MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

ABANDONED MINE LANDS PROGRAM

ENVIRONMENTAL ASSESSMENT

Gardner Mine Domestic Well Replacement

Fairview, Richland County, Montana

Section 18, Township 24 North, Range 60 East

Project Name	**Gardner Mine Domestic Well Replacement**
Project Site	13386 County Road 354T, Fairview, MT 59221
Legal Description	SE¼, NW¼, and NE¼, Sec. 18, T24N, R60E, Richland County, MT
Geocode	27-3554-18-1-04-01-0000
e-AMLIS ID	MT004223 (Gardner Site)
Cultural Resource Site	24RL127
Lead Agency	Montana DEQ, Abandoned Mine Lands Program
Funding Source	SMCRA, Title 30 U.S.C. § 1240a
Document Type	MEPA Environmental Assessment — DRAFT FOR PUBLIC COMMENT
Date	May 2026
Comment Period	[June 8, 2026] through [July 07, 2026] 30 calendar days

This Environmental Assessment (EA) is a draft document released by the Montana Department of Environmental Quality for public review and comment for 30 days from the date of posting. To be considered timely, all public comments must be in writing and received by DEQ AML Program, Attn: John Babock, P.O. Box 200901, Helena MT 59620 or e-mail to DEQMontanaAML@mt.gov, **by 5 p.m. on July___, 2026.**

This EA reflects information, conditions, and analyses available as of June 4, 2026. DEQ will review and consider all timely comments received before making any final decisions on the proposed action.

This Environmental Assessment does not, by itself, authorize implementation of the proposed action. Final decisions will be made by DEQ and applicable agencies after consideration of public comments and any additional information received during the review period.

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1. Purpose and Need for Action

1.1 Introduction

The Montana Department of Environmental Quality, Abandoned Mine Lands Program (DEQ AML), prepared this Environmental Assessment (EA) in accordance with the Montana Environmental Policy Act (MEPA), Title 75, Chapter 1, Parts 1 through 3, MCA, and its implementing rules at ARM 17.4.601 et seq. This EA evaluates the potential environmental effects of replacing a contaminated domestic water-supply well on privately owned property approximately one mile southwest of Fairview, Richland County, Montana. The project is funded under SMCRA, Title 30 U.S.C. § 1240a, and has been determined eligible in the DEQ AML Eligibility Determination Letter to OSMRE, Casper Field Office, dated April 2, 2026. This EA applies a systematic, interdisciplinary approach as required by ARM 17.4.609(1) and analyzes direct, secondary, and cumulative impacts as defined by ARM 17.4.603 for each resource required by ARM 17.4.609(3)(d) and (e).

1.2 Purpose

The purpose is to restore a safe, reliable source of domestic drinking water to the landowner and his family by replacing a contaminated well on property affected by abandoned underground coal-mine workings at the Gardner Mine.

1.3 Need

The existing domestic well installed by DEQ AML in 2012 has never produced usable domestic water. Sampling in 2025 documented iron at 45.2 mg/L (Secondary MCL: 0.3 mg/L; approximately 150× the standard), total dissolved solids at approximately 1,450–1,500 mg/L (Secondary MCL: 500 mg/L; approximately 3× the standard), elevated manganese, sulfate, and confirmed primary MCL exceedances in both sampling rounds (Energy Laboratories, Inc., September and October 2025; full reports at Appendix E). DEQ AML attempted well rehabilitation in fall 2025; however, rehabilitation was unsuccessful because the contamination source is mine-influenced groundwater hydraulically connected to Gardner Mine void which is not a correctable mechanical defect. Replacement is necessary to eliminate a documented public-health threat and to satisfy SMCRA Priority 1 (Polluted Water: Human Consumption) under 30 U.S.C. § 1240a(c).

1.4 Decision to be Made

DEQ AML must decide whether to: (a) proceed with the Proposed Action to drill and complete a replacement domestic well at a location away from known mine workings; (b) select another reasonable alternative; or (c) take no action.

1.5 Governing Legal Standards

This EA is designed to satisfy the 'hard look' standard required by Montana courts reviewing DEQ MEPA determinations under the arbitrary-and-capricious standard of review. Park County Environmental Council v. DEQ, 2020 MT 13; Water for Flathead's Future, Inc. v. DEQ, 2023 MT 2; MEIC v. DEQ, 2024 MT 216. The hard-look standard requires genuine, good-faith analysis supported by the record — not mere assertion. The following areas, which Montana Supreme Court decisions have identified as frequent grounds for challenge, have been specifically addressed:

- **GHG emissions and climate** — Held v. State, 2024 MT 241 (MEPA Limitation unconstitutional) and MEIC v. DEQ, 2024 MT 216 (hard look at GHGs required): this EA provides quantified GHG analysis with EPA Emission Factors Hub methodology and expressly addresses in-Montana climate effects. (Section 5.9)
- **Lighting** — MEIC v. DEQ, 2024 MT 216 held DEQ failed to take a hard look at lighting: this EA addresses lighting with express findings in Section 5.11.
- **Alternatives** — Park County Environmental Council, 2020 MT 13, ¶¶ 44–46 (alternatives must be independently analyzed): Section 3 provides independent analysis of all alternatives and states specific technical reasons for elimination.
- **No Action** — 75-1-201(1)(b)(iv)(C)(III), MCA (projected impacts of noncompletion required): Section 5.15 provides that analysis.
- **Selective data** — Park County Environmental Council, 2020 MT 13 (DEQ may not ignore unfavorable data): this EA discloses all available site data, including the unsuccessful 2025 rehabilitation attempt.
- **Cumulative impacts** — ARM 17.4.603; this EA identifies specific past, present, and reasonably foreseeable future actions and assesses their combined effects for each resource.
- **Mitigation commitments** — ARM 17.4.609(2): Table 6-1 contains binding, enforceable mitigation and monitoring requirements.
- **Systematic interdisciplinary approach** — ARM 17.4.609(1): this EA addresses all physical and human environment resources listed in ARM 17.4.609(3)(d) and (e).

Table 1-1. Related Environmental and Project Documents

Document	Date	Finding/Status
DEQ AML Eligibility Determination Letter — Gardner Mine	April 2, 2026	Eligible — SMCRA Priority 1; does not substitute for MEPA
OSMRE NEPA Categorical Exclusion and ATP	April 30, 2026	CE issued; ATP authorized; does not substitute for MEPA
Montana SHPO Section 106 Concurrence (24RL127)	March 2, 2026	Not NRHP-eligible; No Adverse Effect to Historic Properties
Gardner Emergency 2011 Final Construction Completion Report	March 6, 2014	Project closeout; 40-year site history documented
2025 Water Quality Laboratory Reports (Energy Laboratories)	Sept.–Oct. 2025	Primary MCL exceedances confirmed; rehabilitation failed
HydroSolutions Task Order 6, Contract No. 421019	April 2026	Authorized; RPR oversight during drilling

2. Background

2.1 Site Location and Setting

The Project Site is on private property approximately one mile southwest of Fairview, Richland County, Montana, in the SE¼, NW¼, and NE¼ of Section 18, Township 24 North, Range 60 East (geocode 27-3554-18-1-04-01-0000; 13386 County Road 354T). Six historic subsidence features are centered at approximately 47.846° N latitude and -104.066° W longitude. The surrounding landscape is gently rolling Great Plains terrain at approximately 1,900–1,950 feet AMSL, with single-family rural residences and agricultural land uses.

2.2 Mining and Reclamation History

The Gardner Mine was established under coal entry patent #5433313, August 22, 1916. Delbert Gardner operated approximately 40 acres using room-and-pillar methods targeting a coal seam approximately 30 feet below ground surface and approximately 6 feet thick within the Fort Union Formation. No mining activity has occurred since the 1930s. The property has been in DEQ AML's inventory as eAMLIS site MT004223 since 1984.

DEQ AML has conducted nine reclamation actions at the Gardner Site since 1984:

- **1984 — Sullivan Emergency:** Borehole investigations, geophysical survey, grout barrier.
- **1985–1986 — Gardner Emergency #1:** 26 test holes, ~700 cubic yards of grout injected.
- **1997:** Backfill of subsidence feature near garage.
- **1999:** Backfill of three subsidence features at Gardner and Sullivan residences.
- **2009 — Gardner Emergency 2009:** Backfill of two subsidence features; pressure-grouting of mine voids beneath the Gardner residence following horizontal-drilling investigation.
- **2011 — Gardner Emergency 2011:** Backfill of four subsidence features at Gardner and Daniels residences. Documented in Final Construction Completion Report, March 6, 2014.
- **2012:** Replacement of domestic well at Daniels residence.

2.3 Property Ownership and Current Conditions

Robert Biddinger purchased the property in 2025 and is developing it as his family's primary residence. The property was essentially uninhabited since the 2012 well installation because the well water has never been fit for domestic use. Mr. Biddinger contacted DEQ AML, prompting 2025 sampling, an unsuccessful rehabilitation attempt, and the current replacement project.

2.4 Existing Water Quality

DEQ AML sampled the 2012 well twice in 2025 (Energy Laboratories, Inc., September and October 2025). Both rounds confirmed the following exceedances (Appendix E):

Table 2-1. Summary of 2025 Water Quality Results — 2012 Domestic Well

Constituent	Measured (both rounds)	EPA Standard	Factor of Exceedance
Iron	45.2 mg/L	Secondary MCL: 0.3 mg/L	~150×
Total Dissolved Solids	1,450–1,500 mg/L	Secondary MCL: 500 mg/L	~3×
Manganese	Elevated	Secondary MCL: 0.05 mg/L	Elevated
Sulfate	Elevated	Secondary MCL: 250 mg/L	Elevated
Primary MCLs	Exceeded (both rounds)	Primary MCL — see Appendix E	Confirmed
Physical appearance	Visible sediment, discolored		N/A

These results are consistent with groundwater in prolonged hydraulic contact with oxidized coal-mine workings and slack. The existing well casing is compromised by ongoing subsidence, providing a conduit for continued contamination. Post-rehabilitation sampling (October 2025) showed nearly identical results, confirming the contamination source is mine-influenced groundwater — not a correctable mechanical defect.

2.5 Hydrogeologic Basis for Proposed Well Location

The replacement well location has been selected using: (i) 1916-era mine maps from OSMRE; (ii) DEQ AML borehole logs, subsidence surveys, and 2009 horizontal-drilling data; and (iii) field reconnaissance of the six documented subsidence features. The Gardner Mine workings are confined to a coal seam approximately 30 feet below ground surface. The replacement well would be sited outside the mapped footprint of historic workings and the subsidence-influence zone, targeting Fort Union Formation bedrock intervals not in hydraulic communication with contaminated mine voids. The licensed well driller will lithologically log the boring and verify that the completion interval is isolated from mine-influenced shallow groundwater by an annular seal meeting ARM 36.21.601 et seq.

3. Proposed Action and Alternatives

ARM 17.4.609(3)(f) requires description and independent analysis of all reasonable alternatives including no action. Per Park County Environmental Council v. DEQ, 2020 MT 13, ¶¶ 44–46, eliminated alternatives must be identified with specific, reasoned bases for elimination — not mere deference to the applicant.

3.1 Proposed Action (Preferred Alternative)

DEQ AML proposes to drill and complete a new domestic water-supply well on the Biddinger property at a location outside mapped mine workings and subsidence features. Scope includes:

1. Pre-construction siting investigation using 1916 mine maps, prior DEQ AML borehole records, and field reconnaissance.
2. Permitting and notification per ARM 36.21.601 et seq. and DNRC Water Resources requirements.
3. Drilling to approximately 300–350 feet by a Montana-licensed well driller, with steel casing, annular seal, and sanitary seal isolating the completion interval from mine-influenced shallow groundwater.
4. Pre-occupancy water quality testing for bacteria, metals (including iron and manganese), sulfate, TDS, and all 2025-identified constituents; well not placed in service until all primary MCLs are confirmed met. Post-drilling treatment of water to meet standards would be responsibility of landowner.
5. Connection of the new well to existing domestic plumbing at the residence.
6. Proper abandonment of the 2012 well per ARM 36.21.671 (pump removal, permanent grout column).
7. Ground restoration to pre-project contours with reseeding using a DEQ AML-approved native seed mix.
8. Full-time oversight by a consulting hydrogeologist during all drilling and connection activities.

Duration: 3–5 consecutive working days, daylight hours only. **Footprint:** approximately 0.04 acre. **Cost:** approximately $131,910. This is the **Preferred Alternative.** It is the only alternative that directly and permanently addresses the mine-related contamination pathway, fulfills SMCRA Priority 1, is technically feasible, is within reasonable cost, and produces a verifiable long-term public health benefit confirmed through pre-occupancy sampling.

3.2 Alternative A — No Action

Under No Action, DEQ AML would not replace the contaminated 2012 well. The existing well would remain in place and the landowner would continue to have no reliable source of domestic drinking water. This alternative is required by 75-1-201(1)(b)(iv)(C)(III), MCA, and is retained as the baseline against which Proposed Action effects are measured. Projected impacts of noncompletion are analyzed in Section

5.15. The No Action Alternative does not meet the purpose and need and is not the preferred alternative.

3.3 Alternative B — Continued Rehabilitation of the 2012 Well

DEQ AML independently considered further rehabilitation: additional redevelopment (surging and bailing), re-grouting of the annulus, video inspection and mechanical casing repair, casing replacement in place, and supplemental point-of-entry (POE) treatment for iron and manganese. DEQ AML attempted rehabilitation in fall 2025. **Independent technical findings supporting elimination:** Post-rehabilitation sampling (October 2025) confirmed that elevated metals and sediment persisted at concentrations nearly identical to pre-rehabilitation levels. This confirms that the contamination source is mine-influenced groundwater — not a correctable mechanical defect. Additionally: (i) the well is above collapsed mine workings in an area of recurring, documented subsidence, so any rehabilitated well at this location would remain in hydraulic communication with contaminated groundwater and remain subject to casing damage from future subsidence; (ii) POE treatment does not address subsidence-driven casing failure and imposes a permanent, recurring operation-and-maintenance burden on a single-family residence, inconsistent with SMCRA's objective of a durable replacement water supply. **Conclusion:** Alternative B does not meet the purpose and need. Eliminated per ARM 17.4.609(3)(b) based on independent technical findings, not applicant preference.

3.4 Alternative C — Connection to a Public Water System

DEQ AML independently considered connecting the residence to a public water system. The nearest active system is the Town of Fairview municipal water system, terminating at the Fairview town limits approximately one mile northeast. No rural water district main serves County Road 354T. **Independent technical and economic findings supporting elimination:** Extension to serve a single residence would require: (i) utility easements across multiple intervening private parcels; (ii) approximately one mile of buried transmission main; (iii) substantial linear surface disturbance requiring separate MEPA review; (iv) Town of Fairview authorization to extend outside municipal boundaries; and (v) capital expenditure of approximately $500,000–$1,000,000+ — approximately 4–8× the cost of an on-site replacement well — which is not a prudent use of SMCRA Title IV funds designated to restore drinking water affected by abandoned mine workings, not to fund new public infrastructure. Under 75-1-201(1)(b)(iv)(C), MCA, an alternative must be reasonable given the project's purpose and need. An alternative requiring a multi-year right-of-way process and 4–8× cost premium to serve a single family is not reasonable. **Conclusion:** Alternative C is not technically achievable within reasonable cost. Eliminated per ARM 17.4.609(3)(b) and 75-1-201(1)(b)(iv)(C), MCA.

Table 3-1. Summary Comparison of Alternatives

Alternative	Meets Purpose & Need?	Technically Feasible?	SMCRA Eligible?	Est. Cost	Status
A — No Action	No	N/A	No	$0; ongoing harm	Not preferred — retained as baseline
B — Rehabilitate 2012 Well	No	No (failed Oct. 2025)	No	~$20–40K + perpetual O&M	Eliminated — ARM 17.4.609(3)(b)
C — Municipal Connection	Partial	No (impracticable)	No	$500K–$1M+	Eliminated — ARM 17.4.609(3)(b); 75-1-201(1)(b)(iv)(C)
Proposed Action (NEW WELL)	Yes	Yes	Yes	~$131,910	PREFERRED

4. Affected Environment

This section describes baseline conditions for all physical environment resources (ARM 17.4.609(3)(d)) and human environment resources (ARM 17.4.609(3)(e)) relevant to the Proposed Action. Baseline conditions form the reference point against which project impacts are measured in Section 5.

4.1 Topography, Geology, and Soils

Gently rolling terrain at approximately 1,900–1,950 feet AMSL. Surficial soils are residual and colluvial materials derived from Fort Union Formation sandstones, siltstones, shales, and coal seams — predominantly loams and clay loams of moderate erosion susceptibility (USDA NRCS Web Soil Survey). Gardner Mine workings targeted a coal seam approximately 30 feet below ground surface and approximately 6 feet thick within the Fort Union Formation. Recurring room-and-pillar collapse has produced six discrete subsidence events on the property since 1984. The drill-pad area has been previously disturbed by prior AML reclamation and is not geologically sensitive.

4.2 Groundwater and Water Quality

Shallow groundwater occurs within Fort Union Formation coal-bearing strata. Where it intersects oxidized mine workings and slack, it mobilizes iron, manganese, sulfate, and total dissolved solids. The 2025 sampling (Table 2-1; Appendix E) documented iron at ~150× the Secondary MCL and TDS at ~3× the Secondary MCL, with primary MCL exceedances confirmed in both rounds. No EPA sole-source aquifer designation exists at the site. Regional GWIC well logs for Sections 7 and 18, T24N, R60E indicate water production from Fort Union Formation bedrock at depths of 100–350 feet in the broader area.

4.3 Surface Water, Wetlands, and Floodplains

No perennial surface-water body, NWI-mapped regulatory wetland, or FEMA-mapped Special Flood Hazard Area exists within the project footprint. The nearest seasonal drainage is more than 500 feet from the proposed drill pad. The site is not within a Wild or Scenic River corridor. (USFWS NWI Mapper and FEMA FIRM, accessed April 2026.)

4.4 Air Quality and Climate

The Project Site is in attainment for all federal NAAQS, including PM2.5, PM10, ozone, CO, NO2, SO2, and Pb. The nearest Class I airshed is Theodore Roosevelt National Park, approximately 35 miles east in North Dakota. Montana's most recently available annual statewide GHG inventory is approximately 38.8 million MT CO2e. U.S. 2022 net GHG inventory: approximately 6.3 billion MT CO2e (EPA, 2024). Regional climate is semi-arid continental.

4.5 Ambient Noise

Quiet rural residential setting. Baseline daytime ambient noise: estimated 35–50 dBA (wind, agricultural activity, occasional traffic on County Road 354T; estimated average daily traffic fewer than 50 vehicles/day). Baseline nighttime: estimated 25–35 dBA. Nearest off-site receptor: Sullivan residence, approximately 300 feet from the anticipated drill-pad location. Richland County has no adopted noise ordinance for rural residential areas.

4.6 Lighting and Night-Sky Conditions

The Project Site is in a rural, low-light-pollution area classified as approximately Bortle Class 3–4 (rural/rural-suburban transition). Existing lighting is limited to residential yard lights at the Biddinger and adjacent residences and to headlights of occasional passing vehicles. No municipal streetlights are within the immediate vicinity. The area is not adjacent to any designated International Dark-Sky Association preserve. The closest commercial lighting is approximately one mile northeast in the Town of Fairview.

4.7 Vegetation and Land Cover

Mowed lawn, mixed native and introduced grasses (western wheatgrass, blue grama, smooth brome), and scattered deciduous trees and shrubs. Slack piles near Adit 1 and Adit 2 are vegetated with mixed grasses and volunteer woody species. Land cover in the broader project area is approximately 27% Great Plains Prairie Grassland, 25% Wooded Draw and Ravine, 14% Cultivated Crops, 10% Developed Open Space (MTNHP NHI, accessed April 2026). No state or federally listed plant species are mapped within the footprint.

4.8 Wildlife and Threatened or Endangered Species

Low-value, low-diversity rural-residential wildlife habitat. Common species: white-tailed deer, red fox, Richardson's ground squirrel, western meadowlark, horned lark, migratory raptors. USFWS IPaC (Project Code 2026-0042412, January 28, 2026) identified federally listed and protected species with potential to occur in Richland County (Table 4-1).

Table 4-1. Federally Listed and Protected Species with Potential to Occur (USFWS IPaC, January 28, 2026)

Species	Status	Habitat Present at Site?	Critical Habitat?
Piping Plover	Threatened (ESA)	No — lacks sandy riverine nesting beaches	Not mapped
Whooping Crane	Endangered (ESA)	Low — migratory stopover only in wetlands/agriculture	Not mapped
Monarch Butterfly	Proposed Threatened	Low — no milkweed documented in footprint	Not mapped
Suckley's Cuckoo Bumble Bee	Proposed Endangered	Low — disturbed lawn habitat	Not mapped

Bald Eagle	BGEPA & MBTA	Low — no nesting trees or water bodies in footprint	N/A
Migratory birds (various)	MBTA	Moderate — rural residential with trees	N/A

4.9 Cultural and Historic Resources

Cultural resource site 24RL127 was inventoried by GCM Services, Inc. (1986), which found very poor condition, lack of physical integrity, and no potential to contribute additional historical information; GCM recommended no eligible resources for preservation. Montana SHPO (concurrence letter, March 2, 2026, SHPO #20260202005) concurred that 24RL127 does not meet NRHP eligibility criteria under 36 C.F.R. Part 60.4 and that the project will result in No Adverse Effect to Historic Properties. No Traditional Cultural Properties have been identified.

4.10 Socioeconomic Environment and Environmental Justice

Single-family private residence in rural Richland County (2020 census population approximately 11,000). Richland County economy is based primarily on agriculture, oil and gas production, and regional services. Median household income approximately $67,000 (2020 ACS 5-year estimate). No minority or low-income population subject to disproportionate adverse effects has been identified consistent with Executive Order 12898. No Indian sacred sites under Executive Order 13007 have been identified. Property is zoned for rural residential use.

5. Environmental Consequences

5.1 Analysis Framework

This section evaluates the direct, secondary (indirect), and cumulative effects of the Proposed Action and the No Action Alternative on each resource identified in Section 4. Definitions follow ARM 17.4.603: **direct impacts** are caused by the action and occur at the same time and place; **secondary (indirect) impacts** are caused by the action but are later in time or farther removed in distance and are still reasonably foreseeable; **cumulative impacts** are the incremental effects of the action when added to other past, present, and reasonably foreseeable future actions regardless of who undertakes those actions.

For each resource, significance is evaluated against all seven ARM 17.4.608(1) criteria: (a) severity, duration, geographic extent, and frequency; (b) probability; (c) growth-inducing/inhibiting aspects and relationship to cumulative impacts; (d) quantity and quality of affected resources, including uniqueness and fragility; (e) importance to the state and society; (f) precedent-setting potential; and (g) conflict with local, state, or federal laws, requirements, or formal plans.

The following actions were considered in the cumulative impact analysis (ARM 17.4.603):

- **Past:** Nine DEQ AML reclamation actions at the Gardner Site, 1984–2012 (Section 2.2); prior residential use of the property.
- **Present:** DEQ AML site monitoring under eAMLIS MT004223; ongoing residential development by Mr. Biddinger; routine Richland County maintenance of County Road 354T.
- **Reasonably foreseeable future:** Routine DEQ AML monitoring; any future emergency response to additional subsidence (subject to separate MEPA review); ordinary residential use of the Biddinger property; continued agricultural use of surrounding parcels. No foreseeable industrial, extractive, or large-scale development in the immediate vicinity.

5.2 Summary Table of Impacts

Table 5-1. Summary of Direct, Secondary, and Cumulative Impacts — Proposed Action (A = Adverse; B = Beneficial)

Resource	Direct Impact	A/B	Secondary/ Indirect	A/B	Cumulative	A/B
Geology, Soils & Topography	Minor disturbance of ~0.04-acre previously disturbed drill pad; no penetration of mine workings	Adverse (minor, short-term)	Abandonment of 2012 well eliminates preferential infiltration pathway through compromised casing	Beneficial (minor, long-term)	Incremental contribution to 40-year site stabilization	Beneficial
Groundwater & Water Quality	SHORT-TERM: minor adverse during drilling; LONG-TERM: MAJOR	Both: minor adverse (short); major	Abandonment of 2012 well eliminates mine-water	Beneficial	Builds on 2012 Daniels well replacement and prior grouting; trend of	Beneficial

Resource	Direct Impact	A/B	Secondary/ Indirect	A/B	Cumulative	A/B
	BENEFICIAL — new potable well meeting all MCLs	beneficial (long-term, permanent)	migration pathway; no growth-inducing water-use effect		improving domestic water quality	
Surface Water, Wetlands & Floodplains	No effect	None	No effect	None	No effect	None
Vegetation	Minor temp. removal/compaction of ~0.04 acre of lawn/herbaceous; no trees removed; no listed plants	Adverse (minor, temporary)	Minor short-term invasive species risk; fully mitigated by native reseeding (M-8)	Adverse (minor, mitigable)	Repeatedly disturbed/revegetated during prior AML actions; negligible	Negligible
Wildlife & T&E Species	Minor, short-term displacement of common species from 0.04-acre footprint; pre-construction nest survey required (M-9); no critical habitat	Adverse (minor, temporary)	Short-term temporary displacement during construction noise; wildlife return post-construction	Adverse (minor, temporary)	No critical habitat; consistent with 2011 AML CE finding; no adverse effect on listed species	No adverse effect on listed species
Air Quality	Minor, short-term NOx, CO, PM10, PM2.5, fugitive dust (3–5 days); no NAAQS exceedance; dust-control required (M-6)	Adverse (minor, short-term)	No permanent emissions source created	None	Prior AML actions each generated brief localized construction emissions; no cumulative NAAQS exceedance	Negligible
Greenhouse Gas Emissions	~1.83 MT CO_2e one-time (Table 5-2; EPA Emission Factors Hub Jan. 2025); 4.7×10-8 of MT's ~38.8 M MT CO_2e annual inventory; de minimis; no operational GHGs added	Adverse (de minimis, one-time)	No long-term operational GHGs; no growth-inducing increase in long-term energy use	None	Cumulative AML GHG at this site over 40 years estimated <15 MT CO_2e; de minimis at state or national scale; in-Montana climate effect: immeasurably small	De minimis (not significant)
Noise	~85 dBA at source; ~70 dBA at Sullivan residence (300 ft, calculated); ~66 dBA at more distant residences; 3–5 days, 7am–6pm only	Adverse (minor–moderate on-site; minor off-site; short-term)	No long-term noise sources; returns to pre-project ambient immediately post-construction	None	Prior AML actions generated similar brief daytime noise; separated by years; no cumulative noise exposure effect	Negligible
Lighting & Night Sky	No effect — all work daylight hours; no temporary or permanent lighting added (M-11)	None	No effect; no induced additional lighting on or off site	None	Rural Bortle 3–4 night sky unaffected; no effect	None
Cultural & Historic Resources	No adverse effect — 24RL127 not NRHP-eligible; SHPO concurrence March 2, 2026; well sited away from adits, slack piles, mine equipment; inadvertent-	No adverse effect	No induced disturbance outside drill pad	None	Consistent with all prior NHPA Sec. 106 reviews; no cumulative adverse effect	No adverse effect

Resource	Direct Impact	A/B	Secondary/ Indirect	A/B	Cumulative	A/B
	discovery protocol in place (M-12)					
Public Health, Safety & General Welfare	MAJOR BENEFICIAL (long-term, permanent) — restores potable water meeting all MCLs; eliminates documented public-health threat; short-term minor construction hazards managed per OSHA (M-10)	Both: minor adverse (construction safety, short-term); major beneficial (long-term)	Stable potable water supply supports continued habitability; reduces hauled-water health/safety risks	Beneficial	Cumulatively with prior grouting and 2011 Daniels well replacement — Gardner Site progressively stabilized; SMCRA Priority 1 fulfilled	Beneficial (major, cumulative)
Socioeconomic Env. & EJ	Beneficial — restores habitability and property value; no EJ adverse effects (EO 12898); no Indian sacred sites (EO 13007)	Beneficial	Supports property value and Richland County tax base	Beneficial	Completes 40-year AML reclamation; no cumulative adverse EJ effects	Beneficial
Land Use & Recreation	No change to underlying rural residential land use; no recreation resources affected	None	No effect	None	No effect	None
Transportation	Minor, short-term heavy-vehicle trips on CR 354T during 3–5 day construction window; road-load assessment required (M-13)	Adverse (minor, short-term)	No long-term traffic generation	None	Comparable to prior AML construction mobilizations	Negligible

5.3 Topography, Geology, and Soils

5.3.1 Direct Impacts

The Proposed Action would disturb approximately 1,600 square feet (0.04 acre) for the drill pad and short access route from the existing driveway — limited to shallow excavation for the wellhead and annular seal and surface compaction under drilling equipment. The drill-pad area has been repeatedly disturbed by prior AML reclamation work (nine events, 1984–2012) and does not represent undisturbed native ground. The replacement well would be sited outside the footprint of mapped adits, documented subsidence features, and prior grout columns. If voids are unexpectedly encountered during drilling, M-1 requires work to stop immediately pending DEQ AML review. ARM 17.4.608(1): (a) minor severity, short-term (3–5 days), 0.04-acre extent, one-time; (b) high probability of surface disturbance; (c) not growth-inducing; (d) previously disturbed loams and clay loams — not unique or fragile; (e) individual landowner scale — low statewide importance; (f) no precedent; (g) no conflict with law. **Finding: Not significant; minor adverse, short-term.**

5.3.2 Secondary Impacts

Proper sealing and abandonment of the 2012 well (ARM 36.21.671) would eliminate a preferential infiltration pathway through the compromised casing to shallow groundwater — a minor, long-term beneficial secondary effect on near-surface conditions. No indirect effects on regional geology or topography are reasonably foreseeable. **Finding: Beneficial (minor, long-term).**

5.3.3 Cumulative Impacts

Nine prior DEQ AML reclamation actions since 1984 have each disturbed and restored small areas of the property. The Proposed Action contributes incrementally to the long-term stabilization of the Gardner Site — a cumulatively beneficial effect. No cumulative adverse effect on soils or topography at any scale is identified. **Finding: Beneficial (minor, cumulative).**

5.3.4 Mitigation

M-1 (stop work if voids encountered; notify DEQ AML); M-7 (limit disturbance to ~0.04 acre; construction fencing); M-8 (native seed mix reseeding within 14 days; noxious weed treatment at contractor's expense if introduced; growing-season monitoring).

5.4 Groundwater and Water Quality

5.4.1 Direct Impacts

During drilling and completion (3–5 days), disturbed sediment and drill cuttings in the immediate vicinity of the bore could briefly elevate turbidity in nearby water-bearing intervals — a short-term, minor, localized adverse effect, fully mitigated by proper well construction (M-2). The long-term direct effect on the landowner's domestic water supply

would be a **major beneficial restoration** of potable water meeting all applicable primary and secondary MCLs. The new well would target Fort Union Formation bedrock intervals not in hydraulic communication with the contaminated mine voids, and would not be placed in service until pre-occupancy testing (M-3) confirms that all primary MCLs are met, including iron ≤ 0.3 mg/L, TDS ≤ 500 mg/L, manganese ≤ 0.05 mg/L, and no bacteria detected. ARM 17.4.608(1): (a) minor adverse, short-term during drilling; major beneficial, permanent post-construction; (b) probability of adverse drilling effect: low to moderate, fully mitigable; probability of beneficial effect: high; (c) not growth-inducing — replacement well is sized for one family, no change in permitted use; (d) the affected resource — a family's domestic water supply — is of high importance; (e) restoration of potable water directly serves Montana's public-health interest and SMCRA Priority 1; (f) no precedent set; (g) consistent with the Montana Ground Water Pollution Control System (75-5-401 et seq., MCA), ARM 36.21.601 et seq., and all applicable water-quality standards. **Finding: Not significant (adverse); Major beneficial (long-term).**

5.4.2 Secondary Impacts

Abandonment of the 2012 well per ARM 36.21.671 would eliminate the indirect pathway by which surface water or shallow mine-influenced water could migrate through the compromised casing to deeper, uncontaminated Fort Union Formation bedrock intervals — a long-term, minor-to-moderate beneficial secondary effect on groundwater quality at the site and potentially at adjacent properties. No growth-inducing effect on groundwater use is reasonably foreseeable. **Finding: Beneficial (long-term).**

5.4.3 Cumulative Impacts

Groundwater at the Gardner Site has been cumulatively affected by approximately a century of abandoned underground coal workings and by nine prior reclamation actions since 1984. The Proposed Action, the 2011 Daniels well replacement, the 1984–1986 grout campaigns, and the 2009 horizontal grouting have collectively produced a documented trend of improving domestic water quality at affected residences on the property. No cumulative exceedance of groundwater-quality standards is identified. When considered with reasonably foreseeable future actions, the cumulative effect on groundwater quality remains beneficial. **Finding: Beneficial (major, cumulative).**

5.4.4 Mitigation

M-1 (stop work if mine voids encountered); M-2 (all well construction per ARM 36.21.601 et seq.; RPR-verified); M-3 (pre-occupancy sampling for all 2025-identified constituents before placing well in service; results delivered to landowner); M-4 (proper 2012-well abandonment per ARM 36.21.671; grout record documented); M-5 (drilling fluids and cuttings contained within drill-pad footprint; spill kit on site).

5.5 Surface Water, Wetlands, and Floodplains

No perennial surface-water body, NWI-mapped regulatory wetland, or FEMA-mapped Special Flood Hazard Area exists within or adjacent to the project footprint. The nearest seasonal drainage is more than 500 feet from the drill pad. No surface-water mitigation is required. ARM 17.4.608(1) factors (a) through (g): no impact. **Direct, secondary, and cumulative impacts: None. Finding: No effect.**

5.6 Vegetation

5.6.1 Direct Impacts

The Proposed Action would temporarily remove or compact mowed grass and common herbaceous vegetation within the 0.04-acre drill-pad footprint. No mature trees would be removed. No state or federally listed plant species are present in the footprint based on MTNHP NHI screening and field reconnaissance. ARM 17.4.608(1): (a) minor severity, short-term (3–5 days); (b) high probability; (c) not growth-inducing; (d) common lawn/herbaceous vegetation — not unique or fragile; (e) negligible statewide importance; (f) no precedent; (g) no conflict. **Finding: Not significant; minor adverse, short-term.**

5.6.2 Secondary Impacts

Disturbed ground creates a potential pathway for invasive or noxious weed establishment (Richland County Noxious Weed Program; 80-7-701 et seq., MCA). This risk is minor and fully mitigable through timely native reseeding (M-8). Contractor is obligated to treat any noxious weeds at contractor's expense. **Finding: Minor adverse, mitigable.**

5.6.3 Cumulative Impacts

The project area has been repeatedly disturbed and revegetated during nine prior AML actions since 1984. No intact native plant community of regional significance exists within or adjacent to the project footprint. The Proposed Action's contribution to cumulative vegetation disturbance is negligible. **Finding: Negligible.**

5.6.4 Mitigation

M-7 (limit disturbance to ~0.04 acre; construction fencing); M-8 (native seed mix reseeding within 14 days of well completion; growing-season monitoring; contractor to treat noxious weeds if introduced at contractor's expense).

5.7 Wildlife and Threatened or Endangered Species

5.7.1 Direct Impacts

The Proposed Action would cause minor, short-term displacement of common rural-residential wildlife from the 0.04-acre drill-pad footprint during construction. No vertebrate mortality is anticipated. No designated critical habitat for any ESA-listed species is mapped within the project area (USFWS IPaC, January 28, 2026). For each species identified in Table 4-1: Piping Plover (no sandy riverine nesting beaches in

footprint); Whooping Crane (no wetland stopover habitat in footprint); Monarch Butterfly (no milkweed documented); Suckley's Cuckoo Bumble Bee (disturbed lawn — unsuitable). Active bird nests protected under the Migratory Bird Treaty Act (16 U.S.C. § 703 et seq.) and the Bald and Golden Eagle Protection Act (16 U.S.C. § 668 et seq.) may be present in the vicinity during nesting season. Mitigation M-9 requires a pre-construction visual survey and a 150-foot buffer/construction delay for any active nest. With M-9, no MBTA or BGEPA violation is anticipated. ARM 17.4.608(1): (a) minor severity, short-term, 0.04-acre extent; (b) probability of listed-species take: very low with M-9; (c) not growth-inducing; (d) low-value habitat; (e) low statewide importance; (f) no precedent; (g) consistent with ESA, MBTA, BGEPA. **Finding: Not significant with M-9 in place.**

5.7.2 Secondary Impacts

Short-term noise and human activity may temporarily alter wildlife use of the immediate area during the 3–5 day construction window. Wildlife would return to baseline use immediately post-construction. No secondary impact on ESA-listed species is identified. **Finding: Negligible.**

5.7.3 Cumulative Impacts

Wildlife habitat at the Gardner Site has been subjected to nine prior AML disturbance events since 1984, each short-term and site-specific. Wildlife returned to normal use between events. No cumulative adverse effect on any ESA-listed species, on migratory bird populations, or on designated critical habitat is identified. **Finding: No adverse effect on listed species; Negligible cumulative effect on common wildlife.**

5.7.4 Mitigation

M-9 (pre-construction visual nest survey; 150-foot buffer/construction delay for any active nest found within 150 feet of the drill pad; RPR survey log); M-7 (limit disturbance footprint).

5.8 Air Quality

5.8.1 Direct Impacts

Drilling, grouting, and site-restoration equipment would generate short-term, minor adverse emissions of NOx, CO, PM10, PM2.5, and hydrocarbons, and would generate fugitive dust from disturbed surfaces and equipment access. The Project Site is in an attainment area for all NAAQS. Project construction-phase emissions over 3–5 days would not approach construction de minimis thresholds under the Montana Clean Air Act (75-2-101 et seq., MCA) or the federal general conformity rule (40 C.F.R. Part 93, Subpart B). Water application for dust control (M-6) and a maximum 5-minute engine idling restriction (M-6) would be implemented. ARM 17.4.608(1): (a) minor severity, short-term (3–5 days), confined to site and immediate vicinity; (b) high probability; (c) not growth-inducing — no permanent emissions source added; (d) regional ambient air quality unaffected; (e) negligible statewide importance; (f) no precedent; (g) consistent with Montana Clean Air Act. **Finding: Not significant; minor adverse, short-term.**

5.8.2 Secondary Impacts

No permanent emissions source would be created. The Proposed Action does not induce growth, add habitable structures, or increase long-term energy consumption at the residence. **Finding: None.**

5.8.3 Cumulative Impacts

Prior AML construction actions at the Gardner Site since 1984 have each generated brief, localized construction-equipment emission episodes, none of which individually or cumulatively approached NAAQS thresholds. The Proposed Action's 3–5 day construction event is consistent with that pattern. **Finding: Negligible.**

5.8.4 Mitigation

M-6 (water application for dust control as needed; functioning emission-control systems on all diesel equipment; maximum 5-minute idling restriction; RPR visual observation and equipment pre-start inspection).

5.9 Greenhouse Gas Emissions and Climate

This section provides a quantified greenhouse gas (GHG) emissions analysis and expressly addresses in-Montana climate effects as required by Held v. State, 2024 MT 241 (MEPA Limitation unconstitutional) and MEIC v. DEQ, 2024 MT 216 (hard look at GHG emissions required, including in-Montana climate impacts). The absence of a state regulatory standard for GHGs does not excuse DEQ from analyzing their environmental impacts. MEIC v. DEQ, 2024 MT 216, ¶¶ 47–52.

Methodology: GHG emissions were estimated using emission factors and methodology from the EPA Greenhouse Gas Equivalencies Calculator and EPA Emission Factors Hub (January 2025 update), consistent with the approach endorsed in MEIC v. DEQ. CO2

combustion emission factors: 10.180 kg CO2 per gallon of diesel; 8.887 kg CO2 per gallon of gasoline. Activity estimates reflect a typical 3–5 day residential well-replacement project. N2O and CH4 emissions from mobile combustion are included using EPA MOVES-based factors (N2O: 0.00026 kg/MJ; CH4: 0.00014 kg/MJ, multiplied by GWP100 of 273 and 29.8, respectively, per IPCC AR6) but constitute less than 1% of total CO2e and are subsumed within the 1.83 MT CO2e total.

Table 5-2. Estimated Project GHG Emissions (EPA Emission Factors Hub, January 2025 Update)

Emission Source	Activity	Fuel (gal)	EF (kg CO2/gal)	CO2 (kg)
Drill rig (diesel)	16 hrs × 8 gal/hr	128.0	10.180	1,303.0
Support truck (diesel)	3 days × 4 gal/day	12.0	10.180	122.2
Grout/abandonment truck (diesel)	1 day × 6 gal	6.0	10.180	61.1
Skid-steer/small excavator (diesel)	6 hrs × 3 gal/hr	18.0	10.180	183.2
Worker commuting (gasoline)	400 mi ÷ 22.2 mpg (EPA avg.)	18.0	8.887	160.1
TOTAL (one-time)		**182.0**		**1,829.6**

5.9.1 Direct Impacts

Total estimated project emissions are approximately **1,830 kg CO2, or 1.83 metric tons CO2-equivalent (MT CO2e)**. These are one-time, construction-phase combustion emissions; no long-term operational emissions would be added by the project. Using EPA Greenhouse Gas Equivalencies Calculator (April 2024): 1.83 MT CO2e is equivalent to approximately 0.40 passenger vehicles driven for one year, or approximately 4,570 miles driven by an average gasoline passenger car. This amount represents approximately 4.7 × 10-8 of Montana's annual statewide GHG inventory of approximately 38.8 million MT CO2e, and approximately 2.9 × 10-10 of the U.S. 2022 net inventory of approximately 6.3 billion MT CO2e.

In-Montana climate effects: DEQ AML has expressly analyzed the in-Montana climate impacts of the project's 1.83 MT CO2e one-time emission consistent with the constitutional right to a clean and healthful environment (Mont. Const. Art. IX, § 1) as interpreted in Held v. State, 2024 MT 241, and as required by MEIC v. DEQ, 2024 MT 216. At 4.7 × 10-8 of Montana's annual GHG inventory, the project's one-time contribution is immeasurably small and cannot be causally linked to any discernible change in Montana's climate, precipitation patterns, temperature, or ecological conditions. No specific in-Montana climate impact attributable to this project has been identified, and the record does not support a finding of significant in-Montana climate effect from a 1.83 MT CO2e one-time emission. Cf. MEIC v. DEQ, 2024 MT 216 (significance required DEQ to analyze GHG impacts in context of a facility emitting

nearly 770,000 MT CO2e annually; this project emits less than 0.00024% of that amount on a one-time basis).

ARM 17.4.608(1): (a) de minimis magnitude, one-time, no duration or geographic extent discernible at state scale; (b) certainty of the emission is high but consequences are immeasurably small; (c) not growth-inducing; (d) atmosphere not uniquely or disproportionately affected by this project; (e) de minimis contribution to statewide GHG inventory; (f) no precedent set by analyzing a de minimis project GHG emission; (g) no conflict with law — project does not emit any regulated Montana Clean Air Act pollutant above applicable thresholds. **Finding: Not significant; de minimis, one-time.**

5.9.2 Secondary Impacts

No secondary GHG impacts are identified. The Proposed Action does not induce growth, add habitable structures, or increase long-term energy consumption at the residence. Restoring a potable water supply preserves the pre-existing residential use without expanding it. **Finding: None.**

5.9.3 Cumulative Impacts

All prior DEQ AML reclamation actions at the Gardner Site since 1984 (nine events over 40 years) together generated an estimated cumulative project GHG emission of approximately 10–15 MT CO2e total — roughly equivalent to driving one passenger car for approximately one year. When the Proposed Action's 1.83 MT CO2e is added, the estimated 40-year cumulative project total is approximately 12–17 MT CO2e. This cumulative total is de minimis at any state, national, or global scale and is not of a magnitude that would measurably affect Montana's climate. **Finding: De minimis (not significant).**

5.9.4 Mitigation

M-6 (functioning emission-control systems; maximum 5-minute idling restriction; equipment pre-start inspection) would reduce project GHG emissions by approximately 5–10% relative to the unmitigated baseline. These measures are included as co-benefits of the air quality mitigation measures.

5.10 Noise

No specific statewide construction noise standard applies to this rural residential site; however, MEPA requires a hard look at potential noise impacts in context of baseline ambient conditions, receptor sensitivity and distance, and the duration, timing, and frequency of noise-generating activities. MEIC v. DEQ, 2024 MT 216.

Noise calculation methodology: Typical noise levels for the equipment to be used, measured at 50 feet from the source, are as follows based on the Federal Highway Administration Roadway Construction Noise Model reference values: rotary well drilling rig: 76–84 dBA; grout pump truck: 82–85 dBA; small excavator/skid-steer: 80–85 dBA. In an open rural setting with no significant acoustic shielding, noise attenuates at approximately 6 dBA per doubling of distance from the source (inverse-square law attenuation). Using the loudest reference level of 85 dBA at 50 feet:

- At the Sullivan residence (~300 feet from drill pad): $85 - 6 \times \log2(300/50) = 85 - 6 \times 2.585 \approx$ **$85 - 15.5 \approx 69.5$ dBA**, rounded to 70 dBA. This is comparable to ordinary passenger-vehicle traffic at close range and is below the 75 dBA threshold typically associated with significant short-term construction noise impacts.
- At residences approximately 500 feet from the drill pad: $85 - 6 \times \log2(500/50) = 85 - 6 \times 3.322 \approx$ **$85 - 19.9 \approx 65$ dBA**.
- At residences approximately 1,000 feet from the drill pad: **~59 dBA** (ambient background level for rural areas).
- On-site residence (approximately 100 feet from drill pad): **~79 dBA** — elevated during active drilling but within the normal range for construction at residential sites and consistent with a daytime-only work restriction.

5.10.1 Direct Impacts

During active drilling and completion (approximately 3–5 consecutive daytime working days), the on-site residence would experience short-term, minor-to-moderate noise elevation (~79 dBA at approximately 100 feet). The Sullivan residence approximately 300 feet away would experience approximately 70 dBA — comparable to ordinary traffic and substantially below levels associated with significant noise impacts. All other residences along County Road 354T are approximately 500 feet or more from the drill pad and would experience approximately 65 dBA or less. Work would be strictly limited to daytime hours (7:00 a.m. to 6:00 p.m., Monday through Friday) to protect the nighttime quiet environment of this rural residential area and to respect the on-site landowner's and neighbors' reasonable expectation of nighttime quiet. No nighttime work is proposed. ARM 17.4.608(1): (a) minor-to-moderate severity on-site; minor off-site; very short-term (3–5 days), localized, one-time; (b) high probability; (c) not growth-inducing; (d) no noise-sensitive unique resource affected; (e) low statewide importance; (f) no precedent; (g) no conflict with applicable law. **Finding: Not significant; minor adverse, short-term, daytime-only.**

5.10.2 Secondary Impacts

No long-term noise sources would be created by the Proposed Action. Noise levels would return to pre-project ambient conditions immediately upon completion of the 3–5 day construction window. No secondary noise impact is identified. **Finding: None.**

5.10.3 Cumulative Impacts

Prior AML construction events at the Gardner Site (nine events since 1984) have each generated similar short-duration, daytime construction noise episodes, separated by years. No cumulative noise exposure effect on any off-site receptor is reasonably foreseeable. **Finding: Negligible.**

5.10.4 Mitigation

M-10 (all work 7:00 a.m. to 6:00 p.m. Monday–Friday; no nighttime work; functioning mufflers on all equipment; maximum 5-minute idling; contractor to notify landowner and Sullivan residence of construction schedule and provide RPR contact information for noise complaints; RPR schedule documentation and neighbor notification record).

5.11 Lighting and Night-Sky Conditions

DEQ AML expressly analyzes lighting impacts consistent with MEIC v. DEQ, 2024 MT 216, which held that DEQ had failed to take a hard look at lighting impacts from the Laurel Generating Station. Although the context there was a large, operating power plant with permanent lighting, the principle — that DEQ must genuinely analyze lighting impacts rather than dismiss them without analysis — applies to all MEPA reviews.

5.11.1 Direct Impacts

All construction activities would be performed during daylight hours only (7:00 a.m. to 6:00 p.m., Monday through Friday). No temporary construction lighting, portable light towers, or nighttime work is proposed or authorized (M-11). The Proposed Action would not add any permanent outdoor lighting fixtures and would not alter existing residential yard lighting. The project does not include any habitable structure, commercial facility, or other use that would generate nighttime artificial light as a secondary effect. Because no artificial light of any kind would be generated by the Proposed Action, the rural Bortle Class 3–4 night sky in the vicinity would be unaffected.

ARM 17.4.608(1): (a) no lighting impact of any severity, duration, or extent; (b) zero probability of lighting impact with M-11 in place; (c) not growth-inducing; (d) rural night sky not affected; (e) not applicable; (f) no precedent; (g) no conflict with any dark-sky ordinance or formal plan. **Finding: No effect on lighting or night-sky conditions.**

5.11.2 Secondary Impacts

The Proposed Action does not induce any new lighting on or adjacent to the property. The replacement of a contaminated well with a functional well does not change the

character or intensity of land use at the property and would not increase the demand for outdoor lighting. **Finding: None.**

5.11.3 Cumulative Impacts

The rural night sky in the vicinity of the Project Site would remain unaffected. The project does not conflict with any local dark-sky ordinance, state formal plan, or federal designation. **Finding: None.**

5.11.4 Mitigation

M-11 (all construction activities during daylight hours only; no temporary or permanent outdoor lighting fixtures; RPR site inspection for compliance). Mitigation is fully preventive — no lighting would be added.

5.12 Cultural and Historic Resources

5.12.1 Direct Impacts

No adverse effect. Cultural resource site 24RL127 has been determined ineligible for the National Register of Historic Places and Montana SHPO concurred on March 2, 2026 (SHPO #20260202005). The replacement well would be sited to avoid historic adits, slack piles, and mine-equipment remains identified in the 1986 GCM cultural resource survey. No Traditional Cultural Properties have been identified. ARM 17.4.608(1): (a) no adverse effect to any historic property; (b) probability of inadvertent discovery: low with inadvertent-discovery protocol (M-12) in place; (c) not growth-inducing; (d) no eligible cultural resource in footprint; (e) not applicable; (f) no precedent; (g) consistent with NHPA Section 106 (54 U.S.C. § 306108), 36 C.F.R. Part 800, and 22-3-424, MCA. **Finding: No adverse effect.**

5.12.2 Secondary Impacts

No induced ground disturbance outside the drill pad is anticipated. The completed domestic well does not affect the interpretive value or setting of any historic property. **Finding: None.**

5.12.3 Cumulative Impacts

Consistent with all prior NHPA Section 106 reviews for AML actions at the Gardner Site. No cumulative adverse effect on historic properties. **Finding: No adverse effect.**

5.12.4 Mitigation

M-12 (contractor orientation on locations of known adits, slack piles, and mine equipment before mobilization; inadvertent-discovery protocol — stop work, secure area, notify DEQ AML RPR, SHPO, county coroner and applicable tribal historic preservation officers per 22-3-424, MCA and 36 C.F.R. Part 800.13 if cultural materials or human remains encountered; do not resume work until authorized by DEQ AML).

5.13 Public Health, Safety, and General Welfare

5.13.1 Direct Impacts

The long-term direct effect of the Proposed Action is a **major beneficial restoration** of a safe, reliable source of domestic drinking water to the residence, eliminating the documented public-health threat from mine-influenced contaminated groundwater. Pre-occupancy sampling (M-3) for bacteria, metals (including iron ≤ 0.3 mg/L, manganese ≤ 0.05 mg/L), sulfate, TDS ≤ 500 mg/L, and all 2025-identified constituents would be conducted before the well is placed in service, providing documentary evidence that the replacement water supply is safe for domestic use. Short-term, minor construction-safety hazards typical of well drilling would be managed under applicable OSHA regulations (29 C.F.R. Parts 1910 and 1926) and the Montana Safety Culture Act (50-71-201 et seq., MCA). ARM 17.4.608(1): (a) minor adverse, short-term (construction safety); major beneficial, permanent (water quality); (b) high probability of beneficial effect; (c) not growth-inducing; (d) a family's domestic water supply is a resource of high importance; (e) restoring potable water to a Montana family directly serves the SMCRA Priority 1 and Montana's constitutional obligation to maintain the environment and public health; (f) no precedent; (g) consistent with all applicable public-health laws. **Finding: Not significant (adverse); Major beneficial (long-term).**

5.13.2 Secondary Impacts

A stable, potable on-site water supply supports continued habitability of the residence, reduces reliance on bottled or hauled water (eliminating the health and safety hazards associated with transporting water containers), and makes the property a safer residential environment for the Biddinger family. **Finding: Beneficial.**

5.13.3 Cumulative Impacts

Considered cumulatively with the 2011 Daniels well replacement, prior subsidence grouting, and surface backfill actions, the Gardner Site has progressively moved from an acutely hazardous setting (open adits, recurring subsidence, contaminated water supply) to a stabilized residential property. The Proposed Action completes the site's reclamation by addressing the last documented public-health deficiency — contaminated domestic water. This satisfies SMCRA Priority 1 under 30 U.S.C. § 1240a(c). **Finding: Major beneficial (cumulative).**

5.13.4 Mitigation

M-2 (well construction per ARM 36.21.601); M-3 (pre-occupancy sampling; all primary MCLs confirmed met before service); M-4 (2012 well abandonment per ARM 36.21.671); M-10 (OSHA compliance; safety plan; RPR oversight).

5.14 Socioeconomic Environment, Environmental Justice, Land Use, and Transportation

5.14.1 Direct Impacts

Socioeconomic environment: Direct effects are beneficial to the landowner and his family — restoring habitability and property value. No disproportionately high and adverse effects on minority or low-income populations have been identified consistent with Executive Order 12898 and the Montana Environmental Policy Act's requirement to consider impacts on all segments of the population. No Indian sacred sites under Executive Order 13007 have been identified. **Land use and recreation:** No change to the underlying rural residential land use or to any recreation resource. **Transportation:** Minor, short-term increase in heavy-vehicle trips on County Road 354T and Montana Highway 200 during the 3–5 day construction window (approximately 8–12 one-way trips during mobilization/demobilization; 2–4 one-way trips per day during drilling). Road-load assessment required before mobilization (M-13). ARM 17.4.608(1): (a) beneficial (socioeconomic); minor adverse, short-term (transportation); (b) high probability; (c) not growth-inducing; (d) no unique resources affected; (e) direct benefit to landowner and Richland County tax base; (f) no precedent; (g) no conflict. **Finding: Beneficial (socioeconomic/EJ/land use); Not significant (transportation).**

5.14.2 Secondary Impacts

Supports property value, rural residential land use, and the Richland County tax base. No adverse secondary socioeconomic or EJ effects are identified. **Finding: Beneficial.**

5.14.3 Cumulative Impacts

Completes a 40-year AML reclamation effort at the Gardner Site. No cumulative adverse EJ effects are identified. **Finding: Beneficial (cumulative).**

5.14.4 Mitigation

M-13 (road-load assessment of County Road 354T before mobilization; delay mobilization during spring road-weight restrictions if conditions warrant; notify Richland County Road Department of heavy-vehicle schedule).

5.15 No Action Alternative — Projected Impacts of Project Noncompletion

Under the No Action Alternative, the contaminated 2012 well would remain in place and the documented public-health threat would continue indefinitely. The following projected beneficial and adverse impacts of project noncompletion are disclosed consistent with 75-1-201(1)(b)(iv)(C)(III), MCA:

Table 5-3. Projected Impacts of Project Noncompletion — No Action Alternative

Resource	Projected Impact of No Action	Adverse/Beneficial	Duration
Groundwater & Public Health	Contaminated water supply (iron ~150× MCL, TDS ~3× MCL) would continue exposing the Biddinger family to mine-influenced water with confirmed primary MCL exceedances; major adverse public-health impact.	Adverse	Long-term, permanent until action taken
Soils/Geology	Ongoing mine subsidence could further damage the 2012 well casing, enlarging the preferential pathway for surface contamination to reach shallow groundwater; potentially irreversible secondary adverse effect.	Adverse (secondary)	Long-term, potentially irreversible
Groundwater (Regional)	Compromised casing could serve as an avenue for accelerated oxidation of remaining mine voids, potentially mobilizing additional metals to the broader Fort Union Formation aquifer.	Adverse (secondary)	Long-term
Socioeconomic	Property remains uninhabitable as a family residence; landowner bears ongoing cost of hauled/bottled water (estimated $500–$2,000/year); property value remains depressed.	Adverse	Long-term, permanent until action taken
SMCRA Compliance	DEQ AML would fail to satisfy SMCRA Priority 1 obligation under 30 U.S.C. § 1240a(c), potentially jeopardizing OSMRE's continued funding for Montana's AML program.	Adverse	Long-term
Air, GHG, Noise, Lighting	No short-term construction-related adverse effects would occur.	Beneficial (minor, short-term only)	Short-term (absence of 3–5 day construction)
Purpose and Need	Not met. The existing public-health threat from mine-influenced contamination would continue; the SMCRA Priority 1 obligation would not be satisfied.	Adverse	Permanent until action taken

The No Action Alternative does not meet the purpose and need and is not the preferred alternative. Its only beneficial effect relative to the Proposed Action is the avoidance of short-term, minor construction-related impacts — effects that are wholly outweighed by the continuing major adverse public-health impact of no action.

5.16 Irreversible and Irretrievable Commitments of Resources

The Proposed Action would result in minor, irretrievable commitments of fossil fuel (approximately 182 gallons of diesel and gasoline), construction materials (well casing, annular grout, sanitary seal, abandonment grout for the 2012 well), and labor. No irreversible commitment of a unique, nonrenewable, or high-quality environmental resource has been identified. The commitment of fossil fuel is one-time and de minimis in the context of statewide fuel consumption. Consistent with the requirement of ARM 17.4.609(3)(d), DEQ AML finds that these commitments are proportionate to the major long-term public-health benefit of the Proposed Action.

6. Mitigation, Monitoring, and Best Management Practices

ARM 17.4.609(3)(g) requires identification of mitigation measures; ARM 17.4.609(3)(h) requires monitoring measures for impacts that may be significant or irreversible. Consistent with ARM 17.4.609(2), the following measures are enforceable requirements of the Proposed Action and are incorporated into the contractor's specifications (Appendix I). The RPR will verify compliance with each measure and document compliance in daily field logs retained in the administrative record.

Table 6-1. Mitigation and Monitoring Requirements — Proposed Action

No.	Mitigation/BMP Measure	Resource(s) Protected	Monitoring/Verification
M-1	Site the replacement well outside the footprint of mapped mine workings and documented subsidence features using 1916 mine maps, prior DEQ AML borehole records, and pre-drilling field review. If mine voids are unexpectedly encountered during drilling, stop work immediately and notify the RPR and DEQ AML before proceeding.	Geology/Soils; Groundwater	RPR field log; as-drilled well completion report
M-2	Perform all drilling, casing, sealing, and abandonment in accordance with ARM 36.21.601 et seq. and applicable DNRC Water Resources requirements. RPR to verify compliance during construction. Well driller must hold a current Montana well-driller's license.	Groundwater	RPR daily field reports; as-built well completion record; DNRC well log submittal confirmation
M-3	Conduct pre-occupancy water quality testing for bacteria, iron (≤ 0.3 mg/L), manganese (≤ 0.05 mg/L), sulfate, TDS (≤ 500 mg/L), and all constituents identified in the 2025 sampling event before placing the new well in service. Results must confirm all primary MCLs are met. Deliver results to the landowner. Well shall not be placed in service until all primary MCLs are confirmed met.	Groundwater; Public Health	Laboratory report; RPR delivery confirmation to landowner; retained in administrative record
M-4	Properly abandon the existing 2012 well in accordance with ARM 36.21.671: remove pump and appurtenances; place a permanent sealing grout column for the full depth of the well; document all grouting materials and volumes; submit abandonment report to DNRC.	Groundwater	RPR field log and grout record; DNRC abandonment submittal confirmation
M-5	Maintain a drill-fluid and chemical spill kit on site. Contain all drilling fluids and cuttings within the drill-pad footprint. Do not discharge to the ground surface outside the pad, to any drainage feature, or to any water body.	Groundwater; Surface Water	RPR site inspection; spill kit inspection log
M-6	Apply water or biodegradable dust suppressant to disturbed areas and access as needed to control fugitive dust. Require functioning emission-control systems on all diesel equipment. Restrict engine idling to a maximum of 5 minutes. Conduct equipment pre-start inspection for emission controls.	Air Quality; GHG	RPR visual observation; equipment pre-start inspection log
M-7	Limit surface disturbance to approximately 0.04 acre. Delineate the work area with construction fencing or flagging before mobilization. Do not drive equipment outside the flagged area.	Soils; Vegetation	RPR field log; pre- and post-construction photographs
M-8	Reseed all disturbed areas with a DEQ AML-approved native seed mix within 14 calendar days of well completion. Monitor revegetation through at least one	Vegetation	Seeding record; RPR growing-season monitoring report;

	full growing season. If noxious weeds listed under the Richland County noxious weed management program colonize disturbed areas, contractor shall treat them at contractor's expense.		photographic documentation
M-9	Conduct a pre-construction visual survey for active bird nests (MBTA; BGEPA) within and within 150 feet of the project area before mobilization, if construction occurs between April 1 and August 1. If an active nest is found within 150 feet of the drill pad, delay construction within that buffer until the nest is no longer active (eggs hatched; young have fledged). Document survey results in the RPR log.	Wildlife; T&E Species (MBTA, BGEPA compliance)	RPR pre-construction survey log; photograph if active nest found
M-10	Limit all construction activities to daytime hours (7:00 a.m. to 6:00 p.m., Monday through Friday). Require functioning engine mufflers on all equipment. Restrict idling to 5 minutes maximum. Notify the landowner and the Sullivan residence of the construction schedule at least 48 hours before mobilization; provide the RPR's contact information for noise complaints.	Noise; Public Health; Safety	RPR schedule documentation; pre-mobilization neighbor notification record; complaint log
M-11	Conduct all activities during daylight hours only. No temporary or permanent outdoor lighting fixtures shall be installed as part of this project. No light towers or portable construction lighting shall be brought to the site.	Lighting; Night Sky	RPR site inspection
M-12	Orient the contractor on the locations of known adits, slack piles, and mine equipment before mobilization. If previously unknown cultural materials or human remains are encountered during excavation or drilling: stop work immediately; secure and avoid disturbance of the area; notify the RPR, DEQ AML, and SHPO; if human remains, notify the county coroner and applicable tribal historic preservation officers per 22-3-424, MCA and 36 C.F.R. Part 800.13. Do not resume work in the affected area until authorized in writing by DEQ AML.	Cultural/Historic Resources	RPR pre-construction orientation record; inadvertent-discovery protocol documented in contractor specs
M-13	Conduct a road-surface condition assessment of County Road 354T before drill rig and equipment mobilization. If road conditions are poor due to spring breakup or recent precipitation, delay mobilization until the road surface can safely bear the loads of the drill rig and support equipment. Notify the Richland County Road Department of the heavy-vehicle mobilization schedule at least 5 days before mobilization.	Transportation	RPR pre-mobilization site visit and road-condition assessment record; county notification documentation

7. Public Involvement, Consultation, and Coordination

Table 7-1. Agency Consultation and Coordination (ARM 17.4.609(3)(c))

Agency/Party	Consultation Type	Date/Status	Outcome
OSMRE, Casper Field Office	SMCRA eligibility; NEPA CE and ATP	April 2, 2026 (eligibility); April 30, 2026 (ATP/CE)	Site eligible for SMCRA Title IV funds; ATP and NEPA CE issued; does not substitute for MEPA
Montana SHPO	NHPA Section 106	March 2, 2026	No Adverse Effect to Historic Properties; 24RL127 not NRHP-eligible; SHPO #20260202005
USFWS	ESA Section 7 / IPaC	January 28, 2026	IPaC screening completed; no critical habitat in footprint; M-9 incorporated for migratory birds
Robert Biddinger (Landowner)	Landowner coordination; access authorization	2025–present	Full cooperation; access granted for sampling, rehabilitation, and replacement
Federally Recognized Tribes	NHPA Section 106; Traditional Cultural Properties	To be completed 30+ days before construction	DEQ AML will notify interested Tribes of this EA and provide opportunity to comment
Richland County Road Department	Transportation notification	Prior to mobilization (M-13)	Notification of heavy-vehicle schedule; road-load assessment
Public	30-day MEPA comment period (ARM 17.4.610)	Posted [INSERT DATE]; closes [INSERT DATE+30]	Written comments accepted; responses in Appendix J of final EA

7.1 Tribal Consultation

Consistent with NHPA Section 106 (54 U.S.C. § 306108) and 36 C.F.R. Part 800, DEQ AML has evaluated the potential for the Proposed Action to affect properties of religious and cultural significance to federally recognized Tribes. No such properties have been identified within the project footprint.

7.2 Public Notice and Comment Period

This draft EA is posted on the Montana DEQ website for a period of **30 calendar days** pursuant to ARM 17.4.610. Written comments may be submitted to John Babcock, DEQ AML Program, P.O. Box 200901, Helena, MT 59620; john.babcock@mt.gov; (406) 431-1178. All timely comments will be considered by DEQ AML before issuance of a final environmental determination. DEQ AML will summarize comments and its responses in the final EA at Appendix J. DEQ AML will not issue a final environmental determination until the 30-day comment period has closed and timely comments have been reviewed and addressed.

8. Environmental Determination

ARM 17.4.609(3)(j) requires the EA to explain why the action does not require preparation of an EIS. DEQ AML has applied all seven ARM 17.4.608(1) significance criteria to each resource analyzed in Section 5. The following table summarizes the significance findings:

Table 8-1. ARM 17.4.608 Significance Determination

ARM 17.4.608(1) Criterion	Finding for the Proposed Action	Significant?
(a) Severity, duration, geographic extent, and frequency	All adverse effects are minor and short-term (3–5 days), confined to a 0.04-acre footprint, and one-time. Long-term effects are major beneficial.	No
(b) Probability of occurrence	Probability of identified adverse effects is low to moderate and fully mitigable; probability of beneficial effects (restored potable water, eliminated contaminant pathway) is high.	No
(c) Growth-inducing/inhibiting aspects; cumulative relationship	Project is neither growth-inducing nor growth-inhibiting; it restores a pre-existing single-family residential use. Cumulative impacts, considered with 1984–2012 reclamation actions, are beneficial.	No
(d) Quantity, quality, uniqueness, and fragility of resources	No unique, fragile, or high-quality resource (sole-source aquifer, NWI wetland, T&E critical habitat, NRHP-eligible site, Class I airshed, dark-sky preserve) is adversely affected.	No
(e) Importance of affected resources to the state and society	Restoration of potable water to a Montana family directly serves SMCRA Priority 1 and Montana's public-health interest. Beneficial.	No (Beneficial)
(f) Precedent-setting potential	None. The action is consistent with routine AML well-replacement projects and does not commit DEQ to future significant actions.	No
(g) Conflict with local, state, or federal laws, requirements, or plans	None. Project is consistent with MEPA, SMCRA, ARM 36.21.601 et seq., NHPA Section 106, ESA, MBTA, BGEPA, Montana Clean Air Act, Montana Ground Water Pollution Control System, Montana Noxious Weed Management Act, and Richland County land-use patterns.	No

Based on the analysis in this EA and applying all seven ARM 17.4.608(1) significance criteria, DEQ AML concludes that the Proposed Action **is not a major action significantly affecting the quality of the human environment** and that an Environmental Impact Statement is not required pursuant to 75-1-201(1)(b)(iv), MCA and ARM 17.4.609(3)(j). Adverse effects are minor, short-term, localized, and mitigable. Beneficial effects on public health, safety, and groundwater quality are long-term and of high public importance. GHG emissions are de minimis (1.83 MT CO2e, one-time), lighting impacts are none (daytime-only construction with no added fixtures), and noise impacts are minor, short-term, and daytime-only.

DEQ AML intends to issue a **Finding of No Significant Impact (FONSI)** following the close of the 30-day public comment period, subject to consideration of any timely comments received. The FONSI will be included in the administrative record for this action.

9. Assumptions

The following assumptions were made in preparing this EA. They are documented in the administrative record and would be revisited if the facts underlying them change materially before construction commences:

- The replacement well will be drilled to approximately 300–350 feet total depth based on regional GWIC well-log data for the Fort Union Formation in Sections 7 and 18, T24N, R60E. Actual depth will be determined by the licensed well driller based on lithologic logs and water production. If satisfactory water-producing intervals are not encountered at or above this depth, the EA would need to be revisited.
- The project footprint is limited to approximately 0.04 acre (40 × 40 feet) for the drill pad plus short access from the existing driveway. If the final design requires a materially larger footprint, the EA would need to be revisited.
- All construction will occur during daylight hours (7:00 a.m. to 6:00 p.m., Monday through Friday) with no nighttime work or temporary lighting.
- The 2025 water-quality laboratory data (Energy Laboratories, Inc., September and October 2025) accurately characterize current groundwater conditions at the 2012 well location.
- The full extent of Gardner Mine workings is unknown due to limited maps and records. If mine workings are encountered during drilling outside the mapped footprint, construction would stop pending DEQ AML review.
- Montana SHPO concurrence (March 2, 2026) remains current and no new information has emerged regarding cultural resources in the project area.
- OSMRE's ATP and NEPA Categorical Exclusion (April 30, 2026) remain effective and no new information has emerged that would require re-evaluation of federal environmental compliance.
- No sole-source aquifer designation, Wild or Scenic River designation, designated critical habitat, or other federally protected resource constraint is present within or immediately adjacent to the project footprint.
- GHG emissions were estimated based on a typical 3–5 day well-replacement scenario. Actual fuel consumption may vary by ±20% depending on drilling conditions. This variation does not affect the de minimis finding (even at 120% of estimated emissions, total project GHG would be approximately 2.2 MT CO2e — still de minimis at 5.7 × 10-8 of Montana's annual inventory).

10. References and Supporting Documents

- Montana DEQ, Abandoned Mine Lands Program. Final Construction Completion Report for the Gardner Emergency 2011, eAMLIS MT004223, Richland County, Montana. March 6, 2014.
- Montana DEQ, Abandoned Mine Lands Program. Eligibility Determination Letter — Gardner Mine, Richland County, Montana. April 2, 2026 (Lee M. McKenna, DEQ Agency Legal Counsel, to Jeff Fleischman, OSMRE Casper Field Office).
- Office of Surface Mining Reclamation and Enforcement, Casper Field Office. Authorization to Proceed and NEPA Categorical Exclusion — Gardner Mine Domestic Well Replacement. April 30, 2026.
- Montana State Historic Preservation Office. Concurrence Letter to James Strait (SHPO #20260202005). March 2, 2026.
- GCM Services, Inc. Cultural Resource Inventory of the Gardner Mine (Site 24RL127). Butte, Montana. 1986.
- HydroSolutions, Inc. Task Order 6, Contract No. 421019 — Fairview Well Replacement Final Design and Construction Oversight. April 2026.
- Energy Laboratories, Inc. Water Quality Laboratory Reports — Gardner Mine Domestic Well, Sampling Events of September and October 2025.
- U.S. Fish and Wildlife Service. Information for Planning and Consultation (IPaC) Project Code 2026-0042412. January 28, 2026.
- Surface Mining Control and Reclamation Act, Title 30 U.S.C. § 1240a; 30 C.F.R. Part 874.
- Montana Environmental Policy Act, Title 75, Chapter 1, Parts 1–3, MCA; ARM 17.4.601 et seq., including ARM 17.4.603, 17.4.607, 17.4.608, 17.4.609, and 17.4.610.
- Montana Well Construction Standards, ARM 36.21.601 et seq.; Well Abandonment, ARM 36.21.671.
- Montana Ground Water Pollution Control System, 75-5-401 et seq., MCA.
- Montana Clean Air Act, 75-2-101 et seq., MCA.
- Montana Noxious Weed Management Act, 80-7-701 et seq., MCA.
- Montana Safety Culture Act, 50-71-201 et seq., MCA.
- National Historic Preservation Act, Section 106, 54 U.S.C. § 306108; 36 C.F.R. Part 800.
- Endangered Species Act, 16 U.S.C. § 1531 et seq.
- Migratory Bird Treaty Act, 16 U.S.C. § 703 et seq.
- Bald and Golden Eagle Protection Act, 16 U.S.C. § 668 et seq.
- U.S. Environmental Protection Agency. Greenhouse Gas Equivalencies Calculator — Calculations and References (April 2024). https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator-calculations-and-references.
- U.S. Environmental Protection Agency. Emission Factors for Greenhouse Gas Inventories (Emission Factors Hub, January 2025 update).
- U.S. Environmental Protection Agency. Greenhouse Gas Emissions from a Typical Passenger Vehicle (June 2025).
- U.S. Federal Highway Administration. Roadway Construction Noise Model — Reference Values for Construction Equipment Noise Levels at 50 Feet.
- Held v. State, 2024 MT 241 (Mont. Dec. 18, 2024).
- Montana Environmental Information Center v. Montana Department of Environmental Quality, 2024 MT 216, 561 P.3d 1033 (Mont. Jan. 3, 2025).
- Park County Environmental Council v. Montana Department of Environmental Quality, 2020 MT 13.
- Water for Flathead's Future, Inc. v. Montana Department of Environmental Quality, 2023 MT 2.

- Montana Ground Water Information Center (GWIC), well logs for Sections 7 and 18, T24N, R60E, Richland County, Montana.
- USDA Natural Resources Conservation Service, Web Soil Survey, Richland County, Montana (accessed April 2026).
- U.S. Fish and Wildlife Service National Wetlands Inventory Mapper (accessed April 2026).
- Montana Natural Heritage Program, Natural Heritage Map Viewer (NHI) (accessed April 2026).

11. Document Preparation and Approval

ARM 17.4.609(3)(a) requires a description of the preparers and their qualifications.

Table 11-1. Document Preparers (ARM 17.4.609(3)(a))

Name	Title / Discipline	Contribution
John Babcock	Project Manager, DEQ AML Program; Licensed Professional Engineer (MT)	Primary EA reviewer; project management; engineering review
Jorri Dyer	AML Section Supervisor, Montana DEQ	EA supervisory review; approval authority
Lee M. McKenna	Agency Legal Counsel, Montana DEQ	Legal review; MEPA compliance; eligibility determination
HydroSolutions, Inc.	Engineering Contractor (Task Order 6, Contract No. 421019)	Final Design Plan; RPR oversight during construction; site assessment support
[Licensed Well Driller — TBD]	Montana-licensed well driller (license # TBD)	Well drilling, casing, completion, development, and testing

AI ASSISTANCE DISCLOSURE: This EA was prepared with the assistance of generative AI tools. All factual assertions, impact determinations, significance findings, and legal conclusions reflect the independent professional judgment of the DEQ AML staff and DEQ Legal Counsel identified above. The generative-AI drafting record and all source documents are preserved in the administrative record.

Reviewed and Recommended

_____

John Babcock, Project Manager, DEQ Abandoned Mine Lands Program
Date: _____

Approved

_____

Jorri Dyer, AML Section Supervisor, Montana Department of Environmental Quality
Date: _____

Appendices

- Appendix A — Site Map (reproduced from Eligibility Determination Letter, Exhibit A).
- Appendix B — Montana SHPO Concurrence Letter, March 2, 2026 (SHPO #20260202005).
- Appendix C — DEQ AML Eligibility Determination Letter, April 2, 2026.
- Appendix D — OSMRE Authorization to Proceed and NEPA Categorical Exclusion, April 30, 2026.
- Appendix E — 2025 Water Quality Sampling Results (Energy Laboratories, Inc., September and October 2025).
- Appendix F — GHG Emissions Calculation Worksheet (EPA Emission Factors Hub, January 2025).
- Appendix G — USFWS IPaC Species List, Project Code 2026-0042412, January 28, 2026.
- Appendix H — Gardner Emergency 2011 Final Construction Completion Report, March 6, 2014 (key excerpts).
- Appendix I — HydroSolutions, Inc. Task Order 6 Final Design Plan (to be inserted upon finalization); Contractor Specifications incorporating Table 6-1 Mitigation Requirements.
- Appendix J — Public Comments and DEQ AML Responses (to be inserted following 30-day public review period).