

FALCON COPPER CORPORATION

EXPLORATION LICENSE No. 00878

Amendment No. 4

**BLUE COPPER
POWELL COUNTY, MT**

**October 13, 2026
Draft Environmental Assessment**

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PROJECT OVERVIEW

COMPANY NAME: Falcon Copper Corporation
EA DATE: October 13, 2026
PROJECT: Blue Copper
PERMIT/LICENSE: Exploration License No. 00878
AMENDMENT #: Amendment 4 (AMD4)

Location

(46.67169°, -112.53494°) County: Powell

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 Draft 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 Draft Environmental Assessment. § 75-1-201(4), Montana Code Annotated (MCA).

Proposed Action

DEQ would approve Amendment 4 (AMD4) to Exploration License No. 00878 (Exploration License) for Falcon Copper Corporation (Applicant) – Blue Copper Project, if DEQ has determined that the Applicant has met the criteria set forth in 82-4-332, 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.

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 August 7, 2026, the Applicant submitted a complete application for an Exploration License Amendment (AMD4). Pursuant to 82-4-332(2), MCA, the application was complete and acceptable.

The Applicant proposes to assess the commercial potential of copper, gold, silver, tungsten, germanium, and gallium mineralization through surface exploration on private land in Powell County, Montana, approximately 9 miles northeast of Avon. The proposed activities would occur in the Snowshoe, Ophir Claim Group, and Lower Ophir Creek target areas.

The Plan of Operations submitted on January 9, 2026, and supplemented on April 15, 2026, and August 7, 2026, proposes to construct up to 37 drill pads, each with an internal drill sump or, where site conditions warrant, a solids-removal unit. Pad dimensions would vary with terrain and drilling requirements: small-narrow pads would be up to 40 feet by 50 feet; small pads up to 50 feet by 50 feet; large-narrow pads up to 50 feet by 100 feet; and large pads up to 100 feet by 100 feet. Internal sumps would be constructed within drill-pad disturbance limits and would range from 30 feet by 12 feet by 8 feet deep on small pads to 40 feet by 20 feet by 8 feet deep on large pads.

The Applicant proposes up to six drill holes per pad, for a maximum of 222 drill holes. Individual drill holes would not exceed 7,000 feet in depth, and cumulative drill footage would not exceed 1,554,000 feet. Exploration drilling could use core, reverse-circulation, sonic, auger, or other geotechnical methods identified in annual work plans, with up to seven drill rigs operating concurrently.

To support exploration, the Applicant proposes approximately 3,907 feet of new access road, consisting of 3,590 feet of high-prism road and 317 feet of low-prism road, with a 10-foot running width and a total disturbance footprint approximately 12 to 24 feet wide, with an average width of 22 feet. The Applicant also proposes approximately 845 feet of 10-foot-wide overland travel; improvement of approximately 12,144 feet of existing roads requiring mechanized earthwork; and reconditioning of approximately 2,006 feet of existing roads requiring minor roadbed, drainage, or downfall-removal work. Four road pullouts would be constructed as needed for safe equipment travel.

The Applicant proposes using three laydown areas: the previously authorized Quigley Tract and Ophir Claim laydown areas and the proposed Victor 1 laydown area. Laydown areas would be up to 100 feet by 300 feet and excavated to a maximum depth of 2 feet. The Applicant also proposes one temporary 15-foot-by-15-foot bridge across Ophir Creek along an existing road proposed for reconditioning; the bridge would be removed after exploration and reclamation are complete.

The Applicant is proposing up to 11.65 acres of total new surface disturbance.

Start dates of the proposed exploration operations are contingent upon DEQs acceptance of the required reclamation bond and issuance of an Approval to Proceed Letter. The Applicant proposes to complete exploration no later than December 30, 2031. The Applicant proposes to conduct concurrent reclamation where practicable, and complete final reclamation no later than December 30, 2033.

Table 1: Summary of Activities Proposed in Application

Summary of Proposed Activities in Application	
General Overview	The Applicant proposes surface exploration activities on private lands located in Sections 27, 28, 30 and 31 of Township 11 North, Range 7 West and Section 25 of Township 11 North, Range 8 West, in Powell County, Montana, approximately 9 miles northeast of Avon, MT. The project is not located within sage grouse habitat. Surface drilling operations would include the construction of up to 37 new drill pads of varying sizes, depending on the terrain. • 3 Small-Narrow Drill Pads; 50 feet long by 40 feet wide ○ Internal Drill Sumps; 30 feet long by 12 feet wide by up to 8 feet deep • 2 Small Drill Pads; 50 feet wide by 50 feet long ○ Internal Drill Sumps; 30 feet long by 12 feet wide by up to 8 feet deep • 9 Large-Narrow Drill Pads; 100 feet long by 50 feet wide ○ Internal Drill Sumps; 35 feet long by 15 feet wide by up to 8 feet deep • 23 Large Drill Pads; 100 feet long by 100 feet wide ○ Internal Drill Sumps; 40 feet long by 20 feet wide by up to 8 feet deep The Applicant proposes up to six drill holes per pad, for a maximum of 222 drill holes. Individual holes would not exceed 7,000 feet in depth, and total cumulative drill footage would not exceed 1,554,000 feet. To support drilling, the Applicant proposes approximately 3,907 feet of new access road, including 3,590 feet of high-prism road and 317 feet of low-prism road. New roads would have a 10-foot running width and a total disturbance footprint of up to 22 feet. The Applicant also proposes approximately 845 feet of 10-foot-wide overland travel; improvement of approximately 12,144 feet of existing roads requiring mechanized earthwork; and reconditioning of approximately 2,006 feet of existing roads requiring minor roadbed, drainage, or downfall-removal work. Four pullouts may be constructed to support safe equipment travel. The Applicant proposes to use three laydown areas: the previously authorized and constructed Quigley Tract and Ophir Claim laydown areas and the proposed Victor 1 laydown area. The laydown area would be up to 100 feet by 300 feet and excavated to a maximum depth of 2 feet. The Applicant also proposes a temporary 15-foot-by-15-foot bridge across Ophir Creek along an existing road

	proposed for reconditioning. The bridge would be removed after exploration and reclamation are complete. The proposed action would disturb up to approximately 11.65 acres. This disturbance is in addition to, but would largely overlap with, areas analyzed under the existing Exploration License No. 00878 environmental review for approved Amendments No. 1 and No. 2 and Amendment No. 3, which remains under review. Start dates of the proposed exploration operations are contingent upon DEQs acceptance of the required reclamation bond and issuance of an Approval to Proceed Letter. The Applicant proposes to complete exploration by December 30, 2031. The Applicant proposes to conduct concurrent reclamation where practicable, and complete final reclamation by December 30, 2033. Final reclamation of surface disturbance must be completed no later than two years after exploration concludes unless the disturbance is incorporated into an operating-permit reclamation plan.
Proposed Dimensions	
Drill pads (#)	37
Drill pad dimensions (xy)	Small-narrow: up to 40 feet by 50 feet; small: up to 50 feet by 50 feet; large-narrow: up to 50 feet by 100 feet; large: up to 100 feet by 100 feet. Drill-pad excavation depth would not exceed 8 feet.
Internal Drill Sumps (#)	37
Internal Drill Sump Dimensions (xyz)	Small and small-narrow pads: up to 30 feet by 12 feet by 8 feet deep; large-narrow pads: up to 35 feet by 15 feet by 8 feet deep; large pads: up to 40 feet by 20 feet by 8 feet deep
Drill Holes (#)	222
Maximum Drill Hole Depth (z)	Up to 7,000 feet below ground surface
Cumulative Surface Drill Hole Depth	Up to 1,554,000 feet
Laydown Areas (#)	3 total laydown areas: the previously authorized Quigley Tract Laydown Area in the Snowshoe target area, the previously authorized Ophir Claim Laydown Area, and the proposed Victor 1 Laydown Area in the Lower Ophir Creek target area

Laydown Area dimensions (xyz)	Up to 100 feet by 300 feet by 2 feet deep
New Roads	Approximately 3,907 feet total, including 3,590 feet of high-prism road and 317 feet of low-prism road. New roads would have a 10-foot running width; total disturbance footprint would range from approximately 12 to 24 feet wide, with an average width of 22 feet for high-prism roads and 14 feet for low-prism roads.
Existing Roads Requiring Dirt Work	Approximately 12,144 feet of existing road improvements, generally within a 12-foot footprint and involving mechanized earthwork such as grading, roadbed improvement, and drainage improvements. The revised application identifies a maximum earthwork depth of 0.5 foot.
Existing Roads Requiring Minor Repairs	2,006 feet x 12 feet x 0.5 feet
Pull-Outs (#)	4
Pull-out dimensions (xyz)	Maximum of 100 feet x 30 feet x 1.5 feet
Overland Travel	845 feet x 10 feet
Bridge (#)	1
Bridge dimensions (xy)	15 feet x 15 feet
Total new surface disturbance	11.65 acres
Specific Proposed Activities	
Duration and timing	Start dates of the proposed exploration operations are contingent upon DEQs acceptance of the required reclamation bond and issuance of an Approval to Proceed Letter. The Applicant proposes that the exploration operations be completed no later than December 30, 2031 , and the reclamation operations be completed no later than December 30, 2033 . Work hours are estimated to be up to 24 hours per day (2 x 12-hour shifts), up to 7 days per week. 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, or similar: • 5 – Track or Truck-Mounted Drill Rig (Boart Longyear LF90) • 1 – Modular or Compact Drill Rig (Multipower HD Track Rig) • 1 – Truck-Mounted Reverse Circulation Drill (Schramm 685)

	• 3 – Trailer-mounted Solids Removal Unit (4' x 8' portable) • 2 – Pipe Truck (34-foot 400 HP Truck) • 7 – Water Truck (4,000-gallon) • 1 – Vacuum Truck (2,500-gallon) • 1 – Equipment Fuel Truck (pickup-mounted 300-gallon tank) • 2 – Excavators (Cat 320) • 2 – Bulldozers (Cat D8) • 1 – Road Grader (Cat 140) • 3 – Backhoes (Cat 440) • 3 – Skid steers with Forks and Bucket (Cat 255) • 2 – Telehandlers (Cat TH1255) • 3 – ATV/UTVs (4-seat, 4x4) • 1 – Generator 20kW (gas/propane portable genset) • 6 – Generators 5 kW (gas/propane portable genset) • 8 – Personal Vehicles (1-ton 4x4 or smaller) • 7 – Light towers (trailer-mounted) • 2 – Air Compressors (auxiliary, trailer-mounted)
Location and analysis area	Location: 46.67169°, -112.53494° Distance from the nearest town/city: On private lands located in Sections 27, 28, 30 and 31 of Township 11 North, Range 7 West and Section 25 of Township 11 North, Range 8 West, approximately 9 miles northeast of Avon, MT in Powell County, Montana. 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 the Location Map and any other maps below.
Personnel on-site	• 1 – Managing Geologist • 7 – Logging Geologists • 2 – Field Geologists • 3 – Geo-technicians • 3 – Operators • 1 – Construction Supervisor • 1 – Construction Mechanic • 7 – Drill Rig Operators • 3 – Driller Helper • 1 – Water Truck Driver • 3 – Drill Rig Supervisor • 1 – Drill Rig Mechanic
Structures	• 3 – Connex/containers (12 feet x up to 42 feet) • 3 – Office Trailers (10 feet x up to 40 feet) • 3 – Portable toilets

	• 3 – Water pumps (American Model 435) • 3 – Small Water Pumps (2-inch portable gas-powered) • 7 – 4,000-gallon water tanks (polypropylene) • 4 – Trash Dumpsters (10 to 40 cubic yards) • 21 – Metal Gate Panels • 210 - Metal T-posts • 1,050 feet of safety/snow fence • 2,500 feet of 2-inch diameter water lines • 1,700 feet of geophysical wire
Proposed action water source	The Applicant proposes to obtain project water from the City of Deer Lodge municipal water system. Municipal water would be transported approximately 25 miles from Deer Lodge to the project area in highway-suitable tanker trucks with a capacity of up to 4,000 gallons. Daily water use could be up to 24,000 gallons when all seven drill rigs are operating, and water is required for road dust suppression. The Applicant anticipates up to two tanker-truck trips per day for each active drill rig, depending on water demand and equipment availability, with up to six total tanker-truck trips per day anticipated at maximum operations. Total project water use would not exceed 24,000 gallons per day. Municipal water would be offloaded into up to seven 3,000- to 4,000-gallon polypropylene storage tanks located within the proposed laydown areas on private land. Water would then be transferred to four-wheel-drive water trucks for delivery to active drill sites and used for drilling operations and dust suppression on access roads and other disturbed travel surfaces, as needed. The Applicant must obtain and maintain all applicable agreements, authorizations, and approvals related to the purchase, transport, storage, and use of municipal water and must comply with all applicable local, county, state, and federal requirements.
Air quality	The Applicant proposes that all equipment and vehicles used for exploration and reclamation activities would utilize factory-installed emission controls and would be maintained in accordance with manufacturer specifications. Fugitive dust would be minimized through the application of municipal water obtained from the City of Deer Lodge to disturbed areas, access roads, and other travel surfaces, as needed. If fugitive dust is observed, the Applicant would reduce vehicle speeds, limit vehicle trips and traffic volumes as practicable, and apply additional water or implement other appropriate dust-control

	measures. Water used for dust suppression would be transported to the project area by highway-suitable tanker trucks, transferred to laydown-area storage tanks, and delivered to active work areas by four-wheel-drive water trucks. The Applicant must comply with all applicable local, county, state, and federal air-quality requirements, including requirements to take reasonable precautions to control airborne particulate matter.
Supplemental Lighting	The Applicant proposes to use trailer-mounted portable light plants during nighttime exploration and reclamation activities. Supplemental lighting may be used for up to 12 hours per day, generally between 7:00 p.m. and 7:00 a.m., with the timing adjusted seasonally and as necessary to support safe operations. Up to seven trailer-mounted light plants may be used to support active operations. To minimize light spill beyond active work areas, the Applicant would use downward-facing and directional lighting and would employ light shrouds or shields, as appropriate. Light plants would be positioned and operated to provide necessary illumination while minimizing off-site glare and sky glow.
Water quality	To minimize sediment transport from the drill pads, the Applicant has proposed the following BMPs: vegetated buffers; compacted earthen berms; silt fencing; temporary seeding; water diversions; mulch cover; surface roughening; straw wattles; sediment traps; secondary containment; and spill-prevention and response measures, including on-site spill-response kits. The Applicant is required to comply with the applicable local, county, state, and federal requirements pertaining to water quality.
Erosion control and sediment transport	The Applicant would implement the same BMPs described above to control erosion, retain sediment on site, and prevent sediment or other pollutants from leaving disturbed areas. BMPs would be installed, inspected, maintained, and repaired as necessary during construction, drilling, road maintenance, and reclamation activities. The particular combination and placement of controls would be adjusted to site-specific conditions, including slope, soil characteristics, drainage patterns, weather, and the proximity of disturbed areas to surface water. For temporary or seasonal shutdowns, areas no longer needed for exploration would be recontoured, stabilized, and seeded where practicable; sumps and other excavations would be backfilled and contoured to prevent surface depressions; and access routes

	retained for future use would be maintained as necessary to prevent erosion and off-site sediment transport. Final reclamation would include regrading and recontouring disturbed surfaces, redistributing available growth media, implementing necessary erosion-control measures, and revegetating disturbed areas. The Applicant must comply with all applicable local, county, state, and federal erosion-control and sediment-transport requirements.
Solid waste	The Applicant proposes that any solid waste produced by the operation would be collected in up to 4 dumpsters with a maximum capacity of 40 cubic yards and hauled to the Helena Transfer Station landfill as necessary. 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 to avoid knowingly disturbing, altering, injuring, destroying, or removing scientifically important paleontological deposits or historic or archaeological sites, structures, buildings, objects, or other cultural resources on private land. Identified eligible or unevaluated historic and prehistoric cultural resources would be avoided by all project activities to the extent practicable. If previously unidentified cultural or paleontological resources are discovered or exposed during exploration, construction, reclamation, or related activities, the Applicant would immediately cease work in the affected area, leave the discovery intact, and notify the Montana Department of Environmental Quality. The Applicant would not resume work in the affected area until DEQ provides written notification that requirements for addressing and mitigating unforeseen impacts have been satisfied. The Applicant must comply with all applicable local, county, state, and federal requirements pertaining to cultural and paleontological resources.
Hazardous substances	The Applicant proposes to transport petroleum products and other hazardous substances to active exploration and reclamation areas using one equipment fuel truck with a pickup-mounted 300-gallon fuel tank, as necessary. Diesel fuel and gasoline would be stored primarily in manufacturer-installed fuel tanks on drill rigs and associated support vehicles; up to approximately 300 gallons of diesel fuel and 100 gallons of gasoline may be present in those fuel-delivery systems. No bulk fuel storage is proposed within the project area or at the laydown areas.

	Additional materials that may be used or stored in limited quantities include radiator fluid, lubricating grease, and equipment-maintenance solvents. Up to approximately 5 gallons of radiator fluid may be stored in manufacturer-installed containment systems on drill rigs and support vehicles or in supplier-provided containers. Approximately 8 pounds, or one case, of lubricating grease may be stored on each drill rig or transported by drill-support vehicles for routine equipment maintenance. The Applicant's hazardous-substance inventory also identifies brake cleaner, carburetor cleaner, and degreaser in small containers associated with each active drill rig. Fueling, refueling, and hazardous-material handling would occur within secondary-containment areas or using equivalent spill-prevention measures. Spill kits would be maintained at active operating areas, within vehicles, and at drill sites. Containers would be labeled and handled in accordance with applicable transportation and safety requirements. In the event of a release, the Applicant would promptly implement spill-control and containment measures, notify DEQ and the Emergency Response Hotline when required, clean up the release, and collect and transport resulting wastes to an authorized off-site disposal facility. The Applicant must comply with all applicable local, county, state, and federal requirements concerning hazardous substances.
Reclamation Plans	Concurrent Reclamation: The Applicant proposes to conduct reclamation concurrently with exploration activities to the extent practicable. Drill pads, drill sumps, temporary access routes, and other disturbed areas that are no longer needed for exploration would be reclaimed at the earliest practicable time, consistent with operational needs, site conditions, and seasonal constraints. Concurrent reclamation may include backfilling drill sumps and other excavations; plugging drill holes in accordance with applicable requirements; regrading and recontouring disturbed surfaces to blend with adjacent topography; redistributing salvaged growth media where available and suitable; scarifying compacted surfaces, including overland travel routes, as appropriate; and installing or maintaining erosion- and sediment-control measures. Temporary access roads no longer needed for exploration would be reclaimed, while access routes retained for anticipated future use would be maintained as necessary to prevent erosion and sediment transport. Disturbed areas would be revegetated with an appropriate, certified weed-free seed mix when site and seasonal conditions are suitable.

	Earthwork may occur year-round when weather and soil conditions allow; seedbed preparation and seeding would generally occur in late spring or fall to support germination and establishment. Reclamation activities would be coordinated with DEQ as necessary and would remain subject to the applicable reclamation, stormwater, and erosion-control requirements. End-of-season reclamation: If exploration activities extend across multiple field seasons or are temporarily suspended, the Applicant would implement interim stabilization and site-management measures consistent with ARM 17.24.107 and the approved reclamation plan. Prior to a seasonal shutdown or temporary closure, disturbance areas no longer needed for exploration would be recontoured, stabilized, and seeded where practicable. All exploration drill holes and boreholes would be plugged or temporarily secured, as applicable, before demobilization. Drill holes would be plugged in accordance with applicable drill-hole plugging requirements; geotechnical auger holes would be backfilled with drill cuttings and surface material. All excavations, including drill sumps, would be backfilled and recontoured to prevent surface depressions and associated erosion or safety hazards. Before an extended inactivity period, the Applicant would remove refuse and dispose of it at an authorized off-site facility. Exploration materials, supplies, fuels, equipment, water tanks, mobile trailer-mounted generators, and portable toilets would be removed as appropriate for the duration and circumstances of the shutdown. During extended periods of inactivity, generally more than four months, exploration equipment and supplies would be removed from the project area, and the Applicant would provide DEQ the required notice for a planned suspension exceeding 120 days. Access routes that remain necessary for anticipated future work would be maintained as needed to prevent rutting, erosion, washouts, and off-site sediment transport. Maintenance may include smoothing ruts, filling holes with suitable material, grading, clearing downed timber, and installing or re-establishing drainage and erosion-control features. The Applicant would inspect and maintain applicable erosion- and sediment-control measures as necessary during the interim period. Stormwater-related monitoring, inspections, and maintenance would be conducted in accordance with the requirements of any applicable Montana Pollutant Discharge Elimination System
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	construction-stormwater permit and associated Stormwater Pollution Prevention Plan. Final Reclamation: The Applicant proposes that final reclamation would be completed in accordance with the approved reclamation plan and applicable requirements. Final reclamation would include removing exploration equipment, materials, supplies, temporary structures, and waste from the project area; removing the temporary bridge across Ophir Creek; backfilling drill sumps and other excavations; plugging all drill holes and boreholes in accordance with applicable requirements; and regrading and recontouring disturbed areas to blend with surrounding topography to the extent practicable. Reclamation would also include salvaging and redistributing suitable growth media where available; scarifying compacted areas, including temporary overland travel routes, as appropriate; reestablishing drainage patterns and erosion-control features; and stabilizing disturbed surfaces to minimize erosion and sediment transport. Temporary access roads would be reclaimed when no longer needed. Final reclamation of temporary access roads may include recontouring road cuts and fills, installing large ditches and mounds, and placing boulders at access points to discourage post-reclamation public access, where appropriate. Disturbed areas would be revegetated using an appropriate, certified weed-free seed mix selected to support the post-exploration land uses and to promote stable vegetative cover. Seeding would generally occur in late spring or fall, when conditions are favorable for germination, although the timing may be adjusted for weather, soil conditions, and site-specific reclamation needs. Reclamation would include monitoring and maintenance, such as remedial recontouring, reseeding, erosion-control repair, and noxious-weed treatment, as needed until reclamation performance standards are met and the reclamation bond is released by DEQ. All surface disturbance would be reclaimed, and final reclamation must be completed no later than two years after completion or abandonment of exploration activities, unless DEQ authorizes otherwise or the disturbance is incorporated into an operating-permit reclamation plan. The Applicant's proposed final-reclamation completion date is December 30, 2033. Weed Control Plan: Before ground-disturbing activities begin, the Applicant would conduct a pre-disturbance vegetation inventory to identify existing noxious-weed populations and sensitive native plant communities within proposed disturbance areas and along
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	access routes. This inventory would inform site-specific weed-management measures. Areas with known noxious-weed infestations, including infestations along access routes, would be treated before disturbance where practicable. The Applicant would clean vehicles and equipment entering the project area as necessary to reduce the transport of weed seed and would use only Montana Department of Agriculture-certified weed-free gravel, mulch, straw, and other construction or erosion-control materials. Surface disturbance would be limited to the minimum area necessary for authorized exploration and reclamation activities, while maintaining vegetated buffers where practicable. The Applicant proposes to use an integrated weed-management approach, as appropriate to site conditions. Potential measures include mechanical methods, such as hand-pulling or mowing; herbicide application by licensed applicators in accordance with applicable requirements; and approved biological-control methods where feasible. Following reclamation, the Applicant would monitor reclaimed areas for revegetation success and noxious-weed occurrence, conduct treatment as necessary, and use certified weed-free erosion-control materials where needed. Noxious-weed monitoring, treatment, maintenance, and reporting would continue until reclamation success is achieved and DEQ approves release of the reclamation bond. Annual reports would be provided to DEQ and applicable county weed districts, as required, describing treatment methods, herbicide use, effectiveness, and new infestations. The Applicant must comply with all applicable local, county, state, and federal requirements related to noxious-weed management, reclamation, and revegetation.
Cumulative Impact Considerations	
General setting	The project area features shrubland, steppe and savanna, forest and woodland, and grassland systems. Many roads and previously mined and reclaimed areas associated with exploration and mining activities are present within the analyzed area.
Past actions	Historical activity in the area includes mining and related exploration for both placer and lode deposits, occurring intermittently from the mid-1800s to the present day. More recently, the Applicant conducted exploration drilling under Exploration License No. 00878, including work authorized by Amendments No. 1 and 2.

Present actions	<u>Exploration:</u> Falcon Copper Corporation's Exploration License No. 00878 remains active, and reclamation has not yet been completed for all previously authorized and bonded activities under Amendment No. 1 and 2. <u>Mining:</u> Mining activities occur at Small Miner Exclusion Statements (SMES) held by Snowshoe Creek, LLC, SMES No. 28-142. <u>Other:</u> Some recreationalists travel and engage in recreation within the greater project area. Local traffic exists along the pre-existing public roads.
Related future actions	Falcon Copper Corporation has separately proposed the Blue Copper Project, Amendment No. 3 (AMD3), under Exploration License No. 00878, for mineral exploration on U.S. Forest Service- and Bureau of Land Management-administered lands in Powell and Lewis and Clark Counties. AMD3 proposes exploration within eight target areas, including up to 127 drill pads with up to six drill holes per pad, representing a theoretical maximum of 762 drill holes. Typical drill-hole depths would range from 300 to 2,000 feet, with a maximum individual depth of 7,000 feet. Proposed drill pads include 55 large pads measuring up to 100 feet by 100 feet, 51 large-narrow pads measuring up to 100 feet by 50 feet, 12 small pads measuring up to 50 feet by 50 feet, and nine small-narrow pads measuring up to 50 feet by 40 feet. Associated internal sumps would range from approximately 30 feet by 15 feet by 8 feet deep to 40 feet by 20 feet by 8 feet deep, with alternative containment methods used where appropriate. The proposal also includes at least 13 exploration trenches, each up to 200 feet long, 10–15 feet wide, and 15 feet deep. Proposed access disturbances include approximately 14,243 feet of new roads, comprising 9,416 feet of high-prism road and 4,827 feet of low-prism road. New roads would have a 10-foot running width, with total disturbance widths of approximately 14–24 feet for high-prism roads and 12–16 feet for low-prism roads. Approximately 61,387 feet of existing roads would be improved, and 38,546 feet would be reconditioned, generally within 12-foot-wide footprints. Additional features include 58 pullouts, each up to 30 feet wide and 100 feet long; approximately 1,036 feet of overland travel within a 10-foot-wide corridor; and four anticipated water or wet-area crossings, including two Ophir Creek fords, a temporary Carpenter Creek culvert approximately 54 inches in diameter and 32 feet long, and a temporary mat crossing on the Ward Gulch tributary of Snowshoe Creek. AMD3 proposes approximately 54.5 acres of new surface disturbance and incorporates approximately 2.08 acres of

	previously utilized access routes, for a total disturbance footprint of approximately 56.6 acres. Exploration is proposed to begin May 15, 2027, and end May 15, 2032. Final reclamation is proposed to begin June 1, 2032, and be completed by December 30, 2032, with concurrent reclamation conducted where practicable as areas are no longer needed. Reclamation would include plugging drill holes, backfilling sumps and trenches, reclaiming temporary access routes, regrading and recontouring disturbed surfaces, replacing suitable salvaged growth media, restoring drainage, and revegetating disturbed areas. Surface disturbance would be reclaimed within two years after completion or abandonment of exploration, subject to applicable approved exceptions. Post-reclamation monitoring and maintenance would continue for at least three years or as otherwise approved by the agencies, with corrective actions and revegetation monitoring continuing until reclamation requirements are met. AMD3 activities could occur concurrently or sequentially with AMD4, and private-land laydown areas and certain access routes proposed under AMD4 could support AMD3 activities. The Blue Copper Project, Amendment No. 3 (AMD3), is a separate proposed action and would not be authorized by approval of AMD4. Implementation would remain subject to applicable DEQ and federal agency approvals, reclamation, and bonding requirements. Annual work plans would identify proposed yearly activities and would not independently authorize work outside the approved AMD3 scope. DEQ would provide a separate opportunity for public review and comment on the draft Environmental Assessment for the Blue Copper Project, Amendment No. 3 (AMD3), through the MEPA review process. Notice would identify the comment period, and DEQ would consider substantive comments before completing its environmental review and making a decision, consistent with ARM 17.4.610. Discussion of AMD3 in this AMD4 assessment would not replace that separate public-review process. Approval of AMD4 would not set a precedent committing DEQ to future actions with significant impacts or constitute a decision in principle concerning future mining. Future applications to amend the exploration license, conduct additional exploration requiring authorization, or develop a mining operation would be reviewed separately under the MMRA and applicable MEPA requirements. Any future mine proposal requiring an operating permit would be subject to a separate application, environmental review, and permitting decision. Approval of AMD4 would not predetermine the
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	level of environmental review for AMD3 or other future proposals; that determination would be made on a case-specific basis using the significance criteria in ARM 17.4.608.
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Figure 1 Project Location Map

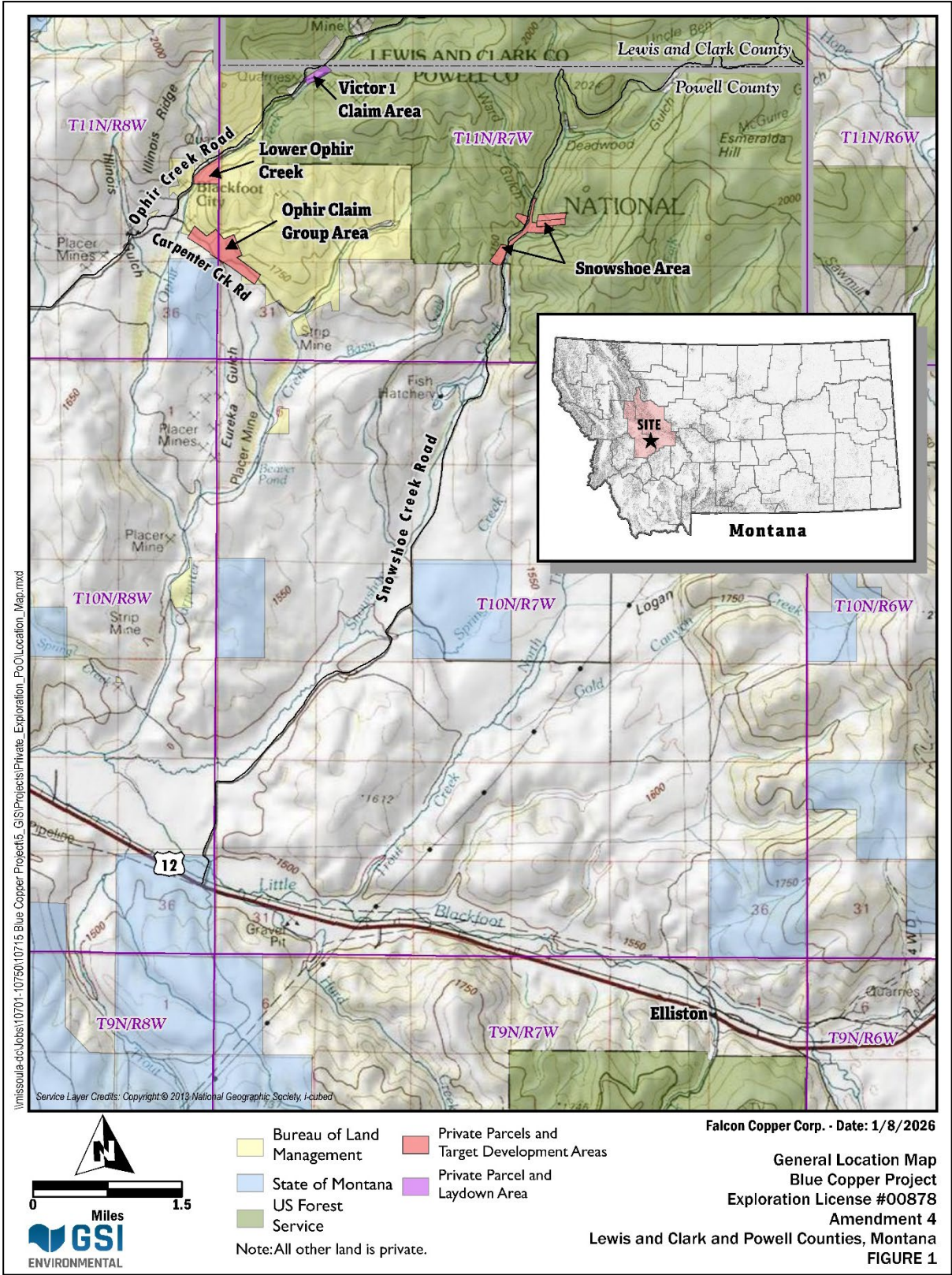


Figure 2: Overview of Proposed Exploration Activities: Ophir Claim Group

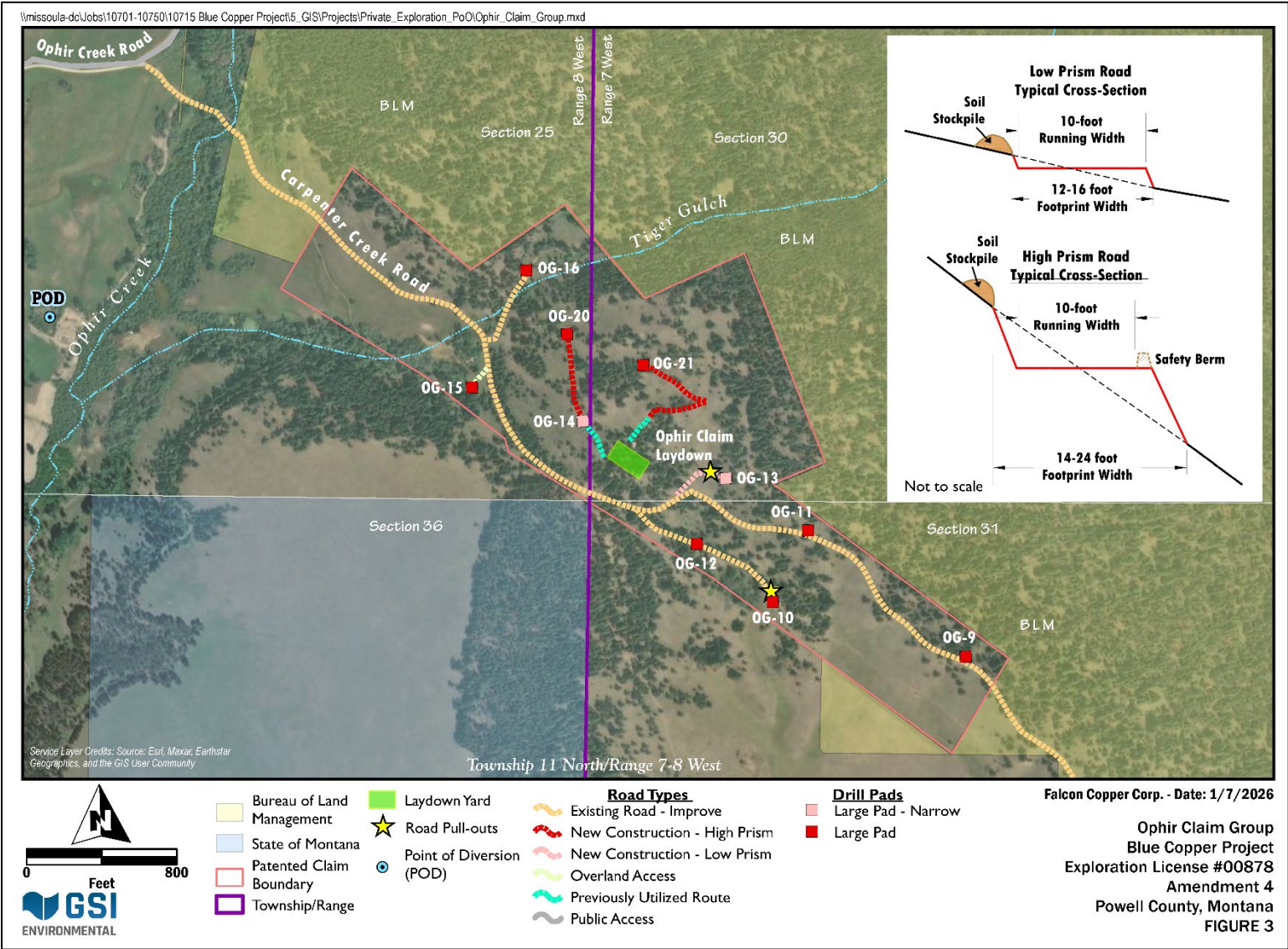


Figure 3: Overview of Proposed Exploration Activities- Snowshoe Area

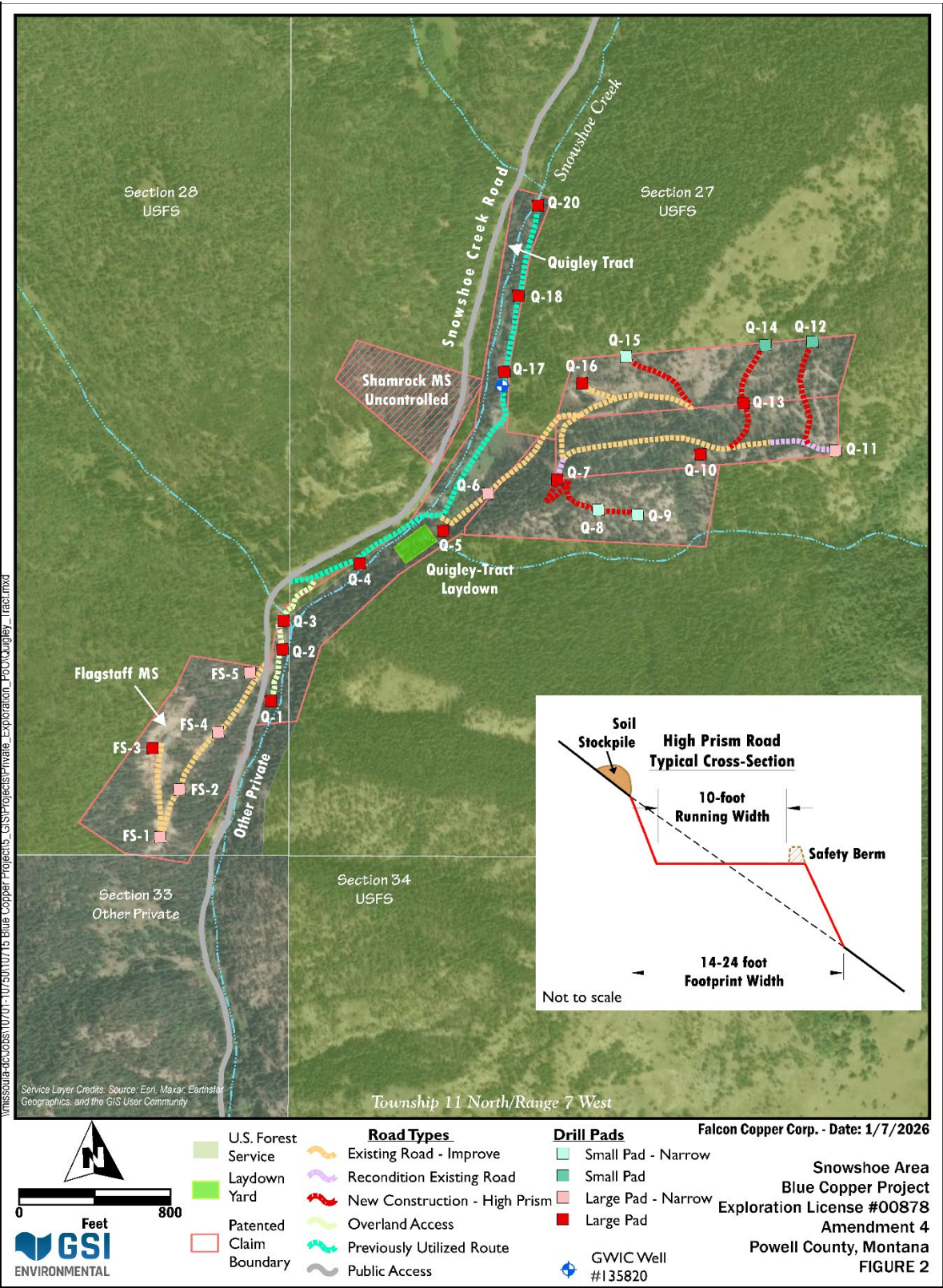
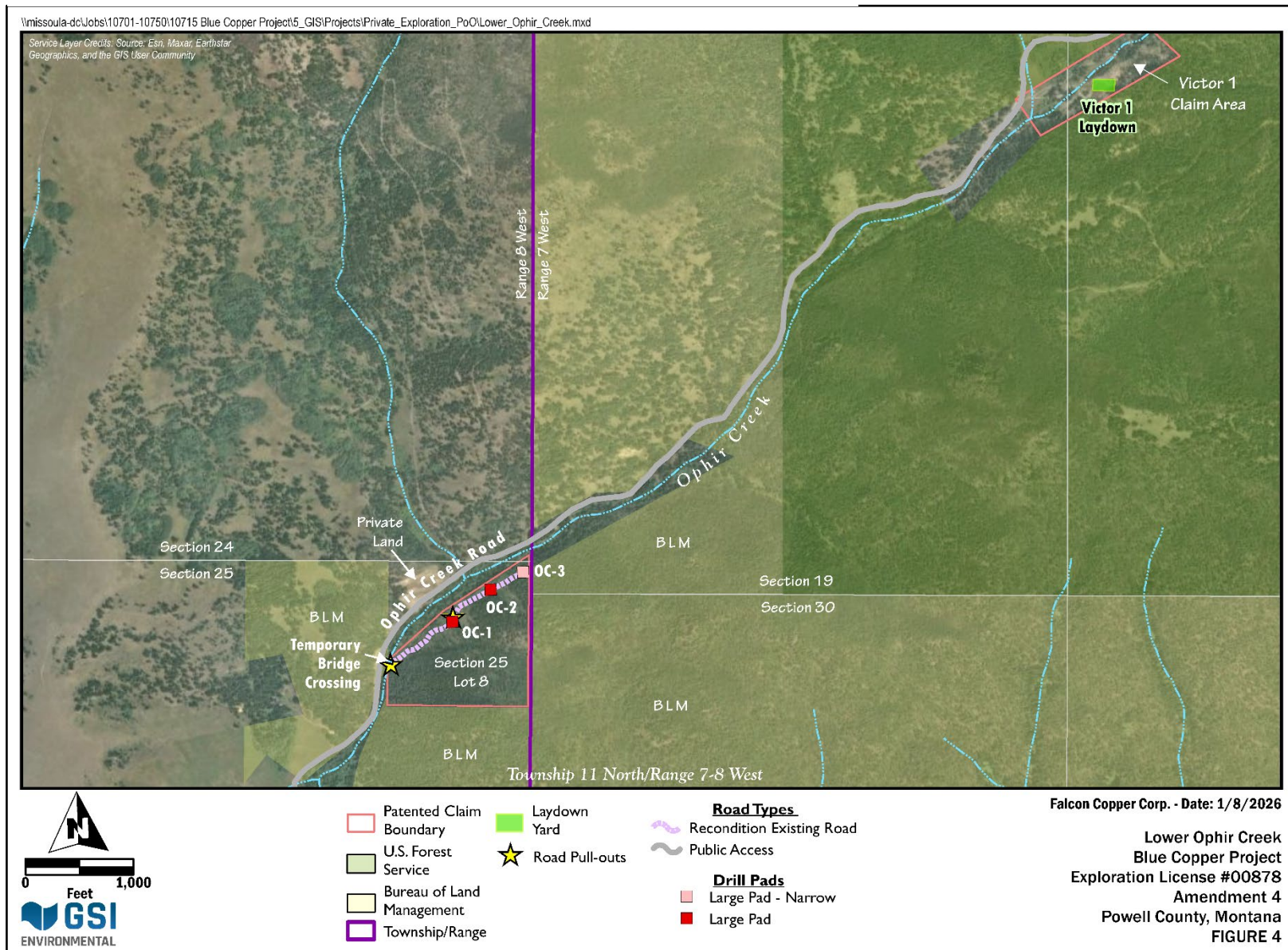


Figure 4: Overview of Proposed Exploration Activities- Lower Ophir Creek

Exploration License No. 00878, AMD4 Draft EA
October 13, 2026



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 proposed exploration area would be located on private lands within the historic Ophir Mining District, approximately 9 miles northeast of Avon in Powell County, Montana.

Ophir Mining District History and Geology

Placer deposits in the Ophir Mining District, including along Ophir, Carpenter and Snowshoe Gulches and their tributaries, were discovered and worked beginning in the 1860s and 1870s, when Blackfoot City developed into a thriving mining camp of several thousand people. Ophir Gulch was placer mined for approximately 8 miles, and Snowshoe Gulch was placer mined for several additional miles. It was reported that in Deadwood Gulch, a tributary of Snowshoe Gulch, the largest gold nugget ever reported in Montana was discovered, valued at \$3,280 at the time. The district's placers are estimated to have produced about \$3.5 million in gold during this early period. After the initial placer era, mining activity diminished and shifted to lode development beginning in the late 1880s. Lode deposits were developed, producing gold-silver ore from multiple veins. These discoveries were produced intermittently into the early twentieth century for gold, silver, lead and other metals, reflecting a transition from the earlier placer focus to exploitation of structurally and stratigraphically controlled lode ore bodies.

The dominant bedrock of the Ophir Mining District consists of lower Paleozoic limestone, shale, and quartzite, as well as clay, sand, and volcanic ash associated with Tertiary "lake beds". Lode deposits containing gold and silver ore occur mainly within the limestone, where the ore bodies are irregular and consist chiefly of pyrite or chalcopyrite in a gangue of quartz or metamorphic silicates.

Soil Types

The Ophir Creek and Snowshoe Creek areas were included in a 2,599.6-acre Area of Interest (AOI) relating to Erosion Hazard (Off-Road, Off-Trail). The ratings for both areas are presented below.

Soils in the project area with a **severe** erosion hazard rating (**489.8 acres**) occur primarily on steep or rocky landforms where runoff is focused and soil cover is easily disturbed, including Typic Cryorepts–Calcic Cryoborolls, steep, cool (282.8 acres) and Typic Cryochrepts–Lithic Cryochrepts–Rock outcrop complex, dip slopes (207.0 acres). A “severe” rating indicates that erosion is very likely after disturbance in off-road or off-trail areas where approximately 50 to 75 percent of the soil surface has been exposed by logging, grazing, mining, or other activities, and erosion-control measures, including revegetation of bare areas, are advised (Natural Resources Conservation Service, 2026).

Soils with a **moderate** erosion hazard rating (**726.2 acres**) are more widespread and are typically associated with 15 to 60 percent slopes, gravelly or cobbly loams, and soil complexes containing carbonate-rich or rocky components, including Ambrant–Rochester complex, 35 to 60 percent slopes (211.3 acres); Typic Ustochrepts and Typic Calciborolls, limestone substratum (93.3 acres); Shilverchief–Trapps complex, 15 to 35 percent slopes (81.9 acres); Mollic Cryoboralfs–Calcic Cryoborolls complex, dip slopes (50.7 acres); Yreka gravelly loam, 15 to 35 percent slopes (48.3 acres); Calcic Cryoborolls–Mollic Cryoboralfs complex, limestone substratum (47.3 acres); Ambrant–Rochester–Rock outcrop complex, 35 to 60 percent slopes (56.3 acres); Yreka gravelly loam, 35 to 60 percent slopes (30.2 acres); Calcic Cryoborolls, dip slopes (23.9 acres); Whitecow gravelly loam, dry, 35 to 60 percent slopes (23.6 acres); Clasoil–Crackerville complex, 15 to 35 percent slopes (19.1 acres); Trapps gravelly loam, 35 to 60 percent slopes (14.6 acres and 9.0 acres); Bignell–Yreka complex, 35 to 60 percent slopes (14.0 acres); and Roy–Shawmut–Danvers complex, 35 to 60 percent slopes (2.8 acres). A “moderate” rating indicates that some erosion is likely in off-road or off-trail areas where 50 to 75 percent of the surface has been exposed and that erosion-control measures may be needed (Natural Resources Conservation Service, 2026).

Soils rated as having a **slight** erosion hazard (**1,324 acres**) constitute a substantial portion of the project area and surrounding landscape and occur on gently to moderately sloping terrain with generally stable soil structure and vegetative cover, including Comad–Elkner complex, 35 to 60 percent slopes (417.1 acres); Typic Cryoboralfs, bouldery, granitic substratum (341.7 acres and an additional 84.6 acres); Roy–Shawmut–Danvers complex, 15 to 35 percent slopes (143.8 acres); Ambrant–Rochester complex, 15 to 35 percent slopes (107.7 acres); Comad–Rubble land complex, 35 to 60 percent slopes (67.6 acres); Clasoil sandy loam, 8 to 15 percent slopes (45.8 acres); Martinsdale cobbly loam, 15 to 35 percent slopes (28.7 acres); Martinsdale loam, 4 to 8 percent slopes (24.5 acres); Danvers–Roy complex, 8 to 15 percent slopes (23.5 acres); Danvers–Roy complex, 4 to 8 percent slopes (7.6 acres); Comad–Elkner–Rock outcrop complex, 15 to 35 percent slopes (0.1 acre); and Danvers clay loam, 8 to 15 percent slopes (0.4 acre). A “slight” rating indicates that erosion is unlikely under ordinary climatic conditions in off-road or off-trail areas where some disturbance has occurred. Although minor erosion can still occur on localized steeper slopes or where disturbance is concentrated, these slight-rated soils generally require only standard conservation practices (Natural Resources Conservation Service, 2026).

The analysis area for geology and soils included the project area and immediately surrounding landscape in Powell 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 vegetated buffers, compacted earthen berms, silt fencing, temporary seeding, water diversions, secondary containment, spill prevention and response

kits/measures, mulch cover, surface roughening, straw wattles and sediment traps as best management practices (BMPs) to minimize erosion and sediment transport offsite.

Direct Impacts:

The proposed action would result in temporary displacement and redistribution of soil and rock within the authorized disturbance areas described in Table 1. The Applicant proposes to construct up to 37 drill pads, each with an internal drill sump or, where site conditions make sump construction impracticable or available sump capacity is limited, a portable solids-removal unit. Drill-pad dimensions would vary with terrain and drilling requirements, with a maximum pad size of 100 feet by 100 feet and a maximum excavation depth of 8 feet. Internal drill sumps would vary by pad size and would not exceed 40 feet long by 20 feet wide by 8 feet deep.

The Applicant proposes to drill up to six holes per pad, for a maximum of 222 drill holes. Individual drill holes would not exceed 7,000 feet in depth, and cumulative drill footage would not exceed 1,554,000 feet. Drill holes would be plugged in accordance with applicable requirements after drilling is completed.

The Applicant also proposes to construct approximately 3,907 feet of new access roads, comprising approximately 3,590 feet of high-prism road and 317 feet of low-prism road. New roads would have a 10-foot running width, with total disturbance footprints that vary by terrain and construction type; high-prism roads would average approximately 22 feet wide, and low-prism roads would average approximately 14 feet wide. New-road earthwork would not exceed 0.5 feet in depth. Approximately 845 feet of overland travel, with a 10-foot running width, would also be used.

Approximately 12,144 feet of existing road, generally within a 12-foot-wide footprint, would require mechanized earthwork to restore access, with earthwork not exceeding 0.5 foot in depth. An additional approximately 2,006 feet of existing road, generally within a 12-foot-wide footprint, would be reconditioned through minor downed-timber removal and roadbed or drainage-feature repairs, with earthwork not exceeding 0.5 foot in depth. The Applicant also proposes four pullouts, up to 30 feet wide and 100 feet long, with earthwork not exceeding 1.5 feet in depth, to support safe vehicle and equipment travel.

The Applicant proposes to use three laydown areas: the previously authorized Quigley Tract Laydown Area, the previously authorized Ophir Claim Laydown Area, and the proposed Victor 1 Laydown Area. Each laydown area would be up to approximately 100 feet by 300 feet and excavated to a maximum depth of 2 feet. One temporary bridge, approximately 15 feet by 15 feet, would be installed across Ophir Creek along an existing road proposed for reconditioning. The temporary bridge would be removed following exploration and completion of reclamation.

The Applicant proposes up to approximately 11.65 acres of total new surface disturbance. Rock would be removed during drilling as core or rock-chip samples; however, the volume or mass of those samples would be minor relative to the soil and rock displaced during construction and use of the authorized surface-disturbance features.

Secondary Impacts:

The proposed action could result in soil disturbance and minor subsequent erosion of disturbed soil, and sediment could be transported offsite 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 under Exploration License No. 00878, which remains active. The additional disturbance of up to 11.65 acres, some on previously disturbed ground, with 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

Lower Little Blackfoot River Drainage Basin

The proposed activities are located within the Lower Little Blackfoot River drainage basin (LLBR). The LLBR receives an average of 20.77 inches of precipitation annually and encompasses an area of 413 square miles (StreamStats, 2026). The proposed action project area lies within both the 10.1-square-mile Ophir Creek (OC) and the 5.0-square-mile Snowshoe Creek (SC) drainage basins. The OC and SC drainage basins receive a mean annual precipitation of between 24.06 and 27.25 inches (StreamStats, 2026). The Little Blackfoot River is located approximately 6.7 miles downstream of the project site in Ophir Creek and 7.2 miles downstream of the project site in Snowshoe Creek. Ophir Creek is a tributary to Carpenter Creek, which flows into the Little Blackfoot River. Accordingly, the analysis considers potential effects within Ophir Creek and downstream effects on Carpenter Creek, including the impaired lower Carpenter Creek reach where it lies downstream of the Ophir Creek confluence.

The proposed action includes up to 37 drill pads and 37 internal drill sumps, or, where site conditions make sump construction impracticable or available sump capacity is limited, portable solids removal units, up to 222 drill holes with a maximum individual depth of 7,000 feet below ground surface, up to approximately 3,907 feet of new access road, improvements to existing roads, overland travel, up to four pullouts, three laydown areas, and a temporary 15-foot-by-15-foot bridge across Ophir Creek. The proposed action would disturb up to approximately 11.65 acres.

Little Blackfoot River TMDLs

The proposed action was compared to the findings documented in the *Little Blackfoot River Watershed TMDLs and Framework Water Quality Improvement Plan*, prepared by the U.S. Environmental Protection Agency’s Montana Operations Office for the Montana Department of

Environmental Quality and finalized in December 2011. This plan evaluated sediment, nutrient, and metals impairments and established 62 Total Maximum Daily Loads (TMDLs) for 18 impaired waterbody segments within the watershed. The report identifies pollutant sources, establishes water-quality targets and allowable pollutant loads, and recommends restoration practices to protect and restore designated beneficial uses, including aquatic life, coldwater fisheries, recreation, and drinking water.

Snowshoe Creek TMDLs

Snowshoe Creek, the 10.7-mile reach from its headwaters to the Little Blackfoot River, was listed in 2010 for nitrate-plus-nitrite and sediment/siltation impairments. Nutrient monitoring supported development of a nitrate-plus-nitrite TMDL, with seven of 29 growing-season samples exceeding the concentration target and algal measurements indicating excessive growth. The assessment did not support total nitrogen or total phosphorus TMDLs. The nutrient impairment was attributed to riparian grazing and an unknown source, while modeling identified rangeland and pasture as the dominant nitrogen-source categories. Recommended strategies include improving riparian buffers and grazing management, limiting livestock access through fencing and alternate watering sources, and improving irrigation efficiency where appropriate (DEQ and EPA, 2011).

The sediment impairment of Snowshoe Creek was attributed to logging, road construction, historical mining, grazing and hay production. Assessments documented mining-related channel alterations, localized bank erosion, inadequate riparian protection, and excessive fine sediment at some sites, supporting development of a sediment TMDL. Restoration strategies include restoring streamside vegetation, maintaining livestock-exclusion fencing and controlled watering access, reducing upland and streambank erosion, and improving unpaved road crossings and drainage (Montana DEQ and EPA, 2011). Snowshoe Creek was not identified among the streams requiring metals TMDLs in the DEQ/EPA report.

Lower Carpenter Creek TMDLs

Lower Carpenter Creek, specifically the 4.9-mile reach from Basin Creek to the Little Blackfoot River, recorded elevated phosphorus concentrations, which supported an impairment determination and development of a total phosphorus TMDL (Montana DEQ and EPA, 2011). The total phosphorus impairment in lower Carpenter Creek is likely associated primarily with nonpoint-source load from grazed rangeland and pasture, including manure inputs and transport of phosphorus-bearing soil and sediment. Recommended restoration strategies include improving riparian buffers and grazing management, limiting livestock access through fencing and alternate watering sources, and stabilizing streambanks.

The Applicant has proposed the use of the following BMPs; vegetated buffers, compacted earthen berms, silt fencing, temporary seeding, water diversions, secondary containment, spill prevention and response kits/measures, mulch cover, surface roughening, straw wattles and sediment traps to minimize surface runoff. The proposed action does not include a planned discharge to surface water or groundwater. If the Applicant proposes a discharge or if project activities change in a manner that requires a discharge authorization, the Applicant would be required to obtain all applicable permits and comply with any associated WLA or effluent limitations.

Little Blackfoot River Watershed Restoration Plan

The 2011 *Little Blackfoot River Watershed TMDLs and Framework Water Quality Improvement Plan* establish the technical basis for addressing sediment, nutrient, and metals impairments, including water-quality targets, pollutant-load allocations, and necessary reductions; and a metals TMDL addendum was added in 2014.

The 2016 *Little Blackfoot River Watershed Restoration Plan* builds on findings identified in the 2011 framework and 2014 metals TMDL addendum by identifying restoration measures, project priorities, funding needs, implementation schedules, and monitoring approaches to achieve water-quality and habitat restoration goals (Montana DEQ and EPA Region 8, 2011; Barth et al., 2016).

The Natural Resource Damage Program (NRDP) is Montana's program for restoring natural resources injured by hazardous-substance releases, including historical mining and mineral processing in the Upper Clark Fork River Basin. In the 2016 *Little Blackfoot River Watershed Restoration Plan*, Priority 1 and Priority 2 identify fisheries restoration priorities, while "other impaired streams" identifies additional impaired streams outside those priority groups. Snowshoe Creek is treated as Priority 2; lower Carpenter Creek is addressed among the other impaired streams (Barth et al., 2016).

Snowshoe Creek: Priority 2

The restoration plan identifies Snowshoe Creek as a Priority 2 stream and describes NRDP aquatic restoration funds as a potential funding source for projects addressing water quantity, fish passage, fish entrainment, bank and channel restoration, and riparian habitat. Restoration goals include increasing riparian vegetation, improving streambank stability, restoring floodplain connectivity, preventing fish entrainment in irrigation diversions, and improving upstream fish passage. Associated water-quality goals include reducing sediment and nitrate-plus-nitrite loading through improved grazing management, irrigation improvements, reduced road encroachment, and removal of dredge tailings, while protecting high-functioning reaches through conservation easements where appropriate (Barth et al., 2016). The designation is separate from Snowshoe Creek's sediment and nitrate-plus-nitrite TMDLs: the TMDLs establish pollutant-reduction needs, while Priority 2 identifies the stream's place in fisheries restoration planning.

Lower Carpenter Creek: Other Impaired Stream

Lower Carpenter Creek is included in the restoration plan's broader group of impaired streams rather than its Priority 1 or Priority 2 aquatic-restoration grouping. Restoration goals include restoring channel morphology altered by historical mining, removing placer tailings piles along the channel, increasing year-round streamflows, and improving upstream fish passage. Additional goals include reducing total phosphorus loading through improved riparian buffers and grazing management, including working with private landowners to reduce livestock disturbance and nutrient transport to the creek (Barth et al., 2016).

Surface Water and Runoff:

Ophir Creek

Within the OC project area, in the northeast quarter of Section 25, Township 11 North, Range 8 West, the Applicant proposes to install a temporary bridge and construct drill pads OC-1, OC-2, and OC-3. These drill pads would be situated approximately 100 feet upgradient of perennial Ophir Creek. Surface disturbances within the Ophir Claim Group project area, located in Sections 30 and 31, Township 11 North, Range 7 West, and Section 25, Township 11 North, Range 8 West, include drill pad No. OG-16, which is less than approximately 100 feet from an intermittent stream located in Tiger Gulch.

The project area would not disturb wetlands or riparian habitat (MTNHP, 2026).

Snowshoe Creek

Within the SC project area, located in the southwest quarter of Section 27, Township 11 North, Range 8 West, and the southeast quarter of Section 28, Township 11 North, Range 8 West, the Applicant has proposed 24 drill pads, of which nine, including pads No. Q-1, Q-2, Q-3, Q-4, Q-5, Q-6, Q-17, Q-18, and Q-20, are located less than 100 feet upgradient from intermittent Snowshoe Creek.

The project area would not disturb wetlands or riparian habitat (MTNHP, 2026).

Precipitation and surface water entering the project area would generally be expected to infiltrate into the shallow subsurface, be retained within pore spaces in the unsaturated zone, and potentially be used by vegetation. Stormwater leaving disturbed sites during heavy precipitation events could carry sediment from disturbed soils and non-sediment contaminants associated with drilling or equipment operations.

The Applicant proposes implementing best management practices (BMPs) to minimize erosion and transport of sediment and non-sediment contaminants off-site. Proposed BMPs include vegetated buffers, compacted earthen berms, silt fencing, temporary seeding, water diversions, secondary containment, spill-prevention and response kits/measures, mulch cover, surface roughening, straw wattles, and sediment traps. BMPs would be installed, inspected, maintained, and repaired as necessary during construction, drilling, road maintenance, reclamation, and temporary or seasonal shutdowns. The particular combination and placement of BMPs would be

adjusted to site-specific conditions, including slope, soil characteristics, drainage patterns, weather, and the proximity of disturbed areas to surface water.

The Applicant must confine drilling fluids and waste cuttings to the drill site through the use of storage tanks, lined or otherwise approved sumps, portable solids-removal units, or another approved method, consistent with applicable requirements. In the unlikely event of an inadvertent release of drilling fluid to the surface, the Applicant would implement spill-control and containment measures, recover released material to the extent practicable, and comply with applicable notification, cleanup, and disposal requirements.

The temporary bridge across Ophir Creek would be installed along an existing road proposed for reconditioning and would be removed following exploration and completion of reclamation. The bridge is intended to maintain existing drainage patterns and reduce the potential for erosion, sedimentation, and direct impacts to Ophir Creek associated with vehicle crossings.

Groundwater

Within the analysis area of the Carpenter Creek subwatershed, two existing domestic water wells are present, located in Township 11 North, Range 8 West, Section 36. The McIntosh Ranch LLP well (GWIC #285220) was drilled in 2015 to a total depth of 167 feet. This well had a static water level of 33 feet and a yield test of 22 gallons per minute. The Heath and Tammie Cooper well (GWIC #332657) was drilled in 2024 to a total depth of 535 feet. This well had a static water level of 25 feet and a yield test of 1 gallon per minute.

Within the analysis area in the Snowshoe Creek subwatershed, one domestic water well is present, located in Township 11 North, Range 7 West, Section 27. The Dale Harris well (GWIC #135820) was drilled in 1993 to a total depth of 100 feet. This well had a static water level of 30 feet and a yield test of 8 gallons per minute.

Groundwater would likely be encountered during drilling operations because the reported static groundwater level averages approximately 29 feet below the surface and the deepest proposed drill hole may reach up to 7,000 feet. The proposed exploration drilling could intercept groundwater; however, the available hydrologic information indicates that uncontrolled artesian flow from drill holes is not expected.

The Applicant proposes drilling to a maximum depth of 7,000 feet from the surface. Except for potentially shallow drill holes, it is expected that groundwater would be encountered during drilling operations. However, the hydrologic setting, including the distance between groundwater and the surface and the transmissive, unconfined nature of the aquifer, indicates that artesian flow would not be expected to occur from the drill holes, reducing the potential for uncontrolled groundwater or groundwater-containing drilling fluids to flow 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 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. Proper drill-hole plugging would reduce the potential for a drill hole to create a

persistent pathway for water movement between groundwater zones or between groundwater and the land surface.

The drilling and plugging processes, when conducted in accordance with applicable requirements, are not expected to measurably affect groundwater quantity or quality or interfere with other water users in the greater project area. The Applicant would be required to comply with all applicable local, county, state, and federal requirements related to groundwater protection, drill-hole management, and reclamation.

Proposed Action Water Source

The Applicant proposes to obtain project water from the City of Deer Lodge municipal water system, Public Water System No. MT0000197, and transport water to the project area. The system is listed as active, serves the City of Deer Lodge and surrounding service area in Powell County, identifies groundwater as its primary water source, and reports serving an estimated resident population of approximately 2,900 through approximately 1,484 service connections.

The municipal system identifies three active groundwater supply wells: Well 1, Second Street (GWIC 55829); Well 2, Milwaukee (GWIC 57428); and Well 4 (GWIC 331318). The available well-log and pump-test records indicate that the three wells range from approximately 150 to 260 feet in total depth, with an average total depth of approximately 203 feet. Reported static water levels range from approximately 5.5 to 25 feet below ground surface, with an average reported depth to groundwater of approximately 13.5 feet. Reported individual pump-test yields range from approximately 1,050 to 1,750 gallons per minute, with an average reported yield of approximately 1,433 gallons per minute (MBMG, 2026).

The reported well depths, static water levels, and pump-test yields describe information recorded for the individual municipal supply wells. These well-specific values do not represent a determination of the City of Deer Lodge municipal system's sustained production capacity, permitted withdrawal rate, available surplus supply, operational redundancy, seasonal availability, or ability to supply the maximum daily demand of the proposed action. Those determinations remain with the municipal system and the entities with authority over its operation and water supply.

The Applicant does not propose to construct, disturb, modify, or operate a new water-source facility at the City of Deer Lodge municipal system. The proposed activity consists of purchasing municipal water and transporting it approximately 25 miles to the project area. The Applicant must obtain and maintain all agreements, authorizations, and approvals necessary to purchase, transport, store, and use municipal water.

Daily water use would not exceed 24,000 gallons for drilling operations and road-dust suppression. Municipal water would be transported approximately 25 miles from Deer Lodge to the project area in highway-suitable tanker trucks with capacities of up to 4,000 gallons. At maximum operations, the Applicant anticipates up to six tanker-truck trips per day. Water would be offloaded into up to seven 3,000- to 4,000-gallon polypropylene storage tanks located at laydown areas on private land, then transferred to four-wheel-drive water trucks for delivery to active drill sites.

Municipal water would be used for drilling operations, including cooling and lubricating drill bits, cleaning the drill-bit/rock interface, and transporting drill cuttings, and for dust suppression on access roads and other disturbed travel surfaces, as needed.

Where appropriate, approximately 3,000-gallon storage tanks may be staged closer to active drill sites. Water may be pumped from staged tanks to drill sites using a hydrostatic water pump and 2-inch hose, or similar equipment. This method may be used to avoid water-truck travel on difficult access routes or reduce traffic on remote exploration roads. The locations of staged tanks, pumps, and associated conveyance routes would be identified in the applicable annual work plans submitted to the agencies for review.

If the Applicant determines that additional water-delivery infrastructure is necessary or appropriate, it could propose, through a future amendment, one or two additional laydown areas on suitable private lands to accommodate larger, approximately 9,000-gallon over-the-road water trucks. Water would be offloaded from those trucks into storage tanks and subsequently transferred to smaller water trucks for delivery to drill sites. Additional laydown areas, use of larger over-the-road water trucks, and changes to project water-delivery infrastructure are not authorized by AMD4 unless specifically approved through a future amendment or other applicable agency authorization.

The Applicant must obtain and maintain all applicable agreements, authorizations, and approvals related to the purchase, transport, storage, and use of municipal water and must comply with all applicable local, county, state, and federal requirements. The proposed action does not include construction, disturbance, modification, or operation of a new water-source facility at the City of Deer Lodge municipal water system.

Water-transfer activities, including loading, offloading, storage, pumping, and transfer to water trucks, could result in a small, localized release of water if a hose, connection, tank, or transfer operation fails. Any such release would be expected to be limited in duration and volume and would be addressed using applicable spill-prevention and response measures, including secondary containment where appropriate, on-site spill kits, prompt containment and cleanup, and required notification and disposal procedures.

Because the Applicant would purchase municipal water rather than construct or operate a project-area well, it would not directly withdraw water from Ophir Creek, Snowshoe Creek, or groundwater beneath the project area. The proposed action therefore would not directly interact with streamflow or groundwater volume within the Ophir Creek or Snowshoe Creek drainages for water supply.

Direct Impacts:

The proposed action could result in temporary disturbance of soils and vegetation, minor erosion, and sediment transport from disturbed surfaces during precipitation events. Water quality could be affected if sediment, drilling fluids, fuel, lubricants, or other materials are released from the project area.

Direct impacts related to the municipal water supply would be limited to the purchase, transport, storage, transfer, and use of water for drilling and dust suppression. The proposed action would not construct a new water-supply source or directly withdraw water from Ophir Creek, Snowshoe Creek, or project-area groundwater. Therefore, the proposed action is not expected to directly reduce streamflow, alter local surface water distribution, or reduce groundwater availability within the project-area drainages.

A localized release of municipal water could occur during tanker-truck loading or offloading, storage-tank filling, pumping, or transfer to water trucks or drill sites. Such a release would be expected to be limited in duration and volume and would be managed using the Applicant's BMPs and spill-prevention and response procedures.

The Applicant proposes to use erosion-control BMPs to minimize off-site sediment transport and maintain surface water quality. With implementation of the proposed BMPs, proper drilling-fluid management, spill-prevention and response measures, and required reclamation, direct impacts to surface water and groundwater are expected to be minor, temporary, and localized. The Applicant is required to comply with all applicable local, county, state, and federal requirements pertaining to water quality.

Secondary Impacts:

The proposed activities are not anticipated to impact the quantity or quality of groundwater in the area or impact other water users due to the limited extent and duration of proposed work. Use of an existing municipal supply, rather than development of a new project-area water source, further avoids direct impacts associated with surface water diversion or groundwater withdrawal in the Ophir Creek and Snowshoe Creek drainages.

The proposed maximum use of up to 24,000 gallons per day would represent a new demand on the City of Deer Lodge municipal water system during active exploration. The Applicant would purchase water through the municipal system and must maintain the agreements and approvals necessary for that use. This EA does not establish or determine the municipal system's sustained production capacity, available surplus supply, permitted withdrawal rate, or independent ability to supply the Project's maximum demand.

No secondary impacts on water quality, quantity, or distribution would be expected from the proposed action. This conclusion is based on implementation of the identified BMPs, maintenance of required authorizations, confinement and appropriate management of drilling fluids and cuttings, prompt response to releases, and reclamation of disturbed areas in accordance with applicable requirements.

Cumulative Impacts:

Cumulatively, the proposed exploration drilling could add a small, temporary increment of disturbance to the Ophir Creek and Snowshoe Creek watersheds, which have been affected by historic mining and other land-disturbing activities.

Because the proposed action would disturb a limited area; implement erosion and sediment-control BMPs; manage drilling fluids and cuttings in sumps, tanks, or solids-removal units; plug drill holes in accordance with ARM 17.24.106; reclaim disturbed areas; and use municipal water from the City of Deer Lodge rather than establish or use project-area surface water or groundwater withdrawals, its contribution to cumulative effects on surface water and groundwater quality, quantity, and distribution is expected to be minor and not significant.

3. Air Quality

The proposed action is located approximately 30 miles equidistant from the Scapegoat Wilderness to the northwest, and the Gates of the Mountains Wilderness to the northeast. The immediate area complies with the National Ambient Air Quality Standards. This proposed action would not be expected to impact the immediate area's airshed.

The Applicant proposes to apply water to roads, reduce speed while traveling, 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. 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 Scapegoat Wilderness or Gates of the Mountains Class 1 Airsheds 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.

Cumulative Impacts:

Cumulative impacts to air quality from the proposed action could add to impacts from existing traffic and general recreational activities in the greater project area in the use of public lands in the vicinity of the proposed action.

4. Vegetation Cover, Quantity, and Quality

Approximately 12,784 acres surrounding the greater project area were mapped using the Montana Natural Heritage Program (MTNHP, 2026). The land cover primarily consists of forest and woodland, shrubland, steppe and savanna, grassland, and agricultural and disturbed

systems. The most extensive type is Rocky Mountain lodgepole pine forest, which covers approximately 4,200.4 acres or 32.8% of the analysis area, followed by Rocky Mountain lower montane, foothill and valley grassland, (2,295 acres, 17.95%), Rocky Mountain montane Douglas-fir forest and woodland (2,131 acres, 16.67%), montane sagebrush steppe (966 acres, 7.56%), Rocky Mountain subalpine-upper montane grassland (723 acres, 5.65%), Rocky Mountain ponderosa pine woodland savanna (610 acres, 4.76%), aspen forest and woodland (172 acres, 1.35%), and Northern Rocky Mountain lower montane riparian woodland and shrubland (152 acres, 1.18%), (MTNHP, 2026).

Managed, converted, or recently disturbed land cover types together make up a smaller portion of the project area and include harvested forest-tree regeneration (252 acres, 1.97%), harvested forest-grass regeneration (192 acres, 1.50%), harvested forest-shrub regeneration (128 acres, 1.00%), insect-killed forest (127 acres, 0.99%), cultivated crops (213 acres, 1.67%), pasture and hay lands (95 acres, 0.74%), and roads (118 acres, 0.92%) (MTNHP, 2026).

The applicant proposes a suite of best management practices to minimize the spread of noxious weeds and reduce temporary impacts to vegetation cover, quantity, and quality during exploration and reclamation. The proposed measures include:

- Completing a pre-disturbance vegetation inventory to identify existing noxious-weed populations and sensitive native plant communities within proposed disturbance areas and along access routes;
- Treating known infestations, including those along access routes, before disturbance where practicable;
- Cleaning vehicles and equipment entering the project area as necessary to reduce transport of weed seed;
- Using only Montana Department of Agriculture-certified weed-free gravel, mulch, straw, and other construction or erosion-control materials.

Surface disturbance would be limited to the minimum area necessary for authorized exploration and reclamation activities, and vegetated buffers would be maintained where practicable. The applicant proposes an integrated weed-management approach tailored to site conditions, which may include mechanical treatment such as hand-pulling or mowing, herbicide application by licensed applicators in accordance with applicable requirements, and approved biological-control methods where feasible. Disturbed areas would be reclaimed as soon as practicable following their use, including backfilling excavations, regrading and recontouring disturbed ground, redistributing suitable growth media where available, scarifying compacted surfaces as appropriate, and implementing erosion- and sediment-control measures.

Reclamation would include revegetating disturbed areas with an appropriate certified weed-free seed mix selected to support the post-exploration land use and establish stable vegetative cover. The applicant would monitor reclaimed areas for revegetation success and noxious-weed occurrence; conduct additional treatment, reseeding, erosion-control repair, or other maintenance as needed; and continue weed-control monitoring, treatment, maintenance, and reporting until reclamation performance standards are achieved and DEQ approves release of the reclamation bond. Annual reporting to DEQ and applicable county weed districts would describe treatment methods, herbicide use, effectiveness, and newly identified infestations.

A search of MTNHP in the greater project area identified potential habitat for 21 vascular plant/lichen Species of Concern (SOC) and 7 Potential Species of Concern (PSOC). The USFS Species of Conservation Concern in Forests search identified 9 vascular plant or lichen SOC, 2 vascular plant or lichen PSOC and 12 vascular plants or lichen classified as sensitive. The BLM has classified 1 vascular plant as sensitive and zero as threatened.

Direct Impacts:

The vegetation cover as described above would be removed or disturbed within the approximately 11.65 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 that has not already been affected by previous actions to develop drill pads, drill sumps, trenches, and other proposed action disturbances related to exploration activities.

Secondary Impacts:

Land disturbance at the site may result in the propagation of noxious weeds. Any surface disturbances would be reclaimed and seeded with a certified weed-free seed mix. The project area would be subject to the 2017 Montana Noxious Weed Management Plan and any additional measures required by the Powell County Weed Control Board. Weed control is a condition of an exploration license, and the Applicant would be required to minimize the spread of noxious weeds.

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 under Exploration License No. 00878, including work authorized by Amendments No. 1 and 2, and activities conducted under SMES No. 28-142, 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

The proposed action is not within core, general, or connectivity habitat for sage-grouse. The proposed action has the potential to temporarily disturb up to approximately 11.65 acres of terrestrial and avian habitat and temporarily displace species occurring within or near the proposed disturbance area. Common wildlife, such as birds, fish, mammals, amphibians, and invertebrates, may utilize the project area and may be temporarily displaced while machinery and equipment are used for excavation, drilling, transport of proposed action materials, road construction and maintenance, and reclamation.

The proposed action would not directly disturb mapped wetlands or riparian habitat; however, the temporary bridge would cross Ophir Creek at an existing road crossing and would be subject to applicable authorizations and permit requirements. Aquatic habitat could be affected if

sediment, drilling fluids, fuel, lubricants, or other materials were transported from disturbed areas to nearby drainage features. Displaced wildlife are expected to find other suitable habitats in the surrounding undeveloped, partially disturbed, and previously mined lands and may return to the project area following completion of exploration and reclamation activities.

Direct Impacts:

Direct impacts to terrestrial, avian, and aquatic life and habitats would occur at the same time and place as drill-pad and sump construction, road construction and improvement, overland travel, pullout and laydown-area use, temporary bridge installation and removal, drilling, equipment operation, vehicle travel, and reclamation. These activities would temporarily disturb vegetation and soils within the authorized disturbance footprint and may temporarily displace wildlife occupying or moving through active work areas.

Direct impacts could include temporary removal, trampling, or alteration of vegetation; temporary disturbance or displacement of wildlife due to drilling, heavy equipment, vehicle traffic, human activity, and reclamation; and localized noise from drill rigs, generators, excavators, bulldozers, road graders, water trucks, support vehicles, and other equipment. Wildlife may avoid active drill pads, roads, laydown areas, and other locations where equipment, personnel, noise, and traffic are present. Impacts from noise would be limited to the duration of exploration and reclamation activities and are further discussed in Section 8, Aesthetics.

Supplemental lighting may be used during nighttime operations for up to 12 hours per day, generally between 7:00 p.m. and 7:00 a.m., with timing adjusted seasonally and as necessary to support safe operations. Artificial lighting may temporarily affect wildlife behavior by increasing orientation or disorientation, attracting or repelling individual animals, or affecting foraging, reproduction, communication, and other activities. The Applicant proposes downward-facing and directional lighting and would use light shrouds or shields, as appropriate, to minimize off-site light spill, glare, and sky glow. Any direct lighting effects would be limited to the vicinity and duration of low-light exploration and reclamation operations.

The temporary bridge across Ophir Creek would be installed at an existing road crossing proposed for reconditioning. The Applicant proposes to construct and operate the bridge to maintain drainage patterns and reduce erosion and sedimentation associated with vehicle crossings. The bridge would be removed following exploration and completion of reclamation. Before bridge construction, the Applicant must obtain and comply with all applicable federal, state, and local authorizations and permit requirements, including any requirements applicable to work in or near streams and wetlands.

The Applicant proposes to obtain project water from the City of Deer Lodge municipal water system rather than withdraw water from Ophir Creek, Snowshoe Creek, or groundwater beneath the project area. Therefore, the proposed action would not directly reduce streamflow or groundwater availability within the Ophir Creek or Snowshoe Creek drainages for project supply.

The Applicant proposes to conduct reclamation concurrently with exploration activities to the extent practicable. Drill pads, sumps, temporary access routes, and other disturbed areas that are no longer needed for exploration would be reclaimed at the earliest practicable time, subject

to operational requirements, site conditions, and seasonal constraints. Reclamation would include backfilling sumps and other excavations, plugging drill holes, regrading and recontouring disturbed ground, redistributing suitable growth media where available, scarifying compacted areas as appropriate, reestablishing drainage and erosion-control features, and revegetating disturbed areas.

With implementation of the proposed erosion- and sediment-control BMPs, drilling-fluid containment, spill-prevention and response measures, temporary bridge controls, drill-hole plugging, and reclamation measures, direct impacts to terrestrial, avian, and aquatic life and habitats are expected to be temporary, localized, and minor.

Secondary Impacts:

Potential secondary impacts to terrestrial, avian, and aquatic life and habitats could include erosion or sediment transport from disturbed ground; transport of drilling fluids, fuel, lubricants, or other materials to nearby drainage features; spread of noxious weeds into adjacent habitat; or continued wildlife avoidance of temporarily disturbed areas following active operations.

Potential secondary impacts to aquatic life and aquatic habitat could occur if sediment, drilling fluids, fuel, lubricants, or other materials were transported from disturbed areas to Ophir Creek, Snowshoe Creek, Tiger Gulch, or other drainage features. Within the Lower Ophir Creek target area, proposed drill pads OC-1, OC-2, and OC-3 would be located approximately 100 feet upgradient of perennial Ophir Creek. Within the Ophir Claim Group target area, drill pad OG-16 would be located less than 100 feet from an intermittent stream in Tiger Gulch. Within the Snowshoe Creek target area, nine proposed drill pads would be located within approximately 100 feet upgradient of intermittent Snowshoe Creek.

No secondary impacts to terrestrial, avian, and aquatic life and habitats stimulated or induced by the direct impacts analyzed above are expected. Water-protection, erosion-control, drilling-fluid-containment, spill-prevention and response, drill-hole-plugging, and reclamation measures are designed to minimize water-quality or habitat changes that could trigger secondary biological responses in downstream systems.

The proposed action does not authorize mine development, ore processing, tailings or waste-rock facilities, long-term dewatering, production-scale pumping, a planned discharge to surface water or groundwater, or construction of a new water-supply source within the project area. Therefore, the proposed action is not expected to induce secondary impacts through long-term hydrologic alteration, reduced streamflow, reduced groundwater availability, persistent sediment loading, or sustained degradation of terrestrial, avian, or aquatic habitat.

Cumulative Impacts:

Relevant past and present actions in the broader project area include historic placer and lode mining, prior exploration activities conducted under Exploration License No. 00878 and associated ongoing reclamation, existing roads, ongoing exploration-related activities, Small Miner Exclusion Statement activities, recreational use, and other local land-disturbing activities.

These actions have contributed to existing vegetation disturbance, habitat alteration, roads and travel routes, noise, traffic, historic mine features, localized erosion potential, sediment-transport risks, and other effects to terrestrial, avian, and aquatic habitats. The proposed action would add a temporary increment of up to approximately 11.65 acres of surface disturbance, drilling activity, traffic, noise, lighting, and human activity to this existing environmental setting.

The proposed action would use existing roads, previously used laydown areas, and overland travel where practicable; implement erosion- and sediment-control BMPs; confine drilling fluids and cuttings; use municipal water rather than establish a project-area surface water or groundwater withdrawal; plug drill holes in accordance with ARM 17.24.106; conduct concurrent reclamation where practicable; remove the temporary bridge following exploration and completion of reclamation; and complete final reclamation in accordance with applicable requirements.

Because the proposed action is temporary, limited in spatial extent, and subject to BMPs and reclamation requirements intended to minimize erosion, sediment transport, contaminant releases, habitat disturbance, and long-term vegetation loss, its incremental contribution to cumulative impacts on terrestrial, avian, and aquatic life and habitats is expected to be minor and not significant.

Table 2: Montana Natural Heritage Project Environmental Summary- Species Occurrence and Potential Occurrence.

Documented	MT Status	Species Group	Common Name	Scientific Name	Habitat	Distribution	USFS	USFS_HLC	BLM
Occurrences	IAH	Other	Bat Roost (Cave)	Bat Roost (Cave)		Species Group or Habitat			
Occurrences	PSOC	Birds	Cassin's Finch	Haemorhous cassinii	Drier conifer forest	Resident Year Round			
Occurrences	SOC	Birds	Clark's Nutcracker	Nucifraga columbiana	Conifer forest	Resident Year Round	SCC		
Occurrences	SOC	Birds	Evening Grosbeak	Coccothraustes vespertinus	Conifer forest	Resident Year Round			
Occurrences	SOC	Birds	Brown Creeper	Certhia americana	Moist conifer forests	Resident Year Round			
Occurrences	SOC	Birds	Pileated Woodpecker	Dryocopus pileatus	Moist conifer forests	Resident Year Round			
Occurrences	SOC	Birds	Brewer's Sparrow	Spizella breweri	Sagebrush	Migratory Summer Breeder			SENSITIVE
Occurrences	SOC	Birds	Pacific Wren	Troglodytes pacificus	Moist conifer forests	Resident Year Round			
Occurrences	SOC	Fish	Westslope Cutthroat Trout	Oncorhynchus lewisi	Mountain streams, rivers, lakes	Resident Year Round	SENSITIVE; SCC	SCC	SENSITIVE
Occurrences	SOC	Mammals	Wolverine	Gulo gulo	Boreal Forest and Alpine Habitats	Resident Year Round	SENSITIVE		THREATENED
Occurrences	SOC	Mammals	Canada Lynx	Lynx canadensis	Subalpine conifer forest	Resident Year Round			THREATENED
Occurrences	SOC	Mammals	Grizzly Bear	Ursus arctos	Generalist	Resident Year Round			THREATENED
Occurrences	SOC	Mammals	Long-eared Myotis	Myotis evotis	Forest	Resident Year Round			
Occurrences	SOC	Mammals	Silver-haired Bat	Lasionycteris noctivagans	Riparian and forest	Resident Year Round			
Occurrences	SOC	Mammals	Northern Hoary Bat	Lasiurus cinereus	Riparian and forest	Migratory Summer Breeder			SENSITIVE
Occurrences	SOC	Mammals	Little Brown Myotis	Myotis lucifugus	Generalist	Resident Year Round	SENSITIVE		
Occurrences	SOC	Mammals	Townsend's Big-eared Bat	Corynorhinus townsendii	Caves in forested habitats	Resident Year Round	SENSITIVE		SENSITIVE
Occurrences	SOC	Mammals	Fisher	Pekania pennanti	Mixed conifer forests	Resident Year Round	SENSITIVE		SENSITIVE
Occurrences	SOC	Vascular Plants	Whitebark Pine	Pinus albicaulis	Subalpine forest, timberline	Present	SENSITIVE		THREATENED
Documented	MT Status	Species Group	Common Name	Scientific Name	Habitat	Distribution	USFS	USFS_HLC	BLM
Other Potential Species	PSOC	Birds	Great Gray Owl	Strix nebulosa	Conifer forest near open meadows	Resident Year Round			SENSITIVE
Other Potential Species	PSOC	Birds	Rufous Hummingbird	Selasphorus rufus	Riparian shrub	Migratory Summer Breeder			
Other Potential Species	PSOC	Birds	Boreal Owl	Aegolius funereus	Conifer forest	Resident Year Round			
Other Potential Species	PSOC	Birds	Ovenbird	Seiurus aurocapilla	Deciduous forest	Migratory Summer Breeder			
Other Potential Species	PSOC	Birds	Common Poorwill	Phalaenoptilus nuttallii	Shrub grassland	Migratory Summer Breeder			
Other Potential Species	PSOC	Birds	Barrow's Goldeneye	Bucephala islandica	Mountain Lakes and Wetlands	Resident Year Round			
Other Potential Species	PSOC	Invertebrates	Indiscriminate Cuckoo Bumble Bee	Bombus insularis	Alpine, montane meadows, shrubsteppe, prairie grassland	Resident Year Round			
Other Potential Species	PSOC	Mammals	North American Porcupine	Erethizon dorsatum	Mixed forest	Resident Year Round			
Other Potential Species	PSOC	Mammals	Spotted Bat	Euderma maculatum	Cliffs with rock crevices	Migratory Summer Breeder			SENSITIVE
Other Potential Species	PSOC	Vascular Plants	Austin's Knotweed	Polygonum austiniae	Rock/Talus	Present	SENSITIVE; SCC	SCC	
Other Potential Species	PSOC	Vascular Plants	Hare's-foot Locoweed	Oxytropis lagopus var. conjugans	Sagebrush (low-elevation)	Present			
Other Potential Species	PSOC	Vascular Plants	Rydberg's Parsley	Musineon vaginatum	Stony, usually calcareous, soil or talus in open, often Douglas-fir forest and woodlands	Present			
Other Potential Species	PSOC	Vascular Plants	Suksdorf Monkeyflower	Erythranthe suksdorfii	Vernally moist soils of grasslands and rocky slopes	Present			
Other Potential Species	PSOC	Vascular Plants	Small Yellow Lady's-slipper	Cypripedium parviflorum	Fens, damp mossy woods, seepage areas, and moist forest-meadow ecotones	Present	SENSITIVE; SCC	SCC	
Other Potential Species	PSOC	Vascular Plants	High Northern Buttercup	Ranunculus hyperboreus	Wetland/Riparian (Montane)	Present			
Other Potential Species	PSOC	Vascular Plants	Roundleaf Sundew	Drosera rotundifolia	Fens	Present			
Other Potential Species	SOC	Amphibians	Western Toad	Anaxyrus boreas	Wetlands, floodplain pools	Resident Year Round	SENSITIVE		SENSITIVE
Other Potential Species	SOC	Birds	American Goshawk	Astur atricapillus	Mixed conifer forests	Resident Year Round			
Other Potential Species	SOC	Birds	Black-backed Woodpecker	Picoides arcticus	Conifer forest burns	Resident Year Round	SENSITIVE		SENSITIVE
Other Potential Species	SOC	Birds	Flammulated Owl	Psilosops flammeolus	Dry conifer forest	Migratory Summer Breeder	SENSITIVE; SCC	SCC	SENSITIVE
Other Potential Species	SOC	Birds	Veery	Catharus fuscescens	Riparian forest	Migratory Summer Breeder			SENSITIVE
Other Potential Species	SOC	Birds	Varied Thrush	Ixoreus naevius	Moist conifer forests	Migratory Summer Breeder			
Other Potential Species	SOC	Birds	Lewis's Woodpecker	Melanerpes lewis	Riparian forest	Migratory Summer Breeder	SCC	SCC	SENSITIVE
Other Potential Species	SOC	Birds	Western Screech-Owl	Megascops kennicottii	Riparian forest	Resident Year Round			
Other Potential Species	SOC	Birds	Sage Thrasher	Oreoscoptes montanus	Sagebrush	Migratory Summer Breeder			SENSITIVE
Other Potential Species	SOC	Birds	Trumpeter Swan	Cygnus buccinator	Lakes, ponds, reservoirs	Resident Year Round			SENSITIVE
Other Potential Species	SOC	Birds	American Bittern	Botaurus lentiginosus	Wetlands	Migratory Summer Breeder			SENSITIVE
Other Potential Species	SOC	Birds	Black Tern	Chlidonias niger	Wetlands	Migratory Summer Breeder			SENSITIVE
Other Potential Species	SOC	Birds	Ferruginous Hawk	Buteo regalis	Sagebrush grassland	Migratory Summer Breeder			SENSITIVE
Other Potential Species	SOC	Birds	Long-billed Curlew	Numenius americanus	Grasslands	Migratory Summer Breeder			SENSITIVE
Other Potential Species	SOC	Invertebrates	Keeled Mountainsnail	Oreohelix carinifera	Limestone, dry conifer forests	Resident Year Round			
Other Potential Species	SOC	Invertebrates	Suckley's Cuckoo Bumble Bee	Bombus suckleyi	Montane/steppe grassland and shrubland	Resident Year Round			
Other Potential Species	SOC	Invertebrates	Western Bumble Bee	Bombus occidentalis	Urban, montane/steppe grassland and shrubland	Resident Year Round	SENSITIVE		SENSITIVE
Other Potential Species	SOC	Invertebrates	Western Pearlshell	Margaritifera falcata	Mountain streams, rivers	Resident Year Round	SENSITIVE; SCC	SCC	SENSITIVE
Other Potential Species	SOC	Mammals	Preble's Shrew	Sorex preblei	Sagebrush grassland	Resident Year Round			

Documented	MT Status	Species Group	Common Name	Scientific Name	Habitat	Distribution	USFS	USFS_HLC	BLM
Other Potential Species	SOC	Mammals	Long-legged Myotis	Myotis volans	Conifer forest	Resident Year Round			
Other Potential Species	SOC	Mammals	Western Pygmy Shrew	Sorex eximius	Open conifer forest, grasslands, and shrublands, often near water	Resident Year Round			
Other Potential Species	SOC	Mammals	Fringed Myotis	Myotis thysanodes	Riparian and dry mixed conifer forest	Resident Year Round			SENSITIVE
Other Potential Species	SOC	Vascular Plants	Western Joepye-weed	Ageratina occidentalis	Rock/Talus	Present	SENSITIVE		
Other Potential Species	SOC	Vascular Plants	Small-winged Sedge	Carex stenoptila	Grasslands (Montane)	Present			
Other Potential Species	SOC	Vascular Plants	Linear-leaf Fleabane	Erigeron linearis	Sagebrush/Grasslands (Foothills to Montane)	Present			
Other Potential Species	SOC	Vascular Plants	Crawe's Sedge	Carex crawei	Wetland/Riparian	Present			
Other Potential Species	SOC	Vascular Plants	Letterman's Needlegrass	Stipa lettermanii	Talus and Grasslands (low-elevation)	Present	SCC	SCC	
Other Potential Species	SOC	Vascular Plants	Peculiar Moonwort	Botrychium paradoxum	Meadows (Mesic Montane/Subalpine)	Present	SENSITIVE; SCC	SCC	SENSITIVE
Other Potential Species	SOC	Vascular Plants	Flatleaf Bladderwort	Utricularia intermedia	Fens (Aquatic)	Present	SENSITIVE		
Other Potential Species	SOC	Vascular Plants	Divide Bladderpod	Physaria klausii	Slopes (Open, Montane/subalpine)	Present			
Other Potential Species	SOC	Vascular Plants	Northern Buttercup	Ranunculus pedatifidus	Meadows/Woodlands (Montane to Alpine)	Present	SCC	SCC	
Other Potential Species	SOC	Vascular Plants	Wavy Moonwort	Botrychium crenulatum	Various Mesic Sites	Present	SENSITIVE; SCC	SCC	
Other Potential Species	SOC	Vascular Plants	Least Moonwort	Botrychium simplex	Montane mesic meadows, grasslands, and disturbed sites	Present	SENSITIVE		
Other Potential Species	SOC	Vascular Plants	Dense-leaf Draba	Draba densifolia	Alpine	Present	SENSITIVE; SCC	SCC	
Other Potential Species	SOC	Vascular Plants	Giant Helleborine	Epipactis gigantea	Wetland/Riparian	Present	SENSITIVE; SCC	SCC	
Other Potential Species	SOC	Vascular Plants	Floriferous Monkeyflower	Erythranthe floribunda	Vernally moist cliffs and streambanks	Unknown			
Other Potential Species	SOC	Vascular Plants	Simple Kobresia	Kobresia simpliciuscula	Alpine	Present			
Other Potential Species	SOC	Vascular Plants	Tufted Club-rush	Trichophorum cespitosum	Fens and wet meadows	Present	SENSITIVE; SCC		
Other Potential Species	SOC	Vascular Plants	Western Moonwort	Botrychium hesperium	Various Mesic Sites	Present			
Other Potential Species	SOC	Vascular Plants	Northern Moonwort	Botrychium pinnatum	Wide variety of habitats, including wet grassy slopes, streambanks, roadsides, and mossy woods	Present	SENSITIVE		
Other Potential Species	SOC	Vascular Plants	Beaked Spikerush	Eleocharis rostellata	Wetlands (Alkaline)	Present	SENSITIVE; SCC	SCC	
Other Potential Species	SOC	Vascular Plants	Lackschewitz' Fleabane	Erigeron lackschewitzii	Alpine	Present	SENSITIVE		
Other Potential Species	SOC	Vascular Plants	Slender Cottongrass	Eriophorum gracile	Fens	Present	SENSITIVE; SCC		

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

The Montana Natural Heritage Program (MTNHP) species summary in Table 2 identifies documented occurrences of westslope cutthroat trout (*Oncorhynchus lewisi*), wolverine (*Gulo gulo*), Canada lynx (*Lynx canadensis*), grizzly bear (*Ursus arctos*), and whitebark pine (*Pinus albicaulis*) within the broader project-area search results. Table 2 identifies westslope cutthroat trout as a Montana Species of Concern and identifies wolverine, Canada lynx, grizzly bear, and whitebark pine as Montana Species of Concern; the accompanying USFS, USFS Helena-Lewis and Clark National Forest, and BLM status columns identify sensitive or threatened designations for these and other resources.

Westslope cutthroat trout are associated with mountain streams, rivers, and lakes; wolverines are associated with boreal forest and alpine habitats; Canada lynx are associated with subalpine conifer forest; grizzly bears are resident year-round generalists; and whitebark pine is associated with subalpine forest and timberline habitats. The MTNHP records identify documented occurrence or model-based potential habitat within the broader search area; they do not establish that each species occurs within every proposed drill pad, access route, laydown area, pullout, overland-travel route, or temporary bridge footprint.

The proposed action is not located within core, general, or connectivity habitat for greater sage-grouse. The Project would occur on private lands in the Snowshoe, Ophir Claim Group, and Lower Ophir Creek target areas in Powell County, Montana. The proposed action would disturb up to approximately 11.65 acres for up to 37 drill pads and associated internal drill sumps or portable solids-removal units, new and improved access roads, overland travel, pullouts, laydown areas, and one temporary bridge across Ophir Creek.

The broader analysis area contains forest and woodland, shrubland, steppe and savanna, grassland, agricultural and disturbed lands, wetland and riparian systems, and stream-associated habitats. The most extensive mapped land-cover types include Rocky Mountain lodgepole pine forest, Rocky Mountain lower montane, foothill, and valley grassland, Rocky Mountain montane Douglas-fir forest and woodland, montane sagebrush steppe, Rocky Mountain subalpine-upper montane grassland, ponderosa pine woodland and savanna, aspen forest and woodland, and Northern Rocky Mountain lower montane riparian woodland and shrubland.

MTNHP habitat-suitability models provide broad-scale landscape context, but they are not site-specific occupancy, habitat-quality, denning, food-resource, movement-corridor, or individual-plant determinations. The grizzly bear, Canada lynx, wolverine, and whitebark pine models use statewide environmental data standardized to 90-meter raster pixels or use broad ecological-system associations. MTNHP advises that these models should not typically be used for planning on areas smaller than one-quarter of a Public Land Survey System section, approximately 64 hectares or 158 acres, and should not replace on-the-ground surveys or agency-biologist input for local projects. The 11.65-acre AMD4 disturbance footprint is substantially smaller than this scale. The westslope cutthroat trout model similarly identifies one-square-mile hexagons containing waterbodies with confirmed or professionally inferred presence and is intended for landscape-level planning rather than site-specific habitat determinations.

Direct Impacts:

Direct impacts to westslope cutthroat trout, wolverine, Canada lynx, grizzly bear, whitebark pine, and associated habitats could include increased ambient noise levels from drilling operations, temporary wildlife displacement, temporary vegetation disturbance, temporary lighting effects, and potential disturbance within the approximately 11.65-acre authorized surface-disturbance footprint. The proposed action includes up to 37 drill pads, associated internal drill sumps or portable solids-removal units, access-road construction and improvement, overland travel, pullouts, laydown areas, and a temporary bridge across Ophir Creek. Up to seven drill rigs may operate concurrently, and exploration and reclamation activities may occur up to 24 hours per day, seven days per week. Potential direct impacts would be temporary and localized to active work areas and associated access routes.

The proposed action would not directly disturb mapped wetlands or riparian habitat. The temporary bridge would cross Ophir Creek at an existing road crossing proposed for reconditioning. Before bridge construction, the Applicant must obtain and comply with all applicable federal, state, and local authorizations and permit requirements. The bridge would be removed following exploration and completion of reclamation.

Direct impacts to wolverine, Canada lynx, and grizzly bear could include temporary avoidance of active work areas because of drilling, equipment operation, vehicle traffic, noise, lighting, vegetation disturbance, and increased human activity. The proposed action would not authorize mine development, ore processing, permanent residential or industrial development, long-term dewatering, or permanent conversion of the project area to non-habitat uses. Disturbed areas would be reclaimed when no longer needed for exploration, reducing the duration of localized habitat disturbance.

Grizzly Bear Habitat and Movement

The MTNHP species summary identifies a documented grizzly bear occurrence within the broader project-area search results. Grizzly bears are identified as resident year-round generalists and as threatened in Table 2. The documented occurrence indicates that grizzly bears may use the broader project area or move through the surrounding landscape; it does not establish that individual proposed drill pads, access routes, laydown areas, pullouts, or the temporary bridge footprint are occupied by grizzly bears or constitute high-quality or limiting habitat.

The MTNHP grizzly bear deductive model identifies ecological systems commonly or occasionally associated with grizzly bears across the species' presumed Montana range. Ecological systems mapped within the broader Blue Copper analysis area include several systems classified as commonly associated with grizzly bears, including Rocky Mountain lodgepole pine forest, Rocky Mountain montane Douglas-fir forest and woodland, Rocky Mountain lower montane, foothill, and valley grassland, Rocky Mountain ponderosa pine woodland and savanna, aspen forest and woodland, Northern Rocky Mountain lower montane riparian woodland and shrubland, Rocky Mountain subalpine-upper montane grassland, and Rocky Mountain subalpine-montane mesic meadow. Montane sagebrush steppe is classified as occasionally associated with grizzly bears.

These associations indicate that the broader landscape may provide habitat or movement opportunity for grizzly bears.

The deductive model is based on broad-scale land-cover associations and is not a site-specific habitat-quality, occupancy, denning, food-resource, or corridor-function determination. MTNHP states that land-cover associations should be used for landscape-level planning and advises particular caution when assessing areas smaller than one-quarter of a PLSS section, or approximately 158 acres. Therefore, the deductive model is used here to provide landscape context and not as the sole basis for determining grizzly bear habitat suitability within individual AMD4 disturbance footprints.

The proposed action could temporarily displace individual grizzly bears from active drill pads, access roads, laydown areas, and other work areas because of drilling, equipment operation, vehicle traffic, noise, lighting, and increased human activity. The Applicant proposes to use existing roads, previously used laydown areas, and overland travel where practicable; limit disturbance to the minimum area necessary; conduct concurrent reclamation where practicable; and reclaim disturbed areas through backfilling, regrading, growth-media redistribution where available, erosion-control measures, and revegetation. These measures are expected to reduce the duration and extent of localized habitat disturbance and allow continued grizzly bear use and movement through the broader landscape outside active work areas.

Based on the temporary and spatially limited nature of the proposed action, the lack of evidence that the authorized disturbance footprint is high-quality or limiting grizzly bear habitat, the use of existing disturbed infrastructure where practicable, and the proposed reclamation measures, direct impacts to grizzly bears are expected to be localized, temporary, and minor.

Canada Lynx and Wolverine

The MTNHP species summary identifies documented occurrences of Canada lynx and wolverine within the broader project-area search results. Canada lynx are associated with subalpine conifer forest, while wolverines are associated with boreal forest and alpine habitats. The MTNHP Canada lynx and wolverine habitat-suitability models identify conifer and mixed-conifer systems as commonly associated with these species at the statewide landscape scale. Within the broader Blue Copper analysis area, Rocky Mountain lodgepole pine forest and Rocky Mountain montane Douglas-fir forest and woodland are among the most extensive land-cover types.

The models identify broad-scale potential habitat and should not be interpreted as confirmation of local occupancy, denning, reproductive habitat, or habitat quality within individual proposed action disturbance features. The Canada lynx and wolverine deductive models also state that “ecological-system associations can overpredict suitable habitat and should be applied cautiously to local project areas” (MTNHP, 2026).

Direct impacts to Canada lynx and wolverine would be temporary avoidance of active work areas due to noise, lighting, drilling, vehicle traffic, vegetation disturbance, and increased human activity. The Project would not authorize permanent conversion of habitat, and temporary disturbances would be reclaimed in accordance with the approved reclamation plan. Given the limited surface-disturbance footprint, use of existing infrastructure where practicable, and

concurrent reclamation where practicable, direct impacts to Canada lynx and wolverine are expected to be localized, temporary, and minor.

Whitebark Pine

The MTNHP species summary identifies a documented whitebark pine occurrence within the broader project-area search results. Whitebark pine is associated with subalpine forest and timberline habitats and is identified as sensitive and threatened in Table 2. The MTNHP whitebark pine model indicates that predicted habitat suitability is intended to represent general habitat at large spatial scales and that moderate model-suitability classes adequately represent the species' habitat, although the model can miss scattered or isolated suitable habitat pockets.

Direct impacts to whitebark pine could occur if individual trees are present within the authorized disturbance footprint and are removed or damaged during construction, drilling, road work, or reclamation. The Applicant proposes to conduct a pre-disturbance vegetation inventory to identify existing noxious-weed populations and sensitive native plant communities within proposed disturbance areas and along access routes. The Applicant proposes to limit surface disturbance to the minimum area necessary and maintain vegetated buffers where practicable. Because the model does not replace site-specific observation and the proposed action would use a pre-disturbance inventory, potential effects to individual whitebark pine or sensitive plant communities may be identified and considered before disturbance.

Westslope Cutthroat Trout

The MTNHP species summary identifies a documented westslope cutthroat trout occurrence within the broader project-area search results. Westslope cutthroat trout are associated with mountain streams, rivers, and lakes and are identified as sensitive in Table 2. The MTNHP habitat model identifies one-square-mile hexagons as suitable where they intersect waterbodies having confirmed species presence or where presence is professionally inferred from confirmed adjacent occurrences. The model is intended to generate potential species lists for landscape-level planning and should not replace site-specific surveys or fisheries-biologist consultation.

Direct impacts to westslope cutthroat trout habitat could occur at the temporary Ophir Creek bridge crossing or if sediment, drilling fluids, fuel, lubricants, or other materials were transported from disturbed areas to Ophir Creek, Snowshoe Creek, Tiger Gulch, or other drainage features. Drill pads OC-1, OC-2, and OC-3 would be located approximately 100 feet upgradient of perennial Ophir Creek. Drill pad OG-16 would be located less than 100 feet from an intermittent stream in Tiger Gulch, and nine proposed Snowshoe-area drill pads would be located within approximately 100 feet upgradient of intermittent Snowshoe Creek.

The Applicant proposes vegetated buffers, compacted earthen berms, silt fencing, temporary seeding, water diversions, mulch cover, surface roughening, straw wattles, sediment traps, secondary containment, and spill-prevention and response measures. Drilling fluids and waste cuttings would be confined to drill sites through internal sumps, storage tanks, portable solids-removal units, or another approved method. The Applicant would purchase municipal water from the City of Deer Lodge rather than withdraw water from Ophir Creek, Snowshoe Creek, or project-area groundwater sites. The Applicant would plug drill holes in accordance with ARM

17.24.106 and reclaim disturbance in accordance with the approved reclamation plan and applicable requirements.

With implementation of the proposed BMPs, drilling-fluid containment, spill-prevention and response measures, temporary bridge controls, drill-hole plugging, and reclamation measures, direct impacts to westslope cutthroat trout, wolverine, Canada lynx, grizzly bear, whitebark pine, and associated habitats are expected to be temporary, localized, and minor.

Secondary Impacts:

No secondary impacts to westslope cutthroat trout, wolverine, Canada lynx, grizzly bear, whitebark pine, or associated habitats that could be stimulated or induced by the direct impacts analyzed above are expected. The proposed water-protection, erosion-control, drilling-fluid-containment, spill-prevention and response, drill-hole-plugging, and reclamation measures are designed to minimize water-quality or habitat changes that could impact these resources or trigger secondary biological responses in downstream systems.

The proposed action does not authorize mine development, ore processing, tailings facilities, waste-rock facilities, long-term dewatering, production-scale pumping, a planned discharge to surface water or groundwater, or construction of a new water-supply source within the project area. Therefore, the proposed action is not expected to induce secondary impacts through long-term hydrologic alteration, reduced streamflow, reduced groundwater availability, persistent sediment loading, or sustained degradation of habitat used by westslope cutthroat trout, wolverine, Canada lynx, grizzly bear, or whitebark pine.

Cumulative Impacts:

Relevant past and present actions in the broader project area include historic placer and lode mining, previous and ongoing exploration under Exploration License No. 00878 and associated reclamation, existing roads, Small Miner Exclusion Statement activities, recreational use, and other local land-disturbing activities. These actions have contributed to vegetation disturbance, habitat alteration, roads and travel routes, traffic, noise, historic mine features, localized erosion potential, and sediment-transport risks affecting habitat potentially used by westslope cutthroat trout, wolverine, Canada lynx, grizzly bear, and whitebark pine.

The proposed action would add a temporary increment of up to approximately 11.65 acres of surface disturbance, drilling, traffic, noise, lighting, and human activity to this existing setting. The proposed action would use existing roads, previously used laydown areas, and overland travel where practicable; implement erosion- and sediment-control BMPs; confine drilling fluids and cuttings; use municipal water rather than establish a project-area surface water or groundwater withdrawal; plug drill holes in accordance with ARM 17.24.106; conduct concurrent reclamation where practicable; remove the temporary bridge following exploration and completion of reclamation; and complete final reclamation in accordance with applicable requirements. Because the disturbance would be temporary, spatially limited, and would not permanently convert habitat, its incremental contribution to cumulative impacts on these resources is expected to be minor and not significant.

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 Sections 27, 28, 30, 31, Township 11 North, Range 7 West and Section 25, Township 11 North, Range 8 West.

SHPO stated that a few previously recorded historic sites are located within the proposed exploration boundary areas. A total of 25 Historic Properties are located within or near the Area of Potential Effect. Historic Properties are sites that are eligible for or potentially eligible for listing on the National Register of Historic Places (NRHP). Eleven sites are listed as Undetermined, 10 are listed as Eligible to the NRHP, 3 sites are listed as Ineligible to the NRHP, and 1 is listed as Unresolved.

Based on the sites within the project areas and the ground disturbance required by this undertaking, SHPO recommends that the proposed action has the potential to impact cultural properties. SHPO therefore recommends that a cultural resource inventory be conducted and a formal determination of eligibility be made prior to any disturbance taking place.

The proposed action is occurring on private land and would be the property of the Applicant.

The Applicant proposes not to knowingly disturb, alter, injure, destroy, or remove any scientifically important paleontological deposits, or any historical or archaeological site, structure, building or object on private lands, to the extent possible. Identified eligible or unevaluated cultural resources (historic or prehistoric) would be avoided by all project activities to the extent practicable. If previously undiscovered cultural resources are exposed as a result of project-related activities, the Applicant would cease operations, leave such discoveries intact, and notify the MDEQ. The Applicant would not proceed until notified in writing by the MDEQ that compliance with the provisions for mitigating unforeseen impacts 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. No direct impacts on historical or archaeological sites would be expected from the proposed action.

Secondary Impacts:

No secondary impacts on historical or archaeological sites would be expected from the proposed action.

Cumulative Impacts:

No cumulative impacts on historical and archaeological resources would be expected from the proposed action.

8. Aesthetics

The proposed activities would occur on private lands. The project area is located adjacent to public county and BLM roads throughout the greater Avon area; however, the area is sparsely populated, typical of the rural forested setting in the adjacent lands. The project area would be visible to the public traveling along local BLM, USFS, and county roads. 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 proposes to perform 2 12-hour shifts, 24 hours a day. One portable light plant (Table 1) would be deployed at each active drill site, with up to seven operating concurrently, as necessary for low-light operations, up to 12 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 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 measurements of vertical illuminance at the property boundary line or the edge of the road allowance (Nafakh, Davila, Zhang, et. al., 2022). Glare is 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 sites would be visible from portions of BLM, USFS, and county roads in the vicinity of the drill pads, sumps, and laydown areas. 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, and travel. Final reclamation would be required within 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 affected by travel and previous exploration activities. These visual and noise effects are expected to be minor and temporary, with final reclamation required within 2 years after exploration concludes.

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

Project water would be obtained from the City of Deer Lodge municipal water system, Public Water System No. MT0000197, and transported approximately 25 miles to the project area. The Applicant would purchase municipal water rather than withdraw water from Ophir Creek, Snowshoe Creek, or groundwater beneath the project area. Daily project water use would not exceed 24,000 gallons when all seven drill rigs are operating and water is required for road-dust suppression.

Municipal water would be transported to the project area in highway-suitable tanker trucks with capacities of up to 4,000 gallons. Depending on water demand and equipment availability, the Applicant anticipates up to six total tanker-truck trips per day during maximum operations. Water would be offloaded into up to seven 3,000- to 4,000-gallon polypropylene storage tanks at laydown areas on private land and then transferred to four-wheel-drive water trucks for delivery to active drill sites. Where appropriate, approximately 3,000-gallon storage tanks may be staged nearer to active drill sites, and water may be pumped to drill sites using hydrostatic pumps and 2-inch hose or similar equipment.

Municipal water would be used for drilling operations, including cooling and lubricating drill bits, cleaning the drill-bit/rock interface, and transporting drill cuttings, and for dust suppression on access roads and other disturbed travel surfaces. The Applicant must obtain and maintain all agreements, authorizations, and approvals necessary to purchase, transport, store, and use municipal water. The proposed action does not include construction, disturbance, modification, or operation of a new water-source facility at the City of Deer Lodge municipal system.

Other environmental resources used by the proposed action would include temporary use of the authorized disturbance footprint, conventional fuels and lubricants, portable generators, trailer-mounted light plants, vehicles, and exploration and reclamation equipment. These demands are addressed in the applicable resource sections of this EA.

Direct Impacts:

The proposed action would consume up to 24,000 gallons of municipal water per day during drilling operations and when water is needed for road-dust suppression. This would represent a new, temporary demand on the City of Deer Lodge municipal water system during active exploration. The Applicant would purchase water through the municipal system and must maintain the agreements and approvals necessary for that use.

The available well-log and pump-test data for the municipal system's individual supply wells do not establish the system's sustained production capacity, available surplus supply, permitted withdrawal rate, operational redundancy, seasonal availability, or ability to provide the proposed action's maximum daily demand. Those determinations remain with the City of Deer Lodge municipal system and entities with authority over the system's operation and water supply.

Because the Applicant would purchase municipal water rather than develop or operate a project-area well or surface water diversion, the proposed action would not directly withdraw water from Ophir Creek, Snowshoe Creek, or groundwater beneath the project area. The proposed action therefore would not directly impact streamflow or groundwater volume in the Ophir Creek or Snowshoe Creek drainages.

Direct demands on land, air, and energy resources would be limited to temporary use of the authorized disturbance footprint, construction and maintenance of access features, use of fuel-powered equipment and vehicles, use of trailer-mounted light plants and portable generators, and related exploration and reclamation activities. These demands are temporary and are addressed through the applicable analyses of geology and soils, air quality, aesthetics, hazardous substances, and reclamation.

Secondary Impacts:

No secondary impacts to environmental resources of land, water, air, or energy are expected. The proposed action does not authorize mine development, ore processing, tailings facilities, waste-rock facilities, long-term dewatering, production-scale pumping, a planned discharge to surface water or groundwater, or construction of a new project-area water-supply facility. The use of municipal water avoids direct project-related withdrawals from local surface water and groundwater resources.

Cumulative Impacts:

Cumulatively, the proposed action's use of up to 24,000 gallons of municipal water per day would add a temporary increment to existing demands on the City of Deer Lodge municipal water system. The proposed use consists of purchasing water from an existing public water system; it would not establish a project-area surface water diversion or groundwater withdrawal. The EA does not determine the municipal system's sustained production capacity, available surplus supply, permitted withdrawal rate, operational redundancy, seasonal availability, or ability to provide the proposed action's maximum daily demand. The Applicant must obtain and maintain all necessary agreements, authorizations, and approvals for municipal water use.

The proposed action would also add temporary demands associated with exploration equipment, vehicles, generators, light plants, road use, and reclamation to existing local demands on land, air, and energy resources. Because the proposed action is limited in duration and spatial extent, would use existing roads and previously used laydown areas where practicable, and would be subject to BMPs and reclamation requirements, its incremental

cumulative contribution to demands on environmental resources of land, water, air, or energy is expected to be minor and not significant.

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 Resources and Conservation (DNRC)
- Montana Department of Environmental Quality (DEQ)
- Montana Department of Transportation (MDT)
- Powell 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 private land, and members of the public would not be in the project area during exploration and reclamation operations.

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 inhalation of exhaust fumes and the ingestion of dust generated by equipment during exploration operations and reclamation would be minimized with proper personal protective equipment. Increases in operation-related traffic would likely occur. The daily traffic that would be leaving the site could vary greatly.

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. 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, and 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

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 at the site. 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 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 proposed action, minimal tax revenue from income, the purchase of local goods and services, or expenses 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

The proposed action would occur on private lands in the Snowshoe, Ophir Claim Group, and Lower Ophir Creek target areas in Powell County, Montana, approximately 9 miles northeast of Avon. Site access would use a combination of existing public and private roads, existing roads proposed for reconditioning or improvement, new temporary access roads, and limited overland travel. The proposed action includes approximately 3,907 feet of new access road; improvements to approximately 12,144 feet of existing roads; reconditioning of approximately 2,006 feet of existing roads; approximately 845 feet of overland travel; and up to four pullouts to support safe equipment and vehicle travel.

Municipal water would be purchased from the City of Deer Lodge municipal water system and transported approximately 25 miles to the project area in highway-suitable tanker trucks with capacities of up to 4,000 gallons. During maximum operations, the Applicant anticipates up to six total tanker-truck trips per day, depending on water demand and equipment availability. Water

would be offloaded to storage tanks at private laydown areas and transferred to four-wheel-drive water trucks or, where appropriate, pumped through temporary hose to active drill sites.

Exploration and reclamation personnel would access the project area using passenger vehicles, trucks, water trucks, and construction and drilling equipment. Up to seven drill rigs may operate concurrently. The Plan of Operations identifies pickup trucks, water trucks, an equipment fuel truck, drill rigs, pipe trucks, heavy construction equipment, trailer-mounted solids-removal units, light plants, generators, and related support equipment. Movement of this equipment and personnel would add temporary traffic to public roadways approaching the project area and to private and existing access routes within the project area.

The temporary bridge across Ophir Creek would be constructed at an existing road crossing proposed for reconditioning. Before bridge construction, the Applicant must obtain and comply with all applicable federal, state, and local authorizations and permit requirements. The bridge would be removed following exploration and completion of reclamation. All operations would be subject to applicable local, state, and federal road, traffic, safety, seasonal, and permitting requirements.

Direct Impacts:

Direct impacts on the demand for government services could result from temporary increases in vehicle traffic on public roadways used to access the project area. Potential demands could include routine road maintenance, law-enforcement response, emergency medical response, fire protection, and other public safety services if an incident occurs during exploration, transport, construction, drilling, or reclamation activities.

The proposed action would not require construction of new public infrastructure or expansion of public utility systems. Traffic associated with water hauling, project personnel, deliveries, drilling equipment, road work, and reclamation would be temporary and would occur during the authorized exploration and reclamation period. The Applicant would be required to comply with applicable traffic, road-use, safety, and hazardous material requirements. Given the temporary nature of the activities, use of existing access routes where practicable, and limited anticipated truck trips, direct impacts to the demand for government services are expected to be minor.

Secondary Impacts:

No secondary impacts to the demand for government services are expected. The proposed action does not authorize mine development, ore processing, permanent residential or industrial development, construction of new public infrastructure, or long-term population growth. The Applicant would conduct concurrent reclamation where practicable and complete final reclamation in accordance with applicable requirements, reducing the potential for continued demands on public services after exploration concludes.

Cumulative Impacts:

Cumulatively, the proposed action would add a temporary increment of traffic and related public safety demand to existing use of public roads by local residents, recreationists, mining and

exploration operations, and other commercial and industrial activities in the broader project area. Because the proposed action is limited in duration and spatial extent, would use existing roads and previously used laydown areas where practicable, and would be subject to applicable road, traffic, safety, and reclamation requirements, its incremental cumulative contribution to demand for government services is expected to be minor and not significant.

16. Locally Adopted Environmental Plans and Goals

The proposed activities would occur on private lands. The project area would be subject to any plans or rules set forth by Powell County and the 2017 Montana Noxious Weed Management Plan.

DEQ is aware of the following policies and plans:

- Watershed Restoration Plan for the Upper Clark Fork River Tributaries
- Little Blackfoot River Watershed Restoration Plan

None of the above listed plans would impact the issuance of an exploration license as long as the application complies with the requirements of the MMRA. The applicant would be required to comply with all laws and to obtain all required permits, licenses, or approvals for operation.

Direct Impacts:

The proposed exploration activities would be limited to the scope described in *Section 2: Water Quality, Quantity and Distribution*, and subject to applicable drilling and reclamation requirements. The Applicant proposes vegetated buffers, compacted earthen berms, silt fencing, temporary seeding, water diversions, mulch cover, surface roughening, straw wattles, and sediment traps to minimize erosion and off-site sediment transport. Secondary containment, drilling-fluid and cuttings management, and spill-prevention and response measures would reduce the potential for contaminant releases. These measures would be installed, inspected, maintained, and repaired as described in Section 2. Drill-hole plugging under ARM 17.24.106 and surface reclamation under ARM 17.24.107 would reduce the potential for persistent groundwater pathways and erosion sources. With implementation of these measures, Section 2 anticipates minor, temporary, and localized direct effects on surface water and groundwater.

The proposed controls are consistent in purpose with restoration objectives to reduce sediment and nutrient delivery and protect riparian vegetation and streambank condition. Lower Carpenter Creek's TMDL addresses total phosphorus, while Snowshoe Creek's TMDLs address sediment and nitrate plus nitrite; the restoration plan also identifies flow, channel, and fish-passage improvements as goals for these streams (Montana DEQ and EPA Region 8, 2011; Barth et al., 2016). Based on the direct- and cumulative-effects analysis in *Section 2: Water Quality, Quantity and Distribution*, and contingent on implementation and maintenance of the identified mitigation and required reclamation, DEQ does not anticipate that the proposed action would materially interfere with or reverse progress toward those restoration goals. This conclusion recognizes the minor effects described in Section 2 rather than assuming that all effects would be eliminated.

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 private lands. There are recreational opportunities for the general public near the project area, although there are no maintained formal access points to recreational opportunities on BLM or USFS lands within or adjacent to the project area.

Direct Impacts:

The proposed action would occur on private lands surrounded by lands managed by the United States Bureau of Land Management and the US Forest Service. 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 BLM and USFS lands 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

Powell County had a population of approximately 6,973 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

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

It is not anticipated that this proposed action would cause a shift in some unique quality of the area.

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

The proposed action would take place on private lands. DEQ's approval of AMD4 to Exploration License No. 00878, 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. 00878 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

In addition to the proposed action, DEQ also considered the "no action" alternative. The "no action" alternative would deny the approval of the proposed Amendment 4 to Exploration License No. 00878. The Applicant would lack the authority to conduct exploration activities proposed in Amendment 4 to Exploration License No. 00878 on privately owned lands. Any potential impacts authorized under Amendment 4 to Exploration License No. 00878 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 approval. 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 an internal review of the Draft 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 Resources and Conservation (DNRC)
- Montana Department of Environmental Quality (DEQ)
- Montana Department of Transportation (MDT)
- Powell County
- United States 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

Under MEPA, an agency is responsible for providing opportunities for public review consistent with the seriousness and complexity of the environmental issues associated with the proposed action and the level of public interest. For purposes of this proposed action, the method of accomplishing public review includes publishing a news release or legal notice to announce the availability of an EA, summarizing its

content and soliciting public comment, and distributing copies of the draft EA for review and comment. Any public comment received for this EA will be summarized in the Final Environmental Assessment.

This Draft Environmental Assessment was posted to the DEQ website for public comment on October 14, 2026. The Final EA will be available on the DEQ website.

OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION

The proposed action would be located on private lands. 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 exploration activities on private lands in Powell County, Montana. The proposed action would disturb up to approximately 11.65 acres and includes up to 37 drill pads and associated internal drill sumps or portable solids-removal units, up to 222 drill holes, new and improved access roads, overland travel, pullouts, three laydown areas, and one temporary bridge across Ophir Creek. Exploration could use up to seven drill rigs operating concurrently, with activities occurring up to 24 hours per day, seven days per week. The proposed action does not authorize underground exploration, mine development, ore processing, tailings facilities, waste-rock facilities, or long-term infrastructure.

The EA analysis indicates that, with implementation of applicable BMPs and compliance with applicable federal, state, and local requirements, residual impacts on Montana's environment from the proposed action would be generally low to moderate in intensity, localized in geographic extent, temporary in

duration, and reversible through reclamation. Resource-specific impacts, BMPs, and reclamation commitments are described in the applicable sections of this EA and in the Plan of Operations.

BMPs to control erosion, sedimentation, and potential water resource effects include vegetated buffers, compacted earthen berms, silt fencing, temporary seeding, water diversions, mulch cover, surface roughening, straw wattles, sediment traps, secondary containment, and spill-prevention and response measures. Drilling fluids and cuttings would be confined to drill sites through internal sumps, storage tanks, portable solids-removal units, or another approved method. The Applicant would plug drill holes in accordance with ARM 17.24.106 and reclaim disturbed areas in accordance with the approved reclamation plan and applicable requirements.

The Applicant proposes concurrent reclamation to the extent practicable. Reclamation would include backfilling sumps and other excavations; plugging drill holes; regrading and recontouring disturbed surfaces; redistributing suitable growth media where available; scarifying compacted ground as appropriate; reestablishing drainage and erosion-control features; and revegetating disturbed areas. Final reclamation would be completed no later than two years after completion or abandonment of exploration activities. The Applicant's proposed final-reclamation completion date is December 30, 2033.

BMPs to minimize air-quality impacts include application of water to access roads and disturbed travel surfaces, reduced vehicle speeds, reduced traffic volumes where practicable, and use and maintenance of factory-installed emissions controls. Supplemental lighting would use downward-facing and directional lighting and light shrouds or shields, as appropriate, to minimize off-site light spill, glare, and sky glow.

The proposed action would obtain water from the City of Deer Lodge municipal water system rather than directly withdraw water from Ophir Creek, Snowshoe Creek, or groundwater beneath the project area. Project water use would not exceed 24,000 gallons per day during maximum operations for drilling and road-dust suppression. The Applicant must obtain and maintain all agreements, authorizations, and approvals necessary to purchase, transport, store, and use municipal water. The EA does not determine the municipal system's sustained production capacity, available surplus supply, permitted withdrawal rate, operational redundancy, seasonal availability, or ability to provide the proposed action's maximum daily demand.

The proposed action may temporarily impact terrestrial, avian, and aquatic habitats through vegetation disturbance, noise, lighting, traffic, and human activity. The project would not directly disturb mapped wetlands or riparian habitat; however, the temporary bridge across Ophir Creek would be subject to applicable federal, state, and local authorizations and permit requirements and would be removed after exploration and reclamation are complete. The Project's water protection, erosion control, drilling fluid containment, spill-prevention and response, drillhole plugging, and reclamation measures are intended to minimize effects to surface water, groundwater, aquatic resources, and species or habitats identified as unique, endangered, fragile, or limited.

The proposed action would add a temporary increment of disturbance to a landscape affected by historic placer and lode mining, existing roads, prior and ongoing exploration, Small Miner Exclusion Statement activities, recreational use, and other land-disturbing activities. The Project would use existing roads,

previously used laydown areas, and overland travel where practicable; limit disturbance to the authorized footprint; implement BMPs; and conduct concurrent reclamation where practicable. Therefore, its incremental contribution to cumulative impacts is expected to be minor and not significant.

For social and economic resources, the EA concludes that the proposed action may provide limited, temporary benefits through wages, payroll taxes, local purchases, and other project-related spending. The proposed action would not displace existing industrial, commercial, or agricultural activities. Temporary project traffic could result in a minor increase in demand for routine road maintenance, law enforcement, emergency response, fire protection, or other public safety services if an incident occurs; however, the Project would not require construction of new public infrastructure, expansion of public utilities, permanent residential development, or long-term population growth.

The limited and temporary effects on employment, tax base, housing, neighborhood character, and government services are not expected to result in substantial growth-inducing or growth-inhibiting effects or conflict with locally adopted plans, goals, or regulations. The proposed action is also not expected to result in substantial changes to social structures, cultural uniqueness and diversity, or private property rights. The Applicant would be required to comply with applicable local, state, and federal laws, requirements, permits, and formal plans.

Approval of AMD4 would not set a precedent committing DEQ to future actions with significant impacts or constitute a decision in principle concerning future mining. If the Applicant submits a future application to amend the exploration license, conduct additional exploration, or develop a mining operation, DEQ would review that proposal separately under the MMRA and applicable MEPA requirements. Any future mine proposal would require a separate operating permit application, environmental review, and permitting decision. Issuance of AMD4 does not predetermine the level of environmental review for 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 in ARM 17.4.608 and the analysis presented in this EA, DEQ has determined that the proposed action, Amendment 4 to Exploration License No. 00878, 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 3: 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 and excavation of rock and soil; drilling and removal of core or rock-chip samples. B. Erosion of disturbed soil and propagation of noxious weeds	A. Severity-Medium: Up to 11.65 acres of authorized surface disturbance would involve temporary displacement, redistribution, excavation, or compaction of soil and rock. Drill cuttings, core, and rock-chip samples would be removed. Extent-Small: Total surface area susceptible to displacement would be 11.65 acres. An unknown quantity of core would be removed. Duration- Short Term: Up to 2 years after completion or abandonment of exploration activities plus growing seasons. Frequency: Daily during active construction, drilling, road work, and reclamation. Unique/Fragile: Soils in the project area include severe, moderate, and slight erosion-hazard ratings. Disturbed soil and steep or rocky landforms may be susceptible to erosion if not properly managed. B. Severity-Medium: Of the 11.65 acres of 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 11.65 acres. Duration- Short Term: Up to 2 years after completion or abandonment of exploration activities plus growing seasons. Frequency: Possible during storm events and during disturbance activities. Unique/Fragile: Not unique, but locally susceptible to erosion and weed establishment.	A. Certain B. Possible	The proposed disturbance would add a temporary increment to existing effects from historic mining, existing roads, prior exploration under Exploration License No. 00878, Small Miner Exclusion Statement activities, and other land-disturbing uses. The incremental contribution to cumulative soil displacement, erosion, and weed effects is expected to be minor with BMPs and reclamation.	The Applicant proposes the use of; • Vegetated buffers • Compacted earthen berms; • Silt fencing; • Temporary seeding; • Water diversions; • Secondary containment; • Spill prevention • Mulch cover; • Surface roughening • Straw wattles; and sediment traps as best management practices (BMPs) to minimize erosion and sediment transport off-site. - Reclamation and seeding 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 and sediment transport from disturbed areas; potential releases of drilling fluids, fuels, lubricants, or other materials; interception of groundwater during drilling; and up to 24,000 gallons per day withdrawal at the proposed action water source.	Severity-Low: Of the 11.65 acres of ground that would be disturbed, all disturbance would be susceptible to erosion. The maximum depth proposed is 7,000 feet, which would intercept the water table. Up to 24,000 gallons per day would be consumed during drilling operations. Extent-Small: Total surface disturbance susceptible to erosion would be 11.65 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 under Exploration License No. 00878 within the project area. Intercepting the groundwater table during drilling operations could add to cumulative impacts associated with previous exploration activities conducted under Exploration License No. 00878. Proposed water withdrawals at the proposed action	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 and seeding would be performed concurrently where practicable, and after the conclusion of exploration operations.	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)
				water source could add to the cumulative impacts to the Deer Lodge Municipal water source by nearby water users.		
3. Air Quality	Erosion of disturbed soil/windblown emissions, e.g., equipment exhaust	Severity-High: Dust and other particulates would be generated during exploration operations and while driving on and off-site. 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.	Certain	Dust and exhaust generated from this proposed action would temporarily add to the cumulative 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.	The Applicant proposes the use of; • application of water to roads • reduced speed while traveling • reduced traffic volume • maintaining factory emissions controls on all equipment and vehicles as BMPs to minimize the impacts to air quality.	No
4. Vegetation Cover, Quantity, and Quality	A. Displacement of vegetation B. Weed propagation associated with surface disturbance	Severity-Medium: The 11.65 acres of disturbance 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 11.65 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 under Exploration License No. 00878 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.	The Applicant proposes the use of the following BMPs to minimize the impacts to vegetation; • concurrent reclamation of pads, sumps, temporary routes, and other areas as soon as they are no longer needed; • backfilling excavations; regrading and recontouring surfaces to blend with adjacent landforms; • redistributing salvaged suitable growth media and scarifying compacted surfaces where appropriate; • applying erosion-control practices—such as temporary seeding, mulch cover, surface roughening, straw wattles, sediment traps, berms, silt fence, diversions, and vegetated buffers—to stabilize soils and support revegetation;	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)
					• revegetating disturbed areas with an appropriate certified weed-free seed mix during favorable late-spring or fall conditions; • completing remedial work where needed, including reseeding, erosion-control repair, recontouring, and noxious-weed treatment. The Applicant proposes the use of the following BMPs to minimize the spread of noxious weeds; • Pre-disturbance vegetation survey to identify existing weed infestations; • Treatment of existing noxious weed infestations; • Cleaning vehicles as necessary to prevent the spread of weed seeds; • Certified weed-free construction and erosion-control materials; • Mechanical removal of noxious weeds; • Herbicide application by licensed applicators; • Approved biological control methods; • Any ground disturbed by exploration activities would be seeded with an approved seed mix	
5. Terrestrial, Avian, and Aquatic Life and Habitats	Increased ambient noise and the displacement of animals	Severity-Low: 11.65 acres of disturbance and associated activities 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	Probable	No cumulative impacts to terrestrial, Avian, and Aquatic Life and Habitats would be expected.	See BMPs proposed above.	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)
		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.				
6. Unique, Endangered, Fragile, or Limited Environmental Resources	Displacement of unique or endangered animals	Severity-Low: 11.65 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.	Possible	The proposed action could add a temporary increment of disturbance and associated activity to existing effects to unique, endangered, fragile, or limited environmental resources such as westslope cutthroat trout, wolverine, Canada lynx, grizzly bear, and whitebark pine or their habitats.	In addition to the BMPs proposed under Section 4: Vegetation Cover, Quantity, and Quality (above), the applicant also proposes the following: • Use existing roads, previously used laydown areas, and overland travel routes where practicable. • Limit new surface disturbance to the minimum area necessary for authorized exploration and reclamation activities. • Maintain vegetated buffers where practicable. • Conduct a pre-disturbance vegetation inventory to identify sensitive native plant communities, existing noxious-weed populations, and potential site-specific concerns before disturbance. • Use the inventory to identify and consider potential effects to individual whitebark pine and sensitive plant communities before construction or ground disturbance.	No
7. Historical and Archaeological Sites	No anticipated impacts	N/A	N/A	N/A	N/A	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)
8. Aesthetics	Proposed action visibility and noise	Severity-Medium: Receptors would view 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, construction, and travel. Extent-Small: The noise and visual impacts would be visible to receptors from observation points unobstructed by topography or forested lands. 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	No
9. Demands on Environmental Resources of Land, Water, Air, or Energy	Water usage	Severity-Low: The proposed action would utilize up to 24,000 gallons of water per day during exploration operations. Extent-Small: The water would be sourced from pre-existing municipal water sources from the City of Deer Lodge. 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.	Certain	Consumption of up to 24,000 gallons of water per day could temporarily add to the cumulative impacts associated with the project water source.	None	No
10. Impacts on Other Environmental Resources	No anticipated impacts	N/A	N/A	N/A	N/A	No
11. Human Health and Safety	Possible inhalation, ingestion, or contact with dust	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 occur 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 the use of; - wet drilling; - application of water to travel and working surfaces; as best management practices to minimize the impacts to human health and safety.	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

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)
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 amount of individuals. Duration-Short Term: Workers and the company would only have the 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 Avon, 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. Extent-Small: Increased traffic would occur along the local and public roads in the immediate vicinity of the project area. 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.	Certain	The proposed action would add temporary impacts to cumulative impacts related to existing road use and potentially routine road maintenance, law enforcement, emergency response and fire protection due to project-related traffic.	None	No
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 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 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 BLM and 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.	N/A	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, and 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

PREPARATION

Draft Environmental Assessment and Significance Determination prepared by:

Mark Odegard
Reclamation Specialist, Hard Rock Mining Section, Mining Bureau

Draft Environmental Assessment Reviewed by:

Nicholas Allin
Reclamation Specialist, Field Services and Technology Section, Mining Bureau

Approved by:

Supervisor's Signature



October 13, 2026

Signature

DATE

Don Danesi
Field Services & Technology Section Supervisor
Mining Bureau

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