary animal displacement from the project area. Helicopter flights would increase ambient noise along the flight path and in the project area, and may contribute to the temporary displacement from where the helicopter hovers over low altitudes. **Extent-Small:** Increased ambient noise would impact animals where sound has not been obstructed by topography or forested vegetation. Any displaced animal could find other suitable habitats nearby and return to the project area shortly after the proposed action's conclusion. **Duration-Short Term:** Reclamation would be required within 2 years after completion or abandonment of exploration activities plus growing seasons. **Frequency-Daily**: During exploration and reclamation activities. **Unique/Fragile:** Not unique or particularly fragile.	Probable	Cumulative impacts to terrestrial, avian, and aquatic life and habitats from the proposed action could add to existing impacts from recreational use in the area.	• Proper food storage to prevent attracting bears and other wildlife. • Temporary fencing around drill sumps. • Drill sumps constructed to have a slope at one end to allow wildlife egress.	No

Affected Resource and Section Reference	Potential Impact	Severity[1], Extent[2], Duration[3], Frequency[4], Uniqueness and Fragility (U/F)	Probability impact will occur[5]	Cumulative impacts	Measures to reduce impact as proposed by Applicant	Significance (yes/no)
6. Unique, Endangered, Fragile, or Limited Environmental Resources	Displacement of unique or endangered animals	**Severity-Low:** 0.77 acres of disturbance would cause temporary animal displacement from the project area. **Extent-Small:** Increased ambient noise would impact animals where sound has not been obstructed by topography or forested vegetation. Any displaced animal could find other suitable habitats nearby and return to the project area shortly after the proposed action's conclusion. **Duration-Short Term:** Reclamation would be required within 2 years after completion or abandonment of exploration activities plus growing seasons. **Frequency-Daily:** During exploration and reclamation activities. **Unique/Fragile:** Not unique or particularly fragile.	Probable	Cumulative impacts on unique, endangered, fragile, or limited environmental resources from the proposed action could add to existing impacts from local traffic and recreational activities in the project areas immediate vicinity.	• The Applicant would cease all activities in the event an Endangered Species Act (ESA)-listed or sensitive wildlife species active den, nest, maternity colony, reproductive site or grounds is found in or near the proposed project area during project implementation. • Avoid impacts to Federally protected birds. Active nests would not be disturbed or removed.	No
7. Historical and Archaeological Sites	Unidentified cultural or historic resources could be disturbed by exploration activities.	**Severity-Low:** Some disturbance associated with the proposed action could impact existing historical and archeological resources. **Extent-Small:** The presence of historical and archeological resources would be minimal within the project area proposed to be disturbed. **Duration-Long Term:** Any disturbance to archaeological sites would be permanent. **Frequency-Daily:** During exploration and reclamation activities. Unique/Fragile: Not unique or particularly fragile.	Probable	No cumulative impacts on historical and archaeological resources would be expected from the proposed action.	If unidentified cultural or historic resources are discovered, the Applicant would cease exploration activities, leave the discovery intact, and notify the USFS Forest Ranger.	No
8. Aesthetics	Proposed action visibility and noise	**Severity-Medium:** Receptors would view helicopters, heavy equipment, equipment related to drilling, and equipment transportation. Receptors could observe light during low-light operations from the light plant in use. Receptors would hear noise from sources including operation of heavy equipment, helicopters, construction, and travel. **Extent-Small:** The noise and visual impacts would be visible to receptors from observation points unobstructed by topography or forested lands and to receptors near the helicopter flight paths. Noise may be heard by receptors located in an area where sound related to the proposed action has not been fully diminished. **Duration-Short Term:** Reclamation would be required within 2 years after completion or abandonment of exploration activities plus growing seasons. **Frequency- Daily:** During exploration and reclamation activities. **Unique/Fragile:** Not unique or particularly fragile.	Certain	Impacts to area aesthetics generated from this proposed action could temporarily add to the cumulative impacts associated with travel and previous exploration activities conducted in the area.	The following BMPs are proposed to minimize light pollution; • directional and downward facing lights, • light shrouds/shields • avoid flying over local structures during helicopter flights	No
9. Demands on Environmental Resources of Land, Water, Air, or Energy	Water usage	**Severity-Low:** The proposed action would utilize up to 12,000-gallons of water per day during exploration operations.	Certain	Consumption of up to 12,000 gallons of water per day could temporarily add to the cumulative	None	No

Affected Resource and Section Reference	Potential Impact	Severity[1], Extent[2], Duration[3], Frequency[4], Uniqueness and Fragility (U/F)	Probability impact will occur[5]	Cumulative impacts	Measures to reduce impact as proposed by Applicant	Significance (yes/no)
		Extent-Small: The water would be sourced from a pre-existing water supply. **Duration-Short Term:** Water would be consumed during drilling operations and when used as a dust suppressant and would cease upon the conclusion of operations. **Frequency- Daily:** During exploration and reclamation activities. **Unique/Fragile**-Not unique or particularly fragile.		impacts associated with other water use in the area.		
10. Impacts on Other Environmental Resources	No anticipated impacts	N/A	N/A	N/A	N/A	No
11. Human Health and Safety	Possible respiration, ingestion, or contract with dust, potential injuries related to heavy equipment and helicopter operations	**Severity-Low:** Only exploration staff would be in the immediate vicinity during exploration activities. **Extent-Small:** Within the immediate area of operating equipment. **Duration-Short Term:** Respiration of exhaust fumes and the ingestion of dust produced by heavy equipment would only be during exploration or reclamation activities. Reclamation would be required within 2 years after completion or abandonment of exploration activities, plus growing seasons. . **Frequency- Daily:** During exploration and reclamation activities. **Unique/Fragile**- Not unique or particularly fragile.	Unlikely	No cumulative impacts on human health and safety would be expected from the proposed action.	The Applicant proposes that all helicopter operations would be in accordance with FAA requirements.	No
12. Industrial, Commercial, and Agricultural Activities and Production	No anticipated impacts	N/A	N/A	N/A	N/A	No
13. Quantity and Distribution of Employment	No anticipated impacts	N/A	N/A	N/A	N/A	No
14. Local and State Tax Base and Tax Revenues	Wages, withheld taxes, and local spending	**Severity-Low:** Workers and the companies participating in the proposed action. **Extent-Small:** The limited scale of the proposed action would only employ a minor number of individuals. **Duration-Short Term:** Workers and the company would only have opportunity to collect wages, withhold taxes, and spend locally related to the proposed action during operations and within 2 years after completion or abandonment of exploration activities, plus growing seasons. **Frequency- Daily:** During exploration and reclamation activities. **Unique/Fragile**- Not unique or particularly fragile.	N/A	The proposed action would provide only a small, temporary addition to the existing local and state tax base associated with other economic activity in the Philipsburg, MT and Maxville, MT area.	None	No
15. Demand for Government Services	Increased traffic	**Severity-Low:** Traffic would increase on a small number of public roads within the greater project area. Air traffic would increase in the airspace along the flight path of the helicopter. **Extent-Small:** Increased traffic would occur along the local and public roads and airspace in the immediate vicinity of the project area and along the helicopter flight path.	Certain	No cumulative impacts to demand on government services would be expected from the proposed action	None	No

Affected Resource and Section Reference	Potential Impact	Severity[1], Extent[2], Duration[3], Frequency[4], Uniqueness and Fragility (U/F)	Probability impact will occur[5]	Cumulative impacts	Measures to reduce impact as proposed by Applicant	Significance (yes/no)
		Duration-Short Term: Increased vehicle traffic would only occur during operations and within 2 years after completion or abandonment of exploration activities, plus growing seasons. **Frequency- Daily:** During exploration and reclamation activities. **Unique/Fragile-** Not unique or particularly fragile.				
16. Locally Adopted Environmental Plans and Goals	No anticipated impacts	N/A	N/A	N/A	N/A	No
17. Access to and Quality of Recreational and Wilderness Activities	Project visibility and noise	**Severity-Medium:** Receptors would view and hear helicopters, heavy equipment, equipment related to drilling, and equipment transportation. Receptors could observe light during low-light operations from the light plants in use. Receptors would hear noise from sources including the operation of heavy equipment, construction, and travel. **Extent-Small:** The proposed action could generate impacts similar to those described in "Section 8. Aesthetics" to recreationists in the immediately surrounding USFS lands. **Duration-Short Term:** Project visibility and noise would only occur during operations and within 2 years after completion or abandonment of exploration activities, plus growing seasons. **Frequency- Daily:** During exploration and reclamation activities. **Unique/Fragile-** Not unique or particularly fragile.	Certain	The proposed action would add impacts similar to those described in "Section 8. Aesthetics" these visual and noise effects are expected to be minor and temporary, with final reclamation required within 2 years after exploration concludes.	None	No
18. Density and Distribution of Population and Housing	No anticipated impacts	N/A	N/A	N/A	N/A	No
19. Social Structures and Mores	No anticipated impacts	N/A	N/A	N/A	N/A	No
20. Cultural Uniqueness and Diversity	No anticipated impacts	N/A	N/A	N/A	N/A	No

1. Severity describes the density 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

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