DEQ
Montana Department of Environmental Quality

Air, Energy & Mining Division

GREAT PLAINS MINING, LLC

EXPLORATION LICENSE NO. 00816

Amendment No. 2

COLUMBIA GOLD PROJECT

LEWIS AND CLARK COUNTY, MT

June 5, 2026
Final Environmental Assessment

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PROJECT OVERVIEW

COMPANY NAME: GREAT PLAINS MINING, LLC
EA DATE: June 5, 2026
PROJECT: Columbia Gold
PERMIT/LICENSE: EXPLORATION LICENSE NO. 00816
AMENDMENT #: Amendment 2 (AMD2)

Location

(46.948465°, -112.511792°) County: Lewis and Clark
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 Montana environment. The proposed action is considered to be a state action that may have an impact on the Montana environment and therefore, the Department of Environmental Quality (DEQ) must prepare an environmental review. This Environmental Assessment (EA) will examine the proposed action and alternatives to the proposed action and disclose potential impacts that may result from the proposed and alternative actions. DEQ will determine the need for additional environmental review based on consideration of the criteria set forth in Administrative Rules of Montana (ARM) 17.4.608. DEQ may not withhold, deny, or impose conditions on the permit based on the information contained in this Environmental Assessment. § 75-1-201(4), Montana Code Annotated (MCA).

Proposed Action

DEQ would approve Amendment 2 (AMD2) to Exploration License No. 00816 (Exploration License) for Great Plains Mining, LLC (GPM) – Columbia Gold Project, if DEQ has determined that GPM has met the criteria set forth in 82-4-332, MCA. If DEQ approves AMD2, the Exploration License would remain in effect, subject to annual renewal. GPM could continue to renew the Exploration License provided it remains in compliance with all bonding and reclamation obligations.

GPM proposes this action to collect additional subsurface geological information through core drilling to further characterize mineralization at the Columbia Gold Project area (project area), building on prior exploration conducted under AMD1. Exploration drilling would occur on private land located approximately 14 miles East of Lincoln in Lewis and Clark County, Montana. The proposed activities are limited to exploration drilling and associated temporary disturbance. The exploration license would not authorize mining. Any future proposal for mining would require a separate application, review, and permitting decision, and is not analyzed in this EA.

The proposed action would include up to 21 drill holes, each drilled from its own drill pad, with total drilled footage not to exceed 14,359 feet and a maximum depth of 2,296 feet per hole. Each drill pad would be constructed to dimensions of approximately 50 feet long by 35 feet wide and up to 1 foot deep and would contain two internal drill sumps, each excavated to about 40 feet long by 6 feet wide and up to 3 feet deep to contain drill cuttings and drilling fluids.

In support of the drilling operations, GPM proposes approximately 818 feet of overland vehicle travel on temporary access routes, up to 12 feet wide. No new constructed access roads are proposed. One laydown area would be constructed to dimensions approximately 200 feet long by 100 feet wide and up to 1 foot deep. Drill core would be transported to an existing offsite core processing facility located at 5605 Martin Drive, Lincoln, MT 59639. Core processing typically includes cleaning, photographing, and visually inspecting the core to document the depths of geologic features of interest. Cores are then usually cut lengthwise, with one half sent to an offsite laboratory for chemical assays, and the remaining half archived as a permanent record in case additional sample materials are required. Core analyses are used to characterize subsurface geology, make estimates of mineral grades, and provide structural and geotechnical data. No new disturbance would occur at the offsite facility. Water used for the activities described in the proposed action would be supplied from an existing domestic water well (GWIC 70592) located on private land in Section 23 of Township 14 North, Range 9 West, and transported to the project area via water truck. No new disturbance is proposed at the water source location.

Total new surface disturbance under AMD2 would be limited to approximately 1.53 acres. Exploration activities would occur on private land within the existing Columbia Gold project area and would not authorize mining, ore processing, or construction of long-term facilities. GPM would implement best management practices (BMPs) for erosion control, spill prevention, and waste management and would reclaim all disturbed areas in accordance with the approved reclamation plan and MMRA requirements within the required timeframe. The proposed action would commence upon the department's acceptance of the required reclamation bond. Active drilling at any individual pad site would likely be completed within a few days to weeks. Reclamation activities would be implemented concurrently as drilling progresses and would be completed within six to eight weeks. Final reclamation of all surface disturbances authorized under AMD2 must be completed no later than two years following the conclusion of exploration activities unless otherwise incorporated into an Operating Permit.

The Applicant’s plan of operations and associated BMPs would be implemented to conform with the MMRA. These BMPs demonstrate compliance with the exploration-license framework in 82-4-331 and 82-4-332, MCA, the reclamation bonding provisions in 82-4-338, MCA, and the exploration rules in ARM 17.24.103 through 17.24.108. These permit conditions, as described below, are expected to minimize any adverse environmental impacts by the proposed action.

Plan of Operations

Under 82-4-331, MCA, a person may not engage in exploration in the state without first obtaining an exploration license from the Department of Environmental Quality (DEQ), and the license is subject to the provisions of Part 3, including compliance with rules adopted under the MMRA. Section 82-4-332, MCA, requires that the exploration license application include an exploration map or sketch in sufficient detail to determine whether significant environmental problems would be encountered and a description of the prospecting and excavation techniques that would be used, and it requires the applicant to agree to reclaim any surface area damaged by exploration operations. The Applicant’s plan of operations, including the use of small surface-disturbance work areas, reliance on existing roads where practicable, preference for overland travel in suitable conditions rather than construction of new roads, and implementation of concurrent reclamation, constitutes part of the required written application and operational description under 82-4-332(2), MCA.

The applicant must submit a detailed plan of operations as required by ARM 17.24.103, with sufficient detail for the department to determine whether the proposed action would comply with the reclamation performance standards of ARM 17.24.104 through 17.24.108. ARM 17.24.107 establishes specific

reclamation requirements for exploration activities, including the proper management of drill cuttings and fluids and the reclamation of disturbed lands to achieve stability and a condition consistent with surrounding areas following completion of drilling. By limiting the size of drill pads, access routes, and associated work areas, the Applicant's plan results in a limited footprint of soil disturbance, vegetation removal, and erosion risk, thereby supporting the reclamation requirement in ARM 17.24.107. Using existing roads to the extent practicable and employing overland travel where site conditions allow reduces the need for new road construction and limits additional surface disturbance. These measures support DEQ's review under ARM 17.24.103 and 82-4-332(2), MCA, by allowing the department to determine, based on the proposed access and disturbance, whether significant environmental impacts would be encountered.

The Applicant's plan of operations also commits to concurrent reclamation by recontouring, stabilizing, and revegetating disturbed areas as soon as they are no longer needed, which shortens the period that soils remain exposed, aids in erosion control, and supports timely re-establishment of vegetation in line with the reclamation requirements of ARM 17.24.107.

Groundwater – Drilling Mud Additives and Practices

The Applicant proposes to use water-based drilling mud systems containing clays and polymers that form a low-permeability filter cake along the borehole wall during drilling, thereby reducing fluid loss into formations and helping maintain borehole stability. These drilling practices would minimize the potential for significant impacts to groundwater. Maintaining borehole stability and limiting the movement of drilling fluids into water-bearing formations also supports compliance with the drill-hole plugging requirements in ARM 17.24.106 by reducing the potential for uncontrolled flow paths and facilitating effective sealing.

By forming a temporary filter cake and using additives selected for low toxicity and biodegradability, the proposed drilling-fluid system is expected to reduce the potential for migration of drilling fluids into surrounding aquifers and for cross-flow between distinct water-bearing units while the hole remains open. These practices support the general protective purposes of the MMRA, which is designed to prevent degradation of the environment from mining and exploration, facilitate the department's review of potential impacts to groundwater and other resources, and help ensure that drill holes can be properly plugged and reclaimed in accordance with ARM 17.24.106.

Groundwater – Hole Plugging Requirements (ARM 17.24.106)

The Applicant is required, as a condition of the exploration license under 82-4-331 and 82-4-332, MCA, to comply with ARM 17.24.106, which establishes drill-hole plugging requirements for exploration. Section 82-4-332(3), MCA, requires that prior to issuance of an exploration license, the applicant file a reclamation and revegetation bond in a form and amount determined by the department in accordance with 82-4-338, MCA, and this bond covers the obligation to properly plug drill holes in a manner acceptable to the department. ARM 17.24.106 requires that exploration drill holes be plugged with appropriate low-permeability materials so that they do not serve as conduits for vertical movement of groundwater or contaminants, and it provides specific standards for sealing aquifers and controlling artesian conditions.

Under these requirements, exploration drill holes must be plugged promptly upon completion of drilling, generally before the drill rig leaves the site, using materials and methods that restore hydrologic

separation between water-bearing zones intercepted by the hole. Additional measures are required where artesian conditions are encountered or where aquifers used or potentially usable for beneficial purposes are intersected, to ensure that hydrologically distinct zones remain isolated and that uncontrolled flows are prevented. Implementation of these plugging requirements maintains aquifer integrity and prevents groundwater degradation associated with exploration drilling, and it is an enforceable component of the exploration license and bond obligations under 82-4-332 and 82-4-338, MCA.

Surface and Groundwater – HDPE-Lined, Excavated Drill Sumps

The Applicant proposes to use excavated, plastic-lined drill sumps to contain drilling fluids and cuttings, protect groundwater and surface-water quality, and facilitate reclamation upon completion of drilling. Management of drill cuttings, core, and drilling fluids is part of the exploration operation and must be described in the license application under 82-4-332(2), MCA. This information allows the department, under ARM 17.24.103, to evaluate whether the proposed exploration is likely to result in significant environmental impacts.

By excavating sumps into native soils rather than constructing them above-grade and lining them with an impermeable material such as high-density polyethylene (HDPE), drilling fluids and cuttings are contained, reducing the risk of runoff, infiltration, and the dispersion of fine sediments into adjacent soils and drainages. The HDPE liner reduces the risk of downward infiltration of drilling fluids and fine solids into underlying soils and shallow groundwater. At the conclusion of drilling, sumps would be closed and reclaimed by removing or stabilizing drilling fluids and cuttings as required by ARM 17.24.107, removing liner material, backfilling the excavation, grading to approximate pre-existing contours to the extent practicable, and re-establishing vegetation.

Together, these sump-management and reclamation practices are intended to restore soil stability and landform integrity, reduce long-term erosion potential, and support recovery of pre-project vegetation and hydrologic conditions in a manner consistent with ARM 17.24.107's reclamation standards. They also provide information the department uses to assess the type, extent, and duration of environmental impacts associated with sump construction, operation, and closure, and to determine the level of disturbance and potential contamination that must be addressed through the reclamation and revegetation bond required under 82-4-332(3) and 82-4-338, MCA.

Surface Water – Erosion Control (Sediment Traps)

The Applicant proposes to install sediment traps, where necessary and practicable, downslope of drill pads, sumps, and associated surface disturbances to control erosion and sediment transport. Controlling erosion and sedimentation from disturbed areas is an important component of exploration planning and reclamation, and measures such as sediment traps help ensure that disturbed lands can be reclaimed in accordance with ARM 17.24.107. Inclusion of erosion-control measures in the exploration plan also assists the department in determining the significance of potential environmental impacts.

Sediment traps are designed to intercept and temporarily detain runoff from disturbed areas, reduce flow velocities, and allow suspended particles to settle before water proceeds downslope, thereby reducing erosion and off-site transport of sediment originating from exploration-related disturbance. The Applicant would size and locate sediment traps to effectively capture runoff from disturbed areas, inspect them regularly (particularly following storm events), and maintain them by removing

accumulated sediment and repairing embankments as needed to maintain function and capacity. Following completion of exploration activities, sediment traps would be removed or decommissioned, and affected areas would be stabilized and reclaimed to restore natural drainage patterns and slope stability in accordance with ARM 17.24.107, which requires reclamation of disturbed lands upon completion of exploration or abandonment.

Air Quality – Factory-Installed Emissions Controls and Reduced Speeds

Although the MMRA and ARM 17.24.103–17.24.109 primarily address land and water impacts, exploration licensees remain responsible for complying with all applicable state laws, including the Montana Clean Air Act (Title 75, chapter 2, MCA) and implementing air-quality rules. The Applicant proposes to operate vehicles and equipment with all factory-installed emissions-control systems intact and properly maintained and to implement reduced travel speeds on access roads and work areas to control air emissions.

Maintaining original emissions-control systems helps ensure that engines operate within their certified emission limits, thereby reducing particulate matter and other exhaust pollutants compared to equipment with disabled or poorly maintained controls. Reduced speeds on unpaved roads and disturbed surfaces decrease the generation of fugitive dust, which helps limit air-quality impacts associated with exploration activities. These measures support DEQ's review under ARM 17.24.103 and 82-4-332(2), MCA, by allowing the department to assess any potential significant environmental impacts.

Hazardous Substances – Spill Kits, Regular Maintenance, and Secondary Containment

The Applicant proposes to stage spill kits at drill pads, fuel storage locations, and along primary access routes to facilitate rapid response to accidental releases of fuels, lubricants, and other hazardous substances, and to ensure that field personnel are trained in their use. Effective spill-response capability limits the spatial extent of contamination, reduces the potential for releases to reach soils and groundwater, and decreases the volume of contaminated material requiring removal.

Regular preventive maintenance for mechanical equipment, including routine inspections and timely repairs of fuel, hydraulic, and lubrication systems, reduces the likelihood of leaks, mechanical failures, and unintentional releases that could contaminate soil or water. Secondary containment for fuels and other hazardous liquids stored on site, such as lined or bermed containment areas, double-walled tanks, or equivalent systems designed to hold at least the full volume of the largest container plus additional capacity for precipitation, provides an additional barrier to prevent releases of hazardous substances. These spill-prevention and containment measures inform DEQ's determination of whether significant environmental impacts would occur.

Purpose and Need

DEQ's purpose and need for conducting this environmental review is to evaluate and act upon GPM's January 26, 2026, application for an Exploration License Amendment under the Metal Mine Reclamation Act (MMRA), Sections 82-4-301, MCA, *et seq*. GPM paid the required application and processing fees on January 16, 2026. Pursuant to Section 82-4-332(2), MCA, the application was determined to be complete and acceptable on March 9, 2026.

Table 1: Summary of Activities Proposed in Application

Summary of Proposed Activities in Application	
General Overview	GPM (applicant) proposes exploration core drilling on private lands at the Columbia Gold Project site, located in Sections 20 and 29, Township 14 North, Range 7 West, in Lewis and Clark County, approximately 14 miles east of Lincoln, Montana. The proposed AMD2 would include up to 21 drill holes, with total drilled footage not to exceed 14,359 feet and a maximum depth of 2,296 feet per hole. Drilling would occur with one drill rig for a total of 21 drill pads, each constructed to dimensions of approximately 50 feet long by 35 feet wide and up to 1 foot deep. Each drill pad would contain two internal drill sumps, excavated to approximately 40 feet long by 6 feet wide, excavated to a maximum depth of 3 feet. The one drill rig would drill each drill hole and then move to the next site. Drilling would occur 24 hours per day, seven days a week with two separate crews for daytime and nighttime operations. Active drilling at any individual pad site would likely be completed within a few days to weeks. In support of the drilling operations, the applicant proposes approximately 818 feet of overland vehicle travel along temporary access routes, up to 12 feet wide. One laydown area would be constructed to dimensions approximately 200 feet long by 100 feet wide and up to 1 foot deep. Core would be transported to an existing offsite processing facility located at 5605 Martin Drive, Lincoln, MT 59639 in Section 14, Township 14 North, Range 8 West. The core would be logged and dispatched as necessary. Two geologists would be present on site during daytime hours for the duration of the drilling program. The applicant is proposing up to **1.53 acres** of total new surface disturbance across a privately owned, patented claim block approximately 430 acres in size. The applicant proposed that the action be completed no later than **September 2, 2026**, and initial reclamation be completed no later than **November 1, 2026**. These dates are contingent upon DEQ's acceptance of the required reclamation bond and issuance of an authorization letter. The applicant estimates that the proposed action could be completed within approximately 6 to 8 weeks. Final reclamation of all surface disturbances authorized under AMD2 must be completed no later than two years following the conclusion of exploration activities unless otherwise incorporated into an Operating Permit.

Proposed Dimensions	
Drill pads (#)	21
Drill pad dimensions (xyz)	Maximum of 50 feet x 35 feet x 1 foot
Internal Drill Sumps (#)	42
Internal Drill Sump Dimensions (xyz)	40 feet x 6 feet x 3 feet
Drill Holes (#)	21
Maximum Drill Hole Depth (z)	2,296 feet below ground level
Cumulative Drill Footage (z)	14,359 feet
Overland travel (xy)	818 feet x 12 feet
Laydown Area (#)	1
Laydown Area dimensions (xyz)	200 feet x 100 feet x 1 foot
Total new surface disturbance	**1.53 acres**
Specific Proposed Activities	
Duration and timing	The applicant proposed that the action be completed no later than **September 2, 2026**, and initial reclamation be completed no later than **November 1, 2026**. These dates are contingent upon DEQ's acceptance of the required reclamation bond and issuance of an authorization letter. The applicant estimates that the proposed action could be completed within approximately 6 to 8 weeks. Final reclamation of all surface disturbances authorized under AMD2 must be completed no later than two years following the conclusion of exploration activities unless otherwise incorporated into an Operating Permit. Work hours are estimated to be up to 24 hours per day (2 x 12-hour shifts), up to 7 days per week.
Equipment	Exploration and Reclamation operations would be completed with the following equipment or similar: • 1 – Drill Rig (Boart Longyear LF90) • 1 – 2,500-gallon Water Truck (Kenworth T800) • 1 – 2,500-gallon Fuel Truck (Kenworth T800) • 1 – Excavator (Cat 310) • 1 – Bulldozer (Cat D6) • 3 – Personal Vehicles (Ford F150) • 2 - Light Plant (Allmand Night-Lite Pro)

Location and analysis area	**Location:** 46.948465°, -112.511792° **Distance from the nearest town/city:** On private lands at the Columbia Gold Project site, located in Sections 20 and 29, Township 14 North, Range 7 West, in Lewis and Clark County, approximately 14 miles east of Lincoln, Montana. The off-site processing facility is located on private land in Section 14, Township 14 North, Range 8 West, in Lewis and Clark County, approximately 5.5 miles east of Lincoln, Montana. The off-site domestic well (GWIC #70592, DNRC Water Right #76F-13158) is located on private land in Section 23 of Township 14 North, Range 9 West, in Lewis and Clark County, approximately 1.5 miles west of Lincoln, Montana. **Analysis Area:** The area being analyzed for this environmental review is identified in each resource area below. Refer to Location Map and any other maps below.
Personnel on-site	There would be two crews working 12-hour shifts per day and the crew would consist of the following personnel: • 2 – Geologist • 1 – Driller • 2 – Drill Helper • 1 – Supervisor
Structures	• 1 – 1,000-gallon fuel container • 2 – water bladder tanks (3,000 gallons) • 1 – 3 cubic yard dumpster • 2,400 feet of 2-inch diameter HDPE temp water lines • 1 – Portable Toilet
Proposed action water source	The applicant proposes that proposed action water would be supplied from a domestic water well source (GWIC #70592) located on private land in Section 23 of Township 14 North, Range 9 West (46.949665°, -112.708359°), and transported to the project area via water truck and stored in two 3,000-gallon water bladders located at the laydown area. GPM estimates that up to 1,000 gallons per day may be used to cool and lubricate the drill bit, clean the bit-rock interface to optimize cutting performance and to carry drill cuttings out of the hole. Wet drilling also suppresses dust for safer working conditions for drilling personnel.
Air quality	The applicant proposes that all equipment would utilize factory emission controls. If fugitive dust is observed, vehicles would travel at a reduced speed as necessary. The applicant is required to comply with applicable local, county, state, and federal air quality requirements.
Supplemental lighting	The applicant proposes to conduct exploration drilling up to 24 hours per day. Supplemental lighting would be used between approximately 4:00 p.m. to 8:00 a.m., adjusted seasonally as necessary.

	The applicant proposes the use of the following best management practices to mitigate light pollution; • Directional/downward-facing lights • Light shrouds/shields
Water quality	The applicant proposes that sediment control structures would be located adjacent to the drill sites and access routes to mitigate sediment transport. Stormwater impacting the drill sites during a precipitation event would generally be expected to infiltrate into the subsurface. Stormwater leaving the drill sites could carry sediment from the disturbed soils and non-sediment contaminants from drilling operations. The applicant proposes the following best management practices to mitigate erosion and transport of sediment and non-sediment contaminants off-site. • plastic drill sump liners • secondary containment for hazardous substances • spill prevention and response kits • sediment traps The applicant is required to comply with the applicable local, county, state, and federal requirements pertaining to water quality.
Erosion control and sediment transport	Surface disturbances associated with the proposed exploration activities have the potential to result in erosion of disturbed soil. Sediment has the potential to be transported off-site via stormwater. The applicant proposes use of the following best management practices to minimize sediment transport from surface disturbances: • sediment traps The applicant is required to comply with the applicable local, county, state, and federal requirements pertaining to erosion control and sediment transport.
Solid waste	The applicant proposes that any solid waste produced by the operation would be collected in one 3 cubic yard dumpster and hauled to the landfill located in Lincoln, Montana, 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 has not proposed any actions that would reduce any potential impacts to cultural resources. However, if an unanticipated resource is encountered, the applicant has stated that all work would stop immediately within a 100-foot radius of the discovery, DEQ and the State Historic Preservation Office (SHPO) would be notified within 24 hours, and no work would resume until a professional assessment has been completed and written authorization to proceed has been received. SHPO has noted that several previously recorded historic sites occur within the proposed

	exploration boundary areas and, based on these sites and the anticipated ground disturbance, has concluded that the proposed action has the potential to affect cultural properties; SHPO therefore recommends that a cultural resource inventory be conducted to determine whether additional sites are present and whether they would be impacted. DEQ also recommends the Applicant comply with SHPO and conduct a cultural resource inventory. The applicant is required to comply with the applicable local, county, state, and federal requirements pertaining to cultural resources.
Hazardous substances	The applicant proposes to store or handle the following hazardous substances on-site during exploration and reclamation operations: • 1 – 1,000 gallons of diesel fuel • 2 – 5-gallons of gasoline The operator proposes the following best management practices to manage hazardous substances: • Spill kits • Regular Equipment Maintenance • Secondary Containment The secondary containment of hazardous substances like petroleum products utilized would be capable of holding 110% of the largest vessel's capacity. The applicant must comply with all applicable local, county, state, and federal regulations concerning hazardous substances.
Reclamation Plans	This proposed action would not be located within core, general, or connectivity habitat for sage grouse. The applicant proposes that reclamation activities would be implemented upon completion of exploration. During operations, ongoing concurrent reclamation would occur as drill pads are no longer needed; these areas would be re-contoured to approximate pre-disturbance conditions and promptly seeded before moving to the next drill pad location. Soil would be salvaged from areas to be disturbed before drill pad construction and stockpiled for future reclamation. Upon completion of exploration activities, all drill holes would be plugged according to ARM 17.24.106, and have the casing (protective metal pipe installed into the drill hole to prevent collapse and compromise of the drilling operation) removed or cut off below the surface. Exploration drill holes would be plugged 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. All drill fluids and cuttings would be contained within the constructed drill sumps. See Section 2 (Water Quality, Quantity, and Distribution) for information about the type of drilling fluid used

	and the potential impacts. All drill cuttings, which are fragments of rock liberated downhole during the coring process and carried back to the surface by the recirculated drilling mud, may be disposed of down-hole or buried in the drill sumps, and drill sites would be recontoured to approximate pre-existing conditions. The stockpiled soil would be spread over the drill disturbance areas and seeded. Reclamation and reseeding would be conducted as soon as practicable after the completion of drilling to mitigate the potential for long-term impact. **Concurrent Reclamation:** To reduce the duration and extent of surface disturbance, initial regrading of disturbed areas and replacement of stockpiled soils would occur as soon as practicable after work is completed at each drill site. **Final Reclamation:** Following cessation of exploration, final reclamation would consist of full recontouring of all disturbed areas and the application of a native seed mix, with the intent of establishing self-sustaining, weed-free vegetation over at least two subsequent growing seasons. **Weed control plan:** The applicant proposes that herbicides would be applied to surface disturbances as necessary to control noxious weeds. An approved weed-free native seed mix would be used for reclamation, and all reclamation would be monitored for weed infestations. **Structures to remain:** The applicant proposes that no new project-related disturbance or structures would remain unreclaimed after completion of the proposed action. Should the Applicant, who is also the landowner, propose that any structures or disturbances remain following the completion of the proposed action, the Applicant shall submit a statement describing the proposed legitimate post-mining land use, subject to review by DEQ. The existing off-site processing facility and domestic well would not be reclaimed under this proposed action and would continue to operate under separate local, county, and state approvals, as applicable.
	Cumulative Impact Considerations
General setting	The project area features moderately to steeply sloping mountainous terrain with a mix of low shrubs, grassy openings and stands of mature conifer forest. Many access roads and previously disturbed and reclaimed areas related to previous exploration activities are present within the area analyzed.

Past actions	Past actions in the area include mining, milling, mining related activities, and exploration for placer and lode deposits periodically from the mid-1800's to present. The applicant has previously conducted exploration drilling under Exploration License No. 00816, Amendment 1(AMD1). The AMD1 proposed action scope and environmental review was transferred from Canyon Resources Corporation (previously Seven-Up Pete Joint Venture) Exploration License No. 00497 to GPM in 2016, following an exploration license application and subsequent posting of the required performance bond. The majority of the reclamation required under AMD1 has been completed. For more details please refer to the continued discussion under "Mining District History" in Section 1. "Geology, Stability, and Moisture".
Present actions	**Exploration:** GPM's Exploration License No. 00816, AMD1 project remains active and reclamation yet to be completed relates solely to minor re-grading and revegetation of an approximately 6 foot by 6 foot by 5 foot depression/pit and continued monitoring for revegetation and weed control of partially reclaimed past disturbances. **Other:** Some recreationalists participate in travel and recreation in the greater project area, including on the US Forest Service Road 1841. Local traffic exists along the preexisting public roads, including Highway 200 between the proposed action's water source location, Lincoln, MT, and the patented claim block. Local residences and businesses actively withdraw water at the proposed action's water source location. For more details on present actions taking place within the areas analyzed please refer to the continued discussions in each Potential Impact - Sections 1-23.
Related future actions	None at this time. The Applicant has not yet submitted but may submit additional applications to amend the exploration license, which DEQ would review pursuant to the MMRA and rules adopted under the MMRA at that time. Any subsequent approvals would undergo a separate environmental review under MEPA.

Figure 1: Project Area Map

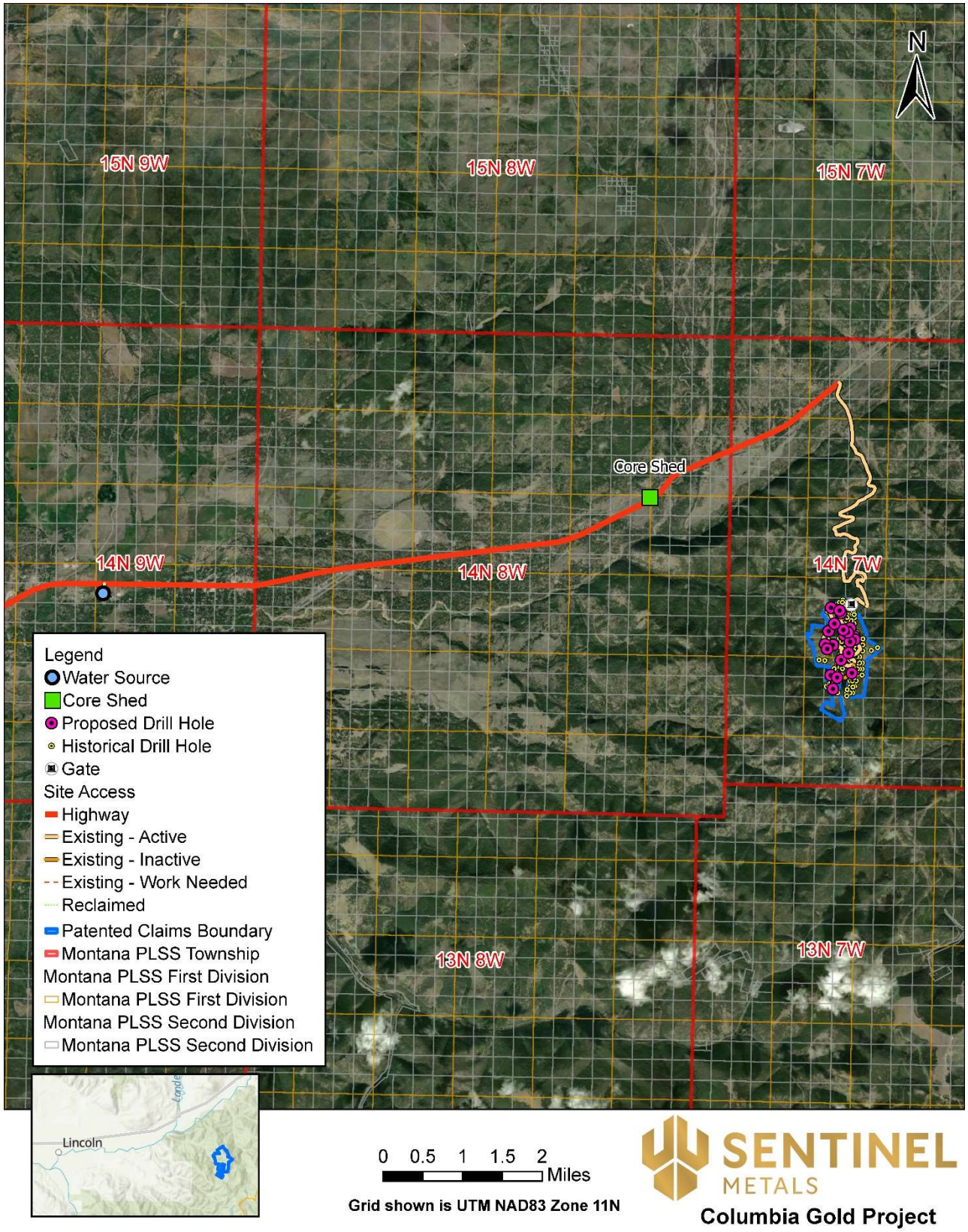


Figure 2: Map of Proposed Exploration Activities

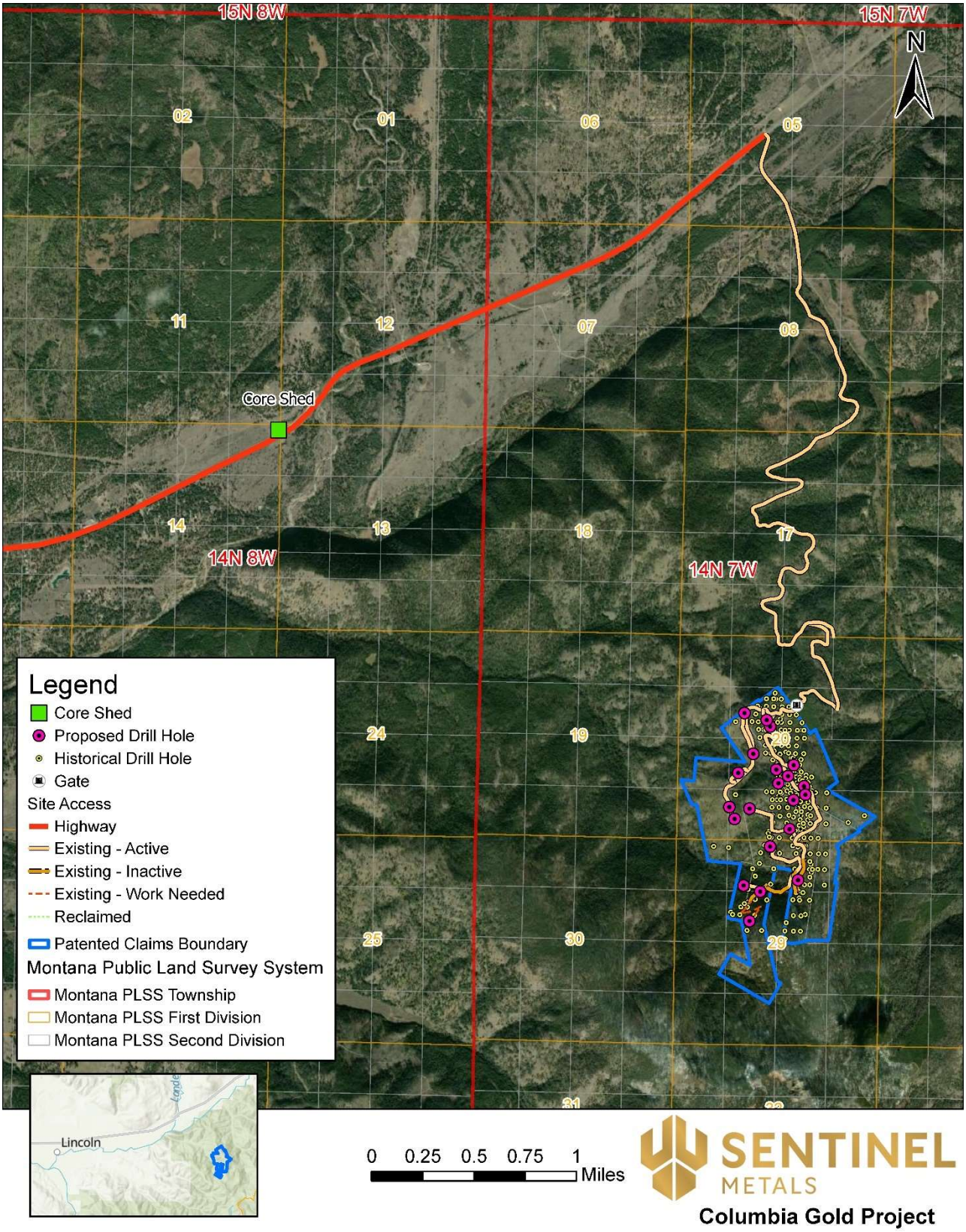
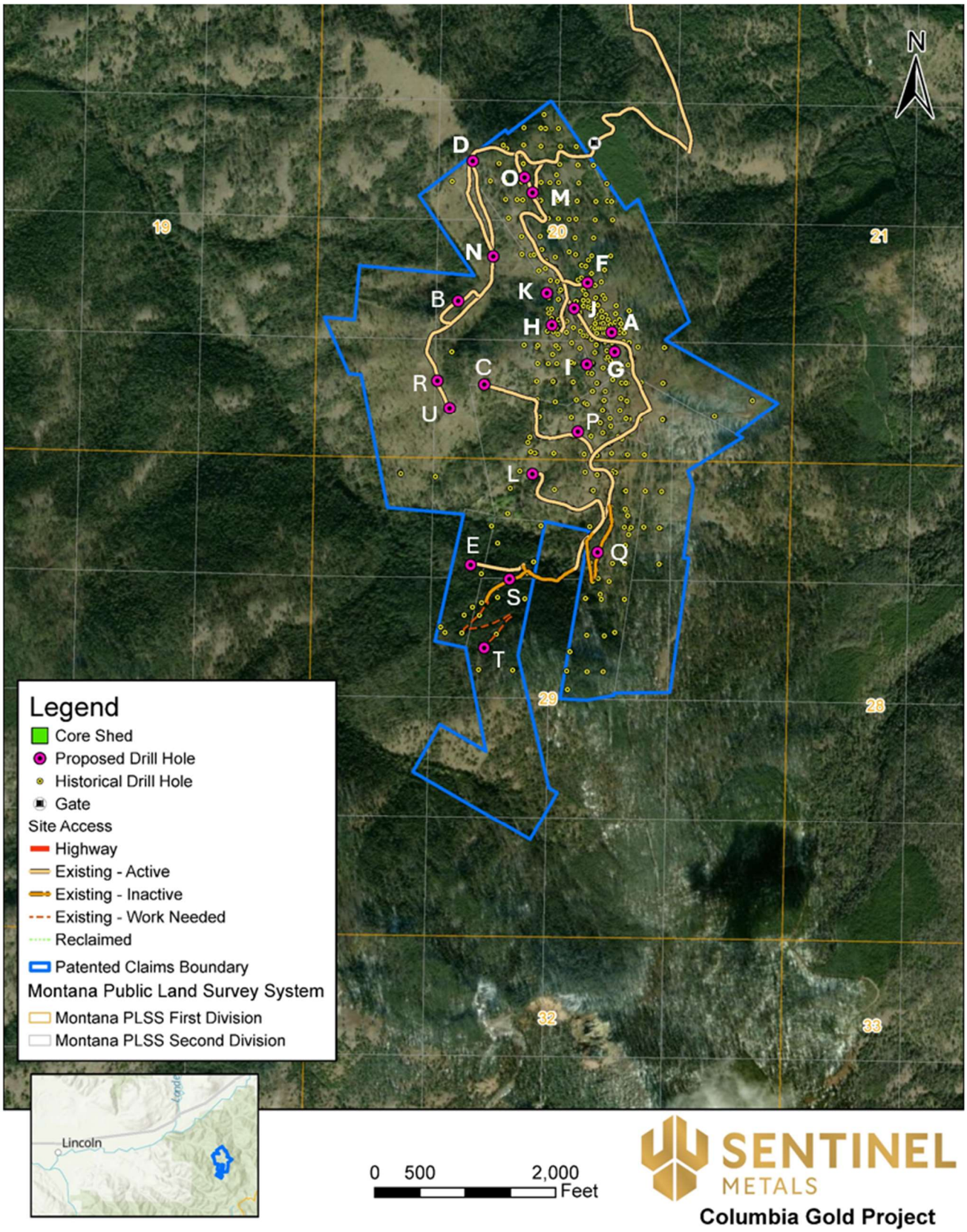


Figure 3. Map of Drill Pad and Access Route Locations.



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 Montana 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 Montana environment from the Proposed Action when considered in conjunction with other past and present actions related to the Proposed Action by location or generic type. Related future actions must also be considered when these actions are under concurrent consideration by any state agency through pre-impact statement studies, separate impact statement evaluation, or permit processing procedures. The projects identified in **Table 1** were analyzed as part of the cumulative impacts assessment for each resource.

1. Geology and Soil Quality, Stability, and Moisture

The area of proposed exploration would be located on private lands within the historic Lincoln Mining District, approximately 14 miles east of Lincoln, in Lewis and Clark County, Montana.

Mining District History

The Lincoln Mining District encompasses Lincoln Gulch, McClellan Gulch, Seven-Up-Pete Gulch, Keep Cool Creek, Liverpool Creek and Stonewall Mountain. Noted primarily for placer deposits, first discovered by Richard Evans and D.W. Culp in 1865, lode deposits were discovered in Seven-Up-Pete Gulch in 1886 by W.F. Howe. The most extensively developed mines in the Lincoln Mining District were the Columbia (located in the Hogum Creek sub-basin), Last Chance and Rover mines (both located in the Seven-Up-Pete sub-basin), which collectively generated approximately 12 tons of ore over a ten-year period. A mill was erected at the Last Chance mine, but no production was credited to it. Mining activity in the area had largely ceased by 1926 (Lyden 1948; Montana Bureau of Mines, undated). The historical Columbia Mine is located in the southwest quarter of Section 20, Township 14 North, Range 7 West, in Seven-Up-Pete Gulch.

In more recent history, exploration activities such as trenching and drilling were conducted by Western Energy Company under Exploration License No. 00294 as late as the 1980's. At some point in time, the project was transferred to Canyon Resources Corporation, under Exploration License No. 00466. Seven-Up Pete Joint Venture, a joint venture comprising of CR Montana Corporation and Phelps Dodge Mining Company, a division of Phelps Dodge Corporation, acquired the project and transferred the project to Exploration License No. 00497 in the early 1990's. Exploration License No. 00497 was transferred to CR Montana Corp on February 20, 2009. CR Montana Corp continued exploration activities at the site until approximately 2015. GPM acquired the Seven-Up Pete/Columbia Gold project in 2016 following bankruptcy proceedings and chose to transfer the incomplete project to Exploration License No. 00816 under GPM on October 26, 2016 after posting bond and assuming environmental liability for the project. The scope of activities performed by GPM under Exploration License No. 00816 has been referred to Amendment 1, or AMD1 of Exploration License No. 00816.

Since that time, GPM has conducted some exploration drilling and trenching under AMD1 at the Columbia Gold project area. Noxious weed management and revegetation monitoring is actively conducted at the site. Under AMD1, minor re-grading and revegetation of an approximately 6 foot by 6 foot by 5 foot depression/pit has yet to be completed.

The proposed action for AMD2 would include up to 1.53 acres of additional surface exploration drilling for the purposes of further defining mineral resources. Surface drilling under AMD2 would occupy similar ground as what has already been disturbed and reclaimed under AMD1. All disturbance would be contained within the privately owned patented lode claim boundary.

Geology

The Lincoln Mining District is noted primarily for placer deposits. The Crater Mountain volcanic complex area lies within the Elliston quadrangle, a structurally complex region along the Lewis and Clark Fault Zone at the eastern margin of the Cordilleran fold-thrust belt (McDonald et al., 2020). This zone includes major thrust faults, which reflect Late Cretaceous-Paleocene compression forces, and later-stage high-angle faults, coinciding with Eocene-Oligocene crustal extension (Foster et al., 2010; Scarberry et al., 2019).

The oldest rocks are Mesoproterozoic Belt Supergroup strata, deposited about 1,500 to 1,370 million years ago (Ma) in the Helena Embayment. This sequence, nearly 8,000 meters thick, includes siltite, argillite, quartzite and dolomitic limestones of the Greyson Formation, Ravalli Group, Piegan Group and Missoula Group (Evans et al., 2000; Winston and Sears, 2013).

Unconformably overlying these Belt rocks are Eocene-Oligocene volcanic deposits forming the Crater Mountain volcanic field. These exceeded one kilometer in thickness and record three eruptive phases: early Eocene dacite and tracyandsite flows (ca. 48-46 Ma), middle Eocene rhyolite lava and pyroclastic tuffs (~40 Ma), and late Eocene to early Oligocene alkaline mafic lavas and intrusions (~37-30 Ma) (McDonald et al., 2020). These volcanic phases reflect prolonged magmatism during regional crustal extension.

Soil Types

The majority of soils in the approximately 430 acre patented claim block/project area have a moderate erosion hazard rating, indicating that some erosion is likely and erosion-control measures may be needed (Natural Resource Conservation Service, 2025). These include:

- Argic Cryoborolls-Mollic Cryoboralfs complex, mountain ridges (16.2%, 69.3 acres),
- Typic Eutroboralfs-Typic Argborolls complex, mountain slopes (14.4%, 61.9 acres),
- Typic Cryoboralfs, Mountain slopes, steep (11.5%, 49.5 acres), and;
- Mollic Cryoboralfs, landslides (8.7%, 37.4 acres) (Natural Resource Conservation Service, 2026).

Erosion control measures may differ depending on the actual location of a drill pad within the greater project area.

The southwestern portion of the project area contains soils with a slight erosion hazard rating, indicating that erosion is unlikely under normal climatic conditions. This area is dominated by Typic Cryoboralfs, mountain slopes (49.0%, 210.2 acres) and Typic Cryochrepts, colluvial toeslopes and basins (0.1%, 0.5 acres) (Natural Resource Conservation Service, 2026). No

unusual or unstable geologic features (such as active faults, landslides, or karst features) are present, and no fragile or distinctly erosive or unstable soils are present within the patented claim block.

The analysis area for geology and soils is the approximately 430-acre patented claim block, located in Sections 20 and 29, Township 14 North, Range 7 West, in Lewis and Clark County, approximately 14 miles east of Lincoln, Montana. 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 sediment traps BMPs to mitigate erosion and sediment transport offsite.

Direct Impacts:

The proposed action would result in the displacement of soil and rock to the dimensions of constructed drill pads and sumps as described in Table 1. The applicant proposes to construct 21 drill pads and drill up to 21 drill holes, with each pad measuring about 50 feet by 35 feet and 1 foot deep, including internal sumps approximately 40 feet by 6 feet and 3 feet deep, for a total of approximately 1.53 acres of surface disturbance. Drill holes would not exceed 2,296 feet in depth, with a combined total not to exceed 14,359 feet. To support operations, the applicant proposes approximately 818 feet of overland travel, up to 12 feet wide, and one laydown area, approximately 200 feet by 100 feet and up to 1 foot deep, would be constructed. Rock would be removed during drilling, although the volume or mass of the resulting core or rock chip samples from drilling would be negligible compared to materials removed from approximately 1.53 acres of surface excavation.

DEQ received public comments expressing concern that off-road vehicle travel, drill pad construction, and associated infrastructure would damage soils and native vegetation in ways that may not recover for decades, reducing stormwater infiltration, increasing runoff, and degrading habitat in the Hogum Creek and Seven Up Pete Creek drainages, particularly in sensitive headwater settings (PE-4). Additional comments raised concern about stormwater modeling for extreme events, contamination pathways through soils and shallow groundwater to nearby wetlands and streams, and soil moisture and hydrology changes in the headwaters (PE-4). DEQ has reviewed these comments and responds as follows.

The Applicant's plan of operations requires small surface-disturbance work areas, reliance on existing roads where practicable, and overland travel only when site conditions are suitable. These measures reduce the amount of new ground disturbance and associated compaction by limiting the size of drill pads and access routes and avoiding unnecessary road construction. Concurrent reclamation-including recontouring, stabilization, and revegetation of drill pads, access routes, and sumps as soon as they are no longer needed-shortens the time that soils are exposed, supports recovery of soil structure and vegetative cover, restores infiltration capacity, and reduces long-term erosion risk, consistent with ARM 17.24.107's requirement to reclaim disturbed lands to a stable condition.

With respect to stormwater, the proposed BMPs would utilize HDPE-lined drill sumps to securely contain drilling fluids and cuttings, preventing dispersion of fine sediments and reducing the risk of runoff. Sediment traps are required where necessary and practicable downslope of drill pads and disturbed areas to intercept runoff, reduce flow velocities, and allow suspended particles to

settle before water moves farther downslope. While the EA does not include formal numerical stormwater modeling for specific return-period events, the small, discrete disturbance areas, required containment and erosion-control structures, and short project duration indicate that exploration activities are unlikely to generate sediment or drilling-fluid releases of a magnitude that would significantly affect soil stability or downstream channels, even under high-runoff events.

With respect to contamination pathways, the proposed action requires industry-standard, water-based drilling mud systems that create a low-permeability filter cake on borehole walls, reducing fluid loss into formations and limiting mass transfer between drilling fluids and groundwater during operations. After completion of drilling, all drill holes must be promptly and properly plugged with low-permeability materials under ARM 17.24.106, with additional sealing where multiple aquifers or artesian conditions are intercepted, ensuring that boreholes do not remain as conduits for vertical groundwater movement or contaminant migration. HDPE-lined sumps confine drilling fluids and cuttings within a defined footprint, and final closure restores soil stability and removes concentrated sources of drilling returns. Spill kits, regular equipment maintenance, and secondary containment for fuels and lubricants further reduce the likelihood of releases to soils.

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”.

DEQ received comments asserting that cumulative past and proposed activities, including road construction, pad building, and drilling, have already fragmented the landscape and that the EA improperly treats additional disturbance as de minimis without fully evaluating cumulative soil erosion, sediment dispersion, and habitat fragmentation. DEQ has reviewed these comments and responds as follows.

No secondary impacts to soil quality, stability, or moisture would be expected from the proposed action beyond those described above as direct impacts. The spill-prevention and containment measures-spill kits, regular maintenance, and secondary containment for fuels and lubricants-are specifically designed to prevent diffuse soil contamination that might otherwise trigger secondary mobilization of contaminants through the soil profile.

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 AMD1 in the area, which remains active and reclamation yet to be complete relates solely to minor regrading, revegetation and weed control. The additional disturbance of up to 1.53 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.

DEQ received comments that decades of prior road construction and pad building have already degraded soils and water quality in the project area, and that additional disturbance would exacerbate fragmentation rather than being de minimis. DEQ responds as follows.

The current authorization is structured to minimize incremental disturbance and to accelerate recovery on both new and existing disturbed sites. Limiting pad size and access-route width, relying on existing roads where practicable, and favoring overland travel instead of building new roads reduce the net addition of disturbed linear and pad features. Concurrent reclamation requirements mean that as individual pads, routes, and sumps are no longer needed, they must be recontoured, stabilized, and revegetated, which helps consolidate and shrink the disturbed footprint over time and reduces long-term erosion and sediment sources. Sediment traps and HDPE-lined sumps provide focused control of runoff and drilling returns from each new disturbance. In this context of an already-impacted landscape, and considering the reclamation obligations enforced through ARM 17.24.107 and the bonding requirements in 82-4-332 and 82-4-338, MCA, the additional exploration activities are unlikely to significantly increase cumulative soil erosion, sediment dispersion, or fragmentation beyond existing conditions.

Significance Determination:

Pursuant to ARM 17.4.608, DEQ has considered the significance of potential impacts to geology, soil quality, stability, and moisture. The factors set forth in ARM 17.4.608 include, among others, the probability that the impact will occur; the duration of the impact; the severity of the impact, including the degree to which the impact is reversible or irreversible; the geographic extent of the impact; and the degree to which the impact affects rare, sensitive, or otherwise irreplaceable resources.

Applying these factors: The probability of significant long-term soil impacts is low given the small total surface disturbance of 1.53 acres across a 430-acre claim block, the requirement for HDPE-lined sumps, sediment traps, and concurrent reclamation, and the enforceable reclamation bond under 82-4-332(3) and 82-4-338, MCA. The duration of impacts is short-term, limited to the period of active drilling at each pad (days to weeks per site) plus the reclamation period; Phase 1 of reclamation would be completed in six to eight weeks, and final reclamation of all disturbances must be completed within two years. Severity is low and reversible: disturbed areas would be recontoured, stabilized, and revegetated to a condition consistent with surrounding undisturbed lands in accordance with ARM 17.24.107. The geographic extent is highly localized. DEQ therefore concludes that the proposed action would not result in significant impacts to geology, soil quality, stability, and moisture under ARM 17.4.608, and preparation of an Environmental Impact Statement is not required for this resource.

2. Water Quality, Quantity, and Distribution

Blackfoot River Headwaters TMDLs:

The headwaters of the Blackfoot River were listed as impaired in 2002. As a result of this listing, the EPA approved the implementation of a metals Total Maximum Daily Load (TMDL). A TMDL

establishes the maximum amount of pollutant load that a waterbody can receive and still meet applicable water quality standards.

Sources of metals loading to the Blackfoot River upstream of Landers Fork are primarily related to historic mining activities. The majority of mining activity within the drainage occurred at the Upper Blackfoot Mining Complex (UBMC). Other possible sources of metals loading to the river include roads and natural background sources. Specific metals exceeding the numeric water quality criteria in one or more of the stream segments at the time of TMDL implementation included aluminum, cadmium, copper, iron, lead, manganese, and zinc. As a result of restoration strategies implemented as outlined in the Upper Blackfoot Mining Complex Temporary Standards Implementation Plan, both cadmium and iron have fallen within their applicable water quality standards and were delisted on January 30, 2025.

On May 19, 2004, the EPA approved a TMDL for sedimentation/siltation. This approval led to the implementation of a water quality and habitat restoration plan that incorporates a TMDL for sediment in the Blackfoot Headwaters TMDL planning area. Both the restoration plans for the sediment and metals TMDLs require DEQ to perform or fund ongoing water quality monitoring.

The implementation of a TMDL does not prevent future development in the area of the impaired waterbody. However, a TMDL includes an allocation of pollutant loadings to point sources. Meaning, any entity that receives a permit through MT DEQ's Water Protection Bureau to discharge to the Blackfoot River or one of its impaired tributaries, is assigned a wasteload allocation (WLA) by DEQ. WLAs required by discharge permits constitute a type of water-quality based effluent limit. This effluent limit would be designed to keep metals levels within their applicable water quality standards. In their plan of operation, GPM stated that they would use plastic liners in the drill sumps to prevent infiltration and would have secondary containment (trenches) near the sumps to prevent surface runoff. Accordingly, because GPM would not discharge to surface or groundwater, no discharge permit would be required. If GPM were to apply to DEQ Water Protection Bureau for a discharge permit, they would likely be assigned a WLA.

Surface Water and Runoff:

The analysis area for water resources encompasses both the Hogum Creek drainage basin and the Seven-Up-Pete drainage basin, as well as off-site drainage pathways and potential groundwater and surface water systems that may occur beneath or downgradient of these areas (e.g., Seven-Up-Pete Creek and Hogum Creek, both tributaries of the Blackfoot River). A prominent north-south trending topographic high at about 6,320 feet above mean sea level (amsl) separates the two drainage basins. This ridgeline forms a distinct surface-water divide, causing runoff from the Hogum Creek sub-basin to generally flow east toward Hogum Creek, while drainage in the Seven-Up-Pete sub-basin primarily flows west toward Seven-Up-Pete Creek. The water supply area at GWIC well #70592, located on private land in Section 23 of Township 14 North, Range 9 West, is also included as a separate groundwater analysis area.

The western portion of the patented lode claim lies within the Seven-Up-Pete sub-basin, which drains approximately 4.6 square miles and receives a mean annual precipitation of 23 inches (Streamstats, USGS). The nearest surface water body to the project area is Seven-Up-Pete Creek, which is located 1,400 feet downgradient from drill pad site "E" (Figure 3).

The eastern portion of the patented lode claim lies within the Hogum Creek sub-basin, which drains approximately 8.2 square miles and receives a mean annual precipitation of 24 inches (Streamstats, USGS). The nearest surface water body to the project area is Hogum Creek, which is located 1,350 feet downgradient from the proposed laydown area.

Groundwater: Drill Site Areas

The Groundwater Information Center (GWIC) indicates that within the Seven-Up-Pete and Hogum Creek sub-basins, 23 well sites and boreholes are located within Sections 16-21 and Sections 28-33 of Township 14 North, Range 7 West. Of the 23 well sites and boreholes, 9 are domestic and 14 are for monitoring. The project area is characterized by its rugged, mountainous terrain. Because of this irregular topography, even short, linear distances between two points may cross a water table divide or enter an independent drainage. This effect may introduce error or affect the analysis of the water table within the project area. An interpreted water-table (potentiometric) surface was derived by DEQ for the purposes of this analysis in the exploration drilling areas based on static water levels from 12 of the 14 monitoring wells, excluding 2 monitoring wells for which static water level information was unavailable from GWIC. Based on interpreted elevations, groundwater would generally flow northeast in the project area. Any groundwater encountered at Drill Pad “M” would likely migrate in that direction. The nearest domestic well lies about 3,900 feet downgradient (northeast) and is the closest potential receptor if drilling fluids were to impact groundwater quality or conditions.

In the Seven-Up-Pete sub-basin, including drill pad sites “B”-“E”, “L”, “N” and “P”-“U” (Figure 3), the elevation of the projected water table ranges from 6,088 feet to 5,588 feet amsl. Holes drilled in this area have projected total depth elevations ranging from 5,823 feet (328 feet below ground surface) to 3,675 feet amsl (2,296 feet below ground surface), which are deeper than the interpreted static water level, indicating that groundwater is expected to be intercepted during drilling operations.

In the Hogum Creek sub-basin, including Drill Pads “A”, “F”-“K”, “M”, and “O” (Figure 3), the elevation of the water table ranges from 6,307 feet to 5,725 feet amsl. Holes drilled in this area have projected total depth elevations ranging from 6,019 feet (157 feet below ground surface) to 5,277 feet amsl (1,082 feet below ground surface), which are deeper than the interpreted static water level, indicating that groundwater is expected to be intercepted during drilling operations.

The patented mining claims in Sections 20 and 29, Township 14 North, Range 7 West of the project area do contain wetland, riverine, and riparian classifications, but no proposed activities are within or directly adjacent to them. (See Figure 4 below). These classifications include 1 acre of semipermanently flooded palustrine aquatic bed, 19 acres of temporarily flooded palustrine emergent, 25 acres of temporarily flooded palustrine scrub-shrub, 1 acre of upper perennial riverine and 13 acres of forested lotic riparian (MTNHP, 2026).

The Applicant has not proposed any special considerations regarding scenarios where drilling operations would interact with the groundwater table, but if groundwater is intercepted, the Applicant must comply with the drill hole plugging rules detailed in ARM 17.24.106 to maintain compliance.

Groundwater: Water Supply Area

The applicant proposes that proposed action water would be supplied from a private water well source (GWIC #70592) located on private land in Section 23 of Township 14 North, Range 9 West (46.949665°, -112.708359°). This location is approximately 9 miles directly to the west (or approximately 14.7 road miles) from the drill area described above, in a distinct and separate hydrologic setting. The Department of Natural Resources and Conservation (DNRC) has on file a Certificate of Water Right (#76F-13158) associated with the groundwater well (GWIC #70592), indicating a senior water right date of June 1, 1977, with beneficial use categorized as commercial, and authorizes a maximum flow rate of 99 gallons per minute. This well was drilled in May of 1977 to a total depth of 60 feet, with a static water level of 3 feet, or approximately 4,502 feet amsl. A 3-hour pump test yielded 99 gallons per minute. GWIC indicates that within an approximately one-mile buffer around the water well source, 415 well sites, 9 monitoring boreholes and 2 springs are located within Sections 13-15, and Sections 22-27 of Township 14 North, Range 9 West. Of the 424 well sites and boreholes, 307 are domestic, 16 are commercial, 8 are for fire protection, 7 are geotechnical, 2 are irrigation, 61 are for monitoring, 14 are for public water supply, 3 are for stockwater, and 6 are for undefined use. On average, wells are about 40 feet deep, with static water levels around 10 feet and average reported yields near 30 gallons per minute.

No new surface disturbance is proposed at this location, with operations consisting solely of the withdrawal of up to 1,000 gallons of water per day, which would be transported to the drill sites via water truck, and stored at the patented mining claims in two 3,000-gallon bladder tanks. Proposed action water would be used to cool and lubricate the drill bit, clean the bit-rock interface to optimize cutting performance and to carry drill cuttings out of the hole. Wet drilling also suppresses dust for safer working conditions for drilling personnel.

Figure 4. Map of the Patented Mining Claims with Wetland and Riparian Areas

Direct Impacts:

Surface Water and Runoff:

As explained above, the topographic divide between the Seven-Up-Pete and the Hogum Creek sub-basins results in different potential pathways for runoff. Precipitation and surface water would generally be expected to infiltrate into the shallow subsurface and be retained within pore spaces in the unsaturated soil or vadose zone, and potentially utilized by vegetation. Infiltrating runoff is not expected to reach the groundwater table in sufficient quantity to impact the aquifer or influence water quality beyond baseline conditions.

Surface water leaving the proposed disturbance areas during a heavy storm could carry sediment from disturbed surfaces and soil. As discussed in the section below, sumps would be constructed at each drilling location to contain recirculated drilling fluid, with reported dimensions indicating an estimated capacity of no more than 720 cubic feet (approximately 5,400 gallons) in each sump. In order to comply with ARM 17.24.105, the applicant must confine drilling fluids as well as waste cuttings from drilling operations to the drill site by the use of storage tanks or sumps or dispose of the fluids or waste in accordance with an approved plan. In the unlikely event that an inadvertent release of drilling fluid to the surface took place, it would be a violation of ARM 17.24.105 and a violation would be issued, following the regular compliance structure. Practically, the drilling fluids would not be handled similarly to a fuel or water release. The drilling fluids would likely act as a thin mud or paste with increased viscosity (i.e., decreased fluidity), and would likely be contained within the drill pad area by the stormwater and sediment controls. The Applicant proposes the use of BMPs such as sediment traps to mitigate fugitive sediment transport and plastic liners, secondary containment, and spill prevention and response kits to maintain surface water quality.

Groundwater:

Surface elevations in the Seven-Up-Pete sub-basin from 5,756 feet to 6,217 feet amsl, with groundwater elevations anticipated to range from 6,088 feet to 5,588 feet amsl. In the Hogum Creek sub-basin, the surface elevations range from 6,160 feet to 6,411 feet amsl, with groundwater elevations anticipated to range from 6,307 feet to 5,725 feet amsl. Although some variation may occur based on topography and site-specific geologic conditions, groundwater is anticipated to occur approximately 100 to 130 feet below surface. These estimated elevations are likely representative of a saturated groundwater system that underlies the region, well logs do not indicate the occurrence of continuous shallow aquifers above these elevations. Shallow groundwater that may occur in the area or be expressed at the surface as seeps or springs is likely associated with discontinuous perched zones or other limited-extent flow paths.

The regional groundwater level in the Blackfoot Valley, is approximately 4,500 feet amsl. With the sole exception of the hole drilled from pad “B”, all proposed exploration drill holes would terminate at elevations well above the regional aquifer. Accordingly, any water encountered in these holes is not expected to represent a connected, laterally extensive aquifer, rather it would most likely consist of limited volumes of water migrating through discrete, discontinuous fracture sets within the low-porosity extrusive lithologies of the Crater Mountain complex.

The Applicant proposes drilling to a maximum depth of 2,296 feet from the surface. Except for potentially shallow drillholes, it is expected that groundwater would be encountered during drilling operations. However, the hydrologic setting (i.e., the distance between groundwater and the surface, in a transmissive unconfined aquifer) indicates that artesian flow would not be expected to occur from the drillholes, eliminating the potential impacts from uncontrolled flow of groundwater and groundwater-containing drilling fluids coming back up to the surface.

Under the proposed drilling activity, it would be necessary to use water or some type of drilling fluid to cool the drill bit, to lubricate the advancing hole, and to remove cuttings from the bit face up to the surface. Current practice in the drilling industry is to use one or more types of synthetic polymer or mud products to increase the viscosity of water. The proposed drilling fluids are classified as synthetic based drilling muds, because the polymer component is often made from synthetic organic compounds like esters, ethers, or olefin isomers. Compared to traditional water or oil-based fluids, the synthetic polymers provide high drilling efficiency, while exhibiting low toxicity and they degrade to environmentally benign products (Burke and Veil, 1995). The proposed action requires industry-standard, water-based drilling mud systems that create a low-permeability filter cake on borehole walls, reducing fluid loss into formations and limiting mass transfer between drilling fluids and groundwater during operations. These regulated, commercially-supplied additives are non-toxic and biodegradable, and are unlikely to compromise the water quality of groundwater encountered during drilling.

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. The proposed surface drilling activity, and the resulting drillholes prior to plugging, are unlikely to influence the elevation or the quality of groundwater.

Drill sumps, 40 feet x 6 feet x 3 feet depressions, would be constructed at each surface drilling location to contain recirculated drilling fluid, with reported dimensions indicating an estimated capacity of no more than 720 cubic feet (approximately 5,400 gallons) in each sump. Each sump would likely contain fine sediment produced by drilling and the drilling fluid would consist primarily of the fresh water sourced from the private water supply and any drilling fluid additives proposed, which may include: polymer, foam, mud, lost circulation material, and rod lube.

Drill sumps containing drilling fluid would be allowed to evaporate or pumped dry, and the drilling fluids would be transported and repurposed for continuous use at the next planned drill sump location. The last drill sumps in use would be allowed to dry and the plastic liners removed and disposed of before recontouring the drill pads to match adjacent undisturbed lands.

Due to the thick sequence of unsaturated bedrock between the surface and groundwater table (approximately 100 to 130 feet below surface), in the unlikely event that any fluids from the drilling sumps infiltrates into the vadose zone (unsaturated rock), the fluids would not reach groundwater or significantly affect the groundwater elevation or water quality as they would likely be attenuated by the unsaturated pore space.

Proposed Action Water Source:

The proposed activities at the water source (GWIC #70592) include the withdrawal of up to 1,000 gallons of water per day and filling a water transport truck to convey water from the source location to the drilling project area. The transfer of water would be controlled by piping and valving at the water source well. Water that may be spilled during the transfer of fresh water from the water source to the transport truck could transport sediment and have similar impacts as runoff from a stormwater producing event, as described above. However, it is likely that a spill of this nature would occur for a very short period (minutes or less) and involve a small and discrete volume of water, rather than an extended source of flow like a storm event. The withdrawal of up to 1,000 gallons of water per day from the groundwater well (GWIC #70592), would not represent new or additional demands for the well or the valley-bottom aquifer that it accesses. The applicant is required to comply with the applicable local, county, state, and federal requirements pertaining to water quality.

DEQ received extensive public comments raising concern about potential contamination of Hogum Creek, Seven Up Pete Creek, and the Blackfoot River from drilling fluids, cuttings, and sump effluent; about the headwaters' sensitivity and groundwater-surface water connectivity; about the use of the water-supply well and its consistency with water rights law; about aquifer conditions, drought, and effects on 7 existing users; and about consistency with Total Maximum Daily Loads (TMDLs) for metals and sediment in the Blackfoot headwaters. DEQ has reviewed these comments and responds as follows.

The EA has been updated to provide additional information on the impairment of the Headwaters of the Blackfoot River and the TMDLs that have been established as a result of that impairment listing. The proposed operation is expressly designed to prevent discharges that could materially increase metals or sediment loading to TMDL-listed waters, including Hogum Creek and Seven Up Pete Creek. HDPE-lined sumps prevent downward infiltration of drilling returns and uncontrolled seepage; closure requirements under ARM 17.24.107 include removal of residual fluids and liners, backfilling, grading, and revegetation.

Drill holes must be promptly plugged with low-permeability materials under ARM 17.24.106 so they do not act as conduits for contaminant migration between aquifers or to the surface. Sediment traps installed downslope of disturbed areas intercept and settle sediments before runoff can reach streams.

With respect to the water-supply well, the EA identifies the source well (GWIC #70592, Ground Water Certificate No. 76F-13158-00) as a private well with beneficial use categorized as commercial, with a maximum authorized flow rate of 99 gallons per minute. The exploration license requires that exploration activities be conducted in compliance with all applicable state and federal laws, including Montana water-rights law administered by the Department of Natural Resources and Conservation (DNRC). The exploration-level demand of up to 1,000 gallons per day is modest compared to existing domestic and irrigation uses in the basin and is not associated with mine-scale infrastructure or long-term operational pumping. With these constraints, the proposed withdrawals are unlikely to measurably affect river flows, aquifer storage, or the distribution of water among existing users, even in the context of a drought-stressed system.

With respect to shallow groundwater and springs described by commenters, the application specifies that all drilling returns are to be managed within HDPE-lined sumps, that drill holes be plugged with low-permeability materials under ARM 17.24.106 to prevent vertical flow and new hydraulic connections, and that water-based drilling fluids with filter-cake formation be used to limit fluid invasion into formations. These measures maintain aquifer isolation and prevent the creation of new preferential pathways in a setting where groundwater is shallow and closely linked to surface water.

Secondary Impacts:

Storm water impacting the sites during a precipitation event would generally be expected to infiltrate into the subsurface, however, storm water leaving the sites could carry sediment from the disturbed soils and non-sediment contaminants from drilling operations. The applicant proposes the use of plastic liners, secondary containment, spill prevention/response kits and sediment traps as BMPs to mitigate erosion and transport of sediment and non-sediment contaminants off-site.

DEQ received comments requesting a cumulative analysis of water allocation considering prior mining impacts, other proposed projects, and the finite nature of the Blackfoot aquifer, including in the context of Montana's constitutional right to a clean and healthful environment. DEQ responds as follows.

No secondary impacts to water quality, quantity, or distribution-such as stimulated downstream water-quality degradation or induced changes to stream hydrology-would be expected from the proposed action given the prevention-focused measures in the proposed action. The exploration program does not authorize long-term dewatering, production-scale pumping, or sustained consumptive use that would materially alter regional groundwater storage. With the preventative measures in place and reclamation and water-protection obligations secured by bonding under 82-4-332(3) and 82-4-338, MCA, no secondary water-quality impacts are anticipated.

Cumulative Impacts:

Cumulatively, the proposed exploration drilling could add a small, temporary increment of disturbance to a watershed already affected by historical mining in the Seven-Up-Pete and Hogum Creek sub-basins. However, because the proposed action would disturb only a limited area on or near previously disturbed ground, implement erosion and sediment-control BMPs, proposes to use drilling fluids managed in lined sumps and reused between pads, reclaim all drill holes in accordance with ARM 17.24.106, and obtain up to approximately 1,000 gallons per day of water from an existing private well rather than develop new water sources, its contribution to cumulative impacts on surface-water and groundwater quality is expected to be minor and not significant.

DEQ received comments requesting an explicit cumulative analysis of water quality in light of prior exploration and mining, the Mike Horse Superfund site (also known as UBMC), TMDLs for metals and sediment, other proposed industrial projects along the Blackfoot, and drought conditions. DEQ responds as follows.

The EA's cumulative-effects analysis for water quality, quantity, and distribution considers the exploration proposal alongside historic exploration, existing water uses, and broader watershed conditions including the TMDLs and known metals impairments in the Blackfoot headwaters. Within this framework, the water-based drilling fluids and filter-cake formation in the drillholes, HDPE-lined sumps, sediment traps, strict drill-hole plugging under ARM 17.24.106, small and confined work areas, concurrent reclamation under ARM 17.24.107, hazardous-substance controls, and lawful water sourcing consistent with Title 85, MCA-are designed to minimize potential environmental impacts. Because this authorization is limited to exploration-level activities under 82-4-331 and 82-4-332, MCA, and does not approve mine development or long-term industrial water use, and because reclamation and water-protection obligations are secured by bonding, the project's incremental demand on the basin's water resources is expected to be low in severity, small in extent, short-term in duration, and unlikely in probability of causing measurable cumulative water-quality degradation.

Significance Determination:

Pursuant to ARM 17.4.608, DEQ has evaluated the significance of potential impacts to water quality, quantity, and distribution. The probability of significant water-quality impacts is low given the required HDPE-lined sumps, ARM 17.24.106 hole-plugging, sediment traps, low-toxicity drilling fluids, and spill-prevention and containment measures. The duration of any water-quality risk is limited to the period of active drilling and would coincide with concurrent reclamation and sump closure. The severity of potential impacts is low and reversible: the requirements and BMPs associated with the proposed action minimize the creation of persistent contamination pathways, and reclamation obligations are enforceable through the license and bond. The geographic extent of any water quality, quantity or distribution impact would be localized to the immediate vicinity of drill pads and access routes given the controls in place, and the proposed action is specifically designed to prevent the project's contribution to TMDL-listed waters. Although public commenters raised concerns about the sensitivity of this headwaters system, including the presence of westslope cutthroat trout, ESA-listed bull trout, and downstream communities dependent on clean water- based on the project's small footprint, short duration, preventative BMPs, and enforceable bonding framework, the proposed action would not result in significant impacts to water quality, quantity, or distribution under ARM 17.4.608. DEQ therefore concludes that preparation of an Environmental Impact Statement is not required for this resource.

3. Air Quality

The Scapegoat Wilderness is the closest Class 1 Airshed to the project site, at 11 miles due northwest. The immediate area complies with the National Ambient Air Quality Standards. This proposed action would not be expected to impact the immediate areas airshed.

The Applicant proposes to reduce speed while traveling and to maintain factor 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 could be produced or become airborne during exploration and reclamation operations. Mechanized equipment would produce some exhaust fumes. Dust could also be produced while traveling along existing roads to and from the project area. The Applicant would be expected to maintain compliance with ARM 17.8.308, requiring 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 Class 1 Airshed due to the small scale of activity and distance between the proposed action and the airshed, in conjunction with implementation of BMPs.

DEQ received public comments asserting that the project threatens Montanans' constitutional right to clean air and water, expressing concern about dust and exhaust emissions from drilling and associated traffic, and noting that dust could disturb bats and birds roosting in shafts and caves. DEQ has reviewed these comments and responds as follows.

All project vehicles and equipment are required to operate with intact, properly maintained factory-installed emissions-control systems, ensuring that engines perform within their certified emission specifications and minimize exhaust pollutants. The Applicant is also required to implement reduced travel speeds on access roads and work areas, which lessens fugitive dust from unpaved surfaces and disturbed ground and supports compliance with Montana Clean Air Act (Title 75, chapter 2, MCA) requirements to use reasonable precautions to control airborne particulate matter. The Applicant's plan of operations-using small surface-disturbance work areas, relying on existing roads where practicable, and implementing concurrent reclamation-reduces the area of exposed soil that can serve as a dust source. Traffic associated with this short-term exploration program is modest compared to typical regional highway use. Because the exploration program is small in scale and duration and does not include ore processing, DEQ determined that exploration-related emissions are unlikely to impair clean-air conditions protected under the Montana Constitution or materially compromise air quality for current or future generations.

Secondary Impacts:

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

Cumulative Impacts:

Cumulative impacts to air quality from the proposed action could add minor contribution 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. In the context of the broader Blackfoot Valley, the incremental air-quality contribution of this short-term, small-scale exploration program is expected to be negligible. Equipment emissions and fugitive dust are limited by the terms of the proposed action and are temporary. Because exploration activities are temporary, limited in extent, and do not involve high-emission processes, the residual emissions after

mitigation are expected to be low and localized, with no measurable degradation of regional air quality.

Significance Determination:

Pursuant to ARM 17.4.608, DEQ concludes that impacts to air quality would not be significant. The probability of significant air-quality impacts is low given the required emissions controls, reduced vehicle speeds, and small disturbed area limiting dust sources. Impacts are short-term and reversible, ceasing upon completion of exploration and concurrent reclamation. The geographic extent is limited to the immediate vicinity of active drill pads and access routes. No standards under the Montana Clean Air Act are anticipated to be exceeded. Preparation of an Environmental Impact Statement is not required for this resource.

4. Vegetation Cover, Quantity, and Quality

Land cover in the approximately 430-acre patented claim block mapped using the Montana Natural Heritage Program (MTNHP) varies and is dominantly classified as Rocky Mountain Lodgepole Pine forest (39%, 1,977 acres), Rocky Mountain montane Douglas-fir forest and woodland (35%, 1,777 acres), Rocky Mountain Ponderosa pine woodland and savanna (7%, 373 acres), insect-killed forest (5%, 272 acres), montane sagebrush steppe (5%, 275 acres) (MTNHP, 2026).

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	PSOC	Vascular Plants	Austin's Knotweed	Polygonum austiniae	Rock/Talus	Present	SENSITIVE; SCC	SCC	
Occurrences	SOC	Birds	American Goshawk	Astur atricapillus	Mixed conifer forests	Resident Year Round			
Occurrences	SOC	Birds	Flammulated Owl	Psiloscops flammeolus	Dry conifer forest	Migratory Summer Breeder	SENSITIVE; SCC	SCC	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	Fisher	Pekania pennanti	Mixed conifer forests	Resident Year Round	SENSITIVE		SENSITIVE

Documented	MT Status	Species Group	Common Name	Scientific Name	Habitat	Distribution	USFS	USFS_HLC	BLM
Other Potential Species	PSOC	Birds	Boreal Owl	Aegolius funereus	Conifer forest	Resident Year Round			
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	Western Screech-Owl	Megascops kennicottii	Riparian forest	Resident Year Round			
Other Potential Species	PSOC	Birds	Ovenbird	Seiurus aurocapilla	Deciduous forest	Migratory Summer Breeder			
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	Dwarf Shrew	Sorex nanus	Rocky habitat	Resident Year Round			
Other Potential Species	PSOC	Mammals	North American Porcupine	Erethizon dorsatum	Mixed forest	Resident Year Round			
Other Potential Species	PSOC	Vascular Plants	Hare's foot Locoweed	Oxytropis lagopus var. conjugans	Sagebrush (low elevation)	Present			
Other Potential Species	PSOC	Vascular Plants	Roundleaf Sundew	Drosera rotundifolia	Fens	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	Rydberg's Parsley	Musineon vaginatum	Stony, usually calcareous, soil or talus in open, often Douglas-fir forest and woodlands	Present			
Other Potential Species	SOC	Birds	Cassin's Finch	Haemorhous cassinii	Drier conifer forest	Resident Year Round			
Other Potential Species	SOC	Birds	Clark's Nutcracker	Nucifraga columbiana	Conifer forest	Resident Year Round	SCC		
Other Potential Species	SOC	Birds	Evening Grosbeak	Coccothraustes vespertinus	Conifer forest	Resident Year Round			
Other Potential Species	SOC	Birds	Pileated Woodpecker	Dryocopus pileatus	Moist 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	Varied Thrush	Ixoreus naevius	Moist conifer forests	Migratory Summer Breeder			
Other Potential Species	SOC	Birds	Harlequin Duck	Histrionicus histrionicus	Mountain streams	Migratory Summer Breeder	SENSITIVE		
Other Potential Species	SOC	Birds	Green-tailed Towhee	Pipilo chlorurus	Shrub woodland	Migratory Summer Breeder			
Other Potential Species	SOC	Birds	Veery	Catharus fuscescens	Riparian forest	Migratory Summer Breeder			SENSITIVE
Other Potential Species	SOC	Birds	Sprague's Pipit	Anthus spragueii	Grasslands	Migratory Summer Breeder			SENSITIVE
Other Potential Species	SOC	Fish	Bull Trout	Salvelinus confluentus	Mountain streams, rivers, lakes	Resident Year Round			THREATENED
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	Suckley's Cuckoo Bumble Bee	Bombus suckleyi	Montane/steppe grassland and shrubland	Resident Year Round			
Other Potential Species	SOC	Invertebrates	Western Pearlshell	Margaritifera falcata	Mountain streams, rivers	Resident Year Round	SENSITIVE; SCC	SCC	SENSITIVE
Other Potential Species	SOC	Mammals	Long-eared Myotis	Myotis evotis	Forest	Resident Year Round			
Other Potential Species	SOC	Mammals	Silver-haired Bat	Lasionycteris noctivagans	Riparian and forest	Resident Year Round			
Other Potential Species	SOC	Mammals	Northern Hoary Bat	Lasiurus cinereus	Riparian and forest	Migratory Summer Breeder			SENSITIVE
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	Long-legged Myotis	Myotis volans	Conifer forest	Resident Year Round			
Other Potential Species	SOC	Mammals	Little Brown Myotis	Myotis lucifugus	Generalist	Resident Year Round	SENSITIVE		
Other Potential Species	SOC	Mammals	Townsend's Big-eared Bat	Corynorhinus townsendii	Caves in forested habitats	Resident Year Round	SENSITIVE		SENSITIVE
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	Floriferous Monkeyflower	Mimulus floribundus	Vernally moist cliffs and streambanks	Unknown			
Other Potential Species	SOC	Vascular Plants	Wavy Moonwort	Botrychium crenulatum	Various Mesic Sites	Present	SENSITIVE; SCC	SCC	
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	Lanceleaf Moonwort	Botrychium lanceolatum	A variety of habitats, generally at high elevations	Present	SENSITIVE		
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	Small-winged Sedge	Carex stenoptila	Grasslands (Montane)	Present			
Other Potential Species	SOC	Vascular Plants	Whitebark Pine	Pinus albicaulis	Subalpine forest, timberline	Present	SENSITIVE		THREATENED
Other Potential Species	SOC	Vascular Plants	Western Joepye-weed	Ageratina occidentalis	Rock/Talus	Present	SENSITIVE		
Other Potential Species	SOC	Vascular Plants	Stalked Moonwort	Botrychium pedunculosum	Forests (Mesic bottmlands)/Open sites	Present	SENSITIVE; SCC		
Other Potential Species	SOC	Vascular Plants	Wood Lily	Lilium philadelphicum	Moist, usually calcareous, soils in meadows, grasslands, fens, and woodlands	Present			
Other Potential Species	SOC	Vascular Plants	Flatleaf Bladderwort	Utricularia intermedia	Fens (Aquatic)	Present	SENSITIVE		
Other Potential Species	SOC	Vascular Plants	Musk-root	Adoxa moschatellina	Rock/Talus	Present	SENSITIVE; SCC	SCC	
Other Potential Species	SOC	Vascular Plants	Upward-lobed Moonwort	Botrychium ascendens	Various Mesic Sites	Present	SENSITIVE		
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	Panic Grass	Dichanthelium acuminatum	Wet soils around edges of hot springs	Present			
Other Potential Species	SOC	Vascular Plants	Water Bulrush	Schoenoplectus subterminalis	Wetland/Riparian	Present	SENSITIVE; SCC	SCC	
Other Potential Species	SSS	Birds	Bald Eagle	Haliaeetus leucocephalus	Riparian forest	Resident Year Round	SENSITIVE		SENSITIVE

A search of MTNHP in the project area identified vascular plant habitat and potential habitat for 16 Species of Concern (SOC) and 5 Potential Species of Concern (PSOC). The USFS Species of Conservation Concern in Forests search identified 14 species as sensitive. The BLM has classified 1 vascular plant as sensitive and 1 as threatened. (See Table).

Noxious weeds have been observed in the project area during previous DEQ inspections, including some varieties of mullein, knapweed, thistle, and hound's-tongue.

Direct Impacts:

The vegetation cover as described above would be removed or disturbed within the approximately 1.53 acres of surface disturbance proposed. Exploration activities that could affect the vegetation cover, quantity, and quality include the grubbing, scraping, trampling, and removal of vegetative cover not already affected by previous actions to develop drill pads, drill sumps, overland travel, and other proposed action disturbances related to exploration activities.

DEQ received public comments expressing concern that drill pads, roads, and off-road vehicle use would damage native vegetation and that disturbed areas may not recover for decades, degrading wildlife habitat, migration routes, and ecosystem health in the upper Blackfoot headwaters, and specifically criticizing the two-year reclamation window as insufficient to prevent establishment of invasive weeds and to allow re-establishment of native forest and understory communities. DEQ has reviewed these comments and responds as follows.

The Applicant relies on small surface-disturbance work areas for drill pads and laydown sites, uses existing roads where practicable, and allows overland travel only when conditions are suitable. Together, these measures reduce the amount of clearing and new road construction needed in lodgepole pine, ponderosa pine, Douglas-fir, and associated understory communities, thereby limiting direct removal of native vegetation. Concurrent reclamation-recontouring, stabilization, and revegetation of disturbed pads, access routes, and sumps as soon as they are no longer needed-shortens the period during which vegetation is absent, reduces the risk of long-term bare ground, and supports re-establishment of native plant cover consistent with ARM 17.24.107's reclamation requirements. Because the project is limited in scale and duration and is conditioned on restoring disturbed areas to a stable, vegetated condition under ARM 17.24.107, DEQ concluded that the exploration activities are unlikely to cause broad, long-term loss of native vegetation or habitat at the population or ecosystem scale in the upper Blackfoot.

With respect to sensitive plant species, the MTNHP and federal databases identify potential habitat in the project area for numerous vascular plant Species of Concern, Potential Species of Concern, and Forest Service/BLM sensitive species. However, the project limits new disturbance to small pads and short access routes and relies heavily on existing infrastructure, thereby minimizing the total area where sensitive plants or their habitats could be directly affected. Concurrent reclamation and revegetation maintain microhabitat conditions (shade, moisture, soil structure) important for many native and sensitive plant species.

Secondary Impacts:

Land disturbance at the site and overland travel between drill sites may result in the propagation of noxious weeds. Any surface disturbances would be reclaimed and seeded with a 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 Lewis and Clark County Weed Control Board. Weed control is a condition of an exploration license, and the applicant would be required to mitigate the spread of noxious weeds.

Several commenters emphasized that decades of road and pad construction have already fragmented the landscape and that the EA improperly concludes additional disturbance is de minimis. DEQ disagrees.

No broad secondary impacts to vegetation cover, quantity, or quality would be expected. The proposed action minimizes additional fragmentation; by limiting pad size and access-route width, relying on existing roads, and preferring overland travel, the Applicant avoids creating new, permanent linear clearings. Additionally, concurrent reclamation of new and modified features restores vegetative cover and supports soil stability, gradually reducing the visual and ecological contrast between disturbed sites and surrounding forest.

Cumulative Impacts:

Cumulative impacts on vegetation cover, quantity, and quality from the proposed action would be minor when considered alongside existing impacts from existing roads and from previous exploration activities conducted under AMD1 within the project area. Reclaimed areas are expected to re-establish cover comparable to surrounding disturbed lands. DEQ has considered the cumulative context of past exploration, logging, and other land disturbances in the upper Blackfoot. Given the small incremental disturbance authorized under the license, the emphasis on using and improving existing infrastructure, and the explicit requirement the proposed action and ARM 17.24.107 to reclaim sites to a stable, vegetated condition, DEQ determined that the mitigated exploration project is unlikely to substantially increase landscape-scale vegetation fragmentation beyond the already-disturbed baseline in the upper Blackfoot. When viewed within the broader upper Blackfoot landscape and existing restoration and conservation efforts, the mitigated vegetation impacts were determined not to be significant at the population or ecosystem level for purposes of MEPA analysis.

Significance Determination:

Pursuant to ARM 17.4.608, DEQ concludes that impacts to vegetation cover, quantity, and quality would not be significant. The probability of lasting vegetation loss is low given the concurrent reclamation requirements, small disturbance footprint, and ARM 17.24.107 standards. Impacts are short-term, localized, and reversible through reclamation. The project does not involve large-scale clearing, conversion of vegetation types, or long-term surface occupancy. Any adverse effects on sensitive plant species can be minimized through the BMP's small-footprint approach and concurrent reclamation. Preparation of an Environmental Impact Statement is not required for this resource.

5. Terrestrial, Avian, and Aquatic Life and Habitats

The approximately 430-acre patented claim block is not located within core, general, or connectivity habitat for sage grouse. The proposed action has the potential to temporarily displace species occurring within the proposed disturbance area for six to eight weeks during exploration activities. Common wildlife, such as birds, mammals, amphibians, and invertebrates, may utilize the project area and could be temporarily displaced while machinery and equipment are used for excavation, drilling and transport of proposed action materials. Displaced wildlife are expected to find other suitable habitats in the surrounding undeveloped, national forest land and may return to the project area following completion of exploration and reclamation activities.

Direct Impacts:

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

Wildlife could experience increased orientation or disorientation from additional illumination and be attracted to or repulsed by the increased light glare. This increased light could affect foraging, reproduction, communication, and other behaviors (Longcore and Rich, 2004). Any impacts that could occur to terrestrial, avian and aquatic life due to lighting impacts would last for the duration of low light activities under the proposed action.

DEQ received extensive public comments expressing concern about the project's impacts on native westslope cutthroat trout, ESA-listed threatened bull trout, and the broader suite of wildlife species in the project area. Commenters specifically noted that the EA dismisses cumulative impacts to aquatic life and fails to address effects on bull trout and westslope cutthroat trout populations. Commenters also raised concern about the short distances (approximately 1,350–1,400 feet) between drill pads and Hogum and Seven Up Pete Creeks, which provide habitat for native salmonids. The MTNHP Environmental Summary Report, incorporated into the EA, identifies occurrence and potential occurrence data for 30 Species of Concern, 8 Potential Species of Concern, and 1 Species of Special Status within the project area, including westslope cutthroat trout listed as Sensitive by both MTNHP and the U.S. Forest Service, and bull trout listed as Threatened under the Endangered Species Act. DEQ has reviewed these comments and responds as follows.

Direct impacts to terrestrial, avian, and aquatic life and habitats would include temporary, localized disturbance and displacement of wildlife due to noise, increased human activity, and vegetation removal associated with drill pad construction, drilling operations, and reclamation. The MTNHP Environmental Summary confirms that habitat within the approximately 430-acre patented claim block is common throughout the larger ecosystem, and any displaced animal could find other suitable habitats in the surrounding undeveloped National Forest land. The project would not permanently eliminate habitat: all disturbed areas are required to be reclaimed to a stable, vegetated condition under ARM 17.24.107, which would restore functional habitat within the project footprint following completion of exploration.

With respect to aquatic life, including westslope cutthroat trout and bull trout, the primary pathway of concern is water-quality degradation from sediment, drilling fluids, or other

contaminants reaching Hogum Creek, Seven Up Pete Creek, and ultimately the Blackfoot River. The project, however, is specifically designed to prevent such pathways: HDPE-lined sumps contain drilling returns within a defined footprint; drill holes are promptly plugged under ARM 17.24.106 to prevent cross-aquifer flow; sediment traps intercept and settle sediments before runoff reaches streams; low-toxicity, water-based drilling muds are selected for biodegradability and low environmental impact; and spill kits, regular maintenance, and secondary containment prevent fuel and lubricant releases. Given the approximately 1,350–1,400 feet between drill pads and the nearest tributaries, the topographic separation between the Seven Up Pete and Hogum Creek sub-basins, the unsaturated bedrock between the surface and groundwater table (approximately 100–130 feet below surface), and the project's controls, the risk of exploration-related contaminants reaching aquatic habitat at concentrations that would affect sensitive fish species is unlikely. The proposed action would not disturb wetlands or riparian habitat.

A consultation letter was provided by the Department by Montana Fish, Wildlife & Parks (FWP), which assessed the potential impacts relating to known or documented ESA species habitat and movement corridors as a result of the proposed action. The consultation letter indicated that Bull trout are distributed throughout the Blackfoot River basin, and are known to depend on larger, cold-water stream systems, including the North Fork Blackfoot River, Monture Creek, and Copper Creek, for spawning and rearing habitat. FWP concluded that the proposed activities, as described in the Applicant's plan of operations and associated BMPs, would not involve surface water or groundwater discharges, construction of new access road, or disturbance to streambanks or riparian area. FWP further concluded that given the absence of direct or indirect interactions with aquatic habitats, the proposed activities are not expected to adversely affect bull trout habitat or their presence within the project area.

Secondary Impacts:

No secondary impacts to terrestrial, avian, and aquatic life and habitats stimulated or induced by the direct impacts analyzed above are expected. The water-protection, erosion-control, and spill-prevention measures are designed to prevent any water-quality or habitat changes that could trigger secondary biological responses in downstream systems. The project does not authorize activities-such as long-term flow alteration, persistent sediment loading, or toxic releases-that would secondarily degrade aquatic habitat or stimulate population-level effects on sensitive species.

Cumulative Impacts:

No cumulative impacts to terrestrial, avian, and aquatic life and habitats would be expected because terrestrial and avian life could relocate and return.

DEQ received comments that the project's cumulative effects with drought, warming water temperatures, and other proposed industrial projects (a gravel pit and data center) could reduce fish populations, flows, and water quality, and erode the sense of wildness and scenic integrity of the Blackfoot. DEQ also received comments stating that the Draft EA dismisses cumulative impacts to aquatic life entirely and that the aquatic impact analysis should be held to a standard commensurate with the sensitivity of the Blackfoot watershed, its ESA-listed species, and the cumulative stressors the system faces. DEQ responds as follows.

The Blackfoot system does face cumulative stressors, including drought, reduced snowpack, the legacy of prior mining, including the Mike Horse Superfund site, also known as the UBMC, and other proposed projects in the valley. The relevant question for this authorization, however, is whether the exploration project contributes meaningfully to those stresses in a way that results in a significant adverse effect on terrestrial, avian, or aquatic life and habitats. The water-protection measures-low-toxicity water-based drilling muds, prompt plugging of drill holes under ARM 17.24.106, HDPE-lined sumps with full closure and reclamation, and erosion and sediment controls-are intended to avoid additional, measurable water-quality or habitat degradation beyond baseline conditions. Air-quality and traffic controls, including maintaining factory-installed emissions systems and reduced speeds, reduce dust, noise, and visual intrusion, while the limited operating area and concurrent reclamation shorten the time during which drilling equipment is present on the landscape. Habitat within the 430-acre claim block is representative of the surrounding National Forest landscape, and no permanent conversion of habitat is authorized. Because the project is small in scale, short in duration, and conditioned on specific permit restrictions and exploration rules in ARM 17.24.103–17.24.107 to prevent long-term environmental change, it is not expected to materially contribute to cumulative degradation of terrestrial, avian, or aquatic life and habitats in the Blackfoot watershed.

Significance Determination:

Pursuant to ARM 17.4.608, DEQ has evaluated the significance of potential impacts to terrestrial, avian, and aquatic life and habitats. Although the project area is located in a sensitive headwater setting with documented occurrences of federally listed bull trout and Forest Service-sensitive westslope cutthroat trout, the probability of significant impacts to these species is low given the project's comprehensive suite of water-quality protections, the absence of any direct disturbance to wetlands or riparian habitat, the topographic and hydrologic separation between drill pads and the nearest tributaries, and the small, temporary nature of surface disturbance. Impacts are short-term, localized, and reversible. No permanent conversion of habitat is authorized. Habitat of the type present within the 430-acre claim block is abundant in the surrounding National Forest landscape. While public commenters raised concerns about cumulative risks to the Blackfoot fishery-concerns DEQ takes seriously-the evidence supports DEQ's determination that the project would not cause significant adverse impacts to terrestrial, avian, or aquatic life and habitats at the population or ecosystem level. Preparation of an Environmental Impact Statement is not required for this resource.

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

As reflected in Table 2 above, a search of MTNHP in the project area identified bird, invertebrate, fish and mammal habitats and potential habitats for 30 Species of Concern (SOC), 8 Potential Species of Concern (PSOC) and 1 Species of Special Status (SSS). The USFS Species of Conservation Concern in Forests search identified 12 species as sensitive. The BLM has classified 13 species as sensitive and 4 as threatened. (See Table). Habitat within the approximately 430-acre patented claim block is common throughout the larger ecosystem, and any displaced animal could find other suitable habitats in the surrounding undeveloped, national forest land and return to the project area after the proposed action's conclusion.

Direct Impacts:

Impacts to other unique, endangered, fragile, or limited environmental resources could include increased ambient noise levels from drilling operations and temporary displacement of

susceptible animals in the project area. The potential impacts are limited and short-term as the activity described in the proposed action consists of primarily of minor construction related activities and the operation of one drill rig and the associated operational equipment for six to eight weeks at the project area. The proposed action would not impact wildlife habitat that is uncommon or limited as the 1.53 acres of disturbance is comparable to the remaining habitat within the approximately 430 acre privately owned claim block and the surrounding adjacent public lands. Impacts to noise levels are further discussed in “Section 8. Aesthetics.” The proposed action is not proposing to disturb wetlands or riparian habitat.

DEQ received comments asserting that the project area contains unique, fragile, and limited environmental resources, including habitat for multiple species of special concern and limited riparian and wetland areas, and that the EA's dismissal of cumulative impacts to these resources is insufficient given the ecological sensitivity of the upper Blackfoot headwaters. DEQ responds as follows.

The MTNHP Environmental Summary identifies 30 Species of Concern, 8 Potential Species of Concern, and 1 Species of Special Status with documented or potential occurrence in the project area, as well as 12 Forest Service sensitive species and 17 BLM sensitive species. Potential impacts to these unique or limited resources could include increased ambient noise levels, temporary displacement of susceptible animals, and potential habitat disturbance within the 1.53-acre disturbance footprint. However, the 1.53 acres of disturbance is small relative to the approximately 430-acre privately owned claim block and the surrounding adjacent public lands that provide extensive suitable habitat. The proposed action would not impact wetlands or riparian habitat. The project's noise controls (reduced vehicle speeds, no large fixed facilities), air-quality measures, and concurrent reclamation are all intended to minimize the duration and extent of disturbance to sensitive species and their habitats.

Additionally, in response to public comments requesting wildlife consultation, DEQ submitted a formal request to Montana Fish, Wildlife & Parks (FWP) on May 13, 2026, requesting FWP's consultative expertise regarding potential wildlife impacts associated with the proposed exploration activities, including potential effects on sensitive species identified in the project area. DEQ received FWP's response on June 5, 2026. FWP identified no sensitive species likely to be significantly affected by the proposed exploration activities. DEQ has considered FWP's response in finalizing this EA, and that response is consistent with the species occurrence data compiled from the MTNHP presented in Table 2.

Moreover, DEQ received public comments particularly highlighting concerns regarding potential impacts to grizzly bears and Canada lynx. Based on available information, including the MTNHP grizzly bear habitat modeling report, these concerns appear overstated.

The project area is located within the Northern Continental Divide Ecosystem (NCDE), which supports an occupied population of grizzly bear. Although the species remains listed as threatened under the ESA and is managed by the U.S. Fish and Wildlife Service (USFWS), FWP considers the NCDE population to be biologically recovered based on established recovery criteria.

The project site and surrounding landscape provide both habitat and movement corridors for grizzly bears. Maintenance of habitat functionality, including landscape connectivity, is important

to support ongoing population viability. The proposed exploration activities are limited in spatial and temporal extent and would not result in new road construction or long-term increases in human access. Although the project area is located with a landscape that includes nearby cabin developments, highways, and public roads, the limited scope and duration of the proposed activities are expected to allow continued grizzly bear use and movement through the area without significant disruption.

MTNHP developed inductive and deductive models to predict grizzly bear habitat suitability across the species' presumed current range in Montana. The inductive model uses bear observations and statewide environmental data to predict the current distribution and relative suitability of general year-round habitat at large spatial scales, and model evaluation indicates that it adequately reflects grizzly bear distribution and relative habitat suitability across Montana at those scales. MTNHP specifically cautions that inductive model outputs are intended for landscape-level, regional planning and are not appropriate as the sole basis for site-specific decisions on small areas (e.g., areas smaller than one-quarter of a PLSS section), because mapped suitability at that scale may not reflect actual, on-the-ground habitat conditions. In the context of this project, the inductive model indicates that the broader region provides generally suitable year-round habitat for grizzly bears, but it does not demonstrate that the 1.53-acre disturbance footprint itself constitutes high-quality or limiting habitat.

The deductive model represents the ecological systems commonly and occasionally associated with grizzly bears year-round across their presumed range in Montana. MTNHP's evaluation notes that this deductive model tends to overpredict the amount of suitable habitat statewide and that, while performance is adequate within core areas such as the NCDE and Greater Yellowstone Ecosystem (GYE), habitat in central-west and southwest Montana is "not nearly as suitable as this model would suggest." In practical terms for this project, although some ecological systems mapped in the wider area are classified as commonly or occasionally associated with grizzly bears, the MTNHP evaluation indicates that these systems, in the central-west Montana setting where the project occurs, function as lower-suitability habitat relative to core grizzly bear areas. When this model context is combined with the relatively small, temporary disturbance (1.53 acres within an approximately 430-acre patented claim block surrounded by extensive, undeveloped national forest lands), any displacement of grizzly bears associated with the proposed exploration is expected to be minor, short-term, and readily accommodated by the abundance of higher-quality habitat in the surrounding landscape.

Additionally, FWP concluded that Canada lynx, which is listed as threatened under the ESA, and North American wolverine, a state species of concern, are also known to occur with the broader project area. While suitable habitat for these species may be present in the general vicinity, the proposed action would not involve substantial vegetation removal, habitat fragmentation, or long-term changes to habitat conditions. The limited duration and small spatial footprint of the project would further minimize the potential for disturbance. The proposed action is not expected to significantly affect the ability of the surrounding habitat to support Canada lynx or wolverine presence in the project area.

Secondary Impacts:

No secondary impacts to unique, endangered, fragile, or limited environmental resources that could be stimulated or induced by the direct impacts analyzed above would be expected, given the project's controls on water quality, air quality, and hazardous substances.

Cumulative Impacts:

No cumulative impacts to unique, endangered, fragile, or limited environmental resources would be expected, given the substantial limitations on the proposed project. When considered cumulatively with prior exploration and land use in the project area, the additional 1.53 acres of temporary disturbance is not expected to significantly alter the overall availability or condition of habitat for the documented species of concern in the broader upper Blackfoot landscape. No cumulative impacts to unique, endangered, fragile, or limited environmental resources are anticipated.

Significance Determination:

Pursuant to ARM 17.4.608, DEQ concludes that impacts to unique, endangered, fragile, or limited environmental resources would not be significant. Temporary displacement of wildlife is an expected and reversible consequence of the short-term exploration activity. The disturbance footprint is small relative to available habitat in the surrounding landscape, no wetlands or riparian areas would be disturbed, and all disturbed areas are required to be reclaimed under ARM 17.24.107. Preparation of an Environmental Impact Statement is not required for this resource.

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 20 and 29, Township 14 North, Range 7 West.

SHPO stated that there are a few previously recorded historic sites located within the proposed exploration boundary areas. A total of 19 Historic Properties are located within or near the approximately 430-acre patented claim block. Historic Properties are sites that are eligible for or potentially eligible for listing on the National Register of Historic Places (NRHP). Seventeen sites are listed as Undetermined, 1 is listed as Eligible to the NRHP, and 1 site is listed as Ineligible to the NRHP.

Based on these previously recorded sites, and the ground disturbance required by this undertaking, SHPO feels that this proposed action has the potential to impact historic resources. SHPO therefore recommends that each record be updated, 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.

Direct Impacts:

If there is to be any disturbance to the 1 listed Eligible site, it may be considered an effect to a historic resource. Unidentified cultural or historic resources could be disturbed by exploration activities. If any structures are within the disturbance area, and are over fifty years old, SHPO recommends that they be recorded, and a determination of their eligibility be made prior to any disturbance taking place.

DEQ received public comments asserting that SHPO's recommendation for a formal cultural resource inventory and eligibility determination prior to disturbance must be treated as a mandatory pre-disturbance requirement rather than merely advisory guidance, that reliance on an unanticipated discovery protocol alone is inadequate, and that the EA does not comply with SHPO's project-specific guidance. Commenters also referenced the Salish, Pend d'Oreille, Kootenai, and Nez Perce peoples' historical use of the Blackfoot corridor-known as Cokahlarishkit, "the river of the road to the buffalo"-and argued that the EA does not provide a sufficient cultural resources analysis of the Blackfoot watershed's significance to Indigenous peoples. DEQ has reviewed these comments and responds as follows.

The exploration license requires the Applicant to commit to completing a SHPO-recommended cultural resource inventory (Class III-level, or as approved by SHPO) in all new disturbance areas before initiating surface-disturbance activities. This commitment allows identification and documentation of previously unrecorded archaeological and historic resources so that avoidance or protective measures can be designed into pad siting, access routing, and other surface-disturbance decisions. The use of small surface-disturbance work areas, reliance on existing roads where practicable, and preference for overland travel limits the number and size of areas requiring survey and makes avoidance practicable where sites are found. SHPO has noted that 19 Historic Properties are located within or near the approximately 430-acre patented claim block; DEQ has required the Applicant to treat SHPO's recommendations as binding commitments within the exploration plan under 82-4-332(2), MCA, ensuring that all 19 documented Historic Properties and any additional resources identified by the pre-disturbance inventory receive appropriate avoidance or protection measures.

Additionally, the unanticipated-discovery protocol-immediate stop-work within a 100-foot radius, DEQ and SHPO notification within 24 hours, and no resumption until professional assessment and written authorization are received-serves as a backstop for the unlikely event that a buried or previously unknown resource is encountered despite the Applicant's inventory commitment.
With respect to the broader cultural significance of the Blackfoot watershed to Indigenous peoples, DEQ recognizes the historic and ongoing cultural importance of the Blackfoot corridor as a traditional travel and cultural route for Salish, Pend d'Oreille, Kootenai, and Nez Perce peoples. The project's commitment to a pre-disturbance cultural resource inventory, combined with SHPO coordination and the unanticipated-discovery protocol, addresses the risk that undocumented sites connected to this cultural landscape could be disturbed by exploration activities.

Secondary Impacts:
No secondary impacts on historical or archaeological sites would be expected from the proposed action given the small disturbance footprint, the required pre-disturbance inventory, the discovery protocol, and the concurrent reclamation measures.

Cumulative Impacts:
No cumulative impacts on historical and archaeological resources would be expected from the proposed action. The utilization of small pads, reliance on existing roads, overland travel preferences, and concurrent reclamation minimize the number of areas requiring disturbance

and the duration of ground-disturbing activities, thereby limiting the cumulative potential for any incremental impact on the region's cultural resource record.

Significance Determination:

Pursuant to ARM 17.4.608, DEQ concludes that impacts to historical and archaeological sites would not be significant, given the commitment to complete a SHPO-recommended pre-disturbance cultural resource inventory and SHPO-identified avoidance or buffer measures. The mandatory pre-disturbance inventory commitment, the discovery protocol, the small disturbance footprint, and the concurrent reclamation framework collectively ensure that known and newly identified sites can be avoided or minimized to a non-significant level. Preparation of an Environmental Impact Statement is not required for this resource.

8. Aesthetics

The proposed activities would occur on a privately owned, approximately 430-acre patented claim block. The project area is located adjacent to public US Forest Service (USFS) roads throughout the greater Crater Mountain area, however the area is sparsely populated, typical to the rural mountainous setting in the adjacent lands. The project area could be visible to the public traveling along local, unpaved USFS 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.

An existing offsite processing facility located at 5605 Martin Drive, Lincoln, MT 59639 is visible from US Highway 200. However, all core processing activities would be conducted indoors away from public view.

The Applicant proposes to perform 2, 12-hour shifts, 24 hours a day. Two trailer mounted portable light plants (Allmand Night-Lite Pro or equivalent) would be deployed at the project area as necessarily for low light operations during the operational hours of 4:00pm – 8:00 am daily. Light pollution controls proposed include the use of downward-facing, shielded lights and directional lighting.

Portable light towers are widely used on a variety of construction sites. The primary advantages of portable lights are their ability to be positioned at different sections within and across the work zone. The mounting heights typically range from six feet to a fully extended 30 feet and the light pole is usually rotatable 360 degrees. Other lighting systems used that could be used during operation would be lights on headlights from equipment and trucks (Nafakh, Davila, Zhang, et. Al, 2022).

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

Direct Impacts:

The proposed action could 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 could be visible from portions of: US Highway 200, and Forest Roads 1825 and 1841, and Forest Trail 499, in the vicinity of the drill pads. 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 transporting core drilling. Light from light towers 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.

DEQ received public comments emphasizing the natural beauty of the upper Blackfoot and expressing concern that drill pads, roads, and equipment would create an "industrial, denuded landscape" that would permanently alter the scenic character of the area. Many commenters defined aesthetics to include soundscape and night-sky conditions, expressing concern that noise from drilling and traffic, lights, and human presence would erode the sense of solitude and wild character, and noting that the EA did not provide baseline noise data or quantified noise projections. Commenters also emphasized the Blackfoot corridor's scenic beauty as central to recreation and tourism-including along the Continental Divide National Scenic Trail (CDNST) and in proximity to the Scapegoat Wilderness-and connected aesthetics to Montana's identity and sense of place. DEQ has reviewed these comments and responds as follows.
The limited size of drill pads, access routes, and work areas; require reliance on existing roads where practicable; and allow overland travel only when site conditions are suitable, thereby minimizing new visible clearings and linear features on the landscape. Concurrent reclamation-recontouring, stabilization, soil replacement where feasible, and revegetation as soon as areas are no longer needed-shortens the time that bare ground, equipment pads, and other visual intrusions remain visible and supports a return to natural-appearing landforms and vegetative cover, consistent with ARM 17.24.103 and 17.24.107. By keeping disturbances small, dispersed, and short-lived and using existing access where possible, DEQ concluded that the mitigated exploration activities are unlikely to cause a long-term loss of natural scenic character in the broader upper Blackfoot landscape.

With respect to noise and light: Small work areas and reliance on existing roads concentrate operations in a limited footprint, and concurrent reclamation ensures that once drilling at a site is complete, associated activity ceases and the area moves from active use into restoration. Additionally, noise impacts from drilling are expected to be very short, with the remaining noise affiliated only with reclamation activities. Reduced travel speeds on access roads and work areas, coupled with maintaining factory-installed emissions-control systems, help lower vehicle noise and dust. The project does not involve a continuous, large, fixed facility with 24-hour lighting; rather, lights would be limited to active work areas and used only as needed for safety during drilling operations, employing downward-facing lights and shields to limit spill light and glare. DEQ determined that noise and light effects-while noticeable near active pads and access routes-are likely to remain localized and temporary and would not fundamentally alter the broader area's sense of solitude or night-sky quality.

With respect to the CDNST and Scapegoat Wilderness: The authorization is confined to a small area on private land near existing disturbed sites and does not authorize facilities or sustained operations that would create persistent visual or audible intrusion. The BMP's mitigation suite limits the spatial extent, duration, and visibility of surface disturbance. These measures, combined with the project's short duration, are expected to minimize the likelihood that exploration activities are seen or heard from the CDNST or within the Scapegoat Wilderness.

Secondary Impacts:

No secondary impacts to area aesthetics would be expected from the proposed action. The project's hazardous-substance controls and erosion-control reduce the risk of visible contamination that could leave any lasting negative impressions on the landscape.

Cumulative Impacts:

Cumulatively, the proposed action would add a short-term increment of visible equipment, construction activity, lighting, and noise in the project area, within a landscape effected by travel and previous exploration activities conducted under AMD1 in the area. These visual and noise effects are expected to be minor and temporary, with final reclamation required within two years after exploration concludes.

DEQ received comments characterizing the exploration project as one of multiple industrial proposals that, together, could erode the wildness and scenic integrity of the Blackfoot corridor. DEQ responds as follows.

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 already affected by travel and previous exploration activities conducted under AMD1. These visual and noise effects are expected to be minor and temporary, with phase 1 reclamation proposed to be completed within six to eight weeks, and final reclamation required within two years after exploration concludes. Because exploration activities are temporary, do not convert land to long-term industrial use, and must be followed by reclamation that restores disturbed areas to a stable, vegetated condition under ARM 17.24.107, DEQ concluded that the visual and noise effects of the project are likely to be localized and limited in time and would not materially diminish or leave lasting impression on the overall scenic or recreational value of the Blackfoot River corridor, the CDNST, or other regional recreation areas.

Significance Determination:

Pursuant to ARM 17.4.608, DEQ concludes that impacts to aesthetics would not be significant. The probability of long-term scenic degradation is low given the small, dispersed, and temporary nature of disturbances, the use of existing access where practicable, the concurrent reclamation commitment, and the enforceable bonding and reclamation requirements. Impacts are short-term, localized, and reversible through reclamation and re-vegetation. The geographic extent of visual and noise effects is limited to the immediate vicinity of active work sites and would not fundamentally alter the character of the broader Blackfoot landscape. Any future mine proposal would require a separate, more detailed review of visual, noise, and cumulative industrial activity effects. Preparation of an Environmental Impact Statement is not required for this resource.

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

Proposed action water would be supplied from an existing water well (GWIC #70592) located on private land in Section 23 of Township 14 North, Range 9 West (46.949665°, -112.708359°). The applicant estimates that up to 1,000 gallons per day may be used. Water would be transported to the project area via water trucks. No other local land, water, air, or energy resources would be used as part of this project.

Direct Impacts:

The proposed action would consume up to 1,000 gallons of water per day during drilling activities, a resource that is not limited in the surrounding area. No direct impacts of land, air or energy are expected from this proposed action.

Secondary Impacts:

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

Cumulative Impacts:

Cumulatively, the proposed action's use of up to 1,000 gallons of water per day of well water would add a small increment to existing demands on the water table, and to water use associated with residential and commercial development in the area of the private well, and is not expected to measurably affect overall water availability or water table capacity. No additional cumulative impacts on the environmental resources of land, air or energy are expected from the proposed action.

Significance Determination:

As explained more fully in Section 2, no significant impacts are expected to water quantity.

10. Impacts on Other Environmental Resources

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

- Montana Department of Natural Resource and Conservation (DNRC)
- Montana Department of Environmental Quality (DEQ)
- Montana Department of Transportation (MDT)
- Lewis and Clark 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.

Significance Determination:
Because no impacts are expected to other environmental resources, there would not be significant impacts.

11. Human Health and Safety

The Applicant would be required to adhere to all applicable state and federal safety laws. Exploratory drilling 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 with no access to the general public.

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

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 reduced by implementing wet drilling.

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

Significance Determination:
Severity would be low. Only exploration staff would be in the immediate vicinity during exploration operations. Likewise, the extent of risk is small, within the immediate area of operating permit. Furthermore, the duration would be short, as any risk of ingestion of exhaust fumes and dust would be limited to exploration or reclamation activities. The frequency would continue through reclamation, which must be completed within two years but most work, including phase 1 reclamation work, is expected to be completed within six to eight weeks.

Adherence to OSHA standards and wet drilling would further reduce impacts. Significant impacts are not anticipated.

12. Industrial, Commercial, and Agricultural Activities and Production

The proposed action would occur on land that has been impacted by previous exploration activities conducted under AMD1 in the area.

Direct Impacts:

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

Significance Determination:

Because no impacts are anticipated, the proposed action is not anticipated to significantly affect industrial, commercial, or agricultural activities.

13. Quantity and Distribution of Employment

Existing employees would likely be utilized for this operation at the patented claim block and offsite processing facility, but the Application did not state whether additional employees would be hired or not. 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.

Significance Determination:

No significant impacts are expected.

14. Local and State Tax Base and Tax Revenues

The proposed action would have a limited increase in tax revenue related primarily to payroll taxes from the proposed action and the purchase of some local goods and services.

Direct Impacts:

Some limited benefit to the local and state economy could result from this proposed action through wages, withholding taxes, and local spending by workers and the company. However, due to the short-term nature of the proposed action, only minimal tax revenue from income, property, or gross receipts is expected.

Secondary Impacts:

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

Cumulative Impacts:

The proposed action would provide only a small, temporary addition to the existing local and state tax base associated other economic activity in the Lincoln, MT area, and no notable cumulative impacts on local or state tax revenues are expected from the proposed action.

Significance Determination:

Significant impacts to the local and state tax base and tax revenues from the proposed project are not anticipated. The limited scale of the proposed action would only offer minor employment opportunities for a short period of time. Workers and the company would only have the opportunity to collect wages, withhold taxes, and spend locally during the six to eight weeks of operations and within two years after completion of the operation, including growing seasons.

15. Demand for Government Services

The proposed action would be located on private lands using private, and public access roads and would add a minimal amount of traffic to existing roads in the immediate project area. The applicant proposed that one round-trip per day would be made from the proposed action water source, located at 1644 Thompson Road, Lincoln, MT 59639, to the Columbia Gold Project site, which would include a water truck travelling along Montana Highway 200 for approximately 10 miles, and West Hogum Creek road for a distance of 4.7 miles. Additionally, round-trips would be made as necessary in passenger vehicles to transport drill core from the Columbia Gold project area to the core processing facility located at 5605 Martin Drive, Lincoln MT, 59639, approximately 7.5 miles one-way from the project site along the roadways previously identified.

Site access would rely on existing public access roads and existing roads on private lands. All operations would be subject to local, seasonal restrictions as they apply.

Direct Impacts:

Some impacts on the demand for government services could result from this proposed action through increased vehicle traffic on local roadways.

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

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

Significance Determination:
Because any demand for government services would be limited to increased traffic, and that increase would be limited to a small number of public roads-namely Highway 200 and West Hogum Creek Road, significant impacts are not expected. Increased vehicle traffic would only occur primarily during the six to eight weeks of operation, and the resource is neither unique nor particularly fragile.

16. Locally Adopted Environmental Plans and Goals

The proposed action would occur on public and private lands. The project area would be subject to any plans or rules set forth by USFS, Lewis and Clark County, the 2017 Montana Noxious Weed Management Plan.

DEQ is aware of the following policies and plans:

- The Lincoln Planning Area Growth Policy
- Lincoln Prosperity Proposal
- Blackfoot Drought Response Plan
- Blackfoot Subbasin Plan
    - Blackfoot River Watershed Restoration Pan
- Hogum Wildfire Resilience Project – USFS Lincoln Ranger District
- Blackfoot Non-winter Travel Plan – USFS Lincoln Ranger District

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

DEQ received public comments noting that the Blackfoot Subbasin Plan and the Blackfoot River Watershed Restoration Plan highlight the drainage's ecological sensitivity and document decades of coordinated restoration in the upper watershed, and criticizing the Draft EA for listing these plans but not clearly explaining how the exploration proposal aligns with their restoration goals. Commenters also noted that DEQ-adopted TMDLs for metals and sediment in the Blackfoot headwaters have not been adequately addressed, and that the Helena–Lewis and Clark National

Forest Plan and the Lincoln Prosperity Proposal should be considered. DEQ has reviewed these comments and responds as follows.

The exploration license is limited in duration and scale under 82-4-331 and 82-4-332, MCA, and is conditioned on measures specifically intended to prevent long-term degradation of water quality, habitat, and land productivity. The permit measures-including low-toxicity water-based drilling muds, strict drill-hole plugging under ARM 17.24.106, HDPE-lined sumps with full closure, sediment traps to limit sediment delivery to streams, and robust spill prevention and containment-is expressly designed to prevent discharges that could materially increase metals or sediment loading to TMDL-listed waters, including Hogum Creek and Seven Up Pete Creek. Because these measures are designed to avoid new, persistent sources of metals, sediment, or habitat degradation and to restore disturbed sites quickly, the project is not expected to interfere with or reverse progress toward the restoration goals identified in the Blackfoot Subbasin Plan and Blackfoot River Watershed Restoration Plan. Likewise, the project's small footprint, existing-road use, and concurrent reclamation are broadly consistent with forest-plan direction for watershed protection, scenery management, and recreation settings, and with community priorities reflected in the Lincoln Prosperity Proposal. Because the exploration authorization is temporary, spatially limited, and tied to full reclamation under ARM 17.24.107, DEQ concluded that it does not meaningfully conflict with locally adopted environmental plans and goals.

Secondary Impacts:

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

Cumulative Impacts:

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

Significance Determination:

Pursuant to ARM 17.4.608, DEQ concludes that impacts related to locally adopted environmental plans and goals would not be significant. The proposed action is consistent with the protective goals of applicable local and watershed plans and is not expected to cause exceedances of water-quality standards or TMDL load allocations. Preparation of an Environmental Impact Statement is not required for this resource.

17. Access to and Quality of Recreational and Wilderness Activities

The proposed action would occur on private land accessed via existing USFS roads. West Hogum Creek Road (FR #1841), from Highway 200 to the locked gate at the patented claim block boundary, is presently open year-round for access without a special use permit, under the current Blackfoot Non-Winter Travel Plan for the Lincoln Ranger District. Additional road use permits may be required by the USFS to traverse public land parcels adjacent to the patented claim block should any be identified. The proposed action is located near the terminus of a USFS road and there are no designated wilderness areas in the immediate vicinity, and there are no maintained formal access points to recreational opportunities on USFS lands within or adjacent to the project area.

The preexisting offsite processing facility is also located on private land and would be accessed via US Highway 200.

Direct Impacts:

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

DEQ received public comments describing the Blackfoot corridor as a prime, pristine fishing and boating river and expressing concern that exploration activities-together with cumulative stressors such as drought, other industrial proposals, and the Mike Horse Superfund legacy-could reduce fish populations, flows, and water quality, and diminish the sense of wildness, solitude, and scenic integrity that draws recreators to the Blackfoot. Commenters also emphasized the world-renowned fishery's economic role in supporting local businesses, outfitters, ranch-adjacent tourism, and property values. DEQ has reviewed these comments and responds as follows.

The exploration license is limited to a previously disturbed patented claim block at the headwaters, away from the primary river corridor used by most recreators. The project is designed to keep the spatial and temporal footprint of disturbance small and to prevent measurable changes in water quality, flows, or bank stability that would affect fishing, boating, or swimming opportunities downstream. Access routes to popular recreation sites are not being closed. The exploration authorization does not include mine construction, processing facilities, or long-term industrial operations that would convert recreation lands or riverfront properties to industrial use. Site-level conditions-limited disturbance footprints, reliance on existing roads, overland travel to avoid new road construction, reclamation of pads and access routes under ARM 17.24.107, and controls on dust, emissions, sediment, and spills-prevent visible scarring, chronic noise, or water-quality impacts that could diminish the recreation experience. The short-term, mitigated exploration work is not expected to measurably affect visitation levels, outfitting activity, or the recreation-based component of the local and regional economy.

Secondary Impacts:

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

Cumulative Impacts:

Cumulatively, 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 two years after exploration concludes.

Significance Determination:

Pursuant to ARM 17.4.608, DEQ concludes that impacts to access to and quality of recreational and wilderness activities would not be significant. The mitigated project is unlikely to materially

restrict access to or diminish the quality of recreation along the Blackfoot River, in the CDNST corridor, or near the Scapegoat Wilderness. Preparation of an Environmental Impact Statement is not required for this resource.

18. Density and Distribution of Population and Housing

Lincoln is a town in Lewis and Clark County, MT, and had a population of approximately 1,230 people as of the 2020 census conducted by the United States Census Bureau. Lewis and Clark County had a population of approximately 70,973 as of the 2020 Census.

Direct Impacts:

Due to the short-term project duration and the temporary nature of the proposed action, 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.

Significance Determination:

No significant impacts are expected to density and distribution of population and housing pursuant to ARM 17.4.608.

19. Social Structures and Mores

The proposed action would occur entirely on a privately owned patented claim block in an area that has been subject to mining and other industrial activities since the 1800's. The surrounding areas contain a mix of sparse residential and undeveloped national forest use, and the proposed short-term exploration would be consistent with this existing character. Due to the short-term project duration and location on previously disturbed land, it is not anticipated that this proposed action would disrupt native or traditional lifestyles or communities.

Direct Impacts:

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

DEQ received public comments asserting that the Blackfoot River is an incompatible setting for any mining-related activity given its role as a cultural touchstone and shared heritage for Montanans; that the exploration represents a threat to ongoing community restoration and conservation efforts; that tourism and outdoor recreation central to the rural way of life in the Blackfoot Valley could be undermined; and that social and cultural impacts of sufficient significance warrant preparation of a full EIS. DEQ has reviewed these comments and responds as follows.

The exploration proposal avoids undermining ongoing restoration and conservation efforts. The project's measures-drill-hole plugging that prevents vertical groundwater conduits, HDPE-lined sumps and controlled handling of fluids, erosion and sediment controls, and robust spill prevention and response-prevent long-term or large-scale releases that would compromise restoration gains and the community's ability to continue pursuing restoration as the dominant long-term trajectory for the Blackfoot.

Air-quality controls and erosion-control measures are aimed at preventing the types of environmental degradation that would affect recreation and tourism, and the exploration license does not authorize mine development or long-term industrial operations. The reclamation bond, required under 82-4-332(3) and 82-4-338, MCA, is sized to cover the State's estimated third-party cost to reclaim exploration disturbances if the operator fails, reducing the risk that unreclaimed disturbance becomes a community liability.

Because the conditions on the project and bonding framework substantially reduce the likelihood of lasting environmental degradation, land-use conversion, or displacement of recreation and economic uses that underlie local social structures and mores, the short-term exploration project is not expected to cause significant social or cultural impacts. Any future mine proposal would be subject to its own, more extensive environmental review in which broader social and cultural implications would be analyzed.

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.

Significance Determination:

Pursuant to ARM 17.4.608, DEQ concludes that impacts to social structures and mores would not be significant. The mitigated exploration program would not permanently alter the Blackfoot's condition, access, or perceived quality in a way that would diminish its cultural identity or role in the community. Preparation of an Environmental Impact Statement is not required for this resource.

20. Cultural Uniqueness and Diversity

The proposed action would be conducted in an area that has been affected by historical mining and recent exploration activities, and the surrounding area already contains a mix of residential and mining-related uses. Given the proposed action’s small scale, short duration, and location on previously disturbed private land, it is not expected to alter the cultural character, uniqueness, or diversity of the affected communities.

Direct Impacts:

It is not anticipated that this proposed action would cause a shift in some unique quality of the area. No direct impacts to cultural uniqueness and diversity would be expected from the proposed action.

DEQ received public comments from numerous individuals emphasizing the Blackfoot River's status as a world-class fishery and a vital part of Montana's cultural identity, arguing that approving exploration activities without fully considering cultural impacts is irresponsible (HP-2). Commenters also noted the Blackfoot watershed's deep historical significance to Salish, Pend d'Oreille, Kootenai, and Nez Perce peoples as the route known as Cokahlarishkit-"the river of the road to the buffalo"-and argued that the EA treats this cultural history as an afterthought and that a full EIS is warranted. DEQ has reviewed these comments and responds as follows.

DEQ acknowledges the profound and enduring cultural importance of the Blackfoot River to Montanans and to Indigenous peoples. As stated, however, the project is not anticipated to compromise the integrity of the Blackfoot River area because: (1) the mandatory pre-disturbance cultural resource inventory commitment, which requires the Applicant to complete a SHPO-recommended inventory before any surface disturbance to identify and protect archaeological and cultural resources connected to this landscape; (2) water-quality and habitat protections designed to prevent changes to the river's fishery and scenic quality that underpin its cultural significance; and (3) the exploration license's limited scope, which does not authorize mining, ore processing, or long-term industrial operations that would fundamentally alter the landscape or its cultural character. The EA's discussion of the area's mining history is not intended to suggest that exploration is compatible with the cultural values of all community members; rather, it recognizes the coexistence of multiple land-use histories in the landscape. DEQ takes seriously the community's emphasis on restoration and conservation as the dominant vision for the Blackfoot Valley's future.

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.

Significance Determination:

Pursuant to ARM 17.4.608, DEQ concludes that impacts to cultural uniqueness and diversity would not be significant. The mitigated exploration program, with its mandatory pre-disturbance cultural resource inventory, water-quality protections, and limited footprint and duration, is not expected to alter the Blackfoot's condition, accessibility, or cultural character in a way that would materially diminish its significance to Montana's cultural identity or to Indigenous peoples. Preparation of an Environmental Impact Statement is not required for this resource.

21. Private Property Impacts

The proposed action would take place on private lands. DEQ's approval of AMD2 to Exploration License No. 00816, 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 MMRA 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 Exploration License No. 00816 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 action 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 MMRA, Section 82-4-301, *et seq.*, MCA, and have been sought by the applicant. Therefore, no taking or damaging of private property rights would occur because of DEQ's approval of the Permit Application.

22. Other Appropriate Social and Economic Circumstances

Given the proposed action's limited scale and duration, location on previously disturbed private land, and lack of permanent facilities or population changes, no other appropriate social or economic circumstances beyond those described in this EA are anticipated.

23. Greenhouse Gas Analysis

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

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

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

PROPOSED ACTION ALTERNATIVES

Pursuant to ARM 17.4.609, when an applicant proposes an action with the potential to have an impact on the Montana environment, the associated EA must include a description of reasonable alternatives. For the purposes of MEPA, and the minimum requirements of ARMs 17.4.607 and 17.4.609 for EAs, the alternatives analysis must include the "no action" alternative. The "no action" alternative represents the baseline condition in which the proposed activity does not occur. However, if the applicant demonstrates compliance with all applicable rules and regulations required for approval, the "no action" alternative would not be appropriate. Rather, the "no action" alternative forms the baseline from which the impacts of the proposed action can be measured. Pursuant to section 75-1-201(4)(a), MCA, DEQ "may not withhold, deny, or impose conditions on any permit or other authority to act based on" an environmental assessment. Therefore, if an application meets all the requirements for permit approval, DEQ cannot require any alternative to the project as described in the permit application, including a "no action" alternative.

No Action Alternative:

In addition to the proposed action, DEQ also considered the "no action" alternative. Under the "no action" alternative, DEQ would not approveAMD2 to Exploration License No. 00816, and data from AMD2 exploration activities would not be collected. Baseline conditions would persist and only previously authorized AMD1 exploration and associated reclamation would continue. No additional 1.53 acres of disturbance from drilling up to 21 drill holes would occur, and any other potential impacts authorized under AMD2 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. For purposes of MEPA, the no-action alternative forms the baseline from which the proposed action's impacts can be measured.

CONSULTATION

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

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

- Montana State Historic Preservation Office (SHPO)
- Montana Department of Natural Resource and Conservation (DNRC)
- Montana Fish, Wildlife and Parks (FWP)
- Montana Department of Environmental Quality (DEQ)
- Montana Department of Transportation (MDT)
- Lewis and Clark County
- US Geological Society – Stream Stats (USGS)
- Montana Natural Heritage Program (MTNHP)

- Montana Cadastral Mapping Program
- Montana Groundwater Information Center (GWIC)
- Montana Bureau of Mines and Geology (MBMG)
- United States Environmental Protection Agency (EPA)
- United States Department of Interior, Bureau of Land Management (BLM)
- United States Forest Service (USFS)

PUBLIC INVOLVEMENT

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 include 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 below.

OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION

The proposed action would be located on private lands with public roads utilized for transportation. 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 proposed 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.

The other permits this Proposed Action may have to receive are the following:

- Montana Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction Activity
- USFS Special Use Permit (road use)

No other DNRC, BLM, or USFS-regulated projects were identified in the immediate project vicinity.

NEED FOR FURTHER ANALYSIS AND SIGNIFICANCE OF POTENTIAL IMPACTS

Following the close of the public comment period on the Draft Environmental Assessment, DEQ received extensive comments addressing virtually all resource sections of the EA, including comments from conservation organizations, individual members of the public, and state and federal agencies. DEQ carefully reviewed all comments and prepared consolidated responses by topic. Those consolidated responses are incorporated into this Final EA and summarized within the relevant resource sections above. Public comments addressed topics including: the use of cyanide in potential future mining; the adequacy of the exploration license framework and amendment procedures; social structures and mores; cultural uniqueness and diversity; recreational and wilderness values; locally adopted environmental plans and goals; terrestrial and aquatic life and habitats; water quality, quantity, and distribution; soil quality, stability, and moisture; vegetation cover, quantity, and quality; aesthetics; air quality; and historical and archaeological sites. DEQ's review of these comments, and the analysis

provided throughout this Final EA, informs the significance determinations set forth in Table 3 and discussed below.

With respect to the use of cyanide, DEQ recognizes both the legal requirements of the MMRA, including 82-4-390, MCA (Montana's voter-approved cyanide prohibition), and the strong public concern about cyanide use in the Blackfoot basin. The proposed action does not propose the use of cyanide or any ore-processing facilities. Any future proposal to construct and operate a mine at this site would require an operating-permit application and a separate permitting and environmental review process, in which DEQ would make a permitting decision based on MMRA criteria, including 82-4-390, MCA.

With respect to the exploration license framework, under the MMRA, 82-4-342, MCA, and ARM 17.24.103, amendment procedures allow new work to be conducted under an existing exploration license rather than requiring a new license for each plan of operations, provided the Applicant complies with current reclamation and environmental requirements. Any new work proposed under an existing exploration license must comply with current standards rather than those in place when the license was originally issued. DEQ regularly inspects exploration license projects to verify compliance; deviations may result in enforcement under 82-4-361 through 82-4-362, MCA, and the reclamation bond may be forfeited. Approval of this exploration license amendment does not constitute approval of mining at the site; any future mining proposal would require a separate operating permit, bonding determination, and new MEPA environmental review.

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

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

As described in this EA, the proposed action would authorize additional surface and underground exploration activities that would disturb up to approximately 1.53 acres, all on private lands within an approximately 430-acre patented claim block that has been affected by prior exploration under AMD1.

The EA analysis indicates that, with implementation of applicable BMPs and compliance with applicable federal, state, and local requirements, the remaining impacts on Montana’s environment of the proposed action would be low to moderate in intensity, localized in extent, and short term in duration. Applicable BMPs are described briefly below, as well as throughout the EA in applicable resource sections and Table 1 and Table 3.

BMPs to mitigate erosion, sediment movement, and water resource impacts include: specific drill depth requirements, the use of plastic drill sump liners, secondary containment, spill prevention & spill response kits, and sediment traps. Additionally, where possible, soil would be salvaged and replaced during reclamation, then seeded with an adequate and approved seed mix. Weed control would be implemented consistent with Lewis and Clark County requirements.

BMPs to reduce impacts to air quality include: retaining factory-installed emissions equipment and controls and reduced speed while traveling.

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

Geology/soils, water, and air resources would experience only small, temporary increments of additional disturbance and emissions within an area already substantially affected by previous exploration activities and reclamation is required within two years after exploration is complete. The proposed action would use an existing water source (up to 1,000 gallons per day) rather than construct new groundwater withdrawals and would plug exploration drill holes in accordance with ARM 17.24.106.

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

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

Based on consideration of the criteria set forth in ARM 17.4.608, and the analysis presented in this EA , DEQ has determined that the proposed action, Amendment 2 to Exploration License No. 00816, 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	Significance (yes/no)
1. Geology and Soil Quality, Stability, and Moisture	A. Displacement/excavation of rock and soil and drilling. B. Erosion of disturbed soil and weed propagation.	**A. Severity-Medium:** Of the approximately 1.53 acres of ground that would be disturbed, all disturbance aside from overland travel would result in the displacement movement of rock and soil. Drill cuttings/core would be removed. **Extent-Small:** Total surface area susceptible to displacement would be 1.53 acres. Up to 14,539 linear feet of core would be removed. **Duration- Short to Long Term:** Up to 2 years after completion or abandonment of exploration activities plus growing seasons. **Frequency:** Daily. **Unique/Fragile:** Not unique or particularly fragile. **B. Severity-Low:** Of the 1.53 acres of ground that would be disturbed, all disturbance would be susceptible to erosion and the propagation of weeds. **Extent-Small:** Total surface disturbance susceptible to erosion and weed propagation would be 1.53 acres. **Duration- Short Term:** Up to 2 years after completion or abandonment of exploration activities plus growing seasons. **Frequency:** During occasional storm events. **Unique/Fragile:** Not unique or particularly fragile.	A. Certain B. Possible	Erosion could add to cumulative impacts associated with potential erosion on existing roads, and from previous exploration activities conducted under AMD1 within the project area.	Not Significant. The small disturbance footprint (1.53 acres total), HDPE-lined sumps, sediment traps, drill-hole plugging under ARM 17.24.106, and concurrent reclamation under ARM 17.24.107 would prevent lasting soil compaction, contamination pathways, or alteration of soil moisture regimes. Impacts are short-term, localized, and reversible.
2. Water Quality, Quantity, and Distribution	Erosion of disturbed soil into waterways, intercepting the groundwater table in the project area and 1,000 gallon per day withdrawal at the proposed action water source	**Severity-Low:** Of the 1.53 acres of ground that would be disturbed, all disturbance would be susceptible to erosion. The average depth for the proposed 21 drill holes is 684 feet, which would intercept the water table at approximately 5,459 amsl. Up to 1,000 gallons per day would be consumed during drilling operations. **Extent-Small:** Total surface disturbance susceptible to erosion would be 1.53acres. 21 drill holes are proposed. 1,000 gallons per day would be consumed during drilling operations. **Duration- Short Term:** Up to 2 years after completion or abandonment of exploration activities plus growing seasons and during drilling operations. **Frequency:** During occasional storm events, during drilling operations below the expected groundwater table at approximately 5,380 amsl, 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 AMD1 within the project area. Intercepting the groundwater table during drilling operations could add to cumulative impacts associated with previous exploration activities conducted under AMD1. Proposed water withdrawals at the proposed action water source could add to cumulative impacts to the valley-bottom aquifer by nearby residence and commercial water users.	Not Significant. water-quality and quantity protections-HDPE-lined sumps, ARM 17.24.106 hole-plugging, low-toxicity water-based drilling muds, sediment traps, spill-prevention and containment, and lawful water sourcing under Title 85, MCA-are specifically designed to prevent exploration-related contaminants from reaching Hogum Creek, Seven Up Pete Creek, or the Blackfoot River at levels that would measurably affect water quality or TMDL compliance. The existing water-supply well (GWIC #70592) is authorized for commercial use at up to 99 gallons per minute; the exploration-level demand of up to 1,000 gallons per day is modest and short-term.
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.	Certain	Dust and exhaust generated from the proposed action would temporarily add to the cumulative impacts from the other vehicles and engines operating in the area	Not Significant. Emissions-control and dust-reduction measures prevent meaningful degradation of air quality. Impacts are short-term and localized.

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	Significance (yes/no)
		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.		and to general recreational activities in the greater project area in the use of public lands near the proposed action..	
4. Vegetation Cover, Quantity, and Quality	A. Displacement of vegetation B. Weed propagation associated with surface disturbance	**Severity-Medium:** The 1.53 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 the existing vegetation and susceptible to the propagation of weeds would be 1.53 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 AMD1 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.	Not significant. The small disturbance footprint, concurrent reclamation, and ARM 17.24.107 requirements prevent broad, long-term loss of native vegetation at the population or ecosystem level. Impacts are short-term and localized.
5. Terrestrial, Avian, and Aquatic Life and Habitats	Increased ambient noise and the displacement of animals	**Severity-Low:** 1.53 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 return to the project area shortly after the proposed action's conclusion. **Duration-Short Term:** Reclamation would be required within 2 years after completion or abandonment of exploration activities plus growing seasons. **Frequency-Daily**: During exploration and reclamation activities. **Unique/Fragile:** Not unique or particularly fragile.	Probable	No cumulative impacts to terrestrial, avian, and aquatic life and habitats would be expected.	Not Significant. Water-quality and habitat protections measures prevent exploration-related contaminants from reaching the streams and riparian habitats used by westslope cutthroat trout, ESA-listed bull trout, and other sensitive species. No wetlands or riparian habitats would be directly disturbed. Short-term and Temporary wildlife displacement, minor disturbance area, and availability of suitable habitat for any displaced species indicates no significant impacts, and is expected to be minor and reversible.
6. Unique, Endangered, Fragile, or Limited Environmental Resources	displacement of unique or endangered animals	**Severity-Low:** 1.53 acres of disturbance would cause temporary displacement of unique and endangered animals from the project area. **Extent-Small:** 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	No cumulative impacts to unique, endangered, fragile, or limited environmental resources would be expected.	Not Significant. The MTNHP Environmental Summary identifies species of concern with documented or potential occurrence in the project area; however, habitat within the 430-acre claim block is representative of the surrounding National Forest landscape, the 1.53-acre disturbance is small relative to available habitat, no wetlands or riparian areas would be disturbed, and all areas would be reclaimed under ARM 17.24.107.
7. Historical and Archaeological Sites	Impacts to historical and archaeological sites	**Severity-Low:** Some disturbance associated with the proposed action could impact existing historical and archeological resources. **Extent-Small:** The presence of historical and archeological resources would be minimal within the project area proposed to be disturbed. **Duration-Long Term:** Any disturbance to archaeological sites would be permanent.	Probable	No cumulative impacts on historical and archaeological resources would be expected from the proposed action.	Not Significant. SHPO-recommended pre-disturbance cultural resource inventory, SHPO coordination, the unanticipated-discovery protocol, small disturbance footprint, and concurrent reclamation, ensure that known and newly identified historic properties can

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	Significance (yes/no)
		Frequency -Daily: During exploration and reclamation activities. **Unique/Fragile:** Not unique or particularly fragile.			be avoided or protected to a non-significant level of impact.
8. Aesthetics	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 light towers in use. Receptors would hear noise from sources including the operation of heavy equipment, construction, and travel. **Extent-Small:** The proposed action 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 by distance or another sound-dampening feature. **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 the proposed action could temporarily add to the cumulative impacts associated with travel and previous exploration activities conducted under AMD1 in the area.	Not Significant. Small work areas, existing-road use, concurrent reclamation, downward-facing lights with shields, and reduced vehicle speeds keep noise and visual intrusions localized and temporary.
9. Demands on Environmental Resources of Land, Water, Air, or Energy	Water usage	**Severity-Low:** The proposed action would utilize approximately 1,000-gallons of water per day during drilling operations. **Extent-Small:** The water would be sourced from pre-existing water private water well source (GWIC #70592) located on private land in Section 23 of Township 14 North, Range 9 West. **Duration-Short Term:** Water would be consumed during drilling operations. **Frequency- Daily:** During exploration and reclamation activities. **Unique/Fragile**-Not unique or particularly fragile.	Unlikely	Consumption of up to 1,000 gallons of water per day could temporarily add to the cumulative impacts associated with residential and commercial water use in the area.	Not Significant.
10. Impacts on Other Environmental Resources	No direct impacts on other identified environmental resources or projects that rely on the same lands or facilities are anticipated.	N/A	N/A	N/A	Not Significant.
11. Human Health and Safety	Possible respiration, ingestion, or contact with dust	**Severity-Low:** Only exploration staff would be in the immediate vicinity during exploration operations. **Extent-Small:** Within the immediate area of operating equipment. **Duration-Short Term:** Respiration of exhaust fumes and the ingestion of dust produced by heavy equipment would only be during exploration or reclamation activities. Reclamation would be required within 2 years after completion or abandonment of exploration activities, plus growing seasons. **Frequency- Daily:** During exploration and reclamation activities. **Unique/Fragile**- Not unique or particularly fragile.	Unlikely	No cumulative impacts on human health and safety would be expected from the proposed action.	Not Significant.

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	Significance (yes/no)
12. Industrial, Commercial, and Agricultural Activities and Production	No anticipated impacts	N/A	N/A	N/A	Not Significant.
13. Quantity and Distribution of Employment	No anticipated impacts	N/A	N/A	N/A	Not Significant.
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 opportunity to collect wages, withhold taxes, and spend locally related to the proposed action during the 6 to 8 weeks of 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.	Likely	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 Lincoln, MT area.	Not Significant.
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 Highway 200 and West Hogum Creek Road. **Duration-Short Term:** Increased vehicle traffic would only occur during the 6 to 8 weeks of operation 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	No cumulative impacts to demand on government services would be expected from the proposed action.	Not Significant.
16. Locally Adopted Environmental Plans and Goals	No anticipated impacts	N/A	N/A	N/A	Not Significant. Project control measures designed to prevent discharges that could increase metals or sediment loading to TMDL-listed waters, consistent with the Blackfoot Subbasin Plan and the Blackfoot River Watershed Restoration Plan. The project is not expected to conflict with the Helena–Lewis and Clark National Forest Plan or the Lincoln Prosperity Proposal.
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 light towers 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 National Forest lands **Duration-Short term:** Project visibility and noise would only occur during the 6 to 8 weeks of operation and within 2 years after	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 two years after exploration concludes.	Not Significant. Project designs prevent water-quality and habitat changes that would affect fishing, boating, or wilderness recreation along the Blackfoot corridor, the CDNST, or near the Scapegoat Wilderness.

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	Significance (yes/no)
		completion of abandonment of exploration activities, plus growing seasons. **Frequency- Daily:** During exploration and reclamation activities. **Unique/Fragile:** Not unique or particularly fragile.			
18. Density and Distribution of Population and Housing	No anticipated impacts	N/A	N/A	N/A	Not Significant.
19. Social Structures and Mores	No anticipated impacts	N/A	N/A	N/A	Not Significant. Project control measures substantially reduce the likelihood of lasting environmental degradation that would undermine the Blackfoot's cultural identity, recreation economy, or community restoration trajectory.
20. Cultural Uniqueness and Diversity	No anticipated impacts	N/A	N/A	N/A	Not Significant. Pre-disturbance cultural resource inventory commitment, water-quality protections, and the exploration license's limited scope address the cultural significance of the Blackfoot watershed to Montanans and to Indigenous peoples.

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

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REFERENCES

Blackfoot Challenge and Trout Unlimited, 2009. Blackfoot Subbasin Plan. Prepared for: Northwest Power and Conservation Council (2011). Retrieved from NW Council: https://www.nwcouncil.org/sites/default/files/BlackfootPlan.pdf

Blackfoot Challenge, 2014. Blackfoot River Watershed Restoration Plan, A Water Quality Addendum to the Blackfoot Subbasin Plan. Retrieved from Montana DEQ: https://deq.mt.gov/files/Water/WPB/Nonpoint/Publications/WRPs/BlackfootWRP_FINAL_123014.pdf

Blackfoot Challenge, Revised 2026. Blackfoot Drought Response Plan. Blackfoot Drought Committee. Retrieved from Blackfoot Challenge: https://www.blackfootchallenge.org/wp-content/uploads/2026/02/Blackfoot-Drought-Response-Plan_withappendices_2026.pdf

Bureau of Land Management (BLM) 2021. Specialist Report on Annual Greenhouse Gas Emissions and Climate Trends from Coal, Oil, and Gas Exploration and Development on the Federal Mineral Estate. Available at: https://www.blm.gov/content/ghg/2021/. (2024)

Burke, C. and J., Veil (Argonne National Laboratory) 1995. Synthetic-based drilling fluids have many environmental pluses. Oil Gas Journal. Vol. 93, issue 48: pp 59-64.

EPA Center for Corporate Climate Leadership, Scopes 1, 2 and 3 Emissions Inventorying and Guidance | US EPA

EPA, "Climate Change Indicator: Greenhouse Gases". Climate Change Indicators: Greenhouse Gases | US EPA

EPA Simplified GHG Emissions Calculator: https://www.epa.gov/climateleadership/simplified-ghg-emissions-calculator (2023).

Federal Emergency Management Agency Website. National Flood Hazard Layer. Retrieved from FEMA: https://www.fema.gov/flood-maps/national-flood-hazard-layer (n.d.)

Geospatial Resources at EPA. Retrieved from US Environmental Protection Agency: https://www.epa.gov/geospatial

GIS Data. Retrieved from Bureau of Land Management: https://www.blm.gov/services/geospatial/GISData (2025).

Lincoln Community Council. Lincoln Planning Area Growth Policy. Prepared for: The Lewis & Clark Board of County Commissioners. Undated

Lincoln Prosperity Proposal. Lincoln Prosperity Group: https://www.lincolnprosperity.com/

Longcore and Rich, 2004. Travis Longcore and Catherine Rich. “Ecological Light Pollution.” Frontiers in Ecology and the Environment. Volume 2, Issue 4, May 2004, pages 191-198. Accessed via https://esajournals.onlinelibrary.wiley.com/doi/full/10.1890/1540-9295%282004%29002%5B0191%3AELP%5D2.0.CO%3B2 on 6/13/24.

Zoning Compliance Form. Montana Maps. Retrieved from Montana Department of Transportation: https://www.mdt.mt.gov/publications/maps.aspx (2022)

Geologic Map of Montana. Retrieved from Montana Bureau of Mines and Geology: https://mbmgmap.mtech.edu/server/rest/services/Geology/Geology500k/MapServer (2025).

Ground Water Information Center Database. Retrieved from Ground Water Information Center: https://mbmggwic.mtech.edu (2025).

Retrieved from Discover DEQ's Data: https://discover-mtdeq.hub.arcgis.com/

McDonald, C., Mosolf, J. G., Vuke, S. M., & Lonn, J. D. (2020). Geologic Map of the Elliston 30’ × 60’ Quadrangle, West-Central Montana (Montana Bureau of Mines and Geology Geologic Map 77).

Montana Department of Environmental Quality, Remediation Division, Hazardous Waste Site Cleanup Bureau. March 2016. Record of Decision: Final Cleanup for the Upper Blackfoot Mining Complex State Superfund Facility. Helena, Montana

Montana Department of Fish, Wildlife & Parks (FWP). 2026. *Wildlife Consultation Letter: Columbia Gold Project, Exploration License No. 00816, Amendment 2 (AMD2), Lewis and Clark County.* June 5, 2026.

Montana Department of Natural Resources and Conservation. Retrieved from https://dnrc.mt.gov/

Montana Natural Heritage Project Environmental Summary. Helena. Montana State Library. (2025).

Montana Cadastral. Retrieved from Montana State Library: https://svc.mt.gov/msl/mtcadastral (2025).

Parker, D. B. (1995). The geology, petrology and volcanic history of the Crater Mountain volcanic complex, Lewis and Clark County, Montana (Master’s thesis). University of Montana.

United State Geological Survey. USGS Stream Stats. Retrieved from United State Geological Survey: https://streamstats.usgs.gov/ss/ United States Department of Agriculture. (n.d.).

Web Soil Survey. Retrieved from Natural Resources Conservation Service: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx

United States Forest Service. FSGeodata Clearinghouse. Retrieved from Forest Service: https://data.fs.usda.gov/geodata/ US EPA (2025).

United States Forest Service. Hogum Wildfire Resilience Project. Retrieved from Forest Service: https://www.fs.usda.gov/r01/helena-lewisclark/projects/archive/58399 (2021)

U.S. Department of Agriculture, Forest Service, Helena–Lewis and Clark National Forest. (2016). *Blackfoot Travel Plan: Record of Decision*. Helena, MT.

US Fish and Wildlife Service. Wetlands Data. Retrieved from US Fish and Wildlife Service: https://www.fws.gov/program/national-wetlands-inventory/data-download (2025).

CONSOLIDATED RESPONSES TO COMMENTS ON THE DRAFT EA

The consolidated responses presented below were grouped by broad themes. See **Table 4** for a list of the consolidated response topics, and the sections below for the responses to them.

Table 4: Issues Codes for Consolidated Responses to Comments on the draft EA

Code	Issue
EL-1	Concerns Regarding Exploration License
PE-1	Concerns Regarding Terrestrial and Aquatic Life and Habitats
PE-2	Concerns Regarding Water Quality, Quantity and Distribution
PE-3	Concerns Regarding Geology
PE-4	Concerns Regarding Soil Quality, Stability and Moisture
PE-5	Concerns Regarding Vegetation Cover, Quantity and Quality
PE-6	Concerns Regarding Aesthetics
PE-7	Concerns Regarding Air Quality
PE-8	Concerns Regarding Unique, Fragile or Limited Environmental Resources
PE-9	Concerns Regarding Historical and Archaeological Sites
PE-10	Concerns Regarding Demands on Environmental Resources of Land, Water, Air and Energy
HP-1	Concerns Regarding Social Structures and Mores
HP-2	Concerns Regarding Cultural Uniqueness and Diversity
HP-3	Concerns Regarding Access to and Quality of Recreational and Wilderness Activities
HP-4	Concerns Regarding Local and State Tax Base and Tax Revenues
HP-5	Concerns Regarding Industrial, Commercial and Agricultural Activities and Production
HP-6	Concerns Regarding Human Health and Safety
HP-7	Concerns Regarding Quantity and Distribution of Employment
HP-8	Concerns Regarding Distribution and Density of Population and Housing
HP-9	Concerns Regarding Demands for Government Services
HP-10	Concerns Regarding Industrial and Commercial Activity
HP-11	Concerns Regarding Locally Adopted Environmental Plans and Goals
HP-12	Concerns Regarding Other Appropriate Social and Economic Circumstances
CN-1	Concerns Regarding the Use of Cyanide in Ore Processing
SF-1	Concerns Regarding Impacts to Existing Superfund sites or Potential for New Superfund-level Contamination
MEPA-1	Concerns Regarding MEPA Process

Consolidated Response EL-1

Public comments were received regarding the Exploration License, statutes, rules, and reclamation requirements. These comments were read, coded as EL-1, grouped by common theme, and addressed in the consolidated responses below.

A New Exploration License Should be Required

Several commenters have expressed concern that the Applicant should have to apply for a new exploration permit rather than amend a decades-old permit.

Under the Metal Mine Reclamation Act (MMRA), exploration activities must be covered by a valid exploration license issued under 82-4-331 and 82-4-332, MCA, which is issued for one year and may be renewed annually on application if the licensee remains in compliance. The department must issue an exploration license to any applicant who pays the statutory fee, agrees to reclaim the disturbed areas, and is not in default of other reclamation obligations or otherwise disqualified under 82-4-331, MCA.

Section 82-4-342, MCA, authorizes the department to approve amendments to an exploration license. Consistent with this authority and the MMRA rules and ARM 17.24.103 through 17.24.108, DEQ administers exploration in a defined project area basis, and proposed changes or additions to work within that project area may be processed as amendments rather than requiring a new license.

For the proposed action, DEQ has determined that the proposed activities would occur within the existing exploration project area and are therefore appropriately reviewed as an amendment to the existing exploration license under 82-4-342, MCA. Any amendment to the license is subject to the same statutory eligibility criteria as a new license, including review of the licensee's compliance history under 82-4-331, MCA and must meet the current performance and reclamation standards in ARM 17.24.103 through 17.24.108. As a result, although the exploration license was originally issued many years ago, the proposed action analyzed in this EA must comply with current MMRA requirements, include adequate reclamation bond and timely reclamation of disturbed areas as required by 82-4-332, MCA and the applicable ARM provisions.

Adequacy and Timing of Reclamation Requirements

Commenters expressed concern over the perceived lack of detail on reclamation activities "immediately following each of the 21 drill holes" versus reclamation deferred for up to two years, and others objected that reclamation could not possibly be completed within that two-year window.

ARM 17.24.103(1)(c) requires that the applicant submit a plan of operations, including a reclamation plan, in sufficient detail for DEQ to determine whether the reclamation and performance requirements of ARM 17.24.104 through 17.24.108 would be satisfied; the application submitted on March 9, 2026, met the department's completeness criteria. Specific reclamation methods such as recontouring, decompaction, revegetation, and weed control are described in the EA and, together with the BMP's concurrent reclamation measures (recontouring, stabilization, and revegetation as soon as areas are no longer needed), form enforceable requirements that implement ARM 17.24.107. Final reclamation of all surface disturbances must be completed no later than two years after exploration concludes, consistent with 82-4-336, MCA.

Inspections and Compliance

Commenters also had questions regarding who would oversee and confirm compliance with the reclamation plan and ensure that the Applicant is following the approved plan of operations and MMRA requirements, and how long-term performance would be verified.

DEQ regularly inspects exploration license projects to verify compliance with the approved plan of operations, including any BMPs incorporated as license conditions. Deviations from the approved plan or

reclamation requirements may result in a warning or violation letter under 82-4-361, MCA; if noncompliance persists or is serious, the department may suspend or revoke the license under 82-4-362, MCA, forfeit the reclamation bond, and use the forfeited funds to reclaim the site. In such a case, 82-4-331, MCA, bars the licensee from conducting further exploration in Montana until DEQ has completed reclamation or abatement and the licensee has reimbursed DEQ for the cost of the abatement.

Bonding Requirements

Many commenters expressed concerns that bonding for exploration and any future mine is unlikely to cover real cleanup and long-term remediation costs, citing Montana's history with abandoned and bankrupt mines.

For this exploration project, the reclamation bond is limited to the work described in the EA's Purpose and Need and is set under ARM 17.24.140 at not less than DEQ's estimate of the cost for the State to reclaim and revegetate the disturbances authorized by the exploration license or any amendment. This estimate reflects the specific disturbance types in the proposed plan of operations. Because the authorization is limited to short-term exploration and does not include mine development, waste-rock or tailings facilities, or ore processing, the bond is calculated to cover the State's estimated third-party cost to complete exploration-scale reclamation if the licensee fails, thereby reducing the risk that unreclaimed disturbance becomes a taxpayer liability. Any future mining proposal would require a separate operating-permit application and a new bonding determination under 82-4-338, MCA, appropriate to the scale and nature of that proposal.

Fulfillment of Existing Reclamation Obligations Under the Current License

Several commenters assert that reclamation under Amendment 1 (AMD1) remains incomplete and that DEQ should not authorize additional disturbance under AMD2 until all AMD1 obligations are fully satisfied; others note that restoring mature trees takes decades and thus cannot be completed within two years.

Section 82-4-336, MCA, requires that reclamation be initiated promptly and, absent a longer period approved by DEQ, completed within two years after completion or abandonment of operations; the EA's Present Actions section documents partially reclaimed disturbance under AMD1 and notes that DEQ retains a reclamation bond to cover remaining weed control, regrading, and revegetation. Revegetation does not require reestablishing mature forest conditions; instead, 82-4-336, MCA, and ARM 17.24.107–17.24.108 require that disturbed lands be returned to a use, utility, and stability comparable to adjacent undisturbed lands. The BMP's emphasis on concurrent reclamation, small disturbance areas, and prompt stabilization and revegetation is intended to support timely achievement of that standard for both existing and new exploration disturbances under the license.

Clarity and Enforceability of Operating Conditions and Best Management Practices

Many commenters question whether exploration license conditions and BMPs are clearly defined and enforceable, and ask who is responsible for implementation, oversight, and cost.

The exploration license incorporates specific measures from the Applicant's plan of operations and the proposed BMPs as enforceable license conditions rather than advisory guidance. Failure to implement

these measures would constitute noncompliance with the exploration license and would be subject to inspection, enforcement, and potential bond forfeiture as described above. DEQ is responsible for regulatory oversight, while the licensee bears the cost of designing, installing, and maintaining BMPs and of complying with all license conditions.

Exploration Drilling as a Pathway to a Full-Scale Mining Operation

Many commenters believe that approving an exploration license or amendment is a regulatory pathway to full-scale mining and request that DEQ clarify what future mine proposals would require so the exploration authorization is not misconstrued as a mine approval.

Under the MMRA, an exploration license issued under 82-4-332, MCA, authorizes only exploration activities, such as drilling and related disturbance to evaluate the feasibility of mining and does not authorize mining, ore processing, or construction or operation of a mine. Any future proposal to mine would require an approved operating permit under 82-4-335 and 82-4-337, MCA, including a complete mine and reclamation plan, bonding determination under 82-4-338, MCA, and a new MEPA environmental review of the specific mining proposal, its potential environmental impacts, and alternatives. Approval of this exploration license amendment therefore does not constitute approval of mining at the site; the plan of operations and the associated BMP's exploration-focused mitigations operate only within the scope of the exploration license, and any mining proposal would undergo separate MEPA review and permitting process.

Water Rights and Use Conditions Tied to the License

Commenters request that DEQ require the Applicant to demonstrate lawful commercial water rights before any exploration license is issued and to prohibit use of residential wells for drilling.

Under the MMRA, an exploration license issued under 82-4-332, MCA, does not create or confirm a right to use water; water rights are administered separately by the Department of Natural Resources and Conservation (DNRC) and its rules. The EA discloses the GWIC-listed water supply well to be used for drilling in Table 1 (Summary of Activities Proposed in Application - Proposed Action Water Source) and discusses well details and water use considerations in the Water Quality, Quantity, and Distribution section and related responses.

Consolidated Response PE-1

Public comments were received on Draft EA Section 5, "Terrestrial, Avian and Aquatic Life and Habitats." These comments were read, coded as PE-1, grouped by common theme, and addressed in the consolidated responses below. Related responses addressing public comments below may also be found in Consolidated Response PE-2, "Water Quality, Quantity and Distribution".

Sensitivity of the Blackfoot Headwaters and Native Species

Commenters state that the upper Blackfoot headwaters and tributaries are an exceptionally sensitive cold-water ecosystem that supports native westslope cutthroat trout, bull trout, Western pearlshell mussels, diverse aquatic insects, and a variety of terrestrial wildlife using riparian corridors. They assert

that disturbance in headwater areas poses an outsized risk to water quality, temperature, and habitat integrity throughout the downstream river system.

The Applicant's plan of operations and associated BMPs are designed to eliminate or greatly reduce potential pathways for drill sites to surface waters. The plan proposes to limit the size of drill pads, access routes, and associated work areas; to rely on existing roads where practicable; and to use overland travel where site conditions allow, thereby reducing the overall footprint of soil disturbance, vegetation removal, and erosion risk in the headwaters. The Applicant also proposes concurrent reclamation, recontouring, stabilization, and revegetation of disturbed areas as soon as they are no longer needed to shorten the duration of disturbance and promote the timely re-establishment of vegetation and habitat functions that support aquatic and terrestrial species.

For additional discussion, see Consolidated Response PE-2.

See Table 3: Assessment of Significance (ARM 17.4.608)

Mining-related Contamination and Long-term Aquatic Impacts

Commenters are concerned that drilling and potential future mining could introduce sediment, drilling fluids, heavy metals, and other contaminants into surface water and groundwater, resulting in long-term or irreversible degradation of aquatic habitat and water quality. They cite Montana's mining history, including the Mike Horse and Seven-Up Pete sites, as examples of hard-rock mining causing persistent pollution and damage to fish populations and aquatic ecosystems.

The Applicant's plan of operations contains proposed measures designed to protect groundwater, including; the use of water-based drilling mud systems with clays and polymers that form a low-permeability filter cake along the borehole wall to reduce fluid loss and limit the migration of drilling additives into surrounding formations, while using additives selected for low toxicity and biodegradability to further reduce risk to groundwater and aquatic resources. Exploration drill holes are required to be properly plugged in accordance with ARM 17.24.106, which requires the prompt plugging of drill holes with low-permeability materials to prevent vertical movement of groundwater or contaminants and to promptly restore hydrologic separation between water-bearing units.

The Applicant's plan of operations contains proposed measures designed to protect surface waters, including; the use of excavated, HDPE-lined sumps for drilling fluids and cuttings, sediment traps downslope of disturbed areas, designed to intercept runoff and allow sediment to settle before water proceeds downslope, thereby reducing the risk of sediment delivery to adjacent drainages, and spill-prevention and response measures, including staging spill kits at drill pads and fuel locations, implementing regular equipment maintenance, and using secondary containment for onsite fuel and hazardous liquids.

For additional discussion, see Consolidated Response PE-2.

See Table 3: Assessment of Significance (ARM 17.4.608)

Drought, Warming, and Additional Industrial Projects

Commenters state that the Blackfoot River and similar cold-water systems are already stressed by drought, reduced low-elevation snowpack, rising water temperatures, and heavy angling pressure. They assert that these existing conditions, combined with other proposed or existing industrial projects such as a gravel pit and a data center, reduce the system's resilience and increase the potential for exploration and potential mining to tip a stressed fishery and ecosystem toward decline.

The Applicant's plan of operations and associated BMPs are designed to minimize the incremental contribution of exploration activities to cumulative effects. By limiting the size and number of drill pads, using existing roads where practicable, and favoring overland travel instead of new road construction, the proposed action reduces the overall new disturbance footprint that could otherwise contribute to habitat loss and erosion. The plan proposes concurrent reclamation, which further shortens the duration of exposed soils and disturbed surfaces, reducing the window during which project-related erosion or runoff could interact cumulatively to affect water quality and habitat. The plan further proposes to protect surface and groundwater by using water-based drilling fluids, HDPE-lined sumps, and sediment traps designed to contain exploration-related disturbances so that they do not create persistent contamination pathways or long-term sediment sources within the watershed.

For additional discussion, see Consolidated Response PE-2.

See Table 3: Assessment of Significance (ARM 17.4.608)

Terrestrial Habitat, Wildlife Displacement, and Fragmentation

Commenters question the EA's characterization of wildlife effects as "temporary displacement," asking how "temporary" is defined for specific species and whether animals will return to disturbed areas. They express concern that new or improved roads, drill pads, noise, human activity, and vehicle traffic would fragment habitat, disrupt migration and foraging patterns, spread noxious weeds, reduce solitude, and "upend the wildlife" currently using relatively undisturbed habitat.

In the context of the proposed action, "temporary displacement" refers to the period during which wildlife may avoid active drill pads, access routes, and other project-related disturbances, generally corresponding to active drilling and operations, after which disturbed sites are reclaimed to restore vegetation and habitat function. The Applicant's plan of operations incorporates several BMPs to limit the extent and duration of terrestrial habitat disturbance, including the use of small surface-disturbance work areas; reliance on existing roads where practicable; and implementation of concurrent reclamation to recontour, stabilize, and revegetate disturbed sites as soon as they are no longer needed. These measures reduce overall habitat fragmentation, shorten the time wildlife is displaced from localized disturbance zones, and promote re-establishment of cover and weed-free forage conditions.

For additional discussion, see Consolidated Response PE-2, Consolidated Response PE-4, Consolidated Response PE-5, Consolidated Response PE-6, Consolidated Response HP-2, and Consolidated Response HP-3

See Table 3: Assessment of Significance (ARM 17.4.608)

Legacy Damage and Incomplete Recovery

Commenters reference past mining incidents, including the Mike Horse Superfund site and other historic operations, as examples of tailings releases and contamination that "crushed" local fisheries and required extensive, long-term cleanup. They state that some portions of the Blackfoot fishery have never fully recovered and that the river's current condition reflects decades of restoration and collaborative stewardship that should not be put at risk.

The proposed action is limited to short-term mineral exploration under 82-4-331 and 82-4-332, MCA and not to mine construction, waste-rock or tailings storage or ore processing. The Applicant's plan of operations and associated BMPs includes prevention-focused measures, such as small surface-disturbance work areas, reliance on existing roads where practicable, preference for overland travel in suitable conditions instead of new road construction, concurrent reclamation under ARM 17.24.107, water-based drilling fluids, strict drill-hole plugging under ARM 17.24.106, HDPE-lined sumps, sediment traps, and comprehensive spill-prevention and containment, that are designed to avoid creating long-lived contamination of the type associated with historic Superfund sites.

For additional discussion, see Consolidated Response PE-1, Consolidated Response PE-2, Consolidated Response PE-8, Consolidated Response, Consolidated Response SF-1

See Table 3: Assessment of Significance (ARM 17.4.608)

Value of the Blackfoot as a World-Class Fishery

Commenters describe the Blackfoot River and its tributaries as a "world-class" cold-water fishery, a treasured recreation destination, and a core part of Montana's ecological and cultural identity. They state that the river supports fishing, boating, hunting, wildlife viewing, tourism, and local livelihoods, and argue that these values-and the conservation legacy that helped restore the river-are too important to risk for short-term exploration or potential future mining.

The Applicant's plan of operations and BMPs are designed to avoid or minimize project-related effects that could degrade the ecological, cultural, and economic value of the Blackfoot River to local communities. Limiting the disturbance footprint through small work areas, existing-road use, and overland travel; containing and reclaiming drilling returns through HDPE-lined sumps and sediment traps; promptly plugging drill holes to protect aquifer integrity; and implementing concurrent reclamation to restore disturbed sites are all intended to maintain water quality and habitat conditions that support the Blackfoot's fishery and recreation uses. In addition, the Applicant proposes standard air-quality and spill-prevention measures, such as maintaining factory-installed emissions controls, reducing speeds on unpaved roads to limit dust, staging spill kits, maintaining equipment, and providing secondary containment for fuels to reduce off-site air and water quality impacts that could affect recreational users and aquatic life.

For additional discussion, see Consolidated Response PE-1, Consolidated Response PE-8, Consolidated Response HP-3

See Table 3: Assessment of Significance (ARM 17.4.608)

Full EIS Should be Required

Commenters contend that the EA downplays or dismisses impacts to aquatic life, terrestrial wildlife, and habitats, noting that the EA's own species lists include sensitive species such as westslope cutthroat trout. They argue that concluding there would be no cumulative impacts to terrestrial, avian, or aquatic life is inconsistent with the sensitivity of the Blackfoot headwaters and Montana's mining history, and they urge preparation of a full Environmental Impact Statement (EIS) focused on risks to the world-class fishery, wildlife, and conservation values.

See Consolidated Response MEPA-1, Consolidated Response PE-1, Consolidated Response PE-8

Consolidated Response PE-2

Public comments were received on Draft EA Section 2, "Water Quality, Quantity and Distribution." These comments were read, coded as PE-2, grouped by common theme, and addressed in the consolidated responses below.

A. Concerns at or Near the Drill Sites

Drilling Fluids, Groundwater Interception and Pathways to Surface Water

Comments express concern that drilling fluids, cuttings, and effluent from pads and sumps could escape containment and move downslope into Seven Up Pete Creek, Hogum Creek, and the Blackfoot River, and note that the EA does not explicitly model sump failure or inadvertent releases. They also note that drill holes would pass through multiple water-bearing zones and intercept groundwater in many or most holes, and question whether groundwater-bearing intervals would be properly sealed to prevent boreholes from functioning as conduits.

The Applicant's plan of operations and the associated BMPs propose surface water and groundwater protection measures, including the excavation of HDPE-lined sumps that confine drilling wastes to a defined footprint and limit downward infiltration, particularly in areas of permeable soils or shallow groundwater. Drill sumps must be closed and reclaimed at the conclusion of drilling on each pad through removal of residual fluids and liners, backfilling with suitable stockpiled material, grading to match surrounding contours, and revegetation, thereby eliminating them as long-term sources of seepage or runoff.

The exploration license also requires protection of groundwater through full compliance with ARM 17.24.106, which sets specific drill-hole plugging standards designed to safeguard groundwater resources and maintain separation between aquifers. Exploration drill holes must be promptly and properly plugged with low-permeability materials, such as bentonite and cement, with additional sealing where multiple aquifers or artesian conditions are encountered. The proposed action would utilize industry-standard, low-toxicity, water-based drilling muds formulated to create a low-permeability filter cake on borehole walls, which reduces fluid loss into formations and limits mass transfer between drilling fluids and groundwater while the hole is open.

For additional discussion, see Consolidated Response EL-1

See Table 3: Assessment of Significance (ARM 17.4.608)

Headwaters Sensitivity, Runoff and Cumulative Water-Quality Effects

Several comments emphasize that the project area lies between tributaries with likely ground–surface-water connections and that any contamination at the drill sites could express in nearby creeks and then cascade downstream to ESA-listed fish habitat. Other comments state that runoff from pads and access routes could carry sediment and contaminants to tributaries, and that the EA does not quantify cumulative pollutant loading or baseline water quality.

The Applicant's plan of operations and associated BMPs are designed to eliminate or greatly reduce potential pathways from drill sites to surface waters. As proposed, sediment traps must be installed downslope of pads, sumps, and disturbed surfaces where necessary to intercept runoff, slow flow, and allow sediment to settle. These structures would be regularly inspected, maintained, decommissioned and reclaimed once exploration is complete. The plan of operations also proposes concurrent reclamation so that disturbed soils are exposed for the shortest practicable time, thereby reducing the duration during which exploration-related disturbances can interact with shallow groundwater or surface runoff.

For additional discussion, see Consolidated Response PE-1, Consolidated Response PE-8

See Table 3: Assessment of Significance (ARM 17.4.608)

Additional information has been provided in section 2, Water Quality, Quantity, and Distribution, of the final EA describing the impairment of the Headwaters of the Blackfoot River and the TMDLs that have been established as a result of that impairment listing.

Shallow Groundwater, Springs and Potential Discharge to Surface Waters

Some comments describe very shallow groundwater and year-round springs in the project area and express skepticism toward statements that the exploration program would present "zero discharge" or "no credible pathway" to streams.

The Applicant's plan of operations and associated BMPs propose surface water and groundwater protections, including the use of HDPE-lined sumps, use of water-based drilling fluids and filter-cake formation to limit fluid invasion into formations; compliance with hole plugging requirements under ARM 17.24.106 to prevent vertical flow and new hydraulic connections. These measures are specifically designed to maintain aquifer isolation and prevent the creation of new preferential pathways in a setting where groundwater is shallow and closely linked to surface water, consistent with the protective purposes of 82-4-301 et seq., MCA, and the Montana Water Quality Act.

See Table 3: Assessment of Significance (ARM 17.4.608)

B. Concerns at the Water-Supply Source and Regional Aquifer

Water-Rights Status, Source Well Use and Legal Allocation

Comments raise legal concerns about using a nearby residential or exempt well to supply drilling water and discuss groundwater rights, questioning whether off-site commercial sale and use for exploration is

authorized. They also request clarity on who holds senior and in-stream flow rights and how the project's water use fits within existing allocations.

The Applicant's plan of operation identifies an upper-limit operational demand of approximately 1,000 gallons per day for drilling, but does not create, confirm, or modify any water right. Under Montana law, the validity, scope, and administration of water rights, including any change in use or place of use, are governed by Title 85, MCA, and administered by the Department of Natural Resources and Conservation (DNRC), and the exploration license issued under 82-4-331 and 82-4-332, MCA, does not substitute for or alter those requirements. The EA clarifies that the project water source (GWIC #70592) is a private well with beneficial use categorized as commercial under Ground Water Certificate No. 76F 13158-00 and that the certificate authorizes a maximum flow rate of 99 gallons per minute.

DEQ does not adjudicate or independently verify an applicant's legal access to a particular water source as part of the exploration-license review; instead, the license requires that exploration activities be conducted in compliance with all applicable federal, state, and local laws and permit requirements, including Montana water-rights law. As a condition of the exploration license, the operator must obtain and use a lawful water supply and operate any source well in accordance with the terms of the underlying water right and any required change-of-use or transport authorizations.

See Table 3: Assessment of Significance (ARM 17.4.608)

Aquifer Conditions, Drought and Effects on Existing Users

Several comments request a comprehensive study of the Lincoln/Blackfoot aquifer (size, volume, drainage, hydrogeologic classification, recharge and discharge zones) and cite experiences of wells tracking river levels or going dry, emphasizing concern for long-term water security. Commenters also observe that the Blackfoot basin is experiencing drought, reduced snowpack, and diminished flows, and question whether withdrawing approximately 1,000 gallons per day for drilling is appropriate under these conditions or could affect nearby wells, agriculture, and in-stream flows.

MEPA requires the department to use information that is commensurate with the scale and duration of the proposed action, and this exploration authorization does not involve long-term dewatering, production-scale pumping, or sustained consumptive use that would be expected to materially alter regional groundwater storage. The Applicant's plan of operations proposes approximately 1,000 gallons per day as a conservative upper-limit for daily water use during active drilling and notes that exploration would be short-term and seasonal, not a continuous, multi-year demand.

When compared to existing domestic and irrigation uses in the basin, this exploration-level demand is small and is not associated with mine-scale infrastructure or long-term operational pumping, and any water use must occur under an existing lawful water right consistent with Title 85, MCA. With these constraints, and with the proposed BMPs, the proposed withdrawals are unlikely to measurably affect river flows, aquifer storage, or the distribution of water among existing users-including domestic, ranch, and agricultural wells-even when considered within a drought-stressed system.

For additional discussion, see Consolidated Response HP-5

See Table 3: Assessment of Significance (ARM 17.4.608)

Cumulative Allocation and Constitutional/Environmental Context

Some commenters call for a cumulative analysis of water allocation that considers prior mining impacts (e.g., the Mike Horse/ UBMC Superfund site), other proposed projects, and the finite nature of the Blackfoot aquifer, and link these issues to Montana's constitutional right to a clean and healthful environment and clean water.

The applicant's plan of operations and associated BMPs are designed to limit the potential for additional demand and risk to groundwater and surface water. To limit draw on the aquifer, the proposed exploration uses an existing water well source and relatively low daily water volumes for drilling compared to basin-scale supplies. The proposed action does not authorize any long-term or high-volume industrial water use, such as would occur with mine development or processing. The plan further reduces the potential for degrading aquifer function by using water-based drilling fluids, directing drilling returns to HDPE-lined sumps that confine fluids and cuttings and limit infiltration, and requiring timely sump closure, backfilling, and revegetation so that disturbed areas do not become ongoing sources of seepage. Drill holes must be plugged in accordance with ARM 17.24.106 to prevent vertical migration of groundwater and maintain separation between aquifers, protecting the hydraulic integrity of the Blackfoot aquifer system. Spill-prevention and containment measures (staged spill kits, regular equipment maintenance, and secondary containment for fuels and other hazardous liquids) further reduce the risk that accidental releases could compromise groundwater or surface water.

For additional discussion, see Consolidated Response MEPA-1, Consolidated Response PE-2, Consolidated Response SF-1

See Table 3: Assessment of Significance (ARM 17.4.608)

Consolidated Response PE-3

Public comments were received on Draft EA Section 1, "Geology and Soil Quality, Stability, and Moisture." These comments were read, coded as PE-3, grouped by common theme, and addressed in the consolidated responses below.

Aquifer and Hydrogeologic Characterization

Commenters question whether the aquifer beneath Lincoln has been adequately studied and call for a full hydrogeologic evaluation (including size, volume, drainage, and geologic framework) to ensure that existing domestic, ranch, and business wells can be sustained.

For additional discussion, see Consolidated Response PE-2

Sulfide Mineralogy and Mine (Acid Rock) Drainage Potential

A major concern in the comments is the sulfide content of the ore body and the associated risk of acid mine (acid rock) drainage (AMD), with commenters urging DEQ to require disclosure of pyrite/sulfide and trace-metal data from roughly 400 prior drill holes and criticizing the Draft EA for not independently analyzing sulfide-bearing rock or AMD risk.

The proposed action would only authorize exploration drilling under an exploration license; it does not authorize excavation of large volumes of sulfide-bearing waste rock or construction of facilities where long-term sulfide oxidation could occur. At the exploration stage, the principal geologic and soil-stability questions are whether drilling activities could expose or mobilize sulfide minerals in a way that destabilizes soils, alters geologic structures, or creates localized geochemical issues. The Applicant's plan of operations and associated BMPs are structured to isolate subsurface materials and prevent persistent exposure pathways that could promote sustained oxidation of sulfide minerals. Any future mining proposal would require a separate operating permit application and MEPA review, including geochemical analysis of historic drill core data, which is outside the scope of this EA.

Under the Applicant's plan of operations and proposed BMPs, water-based drilling muds would be used to create a low-permeability filter cake along borehole walls, reducing contact between groundwater and fresh rock surfaces in the open hole and limiting the movement of water and oxygen into mineralized zones during drilling. Prompt plugging of exploration drill holes with low-permeability materials, as required by ARM 17.24.106 and the exploration license conditions, ensures that drill holes do not remain as long-term conduits for oxygenated water to interact with sulfide-bearing strata. Containment of cuttings and drilling fluids in HDPE-lined sumps, followed by removal or secure burial within reclaimed, recontoured pads under the BMPs, keeps disturbed materials within a controlled footprint and minimizes their exposure to percolating water or surface runoff.

The Applicant's plan of operations and associated BMPs do not include excavation or stockpiling of large volumes of sulfide-bearing rock. Exploration drill holes must be permanently plugged in accordance with ARM 17.24.106.

For additional discussion, see Consolidated Response SF-1

See Table 3: Assessment of Significance (ARM 17.4.608)

Legacy Drilling and Disturbed Strata

Several commenters emphasize that over 400 drill sites and approximately 45,000 meters of drilling over the past 30 years have already disrupted the rock strata in the project area, and they argue that extensive drilling programs can mobilize naturally occurring contaminants and affect surface and groundwater. They also note that the Draft EA did not fully characterize water-quality impacts from past exploration or the cumulative geotechnical implications of long-term drilling.

The project area is a previously disturbed patented claim block where prior exploration was conducted under regulatory frameworks that required drill-hole plugging and site reclamation. The Applicant's plan of operations and conditioned by the BMPs, are designed to prevent additional, unmanaged disruption of geologic and soil structures. Limiting the size of drill pads and access routes, using existing roads where practicable, and employing overland travel only in suitable conditions reduce the need for new cuts, fills, and slope modifications that could affect soil stability. The concurrent reclamation in the plan of operations and associated BMPs, including recontouring, stabilizing, and revegetating disturbed areas as soon as they are no longer needed, shortens the duration of exposure, reduces the risk of erosion, and supports the recovery of natural soil structure. Plugging requirements under ARM 17.24.106 ensure that new holes do not remain as open or structurally weak zones in the subsurface, and HDPE-lined sumps with full closure prevent long-term voids or preferential seepage paths from forming beneath pads.

For additional discussion, see Consolidated Response PE-4

See Table 3: Assessment of Significance (ARM 17.4.608)

Baseline Water Quality and Cumulative Geologic Impacts

Commenters assert that the Draft EA does not present baseline water-quality data or fully evaluate how past and proposed drilling together may affect water resources, particularly given that the project area lies between two tributaries with likely ground and surface-water connections and a history of extensive drilling. They argue that a proper "hard look" must integrate geologic setting, drilling history, and AMD risk into a cumulative analysis.

See Consolidated Response PE-2 and prior responses in this section.

Consolidated Response PE-4

Public comments were received on Draft EA Section 1, "Geology and Soil Quality, Stability, and Moisture." These comments were read, coded as PE-4, grouped by common theme, and addressed in the consolidated responses below.

Soil Disturbance, Compaction, and Vegetation Loss

Commenters worry that off-road travel, drill pads, and related infrastructure will damage soils and native vegetation in ways that may not recover for decades, reducing stormwater infiltration, increasing runoff, and degrading habitat in the Hogum and Seven-Up Pete drainages, particularly in sensitive headwater settings.

Under the exploration license framework in 82-4-331 and 82-4-332, MCA, the Applicant's plan of operations, and associated BMPs, proposes the use of limited surface disturbances, reliance on existing roads where practicable, and preference for overland travel only where site conditions are suitable. The plan elements reduce new ground disturbance and associated compaction by limiting the size of drill pads and access routes and by avoiding unnecessary road construction. Concurrent reclamation under the plan of operations, including recontouring, stabilization, and revegetation of drill pads, access routes, and sumps as soon as they are no longer needed, shortens the time that soils are exposed, supports recovery of soil structure and vegetative cover, restores infiltration capacity, and reduces long-term erosion risk, consistent with ARM 17.24.107's requirement to reclaim disturbed lands to a stable condition.

Because the proposed action limits both the extent and duration of disturbance and requires restoration of disturbed areas to a stable, vegetated condition under ARM 17.24.107, the exploration project is not expected to cause lasting soil compaction or vegetation loss that would materially alter soil quality, stability, or moisture regimes in the Hogum and Seven-Up Pete drainages. Additional discussion of soil disturbance, compaction, and vegetation loss is provided in the Consolidated Response – Vegetation Cover, Quantity, and Quality [PE-5].

For additional discussion, see Consolidated Response PE-1, Consolidated Response PE-2, Consolidated Response PE-3, Consolidated Response PE-5

See Table 3: Assessment of Significance (ARM 17.4.608)

Erosion, Sediment Transport, and Stormwater Modeling

A major theme in the comments is concern that, although the EA acknowledges sediment could be transported offsite via stormwater, it does not quantitatively model runoff-particularly for 10-, 50-, and 100-year rain-on-snow events-given the short distances (about 1,350–1,400 feet) from drill pads and sumps to Hogum and Seven-Up Pete Creeks and adjacent wetlands. Commenters argue that without such modeling, DEQ cannot be confident that sediment and drilling fluids will be contained under extreme conditions.

The Applicant's operation plan and BMPs include excavated drill sumps lined with HDPE to securely hold drilling fluids and cuttings, preventing fine sediment dispersion on undisturbed ground and lowering runoff and seepage risks. Sediment traps would be strategically placed downslope of drill pads, sumps, and other disturbed zones to capture runoff, slow flow, and allow suspended sediments to settle, with regular checks, maintenance, and complete decommissioning after use. Limiting pad size, utilizing existing roads, traveling overland only under suitable conditions, and applying concurrent reclamation collectively minimize exposed soil area and duration, thus reducing stormwater volume capable of carrying sediment.

While the EA does not include formal numerical stormwater modeling for specific return-period events, the small, discrete disturbance areas, required containment and erosion-control structures, and short project duration indicate that exploration activities are unlikely to generate sediment or drilling-fluid releases of a magnitude that would significantly affect soil stability or downstream channels, even under high-runoff events.

For additional discussion, see Consolidated Response PE-2, Consolidated Response PE-3, Consolidated Response PE-8

See Table 3: Assessment of Significance (ARM 17.4.608)

Contamination Pathways Through Soils and Shallow Groundwater

Many commenters focus on how disturbed soils and shallow subsurface pathways could transmit drilling fluids, cuttings, and mobilized contaminants to nearby wetlands and streams, including in the event of sump failure or inadvertent releases, and note the absence of modeled contamination pathways or baseline water-quality data.

The Applicant's plan of operations and associated BMPs are designed to break or minimize soil and shallow groundwater contamination pathways. Industry-standard, water-based drilling mud systems create a low-permeability filter cake on borehole walls, which reduces fluid loss into formations and limits mass transfer between drilling fluids and groundwater during operations. All drill holes must be promptly and properly plugged with low-permeability materials under ARM 17.24.106, with additional sealing where multiple aquifers or artesian conditions are encountered, to ensure that boreholes do not remain conduits for vertical groundwater movement or contaminant migration.

HDPE-lined sumps confine drilling fluids and cuttings within a defined footprint, and final reclamation, including the removal of residual fluids and liner, backfilling, grading, and revegetation, restores soil stability and removes concentrated sources of drilling returns from the surface environment. Spill kits, routine equipment maintenance, and secondary containment for fuels and lubricants further reduce the likelihood, volume, and spatial extent of releases to soil. With these controls in place and a small disturbance footprint, the project is unlikely to create persistent soil or shallow-groundwater contamination pathways that would materially degrade soil quality or moisture conditions or significantly affect nearby waters.

For additional discussion, see Consolidated Response PE-2

See Table 3: Assessment of Significance (ARM 17.4.608)

Soil Moisture, Hydrology, and Headwater Sensitivity

Commenters emphasize that high-elevation headwater soils and wetlands in this setting play a disproportionate role in maintaining downstream water quality, flow regimes, and temperatures, and they argue that even early-phase exploration can alter soil-moisture dynamics and hydrology in ways that persist and threaten sensitive aquatic species and designated critical habitat downstream.

The Applicant's plan of operations and associated BMPs emphasize small work areas, existing-road use, and overland travel only in suitable conditions, and are intended to minimize new compaction and disruption of natural infiltration patterns across the broader headwater landscape. Concurrent reclamation, including recontouring and revegetation, is expected to restore surface microtopography, reduce overland flow, and re-establish root networks that promote soil aggregation and water infiltration, helping soils regain their moisture-retention and slow-release functions after disturbance. By containing drilling fluids and cuttings in HDPE-lined sumps, using sediment traps to prevent downslope sediment delivery, and promptly plugging drill holes to maintain aquifer separation under ARM 17.24.106, the plan and proposed BMPs are designed to reduce the likelihood of creating persistent artificial drainage conduits or saturated zones that could alter local hydrology.

Given the limited spatial footprint, short duration, and required reclamation to a stable condition under ARM 17.24.107, the exploration project plan of operations, as conditioned by the BMPs, is unlikely to cause long-term changes to soil-moisture regimes or headwater hydrology that would compromise the role of these areas in supporting downstream water quality and habitat.

For additional discussion, see Consolidated Response PE-2

See Table 3: Assessment of Significance (ARM 17.4.608)

Cumulative Soil and Landscape Disturbance From Roads and Pads

Several commenters stress that decades of road construction, pad building, and drilling have already fragmented the landscape and likely degraded soils and water quality, arguing that the EA improperly treats additional disturbance as de minimis without fully evaluating cumulative soil erosion, sediment

dispersion, and habitat fragmentation, and they cite aerial imagery showing extensive fragmentation relative to surrounding areas.

The Applicant's plan of operations, implemented with the associated BMPs, is structured to minimize incremental disturbance and to accelerate recovery on both new and existing disturbed sites. Limiting pad size and access-route width, relying on existing roads where practicable, and favoring overland travel instead of building new roads reduce the net addition of disturbed linear and pad features. Concurrent reclamation requirements mean that as individual pads, routes, and sumps are no longer needed, they must be recontoured, stabilized, and revegetated, which helps consolidate and shrink the disturbed footprint over time and reduces long-term erosion and sediment sources.

Sediment traps and HDPE-lined sumps, as proposed in the plan of operations and associated BMPs, are intended to capture and manage runoff and drilling returns at each new disturbance, while spill-prevention and containment measures lower the risk of soil contamination from fuels and lubricants. In an area that is already disturbed, and given the reclamation requirements in ARM 17.24.107 and the bonding obligations in 82-4-332 and 82-4-338, MCA, the proposed exploration activities are not expected to substantially increase cumulative soil erosion, sediment dispersion, or fragmentation beyond current conditions.

For additional discussion, see Consolidated Response PE-1, Consolidated Response PE-2, Consolidated Response PE-5

See Table 3: Assessment of Significance (ARM 17.4.608)

Consolidated Response PE-5

Public comments were received on Draft EA Section 4, "Vegetation Cover, Quantity and Quality." These comments were read, coded as PE-5, grouped by common theme, and addressed in the consolidated responses below.

Loss of Native Vegetation and Habitat

Commenters are concerned that drill pads, roads, and off-road vehicle use will damage native vegetation and that disturbed areas may not recover for decades, degrading wildlife habitat, migration routes, and ecosystem health in the upper Blackfoot, especially in sensitive headwaters settings.

Under the exploration license framework in 82-4-331 and 82-4-332, MCA, the Applicant's plan of operations, implemented through the BMPs, proposes small surface disturbance areas for drill pads and laydown sites, uses existing roads where practicable, and allows overland travel only when conditions are suitable. Together, these plans and mitigation elements would reduce the amount of clearing and new road construction needed in lodgepole pine, ponderosa pine, Douglas-fir, and associated understory communities, thereby limiting direct removal of native vegetation. Proposed BMPs include concurrent reclamation, including the recontouring, stabilization, and revegetation of disturbed pads, access routes, and sumps as soon as they are no longer needed, which shortens the period during which vegetation is absent, reduces the risk of long-term bare ground, and supports re-establishment of native plant cover consistent with ARM 17.24.107's reclamation requirements.

Because the project is limited in scale and duration, is conditioned on restoring disturbed areas to a stable, vegetated condition under ARM 17.24.107, and is implemented with the concurrent-reclamation measures in the proposed BMPs, the EA concluded that the exploration activities are unlikely to cause broad, long-term loss of native vegetation or habitat at the population or ecosystem scale in the upper Blackfoot.

For additional discussion, see Consolidated Response PE-1

See Table 3: Assessment of Significance (ARM 17.4.608)

Reclamation Timing and Adequacy for Vegetation Recovery

Many commenters criticize the two-year reclamation window, arguing that delaying full restoration will prolong impacts, hinder plant regeneration, and allow weeds to become established, and they question whether native forest and understory communities can be re-established effectively within the proposed timeframe.

The Applicant's plan of operations and associated BMPs emphasize concurrent reclamation rather than deferring reclamation until the end of the exploration program. Under the BMPs, disturbed areas are to be recontoured, stabilized, and revegetated as soon as they are no longer needed for active operations, thereby limiting the duration of bare-soil exposure and providing multiple growing seasons for revegetation. By keeping pads and access routes small and relying on existing roads where practicable, the plan of operations and associated BMPs are designed to reduce the total area requiring revegetation, improving the likelihood that appropriate plant communities can be successfully re-established within the required reclamation timeframe.

These practices, as specified in the plan and enforced through the bond and reclamation requirements in 82-4-332 and 82-4-338, MCA, are expected to support re-establishment of forest and understory vegetation and to minimize long-term effects on vegetation cover and habitat quality. On this basis, the EA determined that, with concurrent reclamation and small disturbance footprints under the BMPs, vegetation impacts are likely to remain short-term and localized and are not expected to result in long-term degradation of vegetation quantity or quality.

For additional discussion, see Consolidated Response EL-1, Consolidated Response PE-4

See Table 3: Assessment of Significance (ARM 17.4.608)

Sensitive Plant Species and Lack of Focused Analysis

Some commenters note that MTNHP and federal databases identify potential habitat in the project area for numerous vascular plant Species of Concern, Potential Species of Concern, and Forest Service/BLM sensitive species, and they argue that the EA does not sufficiently analyze how disturbance and reclamation might affect these plants or their habitats.

The scope of work and disturbance controls described in the Applicant's plan of operations and associated BMPs limit new disturbance to small pads and short access routes and rely heavily on existing infrastructure, thereby minimizing the total area where sensitive plants or their habitats could be directly affected. Concurrent reclamation and revegetation required under the proposed BMPs are

intended to restore soil stability and plant cover promptly after use, reducing the duration of habitat alteration and helping maintain microhabitat conditions (such as shade, moisture, and soil structure) important for many native and sensitive plant species. Because the exploration program does not involve large-scale clearing, conversion of vegetation types, or long-term surface occupancy, and because disturbance minimization and reclamation are enforced through the BMPs and ARM 17.24.107, the EA concluded that the project is unlikely to cause significant adverse effects on sensitive plant species or materially reduce the extent or quality of their habitats in the broader landscape.

For additional discussion, see Consolidated Response PE-4

See Table 3: Assessment of Significance (ARM 17.4.608)

Landscape-Scale Vegetation Fragmentation

Several commenters emphasize that decades of road and pad construction have already turned parts of the area into an "industrial, denuded landscape," citing aerial imagery that shows extensive fragmentation relative to the surrounding forest, and they contend that additional disturbance will exacerbate fragmentation rather than being de minimis.

The Applicant's plan of operations and associated BMPs are structured to minimize additional fragmentation and reduce the long-term footprint of disturbed areas. Limiting pad size and access-route width, relying on existing roads where practicable, and preferring overland travel over constructing new roads all help avoid creating new, permanent linear clearings and openings that would further dissect forest stands. Concurrent reclamation of new and modified features under the plan of operations restores vegetative cover and supports soil stability, gradually reducing the visual and ecological contrast between disturbed sites and surrounding forest rather than allowing previously disturbed areas to remain open indefinitely.

Given the small incremental disturbance authorized under the license, the emphasis on using and improving existing infrastructure, and the explicit requirement in ARM 17.24.107 to reclaim sites to a stable, vegetated condition, the EA determined that the exploration project is unlikely to substantially increase landscape-scale vegetation fragmentation beyond the already disturbed baseline in the project area.

See Table 3: Assessment of Significance (ARM 17.4.608)

Disagreement Over Significance and Duration of Vegetation Impacts

Commenters challenge the EA's conclusion that vegetation impacts will be "short-term, localized, and not significant at the population or ecosystem level," arguing that, when cumulative past and proposed activities are considered, the destruction of trees, understory, and riparian vegetation in this sensitive headwaters setting is significant and long-lasting.

The Applicant's plan of operations and associated BMPs are designed to reduce both the extent and duration of vegetation disturbance. Small work areas, use of existing roads, overland travel only under appropriate conditions, concurrent reclamation, and revegetation all serve to limit the extent of vegetation removal and accelerate the recovery of cover and plant communities. Erosion-control structures (such as sediment traps) and HDPE-lined drill sumps, as specified in the proposed BMPs, help

maintain soil stability and moisture, thereby supporting successful revegetation and preventing secondary vegetation loss from erosion or sediment deposition.

Considering the limited scale and short duration of authorized activities, the requirement under ARM 17.24.107 to reclaim all disturbed areas to a stable, vegetated condition, and the absence of long-term conversion of land-cover types under this exploration license, the EA concluded that the incremental effects of this exploration project on vegetation cover, quantity, and quality are expected to remain localized and short-term. When viewed within the broader upper Blackfoot landscape and existing restoration and conservation efforts, these vegetation impacts were determined not to be significant at the population or ecosystem level.

For additional discussion, see Consolidated Response MEPA-1, Consolidated Response PE-1

See Table 3: Assessment of Significance (ARM 17.4.608)

Consolidated Response PE-6

Public comments were received on Draft EA Section 8, “Aesthetics.” These comments were read, coded as PE-6, grouped by common theme, and addressed in the consolidated responses below.

Loss of Natural Scenic Character

Commenters emphasize the natural beauty of the upper Blackfoot and view the project area as part of an iconic, wild landscape that should remain visually intact, expressing concern that drill pads, roads, and equipment will create an “industrial, denuded landscape” that “once drilled…will never look the same.”

The Applicant’s plan of operations and associated BMPs limit the size of drill pads, access routes, and work areas; require reliance on existing roads where practicable; and allow overland travel only when site conditions are suitable, thereby minimizing new visible clearings and linear features on the landscape. Concurrent reclamation-recontouring, stabilization, soil replacement where feasible, and revegetation of disturbed areas as soon as they are no longer needed, shorten the time that bare ground, equipment pads, and other visual intrusions remain visible and supports a return to natural-appearing landforms and vegetative cover, consistent with the reclamation requirements in ARM 17.24.107.

By keeping disturbances small, dispersed, and short-lived, using existing access where possible, and requiring reclamation to a stable, vegetated condition under ARM 17.24.107, the EA concluded that the exploration activities are unlikely to cause a long-term loss of natural scenic character in the broader upper Blackfoot landscape. Any localized visual change at individual pads and short access segments is expected to diminish as reclamation progresses and vegetation re-establishes, and these areas remain subject to the reclamation and bonding requirements in 82-4-332 and 82-4-338, MCA.

See Table 3: Assessment of Significance (ARM 17.4.608)

Noise, Lights, and Sense of Solitude

Many commenters define aesthetics to include soundscape and night-sky conditions, expressing concern that noise from drilling and traffic, lights, and human presence will erode the "peaceful serenity" and wild character of the area, especially over a two-year period, and they note that the EA does not provide baseline noise data or quantified noise projections.

The Applicant's plan of operations and associated BMPs reduce both the intensity and spatial extent of exploration activity. Small work areas and reliance on existing roads concentrate operations in a limited footprint, and concurrent reclamation ensures that once drilling at a site is complete, surface disturbance and associated activity cease and the area moves from active use into restoration. Reduced travel speeds on access roads and work areas, coupled with maintaining factory-installed emissions-control systems, help lower vehicle noise and dust, which can otherwise extend the perceptible footprint of operations beyond the immediate drill pad.

The project does not involve a continuous, large, fixed facility with 24-hour lighting; rather, lights would be limited to active work areas and used only as needed for safety during drilling operations. Given the project's limited number of sites and limited duration, the EA concluded that noise and light effects, while noticeable near active pads and access routes, would remain localized and temporary and will not fundamentally alter the broader area's sense of solitude or night-sky quality.

For additional discussion, see Consolidated Response HP-3

See Table 3: Assessment of Significance (ARM 17.4.608)

Recreation, Tourism, and Scenic Values

Commenters stress that the Blackfoot River corridor's scenic beauty underpins recreation and tourism-fishing, boating, hiking, camping-and argue that visual and noise impacts from exploration and any future mine would diminish these experiences, including along the Continental Divide National Scenic Trail (CDNST) and other high-value recreation areas.

The Applicant's plan of operations and associated BMPs are designed to limit the visibility and persistence of exploration-related features within recreation viewsheds. By restricting surface disturbance to small pads and narrow access routes, relying on existing roads where practicable, and implementing concurrent reclamation, the project reduces the period when exploration features are visible along recreation routes, including nearby roads and trails used by anglers, boaters, hunters, and hikers. Erosion-control measures such as sediment traps and the use of HDPE-lined drill sumps help maintain more natural-appearing drainage patterns and reduce the likelihood of conspicuous sediment plumes or visibly disturbed channels that could detract from scenic quality along the Blackfoot corridor or in adjacent drainages.

Because the exploration work is temporary, geographically limited, and subject to full reclamation under ARM 17.24.107 and the bonding provisions of 82-4-332 and 82-4-338, MCA, the EA concluded that it is unlikely to materially diminish the overall scenic or recreational value of the Blackfoot River corridor, the CDNST, or other regional recreation areas. Any proposal for long-term mine development would be subject to a separate, more detailed review of recreation and scenic impacts under MEPA and the Metal Mine Reclamation Act.

For additional discussion, see Consolidated Response PE-4, Consolidated Response HP-3

See Table 3: Assessment of Significance (ARM 17.4.608)

Identity, Sense of Place, and Intergenerational Values

A number of commenters connect aesthetics to Montana's identity and sense of place, describing the Blackfoot as "one of the most beautiful rivers in the country" and highlighting personal and family memories tied to its scenery, arguing that degrading this landscape for short-term industrial activity conflicts with community values and intergenerational stewardship.

The Applicant's plan of operations and associated BMPs are specifically intended to prevent long-lasting visual scars and to ensure that exploration-related disturbance remains small in scale and capable of being reclaimed to natural-appearing conditions. Limiting new disturbance through small work areas and existing-road use, combined with recontouring and revegetating disturbed sites as they are released from active use, is expected to restore landforms and vegetative cover that are broadly consistent with surrounding conditions, supporting continued enjoyment of the area's scenery by current and future generations. Hazardous-substance controls (spill kits, regular maintenance, and secondary containment) and erosion-control measures (lined sumps, sediment traps, and prompt stabilization of disturbed soils) reduce the risk of visible contamination-such as stained soils, damaged vegetation, or turbid runoff-that could leave lasting negative impressions on the landscape.

Given the project's limited spatial and temporal footprint, its location on a previously disturbed patented claim block, and the enforceable reclamation requirements under ARM 17.24.103 through 17.24.107 and 82-4-332 and 82-4-338, MCA, the EA concluded that the proposed action is unlikely to alter the Blackfoot's visual identity or residents' and visitors' ability to experience it as a beautiful, largely wild setting.

For additional discussion, see Consolidated Response EL-1, Consolidated Response PE-4, Consolidated Response PE-5

See Table 3: Assessment of Significance (ARM 17.4.608)

Disagreement with "Minor and Temporary" Impact Conclusions

Finally, commenters challenge the EA's conclusion that increased noise and visual disturbance will be "minor and temporary," arguing that a multi-season exploration program in such a quiet, high-value scenic area is more than a trivial impact, especially when viewed alongside other industrial proposals and the potential for mine development.

The Applicant's plan of operations, and associated BMPs, includes small surface-disturbance areas, reliance on existing roads, overland travel only where conditions allow, concurrent reclamation, lined drill sumps, erosion- and sediment-control structures, hazardous-substance controls, and air-quality measures, and is intended to reduce both the extent and duration of visible and audible impacts from exploration. Because exploration activities are temporary, do not convert land to long-term industrial use, and must be followed by reclamation that restores disturbed areas to a stable, vegetated condition under ARM 17.24.107, the EA concluded that the visual and noise effects of the project are likely to be localized to the immediate vicinity of active work sites and limited in time to the exploration period plus reclamation. Any future proposal for mine development would require a separate environmental review,

including a detailed assessment of cumulative visual, noise, and industrial activity effects, and would not be authorized under this exploration license.

For additional discussion, see Consolidated Response MEPA-1, Consolidated Response PE-4, Consolidated Response PE-7

See Table 3: Assessment of Significance (ARM 17.4.608)

Consolidated Response PE-7

Public comments were received on Draft EA Section 3, "Air Quality." These comments were read, coded as PE-7, grouped by common theme, and addressed in the following consolidated responses.

Right to Clean Air and Constitutional Values

Commenters frame air quality as integral to Montanans' constitutional right to a clean and healthful environment and assert that the project "threatens Montanans' right to clean water and air," urging that decisions prioritize environmental quality for current and future generations over short-term profit.

Under the exploration license framework in 82-4-331 and 82-4-332, MCA, the Applicant must conduct exploration in compliance with applicable state laws and rules, including the Montana Clean Air Act (Title 75, chapter 2, MCA) and ARM Title 17, chapter 8. As part of the Applicant's plan of operations and associated BMPs, all project vehicles and equipment are required to operate with intact, properly maintained factory-installed emissions-control systems so that engines perform within their certified emission specifications and minimize exhaust pollutants relative to modified or poorly maintained equipment. The Applicant also proposed to implement reduced travel speeds on access roads and work areas, which would reduce fugitive dust from unpaved surfaces and disturbed ground and support compliance with Montana Clean Air Act requirements to use reasonable precautions to control airborne particulate matter.

Because the exploration program is small in scale and duration, and is subject to these emissions-control and dust-reduction measures as proposed in the Applicant's plan of operations and associated BMPs, the EA concluded that exploration-related impacts are unlikely to impair the clean-air conditions of the project area.

See Table 3: Assessment of Significance (ARM 17.4.608)

Dust and Emissions from Exploration Activity

Several comments express concern about dust and air emissions from drilling and associated traffic, linking dust to potential disturbance of bats and birds roosting in shafts and caves and noting that increased vehicle traffic through Lincoln could affect local air and community environment.

Air-quality related BMPs, such as reduced speeds on unpaved access roads and work areas are intended to lower dust generation from exploration traffic, while maintaining factory-installed emissions-control systems that minimize diesel exhaust and particulate emissions from engines. The Applicant's plan of

operations, using small surface-disturbance work areas, relying on existing roads where practicable, and implementing concurrent reclamation, reduces the area of exposed soil that can serve as a dust source. Information in the plan of operations and BMPs was used by DEQ to assess potential environmental impacts, including consistency with the intent of ARM 17.24.103 and with the reclamation standards in ARM 17.24.107 that disturbed areas be returned to a stable condition within a reasonable period.

Traffic associated with this short-term exploration program is modest compared to typical regional highway use, and the proposed emissions-control and dust-reduction measures help ensure that incremental dust and exhaust remain low and localized. Given the limited duration and scale of exploration, the absence of high-volume haulage or ore-processing emissions, and the mitigation measures described in the Applicant's plan of operations and associated BMPs, the EA concluded that exploration-related dust and exhaust are unlikely to significantly affect ambient air quality or cause more than minor, temporary disturbance to wildlife and residents.

For additional discussion, see Consolidated Response PE-4

See Table 3: Assessment of Significance (ARM 17.4.608)

General Protection of "Pristine" Air Resources

Some commenters emphasize that Montana's appeal depends on "pristine" mountains, waters, and air and express concern that leadership is prioritizing financial gain over preserving this environmental quality, tying clean air to broader quality-of-life and recreation values.

The Applicant's plan of operation and associated BMPs include measures that would minimize impacts to air quality that consists of properly maintained factory-installed emissions-control systems, reduced vehicle speeds on access roads and work areas, small and dispersed work areas that limit disturbed soil, and prompt reclamation of disturbed sites once they are no longer needed for exploration. These measures directly address the principal air-quality pathways-engine exhaust and fugitive dust from disturbed surfaces-and are implemented under the authority of the exploration license and associated bond requirements in 82-4-331, 82-4-332, and 82-4-338, MCA, and the operational standards in ARM 17.24.103 through 17.24.107.

Because exploration activities are temporary, limited in extent, and do not involve high-emission processes such as milling, concentrating, or continuous heavy haulage, the residual emissions after mitigation are expected to be low and localized, with no measurable degradation of regional air quality or loss of the clean-air character that underpins Montana's quality of life. On this basis, the EA concluded that, with the specified Applicant-proposed controls and regulatory conditions, the exploration license is unlikely to significantly impact the air resources of the project area, while still satisfying the statutory and regulatory requirements applicable to mineral exploration.

For additional discussion, see Consolidated Response PE-4

See Table 3: Assessment of Significance (ARM 17.4.608)

Consolidated Response PE-8

Public comments were received on Draft EA Section 8, "Unique, Endangered, Fragile or Limited Environmental Resources." These comments were read, coded as PE-8, grouped by common theme, and addressed in the consolidated responses below.

Bull Trout and ESA-listed Aquatic Species

A major theme in the public comments is concern for ESA-listed bull trout in the Blackfoot system and designated Critical Habitat downstream of the project area. Commenters argue that even exploration phase sediment, drilling fluids, or water quality changes in Hogum and Seven Up Pete Creeks could harm these sensitive fish and their spawning and rearing habitats, and they contend the EA does not adequately analyze or protect these resources.

The EA recognizes that bull trout are ESA-listed and that designated Critical Habitat occurs downstream in the Blackfoot system, and it evaluates whether short-term exploration in the Hogum and Seven-Up Pete Creek basins could affect those habitats through sediment or water-quality changes. The Applicant's plan limits disturbance to small drill pads and uses existing roads and overland travel where practicable, with concurrent reclamation to quickly stabilize and revegetate disturbed areas and reduce fine-sediment delivery to tributaries. Water-based, low-toxicity drilling fluids, prompt drill-hole plugging under ARM 17.24.106, HDPE-lined sumps for drilling returns, and sediment traps downslope of disturbed areas are intended to prevent drilling fluids and fine sediments from reaching streams that contribute to bull trout Critical Habitat. Spill-prevention measures (spill kits, equipment maintenance, and secondary containment for fuels) and mandatory reclamation backed by bonding under 82-4-332 and 82-4-338, MCA, further limit the risk and duration of any water-quality impacts. Considering the limited footprint, short duration, and these mitigation measures, the EA concluded that exploration-phase effects on sediment and water quality are expected to be small, localized, and temporary, and are not anticipated to measurably degrade downstream bull trout Critical Habitat or replicate historic mining-type impacts. FWP concurred with the findings of the EA, that given the absence of direct or indirect interactions with aquatic habitats, the proposed activities are not expected to adversely affect bull trout habitat or their presence within the project area.

For additional discussion, see Consolidated Response PE-1, Consolidated Response PE-2, Consolidated Response PE-4

See Table 3: Assessment of Significance (ARM 17.4.608)

Native Westslope Cutthroat Trout and Fisheries

Many comments highlight native westslope cutthroat trout populations in nearby tributaries as a key limited resource. They emphasize that these native trout are already stressed by low flows, warming temperatures, and other land uses, and argue that additional disturbance, sediment, or contaminants from exploration in a headwaters setting could further jeopardize these fragile fisheries.

The Applicant's plan of operations limits disturbance to small drill pads and associated work areas, relies on existing roads and overland travel where practicable, and implements concurrent reclamation to rapidly stabilize and revegetate disturbed ground, thereby reducing erosion and fine-sediment delivery

to streams that support native trout. To protect water quality and aquatic habitat, the Applicant proposes water-based, low-toxicity drilling fluids that form a low-permeability filter cake, prompt drill-hole plugging under ARM 17.24.106 to prevent vertical migration of groundwater or contaminants, and use of HDPE-lined sumps to contain drilling returns, with sumps reclaimed under ARM 17.24.107 after drilling. Where necessary, sediment traps would be installed downslope of drill pads and other disturbed areas to capture runoff and allow sediment to settle before water reaches nearby tributaries. These measures, together with spill-prevention and response practices and reclamation secured by bonding under 82-4-332 and 82-4-338, MCA, are designed so that exploration-phase effects on flows, sediment, and water quality remain small, localized, and temporary, and are not expected to measurably degrade native westslope cutthroat trout populations or their fisheries.

For additional discussion, see Consolidated Response PE-1, Consolidated Response PE-2, Consolidated Response PE-4

See Table 3: Assessment of Significance (ARM 17.4.608)

Sensitive and Rare Plant Communities

Several comments point to MTNHP and federal listings showing multiple vascular plant Species of Concern and sensitive plant species with potential habitat in the project area. Commenters assert that these rare plant communities and habitats are limited and vulnerable to disturbance from roads, pads, and reclamation activities, and they believe the EA underplays potential impacts on these botanical resources.

The Applicant's plan of operations is designed to minimize the overall disturbance footprint by reoccupying previously disturbed lands where possible, limiting drill pads and work areas to small sites, relying on existing roads where practicable, and using overland travel instead of constructing new roads where site conditions allow, thereby reducing the extent of new ground disturbance that could affect sensitive plant communities.

For additional discussion, see Consolidated Response PE-1, Consolidated Response PE-2, Consolidated Response PE-4

See Table 3: Assessment of Significance (ARM 17.4.608)

Headwaters and Wetlands as Inherently Fragile Resources

A common theme in public comments is that the Blackfoot headwaters, associated wetlands, and small tributaries represent unique, fragile environmental resources. Commenters stress that disturbances in headwater areas have outsized, often irreversible effects on downstream water quality, temperature, and habitat, and they argue that this sensitivity requires a precautionary approach and more rigorous analysis than is typical for less critical landscapes.

The Applicant's plan of operations and associated BMPs are designed to minimize the disturbance footprint in headwater areas by limiting drill pads and work areas to small sites, using existing roads where practicable, and employing overland travel instead of constructing new roads where site conditions allow. To protect wetlands and small tributaries from sediment and water-quality changes, the Applicant proposes concurrent reclamation to quickly recontour, stabilize, and revegetate disturbed

areas; use of HDPE-lined sumps to contain drilling fluids and cuttings; and installation of sediment traps, where necessary and practicable, downslope of drill pads, sumps, and other disturbances to intercept runoff and allow sediment to settle before reaching sensitive waters. Drill holes must be promptly plugged under ARM 17.24.106 to prevent vertical migration of groundwater or contaminants, and all exploration-related disturbances must be reclaimed to a stable condition consistent with ARM 17.24.107, with reclamation obligations secured by bonding under 82-4-332 and 82-4-338, MCA. With these prevention, containment, and reclamation measures, and given the limited scale and short duration of the exploration program, the EA concludes that effects on headwater wetlands and small tributaries are expected to be small, localized, and temporary, and are not significant.

For additional discussion, see Consolidated Response PE-1, Consolidated Response PE-2, Consolidated Response PE-4

See Table 3: Assessment of Significance (ARM 17.4.608)

Cumulative Stress on Already Limited Resources

Many comments frame these resources as already limited and stressed by past mining (including Mike Horse), drought, climate change, and other industrial proposals. They argue that, in this context, even short-term exploration adds to a cumulative burden on endangered, fragile, and unique resources, and that it is not credible to characterize impacts as minor without explicitly integrating this cumulative stress.

The Applicant's plan of operations and BMPs are designed to keep the additional contribution from exploration small by tightly limiting the disturbance footprint, using existing roads and overland travel where practicable, and applying concurrent reclamation so disturbed areas are recontoured, stabilized, and revegetated as soon as they are no longer needed. To further constrain cumulative burden on fragile resources, the Applicant proposes water-based, low-toxicity drilling fluids; prompt drill-hole plugging under ARM 17.24.106; HDPE-lined sumps for drilling returns that are reclaimed under ARM 17.24.107; sediment traps where necessary to control erosion; and spill-prevention and response measures (spill kits, equipment maintenance, and secondary containment for fuels), all backed by reclamation bonding under 82-4-332 and 82-4-338, MCA. Considering these prevention, containment, and reclamation measures, the limited spatial footprint, and the short duration of the exploration program, the EA concluded that the project's incremental effects are expected to be small, localized, and temporary. These impacts do not constitute significant cumulative impacts on endangered, fragile, or unique resources in the Blackfoot watershed.

For additional discussion, see Consolidated Response PE-1, Consolidated Response PE-2, Consolidated Response PE-, Consolidated Response SF-1

See Table 3: Assessment of Significance (ARM 17.4.608)

Consolidated Response PE-9

Public comments were received on Draft EA Section 7, "Historical and Archaeological Sites." These comments were read, coded as PE-9, grouped by common theme, and addressed in the consolidated responses below.

SHPO Recommendations Must Be Mandatory, Not Optional

Commenters note that SHPO identified 19 historic properties near the project area, concluded the project "has the potential to impact historic resources," and recommended that "a formal determination of eligibility be made prior to any disturbance." They object that the Draft EA appears to merely "recommend" cultural resource work and insist this must be a firm pre-disturbance requirement.

Under MEPA and the Metal Mine Reclamation Act, the exploration license issued under 82-4-331 and 82-4-332, MCA, must ensure that exploration is conducted in a manner that avoids significant environmental problems, including effects on cultural resources, but it does not itself create separate historic-preservation permitting authority. Within this framework, the Applicant may commit, through the plan of operations and associated BMPs, to coordinating with SHPO and completing SHPO-recommended cultural resource inventory and eligibility review before initiating surface-disturbance activities in areas of concern, so that avoidance or protection measures can be incorporated into drill-pad siting and access routing. Treating SHPO's recommendations in this way, as binding commitments by the Applicant within the exploration plan required by 82-4-332(2), MCA, ensures that the plan's small disturbance areas, use of existing roads where practicable, and concurrent reclamation under ARM 17.24.107 are applied in a manner that avoids or minimizes direct effects to known historic properties.

See Table 3: Assessment of Significance (ARM 17.4.608)

Need for a Cultural Resource Inventory Before Ground Disturbance

SHPO explicitly recommended that "a cultural resource inventory be conducted to determine whether additional sites are present and whether they would be impacted," and commenters emphasize that this survey must be completed and reviewed before any drilling or construction, criticizing reliance on an "unanticipated discovery" protocol alone as inadequate.

If the Applicant commits in the plan of operations and associated BMPs to conduct a Class III-level inventory (or other SHPO-approved survey) in all new disturbance areas before construction or drilling, that commitment allows identification and documentation of previously unrecorded archaeological and historic resources so that avoidance or protective measures can be designed into pad siting, access routing, and other surface-disturbance decisions. The plan's proposed small surface-disturbance work areas, reliance on existing roads where practicable, and preference for overland travel only in suitable conditions, limiting the number and size of areas requiring survey and makes avoidance practicable where sites are found. The unanticipated discovery protocol, immediate stop-work within a specified radius and SHPO consultation, then serves as a backstop for the unlikely event that a buried or previously unknown resource is encountered despite the Applicant's inventory commitment.

Taken together, an Applicant-committed pre-disturbance inventory, SHPO coordination, and a robust discovery protocol, implemented within the BMP's small-footprint, concurrent-reclamation framework, make it unlikely that the exploration activities will damage historical or archaeological sites.

See Table 3: Assessment of Significance (ARM 17.4.608)

Compliance with Historic Preservation Laws and Guidance

Commenters argue that proceeding without completing SHPO's recommended eligibility determinations and inventory risks noncompliance with state and federal historic preservation requirements and characterize failure to act on SHPO's project-specific guidance as a procedural deficiency under MEPA.

The Applicant's plan of operations and associated BMPs, are designed to meet MEPA's requirement in 75-1-201, MCA, to use "all practicable means" to prevent or eliminate environmental damage, which includes cultural resources. While DEQ cannot, through the exploration license alone, transform SHPO's recommendations into separate permitting requirements, DEQ can document and rely on Applicant commitments-such as completing SHPO-recommended inventory and eligibility review before disturbance in specified areas and following SHPO-identified avoidance or buffer measures-as part of the plan of operations and mitigation package under 82-4-332(2), MCA, and ARM 17.24.103. Because exploration disturbances are small, localized, and further constrained by the, existing-road use, and concurrent reclamation requirements under ARM 17.24.107, these Applicant commitments and SHPO coordination measures are expected to keep the project aligned with applicable historic-preservation expectations and to avoid significant impacts to historic properties.

For additional discussion, see Consolidated Response MEPA-1

See Table 3: Assessment of Significance (ARM 17.4.608)

Broader Concern About Historic/Cultural Loss and Mining Track Record

One commenter cites the destruction of the Juukan Gorge cultural site by another mining company as an example of catastrophic cultural loss when resources are not adequately protected, framing this project within a global pattern of mining-related damage and expressing concern that similar harm could occur here.

Several features of the Applicant's plan of operations and the associated BMPs reduce the risk of comparable cultural loss. First, the project is limited to short-term exploration under an exploration license, not mine construction or large-scale excavation, which greatly reduces the amount of ground subject to disturbance. Second, the Applicant can commit to completing SHPO-recommended cultural resource inventory and review before surface disturbance within the project footprint, allowing known and newly identified sites to be avoided or minimized through siting adjustments made feasible by the BMP's small pads, reliance on existing roads, and proposed overland travel. Third, the unanticipated discovery protocol ensures that any unexpected find triggers immediate cessation of work and SHPO consultation, preventing continued disturbance in the vicinity.

Within this constrained, mitigation-focused framework-where DEQ relies on Applicant commitments documented in the BMPs and plan of operations under 82-4-332, MCA-the exploration project is unlikely

to cause the kind of irreversible cultural damage highlighted by commenters, and potential impacts to historical and archaeological sites can be effectively avoided or minimized to a non-significant level.

See Table 3: Assessment of Significance (ARM 17.4.608)

Consolidated Response PE-10

Public comments were received on Draft EA Section 9, "Demands on Environmental Resources of Land, Water, Air and Energy." These comments were read, coded as PE-10, grouped by common theme, and addressed in the consolidated responses below.

Demands on Land Resources

Comments assert that additional exploration would add to existing development and industrial pressure on a finite land base in the Blackfoot watershed.

Under the exploration license framework in 82-4-331 and 82-4-332, MCA, and the Applicant's plan of operations and BMPs, land demands are constrained by confining disturbance to small drill pads and associated work areas, relying on existing roads where practicable, using overland travel where site conditions allow, and implementing concurrent reclamation so that disturbed areas are recontoured, stabilized, and revegetated as soon as they are no longer needed. These design and mitigation features, in accordance with ARM 17.24.103 and 17.24.107 and secured by reclamation bonding under 82-4-332(3) and 82-4-338, MCA, keep the project footprint small in area and short in duration, and avoid the construction of long new access corridors or permanent facilities. Under the EA's significance criteria, project-related land demands are therefore characterized as low in severity, small in extent, short-term in duration, and unlikely to result in significant adverse effects on the availability or condition of land resources in the project area.

For additional discussion, see Consolidated Response PE-1, Consolidated Response PE-5

See Table 3: Assessment of Significance (ARM 17.4.608)

Demands on Water Resources

Comments emphasize that the Blackfoot basin is already drought-stressed and heavily used, and they contend that even exploration-level withdrawals and drilling could impose unacceptable demands on finite water resources.

Under the Applicant's plan of operations and associated BMPs, drilling water use is limited to an estimated upper limit of approximately 1,000 gallons per day during active drilling, supplied from an existing lawful water right consistent with Title 85, MCA, and no long-term dewatering, processing, or production-scale pumping is authorized. At the drill sites, the applicant proposes the use of water-based drilling fluids, HDPE-lined sumps, sediment traps where necessary, and full compliance with ARM 17.24.106 drill-hole plugging requirements, measures that are expected to prevent measurable degradation of water quality, quantity, or distribution in Seven Up Pete Creek, Hogum Creek, or the Blackfoot mainstem. Given the small volume and short duration of withdrawals, the requirement to

comply with Montana water-rights law, and the drilling-related BMPs incorporated into the exploration license under 82-4-331 and 82-4-332, MCA, the project's demand on water resources is expected to be low in severity, small in extent, short term in duration, and unlikely to significantly affect the availability or distribution of water for existing users or aquatic ecosystems.

For additional discussion, see Consolidated Response PE-1

See Table 3: Assessment of Significance (ARM 17.4.608)

Demands on Air Resources

Comments express concern that additional industrial activity would increase emissions and dust, thereby placing greater demands on air resources.

The Applicant's plan of operations, associated BMPs and applicable air-quality requirements (including the Montana Clean Air Act, Title 75, chapter 2, MCA), vehicles and equipment used for exploration must be operated with all factory-installed emissions-control systems intact and properly maintained, and reduced speeds must be used on unpaved roads and work areas to minimize fugitive dust. Exploration activities are limited to drill rigs, support vehicles, and small ancillary equipment operating over a short period, with no mills, processing plants, or other large stationary sources authorized under this exploration license. With these controls in place and given the limited duration and scale of operations, exploration-related air-quality demands and emissions are expected to be low in intensity, localized, and temporary, and are not expected to constitute a significant demand on air resources or cause exceedances of applicable air-quality standards.

For additional discussion, see Consolidated Response PE-7

See Table 3: Assessment of Significance (ARM 17.4.608)

Demands on Energy Resources

Comments link new industrial projects in the Blackfoot corridor to increasing energy demands and associated environmental impacts.

Under the Applicant's plan of operations and associated BMPs, energy use is limited to fueling drill rigs, support vehicles, and small equipment for the duration of the drilling program; the exploration license does not authorize construction or operation of energy-intensive facilities such as processing plants, smelters, or data centers. Because activities are intermittent, seasonal, and short-term, and rely on standard mobile equipment rather than new, large-scale power infrastructure, the project's energy demand is small relative to regional energy supplies and existing uses. Under the EA's significance criteria, energy demands are characterized as low in severity, small in extent, and short-term in duration, and the exploration project is not expected to place a significant additional demand on energy resources in the region.

See Table 3: Assessment of Significance (ARM 17.4.608)

Integrated Effects on Fishery, Recreation, and Community Water Supplies

Comments emphasize that, even if characterized as "small," project withdrawals of up to approximately 1,000 gallons per day, combined with new disturbance on sensitive headwaters lands, could further stress a world-class cold-water fishery, a recreation-based local economy, and community water supplies that already experience dry wells and low flows.

Under the Applicant's plan of operations and associated BMPs, surface disturbance is confined to small drill pads and associated work areas, relies on existing access where practicable, and is followed by prompt concurrent reclamation under ARM 17.24.107, which limits both the spatial and temporal footprint of land disturbance. Drilling water use is capped at an estimated upper-bound volume of roughly 1,000 gallons per day during active drilling, is short term and seasonal, and would be supplied from an existing lawful water right, and does not include new temporary, or mine-scale dewatering, processing, or other long-term consumptive uses.

As described in the "Water Quality, Quantity and Distribution" section of the EA and associated water-resources responses, the use of water-based drilling fluids, HDPE-lined sumps, sediment controls, and ARM 17.24.106 drill-hole plugging requirements is intended to prevent measurable degradation of water quality, quantity, or distribution in Seven Up Pete Creek, Hogum Creek, or the Blackfoot mainstem, including reaches that support important fisheries and recreation. Given these design features and mitigations, and the limited magnitude, duration, and extent of water use and surface disturbance, the proposed action is not expected to measurably reduce instream flows, degrade water quality, or otherwise impair the environmental conditions that support the Blackfoot River fishery, recreation-based economic activity, or existing community water supplies in the region.

For additional discussion, see Consolidated Response PE-1, Consolidated Response PE-2, Consolidated Response PE-8, Consolidated Response HP-3, Consolidated Response HP-4, Consolidated Response HP-7, Consolidated Response HP-9

See Table 3: Assessment of Significance (ARM 17.4.608)

Consolidated Response HP-1

Public comments were received on Draft EA Section 19, "Social Structures and Mores." These comments were read, coded as HP-1, grouped by common theme, and addressed in the consolidated responses below.

Blackfoot as Cultural Touchstone and Shared Heritage

Commenters worry that any mining-related activity in the Blackfoot headwaters is incompatible with the river's role as a "quintessential Montana river" and cultural symbol.

The conclusion that this exploration authorization is unlikely to affect that role rests on both the narrowly designed disturbance and the mitigation measures described in the BMPs and plan of operations under 82-4-331 and 82-4-332, MCA. The project uses small drill pads and work areas, relies on existing roads where practicable, and emphasizes overland travel and concurrent reclamation consistent with ARM 17.24.103 and 17.24.107, which together limit the footprint, visibility, and duration

of surface disturbance. HDPE-lined drill sumps, sediment traps, drill-hole plugging under ARM 17.24.106, and careful handling of drilling fluids as proposed in the BMPs are designed to prevent measurable changes to water quality or flow that could affect the fishery or recreation experience. With these controls in place and secured by reclamation bonding under 82-4-332(3) and 82-4-338, MCA, the exploration project is not expected to alter the Blackfoot's condition, access, or perceived quality in a way that would diminish its cultural identity or use as a world-class fishery.

For additional discussion, see Consolidated Response PE-1, Consolidated Response PE-2, Consolidated Response PE-4, Consolidated Response PE-5, Consolidated Response HP-2, Consolidated Response HP-3

See Table 3: Assessment of Significance (ARM 17.4.608)

Community Restoration and Protection

Commenters emphasize that many residents now prioritize restoration and protection of the Blackfoot over new industrial uses and fear that exploration is a step toward renewed degradation.

The proposed action, as framed in the plan of operations and associated BMPs, is structured to avoid undermining ongoing restoration and conservation efforts. Use of limited footprint pads, existing roads, and concurrent reclamation shortens the time any area is disturbed and facilitates rapid return to pre-project land uses and ecological functions, consistent with ARM 17.24.107's requirement that disturbed lands be reclaimed to a stable condition. Groundwater protections in the BMPs, such as using industry-standard water-based drilling muds that minimize fluid loss, prompt plugging of drill holes with low-permeability materials under ARM 17.24.106, and HDPE-lined sumps with full closure and reclamation are intended to prevent new contamination pathways or long-term hydrologic changes that could compromise restoration gains. Because these measures are designed to avoid lasting environmental damage or land-use change, the exploration project is not expected to interfere with the community's ability to continue pursuing restoration and protection as the dominant long-term trajectory for the Blackfoot.

For additional discussion, see Consolidated Response PE-1, Consolidated Response PE-2, Consolidated Response PE-4, Consolidated Response PE-5, Consolidated Response HP-2, Consolidated Response HP-3, Consolidated Response HP-11

See Table 3: Assessment of Significance (ARM 17.4.608)

Tourism, Recreation Economy and Rural Way of Life

Commenters stress that tourism and outdoor recreation centered on a healthy Blackfoot-fishing, boating, camping, guiding-support local businesses and define the Lincoln and Blackfoot Valley way of life, and they worry that industrialization and pollution could undermine this base.

The exploration license issued under 82-4-331 and 82-4-332, MCA, does not authorize mine development or long-term industrial operations, and the Applicant's plan of operations and associated BMPs are aimed at preventing the types of environmental degradation that would affect recreation and tourism. Air-quality controls in the BMPs, such as maintaining factory-installed emissions-control systems and using reduced travel speeds on unpaved roads, and limiting dust and exhaust along access routes, supporting compliance with the Montana Clean Air Act (Title 75, chapter 2, MCA).

Erosion-control measures such as sediment traps and rapid stabilization and revegetation under ARM 17.24.107 are designed to reduce the risk of sediment reaching streams. HDPE-lined drill sumps, careful management of drilling fluids, and spill-prevention measures (spill kits, regular maintenance, secondary containment) described in the proposed BMPs are intended to reduce the potential for impacts on water quality and aquatic resources that underpin the recreation economy. The Applicant's proposed plan and BMPs including the small disturbance footprint, and the short duration of work, the exploration activities are not expected to measurably change recreation patterns, diminish the Blackfoot's appeal to visitors, or alter the rural character and way of life in the valley.

For additional discussion, see Consolidated Response PE-1, Consolidated Response PE-2, Consolidated Response PE-4, Consolidated Response PE-5, Consolidated Response HP-2, Consolidated Response HP-3, Consolidated Response HP-11

See Table 3: Assessment of Significance (ARM 17.4.608)

Foreign Ownership and Trust in Institutions

Some commenters are particularly concerned that a non-US or "big money" company could undo decades of community conservation work and that no realistic bond could cover a worst-case failure, leaving communities downstream with long-term costs.

While licensing decisions under 82-4-331 and 82-4-332, MCA, must rest on statutory criteria rather than ownership, the structure of this exploration project and its mitigation and bonding framework address many of the outcomes commenters fear. A reclamation and revegetation bond, required under 82-4-332(3) and 82-4-338, MCA, is scaled to cover the State's estimated third-party cost to reclaim exploration disturbances-plugging drill holes under ARM 17.24.106, reclaiming pads and lined sumps under ARM 17.24.107, decommissioning sediment traps, and recontouring and revegetating disturbed areas-if the operator fails to do so. At the same time, the BMPs prevention-focused measures such as drill-hole plugging that prevents vertical groundwater conduits, HDPE-lined sumps and controlled handling of fluids, erosion and sediment controls, and robust spill-prevention and response, are designed to prevent long-term or large-scale releases that typically drive Superfund-type liabilities. Because the project is limited in scope and duration and conditioned through the BMPs, it is not expected to generate the kind of persistent contamination or infrastructure demands that would leave communities "holding the bag" financially.

For additional discussion, see Consolidated Response EL-1, Consolidated Response PE-2, Consolidated Response PE-4, Consolidated Response PE-5, Consolidated Response HP-2, Consolidated Response HP-3, Consolidated Response HP-11, Consolidated Response SF-1

See Table 3: Assessment of Significance (ARM 17.4.608)

Need for Social and Cultural Impacts in Decision-Making

Commenters argue that the Blackfoot's ecological, cultural, and social significance means social and cultural impacts warrant a full EIS, and that approving the project on an EA minimizes those concerns.

In deciding that an EA is appropriate under MEPA (75-1-201, MCA), the department considered the project's location and community values alongside the degree to which the Applicant's plan of

operations and associated BMPs are designed to mitigate long-term or off-site effects that would reverberate through social and cultural systems. The plan of operations and BMPs limit surface disturbance, use existing access where practicable, and require concurrent reclamation under ARM 17.24.107, thereby reducing the spatial and temporal extent of environmental change. Groundwater and surface-water protections (water-based drilling-mud practices, borehole plugging under ARM 17.24.106, HDPE-lined sumps, sediment traps) are intended to prevent water-quality degradation; air-quality and hazardous-substance measures (maintained emissions controls, reduced speeds, spill kits, secondary containment) are intended to prevent noticeable and persistent pollution.

Because these controls, as set out in the BMPs and enforced through the exploration-license and bonding framework in 82-4-331, 82-4-332, and 82-4-338, MCA, substantially reduce the likelihood of lasting environmental degradation, land-use conversion, or displacement of recreation and economic uses that underlie local social structures and mores, the short-term exploration project is not expected to cause significant social or cultural impacts requiring preparation of an EIS. Any future mine proposal would be subject to its own environmental review, in which broader social and cultural implications would be analyzed in light of its different scale and risk profile.

For additional discussion, see Consolidated Response MEPA-1, Consolidated Response PE-1, Consolidated Response PE-2, Consolidated Response PE-4, Consolidated Response PE-5, Consolidated Response PE-7, Consolidated Response HP-2, Consolidated Response HP-11

See Table 3: Assessment of Significance (ARM 17.4.608)

Consolidated Response HP-2

Public comments were received on Draft EA Section 20, “Cultural Uniqueness and Diversity.” These comments were read, coded as HP-2, grouped by common theme, and addressed in the consolidated responses below.

Blackfoot River as a Core Cultural Resource

Commenters describe the Blackfoot River and its tributaries as a world-class fishery, an icon, and a vital part of Montana’s cultural identity, and contend that any mining project here would undermine what “makes Montana…Montana.”

The exploration license issued under 82-4-331 and 82-4-332, MCA, is limited to short-term drilling and associated activities on a patented claim block away from the mainstem recreation corridor. Under the Applicant’s plan of operations and associated BMPs and ARM 17.24.103 through 17.24.107, work areas are kept small, existing roads are used where practicable, and concurrent reclamation is implemented to rapidly restore disturbed sites to a stable, revegetated condition. Water-protection measures in the BMPs, including use of water-based drilling muds to minimize fluid loss, HDPE-lined sumps to contain drilling fluids and cuttings, sediment traps and stabilization to control erosion, and prompt drill-hole plugging under ARM 17.24.106, are intended to prevent measurable changes in water quality, flows, or habitat in the Blackfoot system. Because these measures are designed to avoid visible or persistent degradation of the river environment, the exploration project is not expected to diminish the Blackfoot’s function as a core cultural resource or its use for everyday recreation and family traditions.

For additional discussion, see Consolidated Response PE-1, Consolidated Response PE-2, Consolidated Response PE-4, Consolidated Response PE-6, Consolidated Response HP-1, Consolidated Response HP-3

See Table 3: Assessment of Significance (ARM 17.4.608)

Deep Indigenous and Historic Significance of the Corridor

Several comments emphasize the Blackfoot watershed's "profound and enduring" cultural importance to Salish, Pend d'Oreille, Kootenai, Nez Perce, and other first peoples, referencing the traditional name Cokahlarishkit ("river of the road to the buffalo"), the intertribal trail along the river, Lewis's 1806 travel on that route, and remaining physical traces, and note that the claim block lies at the headwaters of this cultural corridor.

The Applicant's plan of Operations, and associated BMPs, limit the surface disturbance to small drill pads, sumps, and access on private land under the exploration license, and is subject to measures that tightly confine and then remove surface disturbance: defined, excavated and HDPE-lined sumps; minimal new access achieved through reliance on existing roads and overland travel where suitable; sediment controls; and full reclamation (backfilling, recontouring, and revegetation) once sites are no longer needed, consistent with ARM 17.24.107. These measures are intended to prevent expansion of disturbance into surrounding areas where physical traces of the historic corridor may occur and to avoid long-lasting changes to landforms or vegetation that could obscure or damage such traces.

Given this narrow footprint, short duration, and reclamation commitment backed by bonding under 82-4-332(3) and 82-4-338, MCA, the exploration activities are not expected to materially affect Indigenous cultural landscapes or remaining physical expressions of the historic corridor; any future mine proposal would trigger a separate, more extensive cultural-resources review.

For additional discussion, see Consolidated Response PE-1, Consolidated Response PE-2, Consolidated Response PE-5, Consolidated Response PE-9, Consolidated Response HP-1

See Table 3: Assessment of Significance (ARM 17.4.608)

Critique of the EA's Treatment of Cultural Uniqueness

Commenters believe that the Draft EA treats cultural uniqueness as an afterthought and incorrectly implies that because the area has a mining history, the project automatically "fits" local character, without fully accounting for present emphasis on restoration, protection, and Indigenous cultural landscapes.

Contemporary cultural identity in the Blackfoot Valley reflects both historic mining and long-running restoration and recreation efforts, and the Applicant's plan of operations and associated BMPs are intended to ensure that this exploration authorization does not create new, lasting industrial features that would shift that balance. The proposed action includes limited disturbance, reliance on existing roads, overland travel where feasible, and concurrent reclamation under ARM 17.24.107, and is designed so that exploration does not result in permanent land-use conversion or visible long-term industrialization of the corridor. Water, air, and spill-prevention control BMPs (water-based drilling fluids,

HDPE-lined sumps, sediment traps, maintained emissions controls, reduced speeds, spill kits, secondary containment) are also intended to prevent off-site or long-term degradation that could affect cultural uses and perceptions of the river. Because the exploration project is not expected to cause persistent environmental degradation or structural changes that would redefine the corridor's character, it is not expected to materially conflict with the community's current emphasis on cultural uniqueness rooted in restoration, protection, and Indigenous connections to the landscape.

For additional discussion, see Consolidated Response MEPA-1, Consolidated Response HP-1, Consolidated Response PE-9, Consolidated Response HP-11

See Table 3: Assessment of Significance (ARM 17.4.608)

Foreign Company and Perceived Conflict with Core Values

Some commenters state that allowing a foreign company to operate in such a culturally important area "goes against core American and Montanan values" and is inconsistent with a regional ethic of stewardship and cooperation around the river.

Licensing decisions under 82-4-331 and 82-4-332, MCA, are based on statutory and regulatory criteria rather than the nationality of the proponent, so the key cultural question of public concern is whether the authorized activities are likely to produce long-term environmental or land-use changes that would erode the shared ethic of stewardship. The exploration license is conditioned on the BMP's suite of protections-groundwater and surface-water safeguards (water-based drilling muds, filter-cake formation, HDPE-lined sumps, ARM 17.24.106 plugging), air-quality and dust controls (maintained emissions systems, reduced speeds), spill kits and secondary containment, and a reclamation bond sized under 82-4-332(3) and 82-4-338, MCA, to reclaim all exploration disturbance-that are intended to prevent significant or persistent harm to the Blackfoot watershed. Because these measures substantially reduce the risk of enduring damage to the river and surrounding landscape, this exploration authorization, by itself, is not expected to undermine the basin's stewardship ethic or the cultural and economic vitality grounded in a healthy Blackfoot.

For additional discussion, see Consolidated Response HP-1, Consolidated Response EL-1, Consolidated Response MEPA-1, Consolidated Response HP-11

See Table 3: Assessment of Significance (ARM 17.4.608)

Call for a Fuller Cultural Resources Review (EIS)

Many commenters argue that, given the Blackfoot's exceptional fishery, recreation opportunities, and cultural significance, cultural and social impacts can only be adequately examined in a full Environmental Impact Statement and that state law requires DEQ to consider impacts on shared cultural resources even on private land.

In deciding that an EA is appropriate for this exploration authorization, the department considered the project's sensitive setting and cultural importance alongside the limited scale and duration of the proposed activities and the associated BMPs and exploration-license conditions, which are intended to

prevent long-term or off-site degradation of water, landforms, or access. Because exploration disturbance is tightly constrained in space and time and BMPs aim to return disturbed areas to a stable, revegetated condition under ARM 17.24.107 without altering the broader cultural landscape, significant adverse impacts to cultural uniqueness and diversity are not expected from this exploration action alone. A future mine proposal, by contrast, would represent a fundamentally different action and would be subject to a separate, more extensive MEPA review in which cultural resources and cultural landscapes in the Blackfoot corridor would be analyzed in greater depth.

For additional discussion, see Consolidated Response MEPA-1

See Table 3: Assessment of Significance (ARM 17.4.608)

Consolidated Response HP-3

Public comments were received on Draft EA Section 17, "Access to and Quality of Recreational and Wilderness Activities." These comments were read, coded as HP-3, grouped by common theme, and addressed in the consolidated responses below.

Blackfoot Recreation Corridor

Commenters describe the Blackfoot corridor as a prime, pristine fishing and boating river where generations of Montanans and visitors have floated, fished, camped, and built family traditions, and argue that the river is "too valuable" to risk.

The exploration license issued under 82-4-331 and 82-4-332, MCA, is limited to a previously disturbed patented claim block at the headwaters, away from the primary river corridor used by most recreators, and the Applicant's plan of operations is designed to keep the spatial and temporal footprint of disturbance small. Under the proposed plan and ARM 17.24.103 through 17.24.107, the proposed action would use small drill pads and work areas, use existing roads where practicable, rely on overland travel under suitable conditions, and conduct concurrent reclamation to reduce the extent and duration of surface disturbance. BMPs such as HDPE-lined sumps, sediment traps where necessary, prompt drill-hole plugging under ARM 17.24.106, erosion control, and careful management of drilling fluids and hazardous substances are intended to prevent measurable changes in water quality, flows, or bank stability that would affect fishing, boating, or swimming opportunities downstream. Because access routes to popular recreation sites are not being closed and the project is conditioned through the BMPs and reclamation bonding under 82-4-332(3) and 82-4-338, MCA, to avoid lasting degradation of river resources, the proposed action is not expected to materially restrict access to or diminish the quality of recreation along the Blackfoot River.

For additional discussion, see Consolidated Response HP-1, Consolidated Response HP-2, Consolidated Response PE-1, Consolidated Response PE-2

See Table 3: Assessment of Significance (ARM 17.4.608)

Economic Role of the Recreation Sector

Many commenters emphasize that outdoor recreation is a multibillion-dollar industry in Montana and that the Blackfoot's world-renowned fishery and recreation opportunities support local businesses, outfitters, ranch-adjacent tourism, and property values.

This economic context was considered alongside the limited scope of the exploration license and the plan of operations. The exploration authorization does not include mine construction, processing facilities, or long-term industrial operations that would convert recreation lands or riverfront properties to industrial use; it is limited in duration and area under 82-4-331 and 82-4-332, MCA. The plan of operations proposes limited disturbance footprints, reliance on existing roads, overland travel to avoid new road construction, reclamation of pads and access routes under ARM 17.24.107, and controls on dust, emissions, sediment, and spills are intended to prevent visible scarring, chronic noise, or water-quality impacts that could make the Blackfoot less attractive to visitors or reduce the quality of guided fishing and boating experiences. Given these constraints and protections, the short-term exploration work is not expected to measurably affect visitation levels, outfitting activity, or the recreation-based component of the local and regional economy.

For additional discussion, see Consolidated Response PE-1, Consolidated Response PE-2, Consolidated Response PE-6, Consolidated Response PE-7, Consolidated Response PE-10, Consolidated Response HP-4

See Table 3: Assessment of Significance (ARM 17.4.608)

Risk to Recreation Quality

Commenters link drought, warming waters, and other proposed industrial projects (including a gravel pit and data center) with the proposed mining exploration as cumulative threats that could reduce fish populations, flows, and water quality, and erode the sense of wildness, solitude, and scenic integrity that draw people to the Blackfoot.

Under the plan of operations submitted by the Applicant, surface disturbance is confined to small drill pads, HDPE-lined sumps, and limited access routes on private land, with an emphasis on the use of existing roads where practicable, overland travel where suitable, and concurrent reclamation. Water-protection measures in the BMPs, including water-based drilling fluids designed to minimize formation invasion, prompt plugging of drill holes to prevent cross-aquifer flow under ARM 17.24.106, HDPE-lined sumps with full closure and reclamation, and erosion and sediment controls under ARM 17.24.107, are intended to prevent additional, measurable degradation of surface-water quality or aquatic habitat. Air-quality and traffic controls in the BMPs, such as maintaining factory-installed emissions-control systems and reducing speeds on unpaved roads, are designed to limit dust, noise, and visual intrusion along access routes, while concurrent reclamation shortens the period during which equipment is present on the landscape.

Considering these design and mitigation features, DEQ determines that this small-scale, short-duration exploration program, as conditioned through the BMPs and exploration rules in ARM 17.24.103 through 17.24.107, is not expected to materially contribute to cumulative degradation of fish habitat, flows, or water quality or to noticeably diminish the wildness, solitude, or scenic integrity that support recreation in the Blackfoot corridor. Any separate proposal for mine development would be subject to a separate and more comprehensive MEPA review process.

For additional discussion, see Consolidated Response PE-1, Consolidated Response PE-2, Consolidated Response PE-5, Consolidated Response PE-6, Consolidated Response PE-7, Consolidated Response PE-8, Consolidated Response PE-10, Consolidated Response HP-1, Consolidated Response HP-2

See Table 3: Assessment of Significance (ARM 17.4.608)

Wilderness, Continental Divide Trail, and Broader Landscape Values

Several commenters highlight the project's proximity to the Scapegoat Wilderness and the Continental Divide National Scenic Trail (CDNST), noting that this is "some of the wildest country in the Lower 48" and asking how noise, light, and other disturbances from exploration could affect trail users and public-lands recreation.

The Applicant's plan of operations is confined to a small area on private land near existing disturbed sites and does not authorize facilities or nighttime operations that would create sustained light pollution. The The plan of operations includes small work areas, reliance on existing roads, overland travel where conditions allow, limitations on traffic and speeds, and concurrent reclamation under ARM 17.24.107 limit the spatial extent, duration, and visibility of surface disturbance. These measures, combined with the project's short duration and the absence of large processing or waste-storage facilities, are expected to minimize the likelihood that exploration activities are seen or heard from the CDNST or within the Scapegoat Wilderness and to avoid changes that would affect public access to those lands. On this basis, the exploration project is not anticipated to materially alter the CDNST experience or broader wilderness and backcountry recreation opportunities.

For additional discussion, see Consolidated Response PE-6

See Table 3: Assessment of Significance (ARM 17.4.608)

Preference for Restoration, Conservation, and EIS-Level Review

Commenters frame the Blackfoot Valley as a restoration success story that is only beginning to recover from past mining and the Milltown Dam, and they urge an EIS specifically to evaluate risks to the world-class fishery and outdoor recreation opportunities rather than relying on an EA.

MEPA requires an EIS when a proposed state action is expected to significantly affect the Montana environment. In deciding that an EA is appropriate for this exploration authorization, the department considered the valley's restoration history and high recreational value, together with the limited scope and duration of the proposal and the associated BMPs and exploration-license conditions. Those measures include minimized surface disturbance; use of existing roads and overland travel to avoid new roads; groundwater and surface-water protections (water-based drilling-mud practices, drill-hole plugging under ARM 17.24.106, HDPE-lined sumps, sediment traps); air-quality and noise controls (maintained emissions systems, reduced speeds); hazardous-substance spill prevention and containment; and full reclamation of all disturbed areas under ARM 17.24.107, backed by bonding under 82-4-332(3) and 82-4-338, MCA. Because these measures are designed to prevent long-term or off-site environmental degradation, land-use conversion, or access restrictions that would harm the Blackfoot's fishery or recreation opportunities, the proposed action is not expected to cause significant adverse impacts to public access or the quality of recreational and wilderness activities that would warrant preparation of an EIS. Any future mine proposal would be a separate action requiring its own, more

extensive environmental review focused on broader, longer-term risks to recreation and wilderness resources.

For additional discussion, see Consolidated Response MEPA-1, Consolidated Response PE-10

See Table 3: Assessment of Significance (ARM 17.4.608)

Consolidated Response HP-4

Public comments were received on Draft EA Section 14, "Local and State Tax Base and Tax Revenues." These comments were read, coded as HP-4, grouped by common theme, and addressed in the consolidated responses below.

Short-Term Mining Gains vs. Long-Term Recreation Economy

Commenters argue that any short-term jobs or tax receipts from exploration and potential mining would be small compared to the billions of dollars collectively generated by outdoor recreation, tourism, and cold-water fisheries statewide and in the Blackfoot Valley. They emphasize that clean water and a healthy Blackfoot support guiding, outfitting, lodging, restaurants, and property values, and that degradation of the river could permanently undermine this more sustainable economic base and related tax revenues.

The exploration license issued under 82-4-331 and 82-4-332, MCA, and the work proposed in the Applicant's plan of operations would not authorize mine construction or production, and its direct employment and tax contributions are expected to be limited and short-term. The plans of operations and associated BMPs propose small work areas, reliance on existing roads where practicable, overland travel instead of new road construction where conditions allow, and concurrent reclamation. HDPE-lined drill sumps, drill-hole plugging to ARM 17.24.106 standards, sediment traps, and strict spill-prevention and containment measures described in the BMPs are specifically designed to prevent long-term or off-site impacts to water quality, flows, and habitat in the Blackfoot system. Because these measures aim to avoid lasting degradation of the river and associated recreation opportunities, the exploration project is not expected to measurably reduce the recreation-based tax and jobs base, nor is it expected to produce large new tax revenues that would materially alter local or state tax collections.

For additional discussion, see Consolidated Response PE-1, Consolidated Response PE-2, Consolidated Response PE-8, Consolidated Response HP-3, Consolidated Response HP-7

See Table 3: Assessment of Significance (ARM 17.4.608)

Who Benefits: Foreign Company vs. Local Communities

A major theme in the comments is concern that profits and tax benefits would primarily accrue to an Australian-based company, while local communities would bear environmental risk, cleanup liability, and potential loss of tourism-driven revenues. Commenters question what portion of any project value would reach the U.S., Montana, Lewis and Clark County, and Lincoln, and point to past mining where expensive cleanup fell to taxpayers.

The evaluation must be based on the specific state action and applicable statutes rather than corporate nationality. The action at issue is a mineral exploration license with a limited footprint and duration, not a mining operation with substantial production-related tax payments or long-term facilities. Under 82-4-332(3) and 82-4-338, MCA, the license is conditioned on a reclamation and revegetation bond sized to cover the State's estimated third-party cost to complete reclamation of exploration disturbances, and plugging drill holes under ARM 17.24.106, if the operator fails to do so. This bonding requirement is specifically intended to ensure that, for exploration-related disturbances, the financial responsibility to reclaim disturbed lands rests with the operator and its bond rather than with state or local taxpayers. The BMP's prevention-focused measures-drilling-fluid management using water-based systems, HDPE-lined sumps, hole-plugging to ARM 17.24.106 standards, erosion and sediment controls under ARM 17.24.107, maintained emissions controls, spill kits, and secondary containment are designed so that temporary exploration activities do not create the types of long-lived waste features or contamination sources that have contributed to costly legacy mine cleanups in Montana. Such sites have historically cerate large public liabilities or long-term declines in tourism-related tax revenues. Given the limited scope and duration of the proposed action, the bonding requirements described above, and the prevention-focused BMPs, the EA concludes that the proposed action is not expected to shift cleanup costs onto local or state taxpayers or to materially change the current distribution of tax burdens and tax benefits between the company and the local communities.

For additional discussion, see Consolidated Response EL-1, Consolidated Response SF-1

See Table 3: Assessment of Significance (ARM 17.4.608)

Existing Economic Transition and Declining Role of Mining

Several commenters note that Montana's economy has been shifting away from mining, citing reports that mining is a shrinking share of state output and not among the top revenue-generating sectors, while leisure and recreation account for about 5% of Montana's GDP and over 30,000 jobs. They argue that policy should prioritize protecting those growing sectors rather than reviving large-scale extraction.

These public comments reflect real changes in Montana's economy, where outdoor recreation and tourism now contribute a substantial share of state GDP and tens of thousands of jobs, and where communities in the Blackfoot increasingly depend on a healthy recreation landscape for income, lodging, property, and other tax revenues. This broader economic context, including the Blackfoot's recreation-based contributions to local and state tax bases through income, lodging, property and other taxes was considered in the EA. The exploration authorization itself does not represent a shift in state economic policy toward large-scale extraction and does not authorize a mine or long-term industrial land-use change; it is a short-term exploration action constrained under 82-4-331 and 82-4-332, MCA. The Applicant's plan of operations and associated BMPs limiting disturbance size and duration through small pads and concurrent reclamation, using existing access routes where feasible, and implementing groundwater and surface-water protections (drilling-mud practices, hole plugging, lined sumps, sediment traps), air-quality controls, and spill-prevention measures required by ARM 17.24.103 and 17.24.107, are intended to ensure that exploration does not result in enduring environmental degradation or land-use conversion that would conflict with or diminish recreation-based uses and the associated tax base. Given the project's small scale, short duration, and prevention-focused controls, the EA concluded that the proposed action would not measurably affect the long-term contribution of recreation and tourism to local or statewide tax revenues. Any future proposal for mine development in

this area would require a separate permit and a more detailed MEPA environmental and socioeconomic review, including evaluation of potential long-term impacts on recreation, tourism and other sectors of the regional economy.

For additional discussion, see Consolidated Response HP-1, Consolidated Response HP-2, Consolidated Response HP-3, Consolidated Response HP-7, Consolidated Response SF-1

See Table 3: Assessment of Significance (ARM 17.4.608)

Local Need for Jobs and Support for Exploration

A smaller but notable group of commenters, often local to Lincoln, emphasizes that the community is struggling economically and sees exploration as a way to bring in good-paying jobs, infrastructure improvements, and more sales for local businesses. They point out that Lincoln historically "exists because of mining and timber," that tourism has not fully replaced that base, and that modern laws and technologies can protect the environment while expanding the tax base.

These perspectives recognize that even a limited exploration project can provide some incremental sales and employment for local contractors and businesses. However, because the authorization is for a limited-scale and duration exploration program rather than production, any local economic benefits, including increased business income and associated local tax receipts, are expected to be modest and temporary. At the same time, the BMPs and associated regulatory requirements (use of small disturbance areas, existing-road reliance, concurrent reclamation under ARM 17.24.107, groundwater and surface-water safeguards, air-quality controls, and spill-prevention measures) are designed to prevent environmental impacts that could negatively affect other local sectors, such as tourism, agriculture, and recreation, that also contribute to the local tax base. By tightly constraining the spatial and temporal footprint and requiring full reclamation secured by bonding under 82-4-332(3) and 82-4-338, MCA, the project is unlikely to materially change property values, long-term business viability, or major revenue streams for local or state governments. The exploration activity therefore is not expected to significantly increase or decrease the tax base; any short-term local gains are not expected to be offset by measurable tax-revenue losses tied to environmental damage.

For additional discussion, see Consolidated Response HP-1, Consolidated Response HP-2, Consolidated Response HP-3, Consolidated Response HP-5, Consolidated Response HP-7

See Table 3: Assessment of Significance (ARM 17.4.608)

Risk, Liability, and Property Values

Many commenters stress that no realistic bond could cover a catastrophic failure and that long-term costs to recreation, agriculture, municipal infrastructure, and cleanup would far exceed any tax revenues generated. Property owners also worry that association with a mine could depress property values and erode the tax base, whereas an intact, high-quality river corridor maintains or increases those values over time.

These concerns were evaluated in light of the nature of the proposed action and the specific mitigation and bonding requirements. The exploration license does not authorize large tailings facilities, waste-rock dumps, or other long-term sources of contamination typically associated with high-cost Superfund-type

cleanups; instead, it covers limited-duration drilling and associated disturbances that must be managed with protective measures and fully reclaimed. ARM 17.24.106 requires prompt plugging of drill holes to prevent cross-aquifer flow, and the plan and associated BMPs require containment of drilling fluids and cuttings in HDPE-lined sumps with proper closure, erosion and sediment controls, maintained emissions controls and reduced speeds to limit dust, and spill-prevention and containment systems to minimize the likelihood and scope of any release of fuels or lubricants. A reclamation bond required under 82-4-332(3) and 82-4-338, MCA, is intended to cover the State's estimated cost to reclaim the authorized exploration disturbance if the operator defaults.

Because the activities are small in scale, short in duration, and designed through the BMPs to avoid long-term or off-site environmental impacts, the exploration project is not expected to cause the kind of widespread contamination or reputational damage that would significantly depress property values or require major public expenditures for cleanup or infrastructure. Accordingly, measurable negative effects on the local or state tax base or tax revenues are not anticipated from this mitigated exploration authorization; any proposal for mine development would undergo a separate, more extensive review focused on those longer-term economic and fiscal risks.

For additional discussion, see Consolidated Response EL-1, Consolidated Response SF-1, Consolidated Response HP-4, Consolidated Response HP-6, Consolidated Response HP-7

See Table 3: Assessment of Significance (ARM 17.4.608)

Consolidated Response HP-5

Public comments were received on Draft EA Section 12, "Industrial, Commercial, and Agricultural Activities and Production." These comments were read, coded as HP-5, grouped by common theme, and addressed in the consolidated responses below.

Risk to Water-Dependent Agriculture

Commenters stress that ranching and hay-grain production in the Blackfoot valley depend on sufficient, clean groundwater and surface water, and they challenge the EA's statement of "no agricultural impact" without a full aquifer study, particularly given drilling through multiple water tables and use of drilling fluids.

The Applicant's plan of operations is limited in areal extent and duration under the exploration-license framework in 82-4-331 and 82-4-332, MCA, and the proposed BMPs for groundwater protection are specifically designed to prevent cross-aquifer flow and contamination in this hydrologic setting. These measures include the use of industry-standard, water-based drilling-mud systems selected for low toxicity and biodegradability that form a low-permeability filter cake to minimize fluid loss into formations. Under ARM 17.24.106, exploration drill holes that intercept one or more aquifers or a beneficial-use water source, such as a domestic or agricultural supply, must be plugged from the bottom of the hole upward with bentonite or similar low-permeability material to within five to ten feet of surface, and then sealed at the top with cement, so that the borehole cannot function as a conduit between aquifers or to the ground surface. Excavated HDPE-lined sumps must contain drilling fluids and cuttings and are to be fully closed and reclaimed, removal or stabilization of residual fluids and cuttings, liner removal, backfilling, grading, and revegetation-in accordance with ARM 17.24.107. These measures,

together with erosion-control structures such as sediment traps and rapid stabilization of disturbed soils proposed in the proposed BMPs, are intended to prevent measurable degradation of groundwater quality, surface-water quality, or flows that support irrigation. The EA concluded that the water demands of the proposed action are relatively small compared to basin-scale groundwater and surface-water availability, and the project would rely on an existing, permitted water-supply well rather than creating a new withdrawal from the aquifer. The EA further concluded that the exploration activities, due to their short-term and limited demands on water, would not measurably impair irrigation supplies or introduce contaminants into agricultural water resources.

For additional discussion, see Consolidated Response PE-2.

See Table 3: Assessment of Significance (ARM 17.4.608)

Need for Hydrogeologic Study of the Lincoln Aquifer

Several commenters call for a comprehensive study of the Lincoln aquifer's size, recharge and discharge zones, and connection to the Blackfoot before approval, noting that local well levels track river stages and some reaches go dry in late summer. They argue that, without this, the EA cannot credibly conclude there will be no agricultural impacts from additional withdrawals and disturbance.

For additional discussion, see Consolidated Response PE-2.

See Table 3: Assessment of Significance (ARM 17.4.608)

Agriculture, Recreation, and Working Landscapes as the Preferred Economic Base

Commenters describe the Blackfoot Valley as both an "agricultural powerhouse" and a world-renowned fishery, emphasizing that traditional agriculture, ranching, and recreation together provide enduring economic opportunity and reflect the community's preferred economic base. They argue that local character now favors restoring the aquatic ecosystem and supporting working lands and tourism over expanding industrial extraction.

See Consolidated Response HP-3, and Consolidated Response HP-4.

See Table 3: Assessment of Significance (ARM 17.4.608)

Comparing Extractive Industry with Clean, Land-Based Livelihoods

Many comments contrast the "clean, sustainable" jobs provided by agriculture and recreation with the temporary and potentially damaging benefits of gold mining, emphasizing that ecological damage from mining would translate into economic losses for land-based livelihoods that depend on clean water.

See Consolidated Response HP-3, and Consolidated Response HP-4.

See Table 3: Assessment of Significance (ARM 17.4.608)

Call for EIS Given Combined Agricultural and Industrial Stakes

Because the watershed supports high-value fisheries, agriculture, and recreation, commenters insist that an Environmental Impact Statement is necessary rather than an EA-level review. Commenters assert that only an EIS can fully assess how exploration and potential mining could affect irrigation, working lands, and the broader balance between extractive industry and land-based production.

See Consolidated Response-MEPA, and Consolidated Response PE-2.

See Table 3: Assessment of Significance (ARM 17.4.608)

Consolidated Response HP-6

Public comments were received on Draft EA Section 11, "Human Health and Safety." These comments were read, coded as HP-6, grouped by common theme, and addressed in the consolidated responses below.

Drinking Water, Toxins, and Health Outcomes

Commenters express concern that drilling fluids, heavy metals, and accidental releases could contaminate the Lincoln aquifer and the Blackfoot River, threatening drinking water for corridor residents and undermining physical and mental well-being, citing historic examples of hard-rock mining and elevated cancer rates in mining communities.

Unlike historic hard-rock mining operations with long-term waste rock and tailings facilities, the proposed action is limited in scale and duration under the exploration-license framework in 82-4-331 and 82-4-332, MCA, and is conditioned through the BMPs on multiple layers of water-protection measures intended to prevent aquifer contamination. The Applicant proposes to use industry-standard, water-based drilling-mud systems selected for low toxicity and biodegradability that form a low-permeability filter cake, which reduces fluid loss into formations and limits mass transfer between drilling fluids and groundwater. All drill holes must be promptly and properly plugged in accordance with ARM 17.24.106 using low-permeability materials (such as bentonite or cement), with additional sealing where multiple aquifers or artesian conditions are encountered, so that boreholes cannot function as conduits for vertical groundwater movement or contaminant migration. Drilling fluids and cuttings are required to be contained in excavated, HDPE-lined sumps, with closure including removal or stabilization of residual fluids and cuttings, liner removal, backfilling, grading, and revegetation under ARM 17.24.107, and surface-water protections include erosion and sediment controls (such as sediment traps) to keep disturbed soils from entering nearby drainages. Together with hazardous-substance measures in the BMPs, such as staged spill kits, regular equipment maintenance to reduce leak risk, and secondary containment for fuels and other liquids, these controls are designed to prevent the release and migration of drilling additives, fuels, or metals into potential drinking-water sources. These measures are incorporated as enforceable license conditions, and the department retains authority to inspect exploration sites and require corrective action if deficiencies are observed. The EA concluded that, based on the limited scope and duration of the proposed action, and the water protection BMPs in the Applicant's plan of operations, is not anticipated to cause measurable degradation of water quality or to create exposures that would be reasonably likely to result in adverse long-term health effects for residents of the Blackfoot Valley.

For additional discussion, see Consolidated Response EL-1, Consolidated Response PE-2, Consolidated Response SF-1

See Table 3: Assessment of Significance (ARM 17.4.608)

Food Chain and Subsistence Concerns

Some commenters note that residents rely on irrigated crops and game meat from animals that drink from the river and worry that metals and toxins could bioaccumulate, making livestock and wild game unsafe to eat and directly affecting household nutrition and health, particularly in winter.

For additional discussion, see Consolidated Response EL-1, Consolidated Response PE-2, Consolidated Response HP-5, Consolidated Response SF-1

See Table 3: Assessment of Significance (ARM 17.4.608)

Worker and Community Safety, Based on Mining History

Commenters recount personal experiences with mine accidents and chronic health impacts on workers and nearby residents and argue that gold mining is inherently hazardous, causing long-term environmental degradation and severe health issues, which they view as unacceptable in the Blackfoot corridor.

The proposed action is limited to exploration drilling and associated support on a small, previously disturbed claim block, and does not authorize any underground mining, large open pits, or ore-processing facilities that typically present higher accident and exposure risks or generate large volumes of reactive waste. Worker safety at drill sites would be regulated by applicable occupational health and safety regulations, while the BMP's environmental mitigations, including drilling-fluid management using water-based systems, HDPE-lined sumps, drill-hole plugging under ARM 17.24.106, sediment and erosion controls under ARM 17.24.107, maintained emissions controls, and robust spill-prevention and containment, are designed to prevent long-term environmental contamination that could affect community health. The EA concludes that, because the project is short-term, would disturb a limited area, and would not create waste rock stockpiles, tailings facilities, or other long-lived sources of exposure, the proposed action is not expected to create the kinds of persistent, corridor-wide environmental conditions that have contributed to chronic community health problems near historic large-scale mining operations. Any future proposal for mine development would undergo a separate MEPA review that would likely include additional reviews of worker and community health and safety risks.

See Table 3: Assessment of Significance (ARM 17.4.608)

Traffic and Local Safety in Lincoln

One commenter raises specific concerns about increased traffic from hauling water across Lincoln from the proposed well, noting the town's lack of sidewalks, crosswalks, and traffic lights and the resulting risks to pedestrians.

The proposed BMPs include air-quality and traffic-related mitigations such as operating vehicles and equipment with all factory-installed emissions-control systems intact and properly maintained and implementing reduced travel speeds on access roads and work areas to limit dust and improve safety. While these measures primarily address emissions and dust, reduced speeds may also reduce collision risk in and around town compared with uncontrolled heavy-truck traffic. Given the modest scale of exploration-related hauling, the use of existing roadways, and the time-limited nature of the program under 82-4-331 and 82-4-332, MCA, the EA concluded that the proposed action is not expected to significantly increase accident risk or materially degrade day-to-day traffic safety for Lincoln residents, especially with the required traffic-related controls in place.

For additional discussion, see Consolidated Response PE-7, Consolidated Response HP-9

See Table 3: Assessment of Significance (ARM 17.4.608)

Intergenerational Health and Quality of Life

Across comments, there is a strong emphasis on protecting the Blackfoot's health for future generations so that children and grandchildren can safely drink the water, recreate, and depend on the watershed for their wellbeing, with commenters asserting that degrading the river will inevitably degrade human health and quality of life.

For additional discussion, see Consolidated Response PE-2, Consolidated Response HP-3, Consolidated Response HP-6.

See Table 3: Assessment of Significance (ARM 17.4.608)

Consolidated Response HP-7

Public comments were received on Draft EA Section 13, "Quantity and Distribution of Employment." These comments were read, coded as HP-7, grouped by common theme, and addressed in the consolidated responses below.

Short-Term, Limited Mining Jobs vs. Robust Recreation Jobs

Many commenters assert that mining and exploration would create only a small number of temporary jobs-often overstated in company promises-while putting at risk thousands of existing jobs tied to the Blackfoot's recreation and tourism economy, which contributes over 3.4 billion dollars and about 30,915 jobs statewide.

The proposed action is a limited exploration program under 82-4-331 and 82-4-332, MCA, not a mine or mill, and its direct employment footprint is modest and short-term. The plan of operations and associated BMPs, including small work areas, reliance on existing roads where practicable, overland travel in suitable conditions to minimize new road construction, and concurrent reclamation consistent with ARM 17.24.107, are specifically designed to avoid long-term or off-site impacts to water quality, flows, habitat, and scenery that underpin recreation-based employment. Groundwater and surface-water protections, such as water-based drilling-mud practices, drill-hole plugging to ARM 17.24.106 standards, HDPE-lined sumps and sediment traps, along with spill-prevention and

containment measures are intended to prevent environmental degradation that could diminish the Blackfoot's appeal to visitors or the viability of recreation businesses. The EA concludes that, due to the limited scale and short duration of the proposed action, the exploration activities are not expected to cause measurable losses in recreation or tourism employment in the Blackfoot corridor, nor is it expected to generate a large or sustained offsetting increase in mining-related employment.

For additional discussion, see Consolidated Response HP-3, Consolidated Response HP-4

See Table 3: Assessment of Significance (ARM 17.4.608)

Local Hiring, Imported Labor, and Who Benefits

Several commenters express skepticism that promised "good-paying local jobs" will materialize, noting that companies often bring in outside workers and that profits and many employment benefits could flow to a foreign, Australian-based company, while local guides, outfitters, and tourism-dependent businesses bear the risk if the river is harmed.

The proposed action would authorize small-scale and limited duration exploration operations, , any potential increase in employment, whether filled by local contractors or imported labor, is expected to be modest and temporary. The Applicant's plan of operations and in the associated BMPs propose small disturbance areas, reliance on existing-road use, overland travel where necessary and as conditions allow, with concurrent reclamation, groundwater and surface-water protections, air-quality controls, and spill-prevention measures required under ARM 17.24.107. These plan elements are designed to protect the Blackfoot's water quality and recreation values so that existing local employment tied to guiding, outfitting, and tourism is not diminished by project-related impacts. The EA concluded that with these protections in place to prevent long-term contamination, habitat loss, or visible industrialization, the proposed action is not expected to noticeably change the mix of jobs in the region, either by reducing recreation and tourism employment or by creating a large new source of mining-related employment, and therefore are not expected to materially change the beneficiary of existing job sectors in the region.

For additional discussion, see Consolidated Response PE-2, Consolidated Response HP-3, Consolidated Response HP-4

See Table 3: Assessment of Significance (ARM 17.4.608)

Lincoln's Economic Struggles and Support for Exploration Jobs

A smaller but clear set of commenters, often Lincoln residents, describe restricted restaurant hours, closed plants, and limited opportunities, and see exploration as a needed source of jobs, infrastructure improvements, and new business for local contractors, noting that Lincoln historically depended on mining and timber.

Given the limited number of drill sites, small surface-disturbance areas, and short duration of the program as proposed in the Applicant's plan of operations, DEQ expects only a modest, temporary increase in employment and local spending from the exploration activity. The proposed BMPs that protect environmental resources, such as small pads, reliance on existing roads, overland travel where conditions allow, concurrent reclamation under ARM 17.24.107, groundwater and surface-water protections, and stringent spill-control measures, also ensure that exploration does not degrade the

environmental conditions that support other local employment in recreation, agriculture, and small businesses. The EA concludes that, while exploration drilling may provide some short-term work and sales for local firms, it is unlikely to meaningfully change long-term employment levels or the overall distribution of jobs among sectors in Lincoln or the wider Blackfoot Valley.

For additional discussion, see Consolidated Response PE-2, Consolidated Response HP-3, Consolidated Response HP-4

See Table 3: Assessment of Significance (ARM 17.4.608)

Boom-And-Bust Concerns and Long-Term Employment Stability

Many commenters reference mining's boom-and-bust pattern, warning that when a "vein of gold dries up," jobs disappear, but environmental damage remains, dragging down recreation and agriculture jobs and undermining long-term economic security. They point to historic open-pit mining in Montana as leaving costly messes and minimal lasting employment.

The proposed action is limited to exploration rather than mine development or long-term extraction. The BMPs are designed to avoid creating long-lived environmental legacies that can depress employment in other sectors, particularly recreation and agriculture, after resource booms end. Drill-hole plugging under ARM 17.24.106 prevents vertical migration pathways in the subsurface; HDPE-lined sumps and controlled handling of drilling returns prevent uncontrolled seepage; sediment and erosion controls under ARM 17.24.107 protect surface waters; air-quality and dust controls (factory-installed emissions systems, reduced speeds) limit nuisance and visibility impacts; and spill-prevention and containment measures reduce the risk and extent of fuel or lubricant releases. With full reclamation of disturbed areas required and bonded under 82-4-332(3) and 82-4-338, MCA, and with no long-term production infrastructure, the project is not expected to impair future economic activity or reduce the long-term viability of recreation and agriculture-based employment. The EA concludes that, while the exploration work itself is temporary and would provide only a small, short-lived increase in mining-related employment, it is not expected to create boom-and-bust cycles or to materially affect long-term employment across sectors.

For additional discussion, see Consolidated Response HP-3, Consolidated Response HP-5.

See Table 3: Assessment of Significance (ARM 17.4.608)

Value of a Healthy River for Livelihoods

Across comments, people emphasize that a clean, flowing Blackfoot underpins livelihoods in guiding, outfitting, lodging, restaurants, and other small businesses, making the river itself a key employer, and they fear that mining could "wipe out the income" of those who depend on it.

The Applicant's plan of operations and associated BMPs include specific controls to prevent degradation of the Blackfoot system. These controls include water-based, low-toxicity drilling muds that minimize formation invasion; prompt plugging and sealing of drill holes under ARM 17.24.106; HDPE-lined sumps with full closure and reclamation under ARM 17.24.107; erosion and sediment controls; maintained emissions controls and reduced speeds to limit dust; and comprehensive spill-prevention and secondary containment for fuels and hazardous liquids. The project also limits the spatial and temporal footprint

through small work areas, use of existing roads, and concurrent reclamation. With these measures in place, and given the small scale and short duration of the exploration activities, the EA concludes that the proposed action is not expected to measurably harm river conditions or the broader recreation experience in a way that would reduce demand for guiding, outfitting, lodging or other river-dependent services, and would not therefore be expected to diminish current employment supported by the Blackfoot's healthy river system.

For additional discussion, see Consolidated Response PE-2, Consolidated Response HP-3, Consolidated Response HP-4

See Table 3: Assessment of Significance (ARM 17.4.608)

Consolidated Response HP-8

Public comments were received on Draft EA Section 18, "Distribution and Density of Population and Housing." These comments were read, coded as HP-8, grouped by common theme, and addressed in the consolidated responses below.

Legacy Mining Damage to Homes and Neighborhoods

Commenters cite the Mike Horse mine as a "disaster" that harmed land, wildlife, homes, and local water supplies, with long-term consequences for how and where people can safely live in the Lincoln area.

The proposed action includes a short-term exploration program on a previously disturbed patented claim block and is issued under the exploration-license framework in 82-4-331 and 82-4-332, MCA; it does not include mine development, ore-processing facilities, tailings storage, or large waste-rock stockpiles of the type associated with the Mike Horse site. The exploration plan is conditioned through the BMPs on a suite of measures intended specifically to prevent the kinds of long-lived environmental impacts that can render areas unsuitable for housing, including the use of low-toxicity, water-based drilling muds that form a low-permeability filter cake and minimize fluid loss to formations; prompt and proper plugging of drill holes under ARM 17.24.106 to prevent boreholes from acting as vertical conduits; containment of drilling fluids and cuttings in HDPE-lined sumps with full closure (removal or stabilization of residual fluids and cuttings, liner removal, backfilling, grading, and revegetation) under ARM 17.24.107; erosion and sediment controls to keep disturbed soils out of drainages; and hazardous-substance controls including staged spill kits, regular equipment maintenance, and secondary containment for fuels and lubricants. The EA concludes that the proposed BMPs and the limited scale and short-term duration of the exploration project, and the absence of mining or production facilities, the project is not expected to create long-term contamination of land or water that would damage homes, or constrain where people could safely live in the Lincoln area.

For additional discussion, see Consolidated Response PE-1, Consolidated Response PE-8, Consolidated Response PE-2, Consolidated Response HP-6 and Consolidated Response SF-1

See Table 3: Assessment of Significance (ARM 17.4.608)

Public Cost of Past Impacts on Communities

Commenters note that remediation of legacy mining impacts around homes and drinking-water sources has required millions of taxpayer dollars and present this as a cautionary example for any new project near communities.

The exploration license includes both prevention-focused measures, as detailed in the Applicant's plan of operations and associated BMPs, and a reclamation and revegetation bond required under 82-4-332(3) and 82-4-338, MCA. The technical mitigations described above-water-based drilling-mud practices, drill-hole plugging to ARM 17.24.106, HDPE-lined sumps with full closure, erosion and sediment controls, and hazardous-substance spill-prevention and containment-are intended to avoid creating extensive or persistent contamination that would necessitate major cleanup around homes or water-supply areas. The reclamation bond is sized to cover the State's estimated third-party cost of reclaiming exploration disturbances if the operator fails to do so, including recontouring, stabilization, and revegetation, in accordance with ARM 17.24.107. The EA concludes that due to the limited scale and duration of the exploration project, the lack of any tailings impoundments or large waste-rock stockpiles, and the required reclamation bond, the proposed action is not expected to create new Superfund-type liabilities or require residential relocation or land-use restrictions that would change the distribution or density of population and house near Lincoln or surrounding communities.

For additional discussion, see Consolidated Response EL-1, Consolidated Response HP-8, Consolidated Response PE-2, and Consolidated Response SF-1

See Table 3: Assessment of Significance (ARM 17.4.608)

Mining History vs. Present Community Interests

While commenters acknowledge Lincoln's history as a mining town, they argue that past experience shows how modern communities, housing, and water systems can be put at risk when mining is mismanaged and that current population centers should not bear similar burdens again.

The proposed action does not change zoning, expand the town's footprint, or authorize facilities in or adjacent to residential neighborhoods; it is confined to a remote patented claim block with limited, reclaimable surface disturbance under 82-4-331 and 82-4-332, MCA. The Applicant's proposed plan of operations, and associated BMPs that limit the size and duration of disturbance, such as small work areas, reliance on existing roads where practicable, preference for overland travel where conditions allow, and concurrent reclamation consistent with ARM 17.24.107, are intended to ensure that exploration does not create new, long-term industrial features that would conflict with residential development patterns. Groundwater and surface-water protections (water-based drilling-mud systems, drill-hole plugging under ARM 17.24.106, HDPE-lined sumps, sediment traps) and hazardous-substance controls (spill kits, maintenance, secondary containment) are designed to prevent contamination of municipal or domestic water sources that serve existing housing. On this basis, the exploration project is unlikely to alter where people choose or are able to live or to meaningfully affect the distribution or density of population and housing in the area.

For additional discussion, see Consolidated Response PE-2

See Table 3: Assessment of Significance (ARM 17.4.608)

Consolidated Response HP-9

Public comments were received on Draft EA Section 18, "Demands for Government Services." These comments were read, coded as HP-9, grouped by common theme, and addressed in the consolidated responses below.

Perpetual Water Treatment and Cleanup Obligations

Commenters reference the upper Blackfoot's mining history and "water treatment forever" as evidence that mining can impose long-term obligations on state and federal agencies and taxpayers for monitoring, treatment, and remediation.

The proposed action is a short-term exploration program authorized under 82-4-331 and 82-4-332, MCA, not mine development, and it does not include construction of waste-rock dumps, tailings impoundments, or process-water facilities that typically create long-term treatment needs. The exploration license is conditioned through the Applicant's plan of operations and associated BMPs, specifically intended to prevent the creation of persistent contamination or structural features that would require perpetual government management: use of water-based drilling muds selected for low toxicity and biodegradability that form a low-permeability filter cake to minimize fluid loss and interaction with groundwater; prompt plugging of drill holes in accordance with ARM 17.24.106 so boreholes cannot function as conduits for vertical groundwater movement; containment of drilling fluids and cuttings in excavated, HDPE-lined sumps with full closure (removal or stabilization of fluids and cuttings, liner removal, backfilling, grading, and revegetation) under ARM 17.24.107; installation and decommissioning of sediment traps to prevent sediment delivery to surface waters; and comprehensive spill-prevention, containment, and response measures for fuels and lubricants.. Collectively, these measures are designed to prevent long-term water-quality problems and to ensure that disturbed areas can be reclaimed to a stable condition without state or federal operation of treatment systems. As a result, the EA concluded that the exploration project is not expected to create new, perpetual water-treatment obligations or significantly increase long-term demand on government remediation programs.

For additional discussion, see Consolidated Response SF-1

See Table 3: Assessment of Significance (ARM 17.4.608)

Traffic, Road Safety, and Local Infrastructure

Commenters note that water for drilling would be hauled from a proposed well on the opposite side of Lincoln, through a town with no sidewalks, crosswalks, or traffic lights, raising concerns about increased heavy-truck traffic, accident risk, and corresponding demands on local road maintenance and public safety services.

The scope of this is limited to exploration drilling with a modest number of drill sites and a short duration, so the volume and period of increased traffic are constrained. The BMPs include air-quality and traffic-related mitigations that indirectly support road safety and reduce infrastructure stress, such as operating vehicles and equipment with all factory-installed emissions-control systems intact and properly maintained and implementing reduced travel speeds on access roads and work areas to lower dust generation. By limiting the overall disturbance footprint through small work areas, using existing

roads where practicable, and relying on overland travel in suitable conditions rather than constructing new roads, the project also reduces the need for new public-road infrastructure. Given the small scale of traffic increase, its time-limited nature, and the specified controls, the EA concluded that the proposed action is not expected to cause a measurable, sustained increase in local road maintenance costs or in demand for law enforcement, emergency response, or other governmental services related to traffic safety.

For additional discussion, see Consolidated Response PE-7

See Table 3: Assessment of Significance (ARM 17.4.608)

Impacts to Federally Managed Resources (e.g., CDNST)

Comments from the Continental Divide Trail community express concern that new access routes, pads, and vehicle activity could alter the viewshed and experience along the Continental Divide National Scenic Trail (CDNST), potentially increasing demands on federal land management agencies to address visual, noise, and use impacts.

The Applicant's plan of operations, and associated BMPs, emphasizes minimizing new surface disturbance and visible development through the use of small surface-disturbance work areas, reliance on existing roads to the extent practicable, preference for overland travel where conditions allow, and concurrent reclamation, including recontouring, stabilization, and revegetation as soon as areas are no longer needed, in accordance with ARM 17.24.107. These practices are intended to shorten the duration of visible disturbance, reduce fragmentation in the viewshed, and support restoration of pre-project landforms and vegetation, including in areas that may be visible from the CDNST. Air-quality measures in the BMPs (maintained emissions controls, reduced speeds) also reduce dust plumes and noise associated with vehicle traffic, limiting sensory impacts on trail users. Because the exploration is temporary, spatially limited, and subject to these mitigation and reclamation requirements, the EA concluded that the proposed action is not anticipated to cause substantial or lasting changes in trail conditions that would require additional, ongoing management actions or staffing by federal agencies beyond normal coordination and monitoring.

For additional discussion, see Consolidated Response PE-6, and Consolidated Response HP-3.

See Table 3: Assessment of Significance (ARM 17.4.608)

Need for Higher-Level Environmental Review (EIS)

Several commenters argue that exploration activities alone pose significant potential impacts to water, wildlife, traffic, noise, and cumulative and secondary effects that must be analyzed through a full Environmental Impact Statement (EIS), which they view as necessary to protect the public interest. They express concern that, without an EIS, agencies may not fully assess or mitigate impacts, potentially increasing longer-term demands on government services.

The Applicant's plan of operations and associated BMPs outline a suite of measures intended to minimize impacts to geology and soils, water quality and quantity, air quality, aesthetics, and hazardous substances, which collectively function to eliminate, substitute, isolate, or engineer controls on exploration-related impacts consistent with MEPA's policy to prevent or eliminate environmental

damage. By limiting surface disturbance (small work areas, existing-road use, overland travel), requiring concurrent reclamation under ARM 17.24.107, protecting groundwater and surface water (low-toxicity water-based drilling fluids, strict hole-plugging requirements under ARM 17.24.106, lined sumps, sediment traps), and implementing air-quality, traffic, and spill-prevention measures, the project is expected to avoid significant adverse impacts that would necessitate higher-level review or substantial expansion of agency oversight and enforcement efforts. DEQ therefore determined that, with these mitigations in place, an Environmental Assessment is the appropriate level of review for this exploration license and that the project is unlikely to meaningfully increase near- or long-term demand for government services beyond routine permitting, inspection, and reclamation-bond administration associated with mineral exploration in Montana.

For additional discussion, see Consolidated Response MEPA-1

See Table 3: Assessment of Significance (ARM 17.4.608)

Consolidated Response HP-10

No public comments were received on Draft EA Section 12, “Industrial, Commercial, and Agricultural Activities and Production.”

Consolidated Response HP-11

Public comments were received on Draft EA Section 16, “Locally Adopted Environmental Plans and Goals.” These comments were read, coded as HP-11, grouped by common theme, and addressed in the consolidated responses below.

Alignment with Blackfoot Restoration Plans

Commenters note that the Blackfoot Subbasin Plan and the Blackfoot River Watershed Restoration Plan highlight the drainage’s ecological sensitivity and document decades of coordinated restoration in the upper watershed near the project area. They criticize the Draft EA for listing these plans but not clearly explaining how the exploration proposal aligns with their restoration goals.

The exploration license is limited in duration and scale under 82-4-331 and 82-4-332, MCA, and is conditioned through the BMPs on measures specifically intended to prevent long-term degradation of water quality, habitat, and land productivity. These measures include small surface-disturbance work areas, reliance on existing roads where practicable, preference for overland travel in suitable conditions instead of new road construction, and concurrent reclamation (recontouring, stabilization, and revegetation) as soon as areas are no longer needed, consistent with ARM 17.24.103 and 17.24.107. The BMPs also require use of low-toxicity, water-based drilling muds that form a low-permeability filter cake to minimize formation invasion, strict drill-hole plugging under ARM 17.24.106 to prevent cross-aquifer flow, HDPE-lined sumps with full closure, sediment traps to limit sediment delivery to streams, and robust spill-prevention and containment for fuels and lubricants. Because these measures are designed to avoid new, persistent sources of metals, sediment, or habitat degradation and to restore disturbed sites quickly, the mitigated exploration project is not expected to interfere with or reverse progress

toward the restoration goals identified in the Blackfoot Subbasin Plan and Blackfoot River Watershed Restoration Plan.

See Table 3: Assessment of Significance (ARM 17.4.608)

Consistency with TMDLs for Metals and Sediment

Several commenters emphasize that DEQ has adopted TMDLs for metals and sediment in the Blackfoot headwaters to restore and protect all beneficial uses, and they argue the Draft EA did not adequately assess whether exploration could increase pollutant loads or violate TMDL allocations, particularly in Hogum and Seven Up Pete Creeks. They note that the metals TMDL identifies these tributaries as key drainages where impairment may already occur and where sources must be carefully managed.

The Applicant's plan of operations and proposed BMPs are expressly designed to prevent discharges that could materially increase metals or sediment loading to TMDL-listed waters. Water-based drilling muds selected for low toxicity and biodegradability, combined with a low-permeability filter cake, reduce fluid loss and mass transfer between drilling fluids and groundwater. Drill holes must be promptly plugged with low-permeability materials under ARM 17.24.106 so they do not act as conduits for contaminant migration between aquifers or to the surface, maintaining aquifer integrity and protecting state waters. Drilling returns (fluids and cuttings) are contained in excavated, HDPE-lined sumps that prevent downward infiltration and uncontrolled seepage, with closure requirements under ARM 17.24.107 that include removal of residual fluids and liners, backfilling, grading, and revegetation. Sediment traps installed downslope of disturbed areas intercept and settle sediments before runoff can reach streams, and are removed as affected areas are reclaimed. Collectively, these practices are intended to avoid new or appreciable contributions of metals or sediment to Hogum Creek, Seven Up Pete Creek, or the Blackfoot mainstem; with these controls and the project's limited footprint and duration, the exploration license is not expected to cause exceedances of water-quality standards or TMDL load allocations.

For additional discussion, see Consolidated Response PE-2.

See Table 3: Assessment of Significance (ARM 17.4.608)

Recognition of Large, Long-Term Restoration Investments

Commenters describe tens of millions of dollars invested by local partners in instream and riparian restoration, grazing management, fish passage, and water-conservation projects, and argue that these gains and investments must be weighed against any additional disturbance or pollution risk from exploration, not treated as unrelated background.

The exploration project's design and the associated BMPs aim to keep surface disturbance small, temporary, and fully reclaimable, and to protect the water quality and aquatic habitat that have benefited from past restoration. Small work areas, reliance on existing roads, overland travel where feasible, and concurrent reclamation shorten the duration of exposed soils and minimize vegetation removal, supporting rapid recovery of landforms and plant communities in line with ARM 17.24.107. Groundwater and surface-water protections (low-toxicity drilling fluids, drill-hole plugging under ARM 17.24.106, HDPE-lined sumps, sediment traps) and hazardous-substance controls (spill kits, regular maintenance, secondary containment) are intended to prevent chronic pollution that could erode gains in fish habitat, riparian condition, or working-lands productivity. Because the mitigated exploration

activities are limited in scale and duration and tied to full reclamation secured by bonding under 82-4-332(3) and 82-4-338, MCA, they are not expected to materially diminish the ecological or economic benefits produced by prior restoration work in the Blackfoot watershed.

For additional discussion, see Consolidated Response PE-1, Consolidated Response PE-5, Consolidated Response SF-1.

See Table 3: Assessment of Significance (ARM 17.4.608)

Other Relevant Plans and Proposals

Commenters point out that DEQ's list of locally adopted plans is incomplete and should also consider the Helena–Lewis and Clark National Forest Plan and the community-developed Lincoln Prosperity Proposal, which emphasizes wilderness-quality protections, forest restoration, and recreation areas as expressions of local environmental priorities.

Together, the Helena-Lewis and Clark National Forest Plan and the more community-focused Lincoln Prosperity Proposal (LPP) aim to keep the public land around Lincoln healthy, largely intact, increase restoration, reduce wildfire risk and use high-quality recreation and conservation as the backbone of a more stable local economy. They seek to protect headwater streams and wildlife habitat, restore and maintain resilient forests and watersheds, permanently conserve key backcountry and wilderness-quality areas, prohibit new mining and road building in designated zones on National Forest lands (LPP), expand and safeguard high-quality motorized and non-motorized recreation opportunities, and in doing so support a diversified, recreation and restoration-based rural economy and long-term community well-being for Lincoln and surrounding areas.

The Applicant's plan of operations and associated BMPs emphasize limiting new disturbance on a previously disturbed patented claim block and supporting the restoration of pre-project conditions, which is broadly consistent with forest-plan direction for watershed protection, scenery management, and recreation settings. Small pads, use of existing roads, and concurrent reclamation help maintain overall landscape character and minimize fragmentation, aligning with goals for wildland and recreation values in the Helena–Lewis and Clark National Forest Plan and similar community priorities reflected in the Lincoln Prosperity Proposal. While the exploration itself does not authorize mine development, tailings, large waste-rock facilities, or new roads in the national forest conservation and proposed wilderness areas identified in those plans, air-quality measures (maintained emissions controls, reduced speeds) and hazardous-substance controls in the BMPs reduce dust, emissions, and spill risks that could detract from recreation or resource-protection objectives.

Because the exploration authorization is temporary, spatially limited, confined to an existing patented claim block, and tied to full reclamation under ARM 17.24.107, the EA concluded that this exploration-only action does not meaningfully conflict with the Helena–Lewis and Clark National Forest Plan or the community's articulated goals in the Lincoln Prosperity Proposal, which focus on long-term protection and management of surrounding national forest lands. The EA also recognizes that any future proposal for mine development would require a separate operating-permit process and MEPA review, at which time the scale, location, and duration of that proposal would be evaluated in much greater detail for consistency with those plans.

For additional discussion, see Consolidated Response PE-1, Consolidated Response PE-2, Consolidated Response PE-5, Consolidated Response HP-3 and Consolidated Response HP-7.

See Table 3: Assessment of Significance (ARM 17.4.608)

Requests for Better Coordination and Cumulative Analysis

Commenters ask DEQ to ensure ongoing coordination with the Forest Service and careful review of the CDNST Comprehensive Plan, and they request a more explicit cumulative-impacts analysis in light of Blackfoot restoration goals, TMDL commitments, and local planning objectives.

The Applicant's plan of operations and associated BMPs are designed to prevent or eliminate environmental damage by framing mitigation as a hierarchy of controls across soils, water, air, aesthetics, and hazardous substances. By designing the exploration program to be small, temporary, and fully reclaimable, and by requiring specific measures for surface disturbance (small work areas, existing-road use, overland travel, concurrent reclamation), water-quality and sediment controls (low-toxicity drilling fluids, drill-hole plugging, lined sumps, sediment traps), and spill-prevention and containment under ARM 17.24.103 through 17.24.107. Coordination with the Forest Service on access routes, timing, and reclamation helps maintain CDNST viewshed and recreation values, while adherence to TMDL-protective measures supports restoration-trajectory and local planning objectives. On this basis, DEQ concluded that, with the proposed mitigations in place, the exploration license is not expected to conflict with or substantially impede progress toward locally adopted environmental plans and goals for the Blackfoot watershed.

For additional discussion, see Consolidated Response PE-2,

See Table 3: Assessment of Significance (ARM 17.4.608)

Consolidated Response HP-12

No public comments were received on Draft EA Section 22, "Other Appropriate Social and Economic Circumstances."

Consolidated Response CN-1

Public comments were received regarding the use of cyanide in ore processing. These comments were read, coded as CN-1, grouped by common theme, and addressed in the consolidated responses below.

Existing Cyanide Ban and its Scope

Commenters emphasize Montana's voter-approved prohibition on open-pit mining for gold or silver using heap leaching or vat leaching with cyanide ore-processing reagents, adopted through Initiative I-137 and codified on November 3, 1998, at MCA 82-4-390. They note that the statute was enacted in direct response to a prior gold project proposed in the Blackfoot watershed.

DEQ recognizes both the legal requirements of the Metal Mine Reclamation Act (MMRA), including 82-4-390, MCA, and the strong public concern about cyanide use in the Blackfoot Valley. The proposed action is a limited exploration program authorized under 82-4-331 and 82-4-332, MCA; it does not propose the use of cyanide or construct, establish, or otherwise employ any ore-processing facilities. As described in the Applicant's plan of operations and proposed BMPs, exploration activities are limited to drilling and related support using water-based drilling muds selected for low toxicity and biodegradability, with drilling returns managed in HDPE-lined sumps and reclaimed in accordance with ARM 17.24.107. The current proposed action would take place on private land owned by the Applicant for the purpose of exploration and potential resource characterization, not for production or pilot-scale mining. Any future proposal to construct and operate a mine at this site would require an operating-permit application and a separate permitting and environmental review process, in which DEQ would make a permitting decision based on MMRA criteria, including 82-4-390, MCA, and applicable MEPA requirements, considering the specific technologies and designs proposed.

Gaps in the Law for Modern Cyanide Methods

Commenters raise questions about the scope of the existing cyanide ban and note that modern tank-based processes, such as carbon-in-leach (CIL) and carbon-in-pulp (CIP), still use sodium cyanide as an ore-processing reagent, and they worry such methods could be proposed at this site without clearly violating 82-4-390, MCA.

This exploration license does not authorize any ore-processing activities or the use of cyanide ore-processing reagents; the Applicant's plan of operations is limited to exploration drilling and disturbance mitigation under the associated BMPs. If a future proposed action were to include cyanide ore-processing reagents-whether in heap leach, vat leach, or other configurations-DEQ would evaluate that proposal under the then-current statutory framework, including 82-4-390, MCA, and the broader MMRA requirements, in a separate permitting and environmental review process. Questions about interpretation or expansion of the cyanide ban itself (such as whether additional cyanide-based methods should be covered) would be addressed in a separate permitting action and subsequent MEPA review.

Demands for Binding Non-Cyanide Commitments

Several commenters request that DEQ condition this exploration approval on a binding commitment that only non-cyanide methods will ever be used at this site, and that any future shift toward cyanide-based processing, including CIL or CIP, be prohibited unless a new permitting and review process is undertaken.

The proposed action and the associated BMPs do not contain any proposal to construct, establish, or otherwise employ the use of cyanide ore-processing reagents; no bulk sampling or ore-processing for exploration purposes has been proposed. Under MEPA and the MMRA exploration framework in 82-4-331 and 82-4-332, MCA, this EA cannot predetermine or permanently restrict the technologies that might be proposed in a separate, future operating-permit application, which would undergo its own permitting and environmental review. However, DEQ can and does clarify that any proposal to use cyanide ore-processing reagents at this site would require a separate permitting and environmental review process, during which DEQ would make a permitting decision based on MMRA criteria, including 82-4-390, MCA, and applicable MEPA requirements, considering the specific activities proposed. Until such a proposal is made, the proposed action confines activities to non-processing exploration measures-water-based drilling, lined sumps, hole plugging, sediment controls, and spill-prevention practices-consistent with ARM 17.24.103 through 17.24.107.

Environmental and Health Risks from Cyanide

Commenters highlight the environmental and health risks associated with cyanide and related contaminants, particularly regarding water quality, aquatic life, and human health in the Blackfoot River and connected groundwater.

The proposed action evaluated in this EA consists of drilling and drilling-related activities for exploration and potential resource characterization and does not propose using cyanide ore-processing reagents. The associated BMPs focus on preventing and minimizing exploration-related impacts through measures such as low-toxicity, water-based drilling muds, strict drill-hole plugging under ARM 17.24.106, HDPE-lined sumps with full closure, sediment traps, and hazardous-substance spill-prevention and containment, rather than on regulating ore-processing chemicals that are not part of this project. Any actions not otherwise proposed in Exploration License No. 00816, AMD2-including any future use of cyanide ore-processing reagents-are outside the scope of this environmental review and would require a separate permitting and environmental review process.

Consolidated Response SF-1

Public comments were received regarding the potential for new mining-related Superfund-level contamination of the Blackfoot River. These comments were read, coded SF-1, grouped by common theme, and addressed in the consolidated responses below.

Background on the UBMC Superfund Site

The Upper Blackfoot Mining Complex (UBMC) is a State Superfund facility located approximately 15 miles east of Lincoln in Lewis and Clark County, Montana, at the headwaters of the Blackfoot River. The UBMC facility encompasses approximately six square miles and is associated with the Heddleston Mining District, a cluster of historic mines - including the Mike Horse Mine, Capital Mine, Anaconda Mine, Carbonate Mine, Edith Mine, Paymaster Mine, and several smaller operations - that operated principally in the late 19th and early 20th centuries. The UBMC includes a mixture of federal and non-federal land.

Contamination within the UBMC is associated with historic mine waste, adit drainage, and the 1975 breach of the Mike Horse tailings impoundment, which deposited tailings throughout the upper Blackfoot River floodplain. The primary contaminants of concern in UBMC surface water include aluminum, arsenic, cadmium, copper, iron, lead, manganese, and zinc, which have been documented at various locations within the facility boundary at concentrations exceeding applicable DEQ-7 human health and aquatic life standards. The major impaired tributaries within the UBMC include Mike Horse Creek, Beartrap Creek, Anaconda Creek, Stevens Gulch, and Paymaster Creek, as well as portions of the main-stem Blackfoot River above and through the Upper Marsh area.

The Final Record of Decision (ROD) for the UBMC, issued by DEQ in March 2016, selected a final cleanup remedy for the non-federal lands within the UBMC. Remedy construction, including the removal of nearly 1,000,000 cubic yards of mine waste and the restoration of approximately 16,900 linear feet of floodplains and stream channels, was substantially completed by 2020. Removed materials were consolidated and permanently isolated in the UBMC Repository, located in Section 35 of the project area, northeast of Highway 279. Long-term environmental monitoring of surface water, sediment, and groundwater pursuant to the ROD continues on an annual basis.

UBMC Site Relationship to the Columbia Gold Project Area

The Columbia Gold Project, as described in the AMD2 Draft EA, is a proposed exploration drilling action on private land in Sections 20 and 29, Township 14 North, Range 7 West, approximately 14 miles east of Lincoln in Lewis and Clark County. The Columbia Gold Project is located within the Lincoln Mining District, which is a separate historic mining district from the Heddleston Mining District associated with the UBMC facility. The Columbia Gold project area and the UBMC facility are located in separate drainages. The exploration area lies within the Seven-Up-Pete Creek and Hogum Creek sub-basins, which are tributaries of the Blackfoot River; these drainages are distinct from and downstream of the Mike Horse Creek and Beartrap Creek drainages where the UBMC source areas and primary remedial actions are concentrated.

The remedial actions identified in the UBMC ROD - including waste removal areas, repository construction, water treatment plant operations, floodplain and channel restoration, and associated monitoring infrastructure - were designed to address source areas and environmental conditions within the UBMC facility boundary. None of the UBMC remedial actions were identified, designed, or implemented within the Columbia Gold project area described in the AMD2 Draft EA.

A downstream Blackfoot River surface water monitoring station associated with the UBMC long-term performance monitoring network is situated north of the general Columbia Gold exploration area, as shown in project materials provided to the Department. This monitoring station documents water quality trends in the Blackfoot watershed below the remediated areas and does not represent a baseline or reference condition specifically associated with the Columbia Gold project area.

Public Comment Summary

Many commenters expressed concern that the proposed project sits in a watershed already burdened by mining-related Superfund contamination, especially from the Mike Horse Mine complex, and fear that new exploration and potential mining near the Blackfoot headwaters could create "another Mike Horse," undermining past restoration investments and creating additional Superfund-caliber contamination.

The proposed action is limited to short-term mineral exploration under 82-4-331 and 82-4-332, MCA and not to mine construction, waste-rock or tailings storage or ore processing. The associated BMPs describes a suite of prevention-focused measures-small surface-disturbance work areas, reliance on existing roads where practicable, preference for overland travel in suitable conditions instead of new road construction, concurrent reclamation under ARM 17.24.107, water-based drilling fluids, strict drill-hole plugging under ARM 17.24.106, HDPE-lined sumps, sediment traps, and comprehensive spill-prevention and containment-that are designed to avoid creating long-lived contamination of the type associated with historic Superfund sites.

Proposed Mitigations and Risk of New Contamination

Commenters urge DEQ to recognize the existing Superfund burden and apply the most rigorous preventive analysis before authorizing any further disturbance in this already-impacted watershed.

The Applicant's plan of operations and associated BMPs describes mitigations and best management practices designed to eliminate, substitute, isolate, or engineer controls on exploration-related impacts.

These measures include small, reclaimable work areas; reliance on existing roads and overland travel; concurrent reclamation; water-based, low-toxicity drilling muds; strict drill-hole plugging under ARM 17.24.106; HDPE-lined, excavated sumps with full closure under ARM 17.24.107; sediment traps downslope of disturbed areas; maintained emissions controls and reduced speeds; and staged spill kits, regular equipment maintenance, and secondary containment for fuels and hazardous liquids. These controls are intended to prevent contamination, promptly contain and clean up any accidental releases, and ensure that drill holes and disturbed areas are reclaimed in a manner that protects soils, groundwater, and surface water. Based on the limited scale and duration of exploration, the absence of mine development and processing, and the mitigation and regulatory requirements in the BMPs and MMRA/ARM rules, the EA concludes that the proposed exploration is not expected to generate new long-term contamination or create conditions reasonably likely to lead to a new Superfund-caliber site in the project area.

Sulfide Geology and Drill-Hole Plugging

Commenters express concern that sulfide-bearing geology could produce acid mine drainage or metal leaching if drill holes create new pathways for oxygen and water to contact sulfide minerals.

DEQ recognizes that in sulfide-bearing formations, exposure of sulfide minerals to oxygenated water can generate acidity and mobilize metals, but also that such reactions require sustained exposure and suitable physical and chemical conditions. Under ARM 17.24.106, exploration drill holes must be promptly plugged from the bottom up with bentonite or similar low-permeability materials, and, where conditions warrant, cement in the upper portion of the hole, with plugging completed before the drill rig leaves the site. These bentonite and cement plugs are intended to fill the borehole, seal against the surrounding formation, and block vertical movement of water and air, thereby eliminating an open column that could otherwise enhance oxidation along the drill-hole wall. In practical terms, drilling only temporarily exposes a narrow column of rock, and this exposure is short-lived because low-permeability drilling materials and plugs cut off ongoing air and water circulation; combined with requirements to prevent inter-aquifer mixing, these standards are designed to keep exploration drill holes from becoming long-term sources or conduits for acid generation or metal release in sulfide geology. Given the limited number and diameter of holes, the short time they remain open, and the plugging practices and other water-protection measures in the BMPs, the EA concludes that the proposed exploration drilling is not expected to materially increase acid-generation risk or contribute to a Superfund-type contamination scenario.

Superfund Restoration Investments and Cumulative-Effects Expectations

Commenters emphasize the scale of prior restoration investments and argue that any conclusion of minor or non-significant impact must fully integrate Superfund and legacy conditions into the cumulative-effects analysis.

The EA did not predict direct or indirect impacts to the UBMC remedy or restored reaches because, given the limited nature of the proposed exploration and the required mitigations, the risk of exploration-related contamination reaching UBMC source areas or undermining the remedy is low. The authorization covers only short-term exploration, with no ore processing, waste-rock or tailings storage, or mine operation, and is subject to the proposed BMPs prevention-focused controls on soils, water, air, and hazardous substances. Within this limited scope, DEQ determined that exploration-related releases capable of measurably affecting the UBMC facility or reversing Superfund restoration gains are not

anticipated, and therefore UBMC is considered as part of the broader watershed context rather than as a site requiring detailed project-specific quantitative impact modeling in this EA. Assuming the identified BMPs and measures to minimize environmental impacts are implemented as required, the EA concludes that Superfund-caliber impacts-including new or renewed contamination affecting UBMC-are unlikely from the authorized exploration activities.

Exploration Bonding and Potential Taxpayer Liability

Many commenters focus on who bears financial responsibility if damage occurs, citing historic examples where bonds were insufficient and taxpayers now fund cleanup and long-term treatment.

Under the MMRA, exploration cannot proceed without an approved plan of operations and a reclamation and revegetation bond sufficient for the State to complete required reclamation if the operator fails, as required by 82-4-332(3) and 82-4-338, MCA. DEQ's bond determinations are based on the specific scope of authorized exploration disturbances-number and size of drill pads, access improvements, sumps, and related features-and reflect the estimated third-party cost to plug drill holes in accordance with ARM 17.24.106, reclaim sumps, remove or stabilize structures, recontour and stabilize disturbed areas, and complete revegetation consistent with ARM 17.24.107. Because this proposal is limited to exploration and does not authorize mine development, waste-rock or tailings facilities, or ore processing-the activities historically associated with very large, long-term liabilities-DEQ does not expect it to create the type of extensive contamination that has led to Superfund designations and substantial taxpayer burdens at historic sites. The exploration bond is intended to cover full reclamation of exploration disturbances if the operator defaults, and DEQ would not approve exploration activities without such financial assurance in place; any future mine proposal would require a separate permitting and environmental review process, including a new bonding determination appropriate to the nature and scale of any proposed operation.

Consolidated Response MEPA-1

Concerns Regarding the MEPA Process or Timelines
DEQ received many public comments asserting that DEQ failed to adhere to MEPA procedural requirements by disregarding relevant environmental factors, failing to consider impacts that may arise in the event a future full-scale mining operation is permitted, such that an EIS is required. Comments also assert that DEQ hasn't complied with its procedural public participation requirements. DEQ addresses these in the comments in the consolidated responses below.

Relevant Factors in Significance Analysis

Many commenters disagree with DEQ's determination that AMD2 does not result in "significant impacts," given the sensitivity of the Blackfoot watershed, and that the impacts meet multiple significance criteria in ARM 17.4.608 (probability of impact, uniqueness/fragility, importance of the resource, cumulative effects), such that an EIS is required, particularly because of the Blackfoot is listed as impaired and subject to a TMDL. Accordingly, comments assert the EA does not adequately compile and analyze relevant information. Additionally, commenters assert the EA presents "presently unquantified environmental amenities and values" alongside economic/technical factors, and that the EA underweights these environmental values.

DEQ disagrees that it has failed to consider relevant factors in its analysis, or that it has ignored pertinent data. DEQ has considered the sensitivity of the Blackfoot watershed and determined, based on the project proposal, that significant impacts would not occur to this watershed from the direct or secondary impacts of this project, or cumulative impacts when considered alongside past or existing projects.

As background, sources of metals loading to the Blackfoot River upstream of Landers Fork are primarily related to historic mining activities. The majority of mining activity within the drainage occurred at the UBMC. Other possible sources of metals loading to the river include roads and natural background sources. Specific metals exceeding the numeric water quality criteria in one or more of the stream segments at the time of TMDL implementation included aluminum, cadmium, copper, iron, lead, manganese, and zinc. As a result of restoration strategies outlined in the Upper Blackfoot Mining Complex Temporary Standards Implementation Plan, however, both cadmium and iron have fallen within their applicable water quality standards and were delisted on January 30, 2025.

On May 19, 2004, the EPA also approved a TMDL for sedimentation/siltation. This approval led to the implementation of a water quality and habitat restoration plan that incorporates TMDLs for sediment in the Blackfoot Headwaters TMDL planning Area. Both the restoration plans for the sediment TMDL and the metals TMDLs require DEQ to perform or fund ongoing water quality monitoring.
The implementation of a TMDL does not prevent future development in the area of the impaired waterbody.

A TMDL includes an allocation of pollutant loadings to point sources. Meaning, any entity that receives a permit through MT DEQ's Water Protection Bureau to discharge to the Blackfoot River or one of its impaired tributaries, is assigned a wasteload allocation (WLA) by DEQ. WLAs implemented in discharge permits constitute a type of water-quality based effluent limit. This effluent limit would be designed to keep metals levels within their applicable water quality standards.

Importantly, however, in this case, the project is anticipated to have little to no effect on the health of the Blackfoot River or adversely affect its ongoing recovery, because GPM's proposed operation would not be discharging into the Blackfoot. Instead, as explained in the EA and elsewhere in response to comments, GPM would use plastic liners in the drill sumps to prevent infiltration and would have secondary containment (trenches) near the sumps to prevent surface runoff. Accordingly, significant impacts are not expected from the proposed action and therefore, an EIS was not required to be prepared.

DEQ also disagrees that in this instance, DEQ must consider "presently unquantified environmental amenities and values" alongside economic and technical considerations. *See* § 75-1-201(1)(a)(ii), MCA (provision relating to general directions for environmental impact statements). This requirement applies to preparation for an EIS and for "state sponsored projects." This is not a "state-sponsored project," but a private project that is subject to government review. Furthermore, MEPA does not require that such values be quantified. "[W]hile doing so may be helpful in some circumstances, DEQ's MEPA-implementing regulations contain no such directive[,]" and in fact, the agency's rules detailing the requirements of an EA call for "narrative" descriptions of evaluated impacts. *Belk v. Mont. DEQ*, 2022 MT 38, ¶ 29. DEQ has considered the recreational, aesthetic, cultural, and ecological values of the project area and surrounding watershed, as discussed in Sections 6, 8, 17, and 19–20 of the EA. DEQ disagrees with any suggestion that the EA has failed to consider the impact to these resources.

Throughout the EA, DEQ analyzed, where appropriate, quantifiable and technical information alongside narrative unquantifiable environmental resources in order to determine the most accurate predictor of significance to resources, concluding the project would not result in significant impacts.

Scope of Review

Related to comments that DEQ failed to consider relevant factors in conducting its significance analysis, a dominant theme in comments is that an Environmental Assessment is not sufficient and that MEPA requires preparation of a full Environmental Impact Statement for this project primarily because DEQ must consider the a reasonably foreseeable future action via full mine buildout and operating permit. Several commenters argue that AMD2 and any potential future mine are "connected actions" that MEPA requires to be analyzed together, and that treating exploration as isolated from full mine buildout unlawfully segments the review.

Related comments suggest that processing successive expansions as amendments to a single exploration license, rather than as new applications, conceals the cumulative scope of exploration and allows DEQ to avoid a comprehensive MEPA review. Many commenters invoke Article II, Section 3 and Article IX, Section 1 of the Montana Constitution and MEIC v. DEQ, 1999 MT 248 to argue that the Constitution's preventative environmental protection framework requires DEQ to evaluate the trajectory toward a full mine, not just the immediate exploration impacts, and that proceeding with only an EA fails to satisfy MEPA's constitutional mandate.

Similarly, multiple commenters argue that the Draft EA fails to take the required "hard look" at environmental consequences, is piecemeal, and does not meet MEPA's mandate for rigorous, comprehensive review, particularly with respect to cumulative impacts on the Blackfoot watershed. Commenters contend that the EA improperly "segments" the analysis by focusing on this amendment in isolation, and that MEPA requires full cumulative-effects review, including past exploration, reasonably foreseeable future mining, and other industrial projects in the Blackfoot watershed. Several detailed comments argue that the exploration amendment and potential future mine are "interdependent and connected actions" that MEPA requires to be analyzed together in an EIS. Commenters contend that in applying this constitutional standard, DEQ must under MEPA evaluate not only immediate exploration impacts but the reasonably foreseeable trajectory toward a full mine.

Finally, some commenters assert that MEPA's requirement to consider connected and cumulative actions is not being met if DEQ proceeds with only an EA for this amendment and that authorizing further exploration via EA level amendments sets a precedent of repeatedly avoiding comprehensive cumulative analysis through an EIS.

DEQ's MEPA review is limited to the application before it. The proposed action here is Amendment No. 2 to Exploration License No. 00816, an authorization for limited core drilling on approximately 1.53 acres of private land. That authorization does not approve mining, ore processing, or the construction of any long-term facility, and it does not commit DEQ or the applicant to any future course of action. See § 82-4-332, MCA. DEQ cannot analyze potential impacts from a hypothetical future action. The Montana Supreme Court already rejected arguments in *Park County Envt'l Quality Council v. DEQ*, 2020 MT 303, that DEQ must consider at the exploration phase the impacts of a future operating permit application that had not been submitted to the agency for consideration. Should the Applicant submit a hard rock operating permit to DEQ in the future, additional environmental review would be required to analyze potential impacts.

Additionally, DEQ is not required to speculate on any future action in considering cumulative impacts. No operating permit, mine plan, or mine construction application is currently pending before DEQ for the Columbia Gold Project. Accordingly, while DEQ is well aware that MEPA is intended as one, among many, tools to fulfill Montana's constitutional right to a clean and healthful environment, DEQ has no authority to evaluate, and MEPA does not require DEQ to speculate about the impacts of a hypothetical future project or amendment that has not been submitted, whose scope and design are unknown, and which may never be proposed. Should the applicant submit a future application for hard rock mining operations, that application would trigger a fully independent permitting process and MEPA review under §§ 82-4-321 et seq., MCA and ARM 17.4.607–608, at which time DEQ would evaluate direct, secondary, and cumulative impacts of that specific proposal, including its relationship to prior exploration activity. The constitutional provisions do not independently expand DEQ's authority under MEPA beyond what MEPA's procedural framework provides, nor do they transform the EA into an EIS regardless of the project's actual anticipated impacts.

DEQ also disagrees that the amendment structure downplays cumulative effects. MEPA requires that agencies identify and analyze the environmental impacts of proposed actions before making decisions. The EA's significance determination under ARM 17.4.608 expressly accounts for cumulative impacts, defined as the collective impacts of the proposed action considered in conjunction with other past, present, and future actions related to the proposed action by location or generic type. This means that the cumulative impacts of AMD1, AMD2, and any other relevant activities in the project area is factored into DEQ's significance assessment for AMD2, not evaluated in isolation. Consistent with these requirements, the EA includes a cumulative-effects discussion that considers: (1) existing and historic mineral exploration and mining-related disturbance in the area; (2) current land uses and development in the watershed; and (3) other known projects that may interact with the proposed exploration. Any future proposal for mine construction or operation would be subject to its own permitting process and separate MEPA review, at which time the Department would evaluate the environmental impacts of that development proposal, including its relationship to this exploration. For this decision, the Department has determined that the EA's cumulative-effects analysis, as framed by the MEPA statutes and model rules, is sufficient to inform whether this exploration amendment, with mitigation, would cause significant cumulative impacts requiring an EIS.

Moreover, the MMRA expressly authorizes exploration licensees to seek amendments to existing licenses to modify or expand the scope of authorized exploration activities. *See* § 82-4-342, MCA. And it's not within DEQ's authority to dictate an applicant's plans or goals. Importantly, the amendment structure does not allow DEQ to avoid MEPA review. Each amendment that constitutes a proposed action with potential environmental impact triggers an independent MEPA review, just as an original application would. AMD1 was subject to its own EA; AMD2 is subject to this EA. If a future amendment is submitted, it would likewise require its own environmental review, calibrated to the scope and environmental context of that proposal at the time it is submitted. The amendment structure therefore does not downplay cumulative effects; MEPA's framework ensures that each successive action is evaluated against the full backdrop of what has come before.

Coordination with Other Agencies

Several commenters argue that MEPA requires DEQ to coordinate with Montana Fish, Wildlife & Parks (FWP) and other agencies with jurisdiction or expertise over affected resources, and assert there is no indication such coordination occurred in preparing the Draft EA. Several comments argue that MEPA

requires DEQ to coordinate with other agencies that have jurisdiction or special expertise, and that this has not occurred adequately. They emphasize statutory and rule based duties to consult with Montana Fish, Wildlife & Parks and to incorporate its species and habitat data into the EA/EIS. Thematic statements include that MEPA "directs DEQ to coordinate with state agencies that have jurisdiction over or special expertise regarding resources that may be affected," and that there is "no indication" DEQ coordinated with FWP in preparing the Draft EA. Additionally, commenters argue that ARM provisions governing EAs require identification of mitigation measures, which cannot be developed without outside wildlife expertise, making the current EA incomplete under MEPA.

Section 75-1-201(1)(b), MCA, directs DEQ, prior to making any detailed statement, to "consult with and request the comments of any state agency that has jurisdiction by law or special expertise with respect to any environmental impact involved." This requirement, however, is triggered when an agency determines that significant impacts would occur and thus is preparing an EIS. DEQ has not determined significant impacts would occur, including to wildlife, and therefore consultation obligations have not been triggered.

DEQ also disagrees that it is necessary to consult to address appropriate mitigation measures, for several reasons. MEPA requires only that, when appropriate, an EA include discussion of "enforceable mitigation measures and the potential impacts that would result without them" when the agency determined that significant impacts would occur but for mitigation. DEQ has not concluded that significant impacts would occur to any resource absent mitigation-this is, therefore, not a mitigated EA.

Nevertheless, although this is a requirement for preparing an environmental impact statement, and not an environmental assessment, DEQ followed this requirement in preparing AMD2's EA. The Consultation section of the Draft EA documents DEQ's queries to multiple external databases and agencies, including the Montana State Historic Preservation Office (SHPO), DNRC, MDT, Lewis and Clark County, USGS, the Montana Natural Heritage Program (MTNHP) (that FWP provides input on and itself relies upon as a useful database), MBMG, EPA, BLM, and USFS.

Additionally, in response to formal public comments (though not required), DEQ sent FWP a formal consultation letter requesting a second opinion on DEQ's determination that significant impacts to aquatic life, wildlife, and sensitive and endangered species would not occur. FWP provided a written concurrence with DEQ's determination.

Public Notice and Participation

Many comments frame their objections as MEPA related process concerns, especially around public review and participation. Commenters characterize the 14-day comment period the EA as "short," "hurried," or "insufficient," and assert that this undermines meaningful public involvement under MEPA. Commenters requested an extension of the comment period and at least one in-person public meeting. Some commenters also submitted a public records request in response to the EA and assert that DEQ must extend the comment window until the records request is fulfilled such that without doing so, it contravenes the right to know and participate and the purpose of MEPA.

ARM 17.4.610 requires that DEQ adjust the level of participation based on the level of public interest, balanced against the serious and complexity of the anticipated impacts of the proposed action. There exists a number of ways, pursuant to this rule, in which the agency can go about ensuring the appropriate level of public participation through the MEPA process prior to making a final decision.

DEQ appropriately balanced the complexity and seriousness of the anticipated impacts of the proposed action-a very minor project with small and insignificant anticipated impacts-against a substantial amount of public interest, fulfilling MEPA public participation requirements pursuant to ARM 17.4.610. For example, DEQ published a news release announcing the availability of the Draft EA and soliciting public comment, consistent with its MEPA procedures. Furthermore, the public comment period was extended by a week to allow the interested public additional time to submit public comments. There was also a public meeting held in which the public could attend and DEQ representatives were available at that meeting. The comment process thus functioned as MEPA's public participation framework contemplates: members of the public, organizations, and agencies were able to review the draft EA and submit substantive written comments, which certainly occurred, the public had adequate opportunity to engage with the document and identify concerns.

DEQ disagrees that this process violated the public's right to know or participate-without question, the public had more than adequate notice and an opportunity to be heard regarding their positions on the EA and the project, more generally. Furthermore, there is no requirement that DEQ must use MEPA, a procedural mechanism that does not displace statutory timeframes under the substantive permitting authority, here the MMRA, as a means to extend the statutory timeframe simply because an extensive records request was submitted following publication of the draft EA. DEQ is working to fulfill that public records request commensurate within the statutory timeframes, which is 90 days from the agency's acknowledgment of the request, or six months if 90 days is not feasible. Nevertheless, as explained in the EA, DEQ has appropriately considered which prior and currently approved permitted actions may cumulatively add to impacts of the proposed action.

Requests For Denial

Many commenters request that the Department deny the exploration license amendment.

The decision whether to approve or deny an exploration license amendment is governed not by MEPA but by the substantive criteria of the Metal Mine Reclamation Act. See § 82-4-332, MCA. Under the MMRA, DEQ must approve an exploration license application if the applicant has satisfied the applicable statutory and regulatory requirements, including submission of a complete and acceptable compliant application, payment of required fees, and provision of an adequate reclamation bond. See § 82-4-332(1) and (3), MCA. DEQ may not withhold or deny a permit based on the information contained in an EA. MEPA is a procedural statute; the standards governing whether exploration may proceed, and what conditions apply, are set by the MMRA and rules adopted under it.

GPM's application for AMD2 was determined to be complete and acceptable on March 9, 2026. The Department has conducted the environmental review required by MEPA, applied the significance criteria in ARM 17.4.608, considered all timely public comments received during the comment period, and determined that the proposed exploration is not expected to significantly affect the quality of Montana's human environment. The record supports approval of AMD2 under the applicable MMRA criteria.