

APPENDIX D

APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

Appendix D - Applicable or Relevant and Appropriate Requirements (ARARs)

Section 300.415(i) of the National Contingency Plan (NCP) and guidance issued by the Environmental Protection Agency (EPA) require that removal actions attain ARARs under federal or state environmental laws or facility siting laws, to the extent practicable considering the urgency of the situation and the scope of the removal (EPA, 1993). In addition to ARARs, the lead Agency may identify other federal or state advisories, criteria, or guidance to be considered for a particular release.

ARARs are either applicable or relevant and appropriate. Applicable requirements are those standards, requirements, criteria, or limitations promulgated under federal or state environmental or facility siting laws that specifically address a hazardous substance, pollutant, or contaminant found at a Site. Relevant and appropriate requirements are those standards, requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility siting laws that are not applicable to a particular situation but apply to similar problems or situations, and therefore may be well suited requirements for a response action to address. Attaining groundwater and surface water standards are outside the scope of this removal action. However, the Agencies expect that groundwater and surface water standards will be ARARs in future actions at the Upper Blackfoot Mining Complex (Mike Horse) Site related to water quality as Montana Department of Environmental Quality conducts the Remedial Investigation and Feasibility Study.

Only the substantive portions of the requirements are ARARs. Administrative requirements are not ARARs and do not apply to actions conducted entirely on-site. Provisions of statutes or regulations that contain general goals expressing legislative intent but are non-binding are not ARARs. In addition, in instances like the present case where the cleanup is proceeding in stages, a particular phase of the remedy may not comply with all ARARs, so long as the overall remedy does meet ARARs.

Under Section 121 of CERCLA, 42 U.S.C. §9621, only those state standards that are more stringent than any federal standard are considered to be an ARAR provided that these standards are identified by the state in a timely manner. To be an ARAR, a state standard must be “promulgated,” which means that the standards are of general applicability and are legally enforceable. State of Montana ARARs set forth below have been identified in cooperation with, and with assistance from, the State of Montana Department of Environmental Quality.

Numerous acronyms are used in Table D-1. The following identifies the acronyms and their descriptions in the ARARs table. Other acronyms are described on page xi of the Final EE/CA Table of Contents

ARAR – Applicable or Relevant and Appropriate Requirements
ARM – Administrative Rules of Montana
CFR – Code of Federal Regulations
MCA – Montana Code Annotated
USC – United States Code

**Table D-1: Contaminant Specific Applicable, Relevant and Appropriate Requirements (ARARs)
For the Final EE/CA
Mike Horse Dam and Impounded Tailings, Lower Mike Horse Creek, Beartrap Creek and Upper Blackfoot
River Removal Areas, Upper Blackfoot Mining Complex site, Lewis and Clark County, Montana**

Standard, Requirement Criteria, or Limitation	Citation	Description	Applicable/Relevant and Appropriate?
Federal			
Safe Drinking Water Act	42 USC § 300		
National Primary Drinking Water Regulations	40 CFR Part 141	Establishes health-based standards, maximum contaminant levels (MCLs), for public water systems.	Not an ARAR since Montana has promulgated groundwater pollution control system regulations. Will defer to State of Montana requirements at 75-5-101 et seq., MCA and ARM 17.30.623, ARM 17.30.637, and ARM 17.30.705-717
National Secondary Drinking Water Regulations	40 CFR Part 143	Establishes aesthetic standards (secondary MCLs) for public water systems.	Not an ARAR since Montana has promulgated groundwater pollution control system regulations. Will defer to State of Montana Requirements at 75-5-101 et seq and ARM 17.30.1006 and ARM 17.30.1011 -see below.
Water Pollution Prevention & Control Act	33 USC §§ 1251-1387		
Water Quality Standards	40 CFR Part 131 Quality Criteria for Water, 1986, pursuant to 33 USC § 1314	Sets criteria for water quality based on toxicity to aquatic organisms and human health.	Not an ARAR since the state has been delegated this program and has promulgated water quality standards for the designated beneficial uses.

Standard, Requirement Criteria, or Limitation	Citation	Description	Applicable/Relevant and Appropriate?
Clean Air Act	42 USC § 7409		
National Primary and Secondary Ambient Air Quality Standards	40 CFR Part 50	Establishes air quality levels that protect public health.	Not an ARAR since only “major” sources are subject to requirements related to NAAQS, will defer to state regulation of emissions for particulate matter and lead.
Resource Conservation and Recovery Act	42 USC § 7601		
Lists of Hazardous Wastes	40 CFR Part 261, Subpart D and C	Defines those solids wastes which are subject to regulation as hazardous wastes under 40 CFR Parts 262-265 and Parts 124, 270, and 271.	Not an ARAR since mine waste is not a hazardous waste pursuant to 40 CFR 261.4(b)(7).
State of Montana			
Montana Water Quality Act	75-5-101 et seq., MCA		
Regulations Establishing Ambient Surface Water Quality Standards	ARM 17.30.623	Provides the water use classification for various streams and imposes specific water quality standards per classification. The specific parts that apply to this stream segment are the B-1 standards at 17.30.623.	Applicable. The removal of tailings and contaminated material from the stream and floodplain areas is expected to improve water quality, but this action alone is not expected to result in the achievement of B-1 standards in the segment.
General Prohibitions for State Surface Waters	ARM 17.30.637	Requires that the State’s surface waters be free from, among other things, substances that will create concentrations or combinations of materials that are harmful to	Applicable. Removal of tailings and contaminated materials from the stream and floodplain areas will be conducted in a way to limit any short-term discharges to the stream.

Standard, Requirement Criteria, or Limitation	Citation	Description	Applicable/Relevant and Appropriate?
Non-Degradation of Water Quality	ARM 17.30.705-717 75-5-303, MCA	human, animal, plant or aquatic life. No waste may be discharged and no activities may be conducted that can reasonably be expected to violate any of the standards. Applies non-degradation requirements to any activity that would cause a new or increased source of pollution to state waters and outlines review procedures.	Applicable. Consolidating and capping the tailings and waste rock will reduce the loading of contaminants to and prevent further degradation of groundwater. The removal of tailings from the stream and floodplain areas will reduce the loading of contaminants to surface water.
Groundwater Pollution Control System Regulations	ARM 17.30.1006	Classifies groundwater into Classes I through IV based on the present and future most beneficial uses of the groundwater, and states that groundwater is to be classified based upon actual quality or actual use, whichever places the groundwater in a higher class.	Not an ARAR. Treating groundwater is beyond the scope of this removal action, which is a source control action. Consolidating and capping the tailings and waste rock will reduce the loading of contaminants to and prevent further degradation of groundwater.
	ARM 17.30.1011	Requires that any groundwater whose existing quality is higher than the standard for its classification must be maintained at that high quality unless degradation is allowed under the principles established in 75-5-303, MCA, and the non-degradation rules at ARM 17.30.705 et seq.	Not an ARAR. Treating groundwater is beyond the scope of this removal action, which is a source control action. Consolidating and capping the tailings will reduce the loading of contaminants to and prevent further degradation of groundwater.

Standard, Requirement Criteria, or Limitation	Citation	Description	Applicable/Relevant and Appropriate?
Clean Air Act of Montana	75-2-101, MCA et seq.		
Ambient Air Quality Regulations	ARM 17.8.206	Establishes sampling, data collection, and analytical requirements to ensure compliance with ambient air quality standards.	Applicable
	ARM 17.8.220	Settled particulate matter shall not exceed a 30-day average of 10 grams per square meter.	Applicable
	ARM 17.8.222	Lead emissions to ambient air shall not exceed a 90-day average of 1.5 micrograms per cubic liter of air.	Applicable
	ARM 17.8.223	PM-10 concentrations in ambient air shall not exceed a 24-hour average of 150 micrograms per cubic meter of air and an annual average of 50 micrograms per cubic meter of air.	Applicable

Standard, Requirement Criteria, or Limitation	Citation	Description	Applicable/Relevant and Appropriate?
Federal			
Resource Conservation and Recovery Act	42 USC § 7601		
Hazardous and Solid Waste Facility Siting Regulations	40 CFR Part 264.18	Location standards and restrictions for hazardous waste treatment, storage, and disposal (TSD) facilities	Not an ARAR since mine wastes are not a hazardous waste pursuant to the Bevill amendment.
	40 CFR §§ 257.3-1 through 257.3-4	Location standards and restrictions for municipal solid waste (MSW) facilities.	Not an ARAR since Montana has promulgated solid waste facility siting regulations.
National Historic Preservation Act	16 USC § 470; 36 CFR Part 800	Requires Federal Agencies to take into account the effect of any Federally assisted undertaking or licensing on any property with historic, architectural, archeological, engineering, or cultural value that is included in or eligible for inclusion in the National Register of Historic Places.	Applicable
	40 CFR 6.301(b)		
Archeological and Historic Preservation Act	16 USC § 469 40 CFR 6.301(c)	Establishes procedures to provide for preservation of significant scientific, prehistoric, historic, and archeological data that might be destroyed through alteration of terrain as a result of a Federal construction project or a Federally licensed activity or program.	Applicable
Historic Sites Act	16 USC §§ 461-467 40 CFR 6.301(a)	Requires Federal agencies to consider the existence and location of potential and existing National Natural Landmarks to	Applicable. However, there are no potential or existing National Landmarks in the project area. The site has been declared

Standard, Requirement Criteria, or Limitation	Citation	Description	Applicable/Relevant and Appropriate?
Protection of Wetlands Executive Order No. 11990	36 CFR 62(d) 40 CFR Part 6; Appendix A 40 CFR 6.302(a)	avoid undesirable impacts on such landmarks. Requires Federal agencies to avoid adverse impacts associated with the destruction or loss of wetlands and avoid support of new construction in wetlands if a practicable alternative exists.	ineligible for listing on the National Register of Historic Places. Applicable. However, no permanent destruction or loss of wetlands will result from removal action.
Dredge and Fill Regulations	33 USC § 1344, 33 CFR 323.1 et. seq.	Prohibits discharge of dredged or fill material into waters of the United States without a permit	Substantive portions are applicable for stream reconstruction activities.
Fish and Wildlife Coordination Act	16 USC § 661 40 CFR 6.302(g)	Requires consultation when a Federal department or agency proposes or authorizes any modification of any stream or other water body to assure adequate protection of fish and wildlife resources.	Applicable
Floodplain Management Executive Order No. 11988	40 CFR Part 6, Appendix A 40 CFR 6.302(b)	Requires Federal agencies to evaluate the potential effects of actions they may take in a floodplain to avoid the adverse impacts associated with direct and indirect development of a floodplain to the extent possible.	Applicable
Endangered Species Act	16 USC §§ 1531-1543; 40 CFR 6.302 (h); 50 CFR Part 402	Activities may not jeopardize the existence of any threatened or endangered species or destroy or adversely modify a critical habitat.	Applicable
Bald Eagle Protection Act	16 USC §§ 668 et seq.	Establishes Federal agency responsibility for the protection of bald and golden eagles. Requires consultation with the USFWS during design and construction.	Applicable
Migratory Bird Treaty Act	16 USC §§ 703 et seq.	Establishes federal responsibility for the protection of the international migratory	Applicable

Standard, Requirement Criteria, or Limitation	Citation	Description	Applicable/Relevant and Appropriate?
		bird resources. Requires consultation with the USFWS during design and construction.	
State of Montana			
Montana Solid Waste Management Act	75-10-201, MCA et seq.		
Solid Waste Management Regulations	ARM 17.50.505	Location standards and restrictions for solid waste management facilities. State equivalent of Federal Part 257 regulations.	Relevant and appropriate if a new repository is constructed.
Floodplain and Floodway Management Act	76-5-401, MCA et seq.		
Floodplain Management Regulations	ARM 36.15.216	The factors to consider in determining whether a permit should be issued to establish or alter an artificial obstruction or nonconforming use in the floodplain or floodway are provided in this section.	Substantive portions are applicable.
	ARM 36.15.601	Open space uses allowed in the floodway without a permit.	Substantive portions are applicable to open space use of a floodway.
	ARM 36.15.602	Provides a list of allowable uses (if permitted) and conditions for those uses in designated floodways. Two of the uses that are listed – excavation of pits and pools in the floodway and the construction of stream crossings – may occur during the removal action.	Substantive portions are applicable if excavation of pits and pools is undertaken from stream restoration work or if a stream crossing is constructed.

Standard, Requirement Criteria, or Limitation	Citation	Description	Applicable/Relevant and Appropriate?
	ARM 36.15.603	Proposed diversions or changes in place of diversions must be evaluated to determine whether they significantly affect flood flows and, therefore, require a permit.	Substantive portions are applicable if water diversion is used.
	ARM 35.15.604	Prohibits new artificial obstructions or nonconforming uses that will increase the upstream elevation of the base flood one half foot or significantly increase flood velocities.	Substantive portions are relevant and appropriate. The stream restoration work will be designed so that the base flood level and velocity will not increase significantly. Would be applicable if flood elevations existed.
	ARM 36.15.605	Identifies artificial obstructions and nonconforming uses that are prohibited within the designated floodway except as allowed by permit and includes “a structure or excavation that will cause water to be diverted from the established floodway, cause erosion, obstruct the natural flow of water, or reduce the carrying capacity of the floodway...” Solid waste disposal and storage of highly toxic, flammable, or explosive materials are also prohibited.	Substantive portions are applicable. The stream restoration work will be designed so that it will not cause erosion or obstruct the natural flow of water.
	ARM 36.15.606	Identifies flood control works including dams, levies, flood walls, rip-rap, and channelization projects that are allowed within designated floodways pursuant to permit and certain conditions.	Substantive portions are applicable. The stream restoration work will be designed so that any rip-rap will withstand the base flood, will not increase the elevation of the base flood, and will not increase erosion upstream, downstream, or across stream from the rip-rap site.
	ARM 36.15.701	Describes allowed uses in the flood fringe.	Substantive portions are applicable

Standard, Requirement Criteria, or Limitation	Citation	Description	Applicable/Relevant and Appropriate?
		Liquid and solid waste treatment and disposal are allowed as long as the activities are approved under the appropriate laws and the disposal is flood proofed to insure that no pollutants enter flood waters.	depending upon the location of the flood fringe. If any of the tailings remain in the flood fringe, they will be flood proofed.
	ARM 36.15.702	Prohibits residential, commercial, and industrial structures in the floodplain.	Not an ARAR. None of these structures is contemplated.
	ARM 36.15.703	Lists prohibited uses within the flood fringe. Solid and hazardous waste disposal and storage of toxic, flammable, or explosive materials is prohibited. (Language is inconsistent with ARM 36.15.701, which allows solid waste disposal in the flood fringe.)	Not an ARAR. A new solid and hazardous waste disposal or storage facility is not being constructed in the flood fringe.
	ARM 36.15.801	Allowed uses where the floodway is not designated or where no flood elevations are available.	Applicable
Endangered Species	87-5-106, 107, and 111, MCA ARM 12.5.201	Endangered species should be protected in order to maintain and, to the extent possible, enhance their numbers. Certain activities are prohibited.	Applicable.
Natural Streambed and Land Preservation Standards	75-7-101 et seq, MCA, ARM 36.2.401 et seq.	Fish and wildlife resources are to be protected and no construction project or hydraulic project shall adversely affect game or fish habitat.	Applicable

Standard, Requirement Criteria, or Limitation	Citation	Description	Applicable/Relevant and Appropriate?
Federal			
Clean Water Act	33 USC § 1342		
National Pollutant Discharge Elimination System	40 CFR Part 122.26	In general, Part 122 provides permit requirements for the discharge of pollutants from any point source into waters of the United States. Part 122.26 requires permits for storm-water discharges.	Not an ARAR for the consolidation and capping portion of the remedy because regulation of storm-water runoff from mining operations where there is no contact with contaminated material is excluded from 122.26. Regulation of storm-water runoff during construction would be an ARAR, if there were no state program. Will defer to state requirements for storm-water control at ARM 17.30.1332 and 1341.
Surface Mining Control and Reclamation Act	30 USC §§ 1201-1328	Performance standards for surface mining activities.	Not an ARAR since this is not a coal mine and there is a state program for mine reclamation. Will defer to state surface mining and reclamation regulations discussed later in this table.
Hazardous Materials Transportation Act Hazardous Materials Transportation Regulations	49 USC §§ 1801-1813 49 CFR Parts 10, 171-177	Regulates transportation of hazardous materials.	Not an ARAR since no offsite transportation of hazardous materials is contemplated. If offsite transportation occurs, this would be applicable.
Resource Conservation and Recovery Act	46 USC § 7601		
Standards for Owners and Operators of Hazardous Waste	40 CFR Part 264	Requirements for proper handling, treatment, storage, and disposal of	Not an ARAR. Removal action will consolidate mine waste in an in-situ mine

Standard, Requirement Criteria, or Limitation	Citation	Description	Applicable/Relevant and Appropriate?
Treatment, Storage, and Disposal (TSD) Facilities		hazardous wastes. Part 264.258 (Subpart L) concerns closure of waste piles. If wastes remain after all reasonable efforts have been made to effect removal or decontamination of wastes in waste piles, then closure will be per the landfill closure regulations at Part 264.310 (Subpart N)	waste location, not create a RCRA TSD facility. Part 264.310(a), (b)(1) and (b)(5) relating to closure, caps, and run-on/run-off controls would be relevant but the state solid waste and mine reclamation regulations provide specific guidelines and are, therefore, more appropriate. The Part 264 closure requirements are general in nature.
Land Disposal Restrictions	40 CFR Part 268	Discusses the land ban.	Not an ARAR for reasons given concerning Parts 261 and 264.
Criteria for Municipal Solid Waste (MSW) Landfills	40 CFR Part 258.50-56	Requirements for ensuring appropriate assessment, monitoring, and protection of groundwater due to engineered disposal facilities.	Would be relevant and appropriate to the post-removal ground water monitoring program if there was no state-delegated program. Will defer to state requirements.
	40 CFR Part 258.60(a)(1-3)	Closure criteria for MSW facilities.	Provides criteria for cover permeability, depth of infiltration layer, and depth and quality of erosion layer. Would be relevant and appropriate if there was no state-delegated program. Will defer to state requirements at ARM 17.50.530.

Standard, Requirement Criteria, or Limitation	Citation	Description	Applicable/Relevant and Appropriate?
State of Montana			
Clean Air Act of Montana	75-2-101, MCA et seq.		
Emission Standards	ARM 17.8.304	No person shall cause opacity of 20% over 6 minutes for sources installed after November 23, 1968.	Applicable
	ARM 17.8.308(2)	Reasonable precautions shall be taken to control emissions of airborne particulate matter during the use of streets, roads, and parking lots.	Applicable
	ARM 17.8.308(3)	Reasonable precautions shall be taken to control emissions of airborne particulate matter from a construction site or demolition project.	Applicable
	ARM 17.8.604	Lists certain wastes that may not be disposed of by open burning, including oil or petroleum products, RCRA hazardous wastes, chemicals, and treated lumber and timbers.	Not an ARAR. No open burning contemplated during removal action.
Air Resources Protection for Reclamation Activities	ARM 17.24.761	Requires the implementation of a fugitive dust control program in reclamation operations, and lists specific components of such a program.	Applicable
Montana Groundwater Act	85-2-516, MCA	States that within 60 days after any well is completed, the driller must file a well log report with DNRC and the appropriate county clerk and recorder.	Not technically an ARAR because this is an administrative requirement, however, well logs will be filed for any new wells.

Standard, Requirement Criteria, or Limitation	Citation	Description	Applicable/Relevant and Appropriate?
Montana Water Quality Act	ARM 36.21.701-810	Requirements for abandoning monitoring wells.	Relevant and Appropriate for when the wells are abandoned.
Regulations Establishing General Treatment Standards	75-5-101 et seq., MCA		
	ARM 17.30.635	Imposes treatment requirements to restore and maintain the quality of surface water to applicable water use.	Substantive portions are applicable to any point source discharges created as a result of this removal action.
	ARM 17.30.1332 and 1341	Requires a storm water discharge permit. The state has general permits for construction activities and for mining activities including inactive and abandoned mines. Generally, the permits require best management practices to minimize or prevent any discharge from adversely affecting human health or the environment.	Substantive portions are applicable.
Montana Solid Waste Management Act	75-10-201, et seq. MCA		
	ARM 17.50.506	Establishes design criteria for landfills	Substantive portions are relevant and appropriate if a new repository is constructed.
	ARM 17.50.511(1)(j)	Describes run-on and run-off control requirements for the active portion of an operating landfill	Relevant and appropriate. Operating a landfill is not within the scope of this removal action. However, run-on and run-off control measures will be designed to control the water volume resulting from a 24-hour, 25-year storm.
	ARM 17.50.523	Solid waste must be transported in such a manner as to prevent its	Relevant and appropriate

Standard, Requirement Criteria, or Limitation	Citation	Description	Applicable/Relevant and Appropriate?
	ARM 17.50.530	discharge, dumping, spilling or leaking from the transport vehicles. Establishes closure requirements for landfills.	Equivalent to the Federal regulation for closure at Part 258.60. It is not within the scope of this removal action to operate a landfill. However, ARM 17.50.530(1)(a) pertaining to final cover requirements is relevant and appropriate. Remainder of this part is administrative.
	ARM 17.50.531	Establishes post-closure care requirements for Class II landfills.	It is not within the scope of this removal action to operate a landfill. However, ARM 17.50.531(1)(a)(i) pertaining to maintaining the final cover and ARM 17.50.531(1)(a)(iii) pertaining to ground water monitoring are relevant and appropriate.
	ARM 17.50.706	Establishes location and number of monitoring wells at landfill sites.	If the response action involved constructing a new landfill, then this regulation would be applicable and would govern the monitoring well network that must be installed. Instead, this requirement is relevant and appropriate and will be used to guide future ground water monitoring efforts.
	ARM 17.50.707	Establishes monitoring well construction requirements	Relevant and appropriate
	ARM 17.50.722	Establishes monitoring well abandonment requirements	Relevant and appropriate when monitoring wells are abandoned.
	ARM 17.50.724	Establishes monitoring well network maintenance requirements	Relevant and appropriate

Standard, Requirement Criteria, or Limitation	Citation	Description	Applicable/Relevant and Appropriate?
Montana Hazardous Waste Act	75-10-401, MCA, et seq., ARM Title 17, Chapter 54	Establishes a regulatory structure for the generation, transportation, treatment, storage, and disposal of hazardous wastes. These requirements would be applicable if any substances at the site are listed hazardous wastes.	Not an ARAR for the same reasons that the Federal hazardous waste regulations are not ARAR – defer to state solid waste and surface mining reclamation regulations instead.
Montana Strip and Underground Mine Siting Act	82-4-101, MCA et seq.		
Backfilling and Grading Requirements	ARM 17.24.501 ARM 17.24.504 ARM 17.24.507 ARM 17.24.519	These sections give general backfilling and grading requirements. Provides that permanent impoundments may be retained under certain circumstances. Provides requirements for storage and final disposal of garbage and other debris generated during mining activities. Requires that regraded areas be monitored for settlement.	Contains certain relevant and appropriate requirements such as final slopes must be graded to prevent slope failure, to not exceed the angle of repose, and to achieve a minimum long-term static safety factor of 1.3. Not an ARAR. No permanent impoundments are contemplated for this removal action. Relevant and appropriate if garbage or other debris is encountered during the removal action. Relevant and appropriate. The regraded areas will be monitored for settlement.

Standard, Requirement Criteria, or Limitation	Citation	Description	Applicable/Relevant and Appropriate?
Requirements Pertaining to Transportation Facilities, Use of Explosives, and Hydrology	ARM 17.24.631	<p>In accordance with this section, reclamation operations must be planned and conducted to minimize disturbance to the prevailing hydrologic balance. Changes in water quality and quantity must be minimized and reclamation practices that will prevent or minimize water pollution should be emphasized. Proper pollution control and minimization practices include, but are not limited to, stabilizing disturbed areas, diverting runoff, regulating channel velocity of water, achieving quickly germinating and growing stands of temporary vegetation, and lining drainage channels.</p>	Relevant and appropriate

Standard, Requirement Criteria, or Limitation	Citation	Description	Applicable/Relevant and Appropriate?
	ARM 17.24.633	<p>Specifies that “all surface drainage from the disturbed area, including disturbed areas that have been graded, seeded, or planted must be treated by the best technology currently available.” Sediment control must be maintained until the disturbed area has been restored and revegetation requirements have been met.</p> <p>Drainage system design shall emphasize premining channel and floodplain configurations that blend with the undisturbed drainage above and below; will meander naturally; remain in dynamic equilibrium with the system; improve unstable premining conditions, provide for floods, provide for long-term stability of the landscape, and establish a premining diversity of aquatic habitats and riparian vegetation.</p>	Relevant and appropriate
	ARM 17.24.634	<p>Drainage system design shall emphasize premining channel and floodplain configurations that blend with the undisturbed drainage above and below; will meander naturally; remain in dynamic equilibrium with the system; improve unstable premining conditions, provide for floods, provide for long-term stability of the landscape, and establish a premining diversity of aquatic habitats and riparian vegetation.</p>	Relevant and appropriate
	ARM 17.24.635-637	<p>Set forth requirements for temporary and permanent diversions.</p>	Relevant and appropriate

Standard, Requirement Criteria, or Limitation	Citation	Description	Applicable/Relevant and Appropriate?
	ARM 17.24.638	Sediment control measures shall be designed using the best technology currently available to prevent additional sediment to streamflows, meet the more stringent of federal or state effluent limitations, and minimize erosion.	Relevant and appropriate
	ARM 17.24.639	Provides specific design requirements for detention time, flood flow, etc. for temporary and permanent sedimentation ponds.	Relevant and appropriate if any sedimentation ponds are contemplated during the removal action.
	ARM 17.24.640	Provides that discharge from sedimentation ponds, permanent and temporary impoundments, and diversions shall be controlled by energy dissipaters, riprap channels, and other devices, where necessary, to reduce erosion, prevent deepening or enlargement of stream channels, and to minimize disturbance.	Relevant and appropriate
	ARM 17.24.641	Sets forth methods for prevention of drainage from acid-and toxic-forming spoils into ground and surface waters.	Relevant and appropriate
	ARM 17.24.642	Prohibits permanent impoundments with certain exceptions, and set standards for temporary and permanent impoundments.	Relevant and appropriate if a permanent impoundment is contemplated for this removal action.
	ARM 17.24.643	Provides for groundwater protection by controlling discharge of acid, toxic, or otherwise harmful mine	Relevant and appropriate. The removal action will reduce adverse effects on groundwater.

Standard, Requirement Criteria, or Limitation	Citation	Description	Applicable/Relevant and Appropriate?
		<p>drainage waters into groundwater. Requirement that any backfill material be placed to minimize adverse effects on groundwater flow and quality.</p>	
	ARM 17.24.644	<p>Provides for the protection of groundwater recharge. The groundwater recharge shall be restored to pre-mining conditions.</p>	<p>Relevant and appropriate</p>
	ARM 17.24.645	<p>Provides requirements for groundwater monitoring prior to permit issuance, during mining, and post-mining.</p>	<p>These requirements are for active mines, however, certain portions may be relevant and appropriate for the design of the post-removal groundwater monitoring program.</p>
	ARM 17.24.646	<p>Provides requirements for surface water monitoring prior to permit issuance, during mining, and post-mining.</p>	<p>These requirements are for active mines, however, certain portions may be relevant and appropriate for the design of the post-removal surface water monitoring program.</p>
	ARM 17.24.649	<p>Prohibits the discharge, diversion, or infiltration of surface and groundwater into existing underground mine workings.</p>	<p>Not an ARAR - no discharge to underground mine workings is contemplated for this removal action.</p>
	ARM 17.24.650	<p>All permanent sedimentation ponds, diversions, impoundments, and treatment facilities must be renovated post-mining, to meet criteria specified in the design plan. All such temporary structures shall be regraded to the approximate original contour.</p>	<p>Relevant and appropriate except, since there is no pre-mining design plan, there is no specific criteria to meet. However, temporary structures will be regraded to the approximate original contour.</p>

Standard, Requirement Criteria, or Limitation	Citation	Description	Applicable/Relevant and Appropriate?	
<p>Top Soil, Revegetation, and Protection of Wildlife and Air Resource Regulations</p>	ARM 17.24.701-702	Requirements on removal, redistribution, and stockpiling soil during the mining operation to be used for reclamation.	Not an ARAR because this requirement has to do with stockpiling material during the mining operation to be used post-mining.	
	ARM 17.24.703	Requirements for getting state approval for substituting material other than soil for reclamation.	Not an ARAR because soil substitution is not planned for this removal action. However, if other material is to be used, then it must support vegetation.	
	ARM 17.24.711	Vegetative cover requirements	Substantive portions are relevant and appropriate	
	ARM 17.24.713	Timing of seed application	Relevant and appropriate	
	ARM 17.24.714	Pursuant to this section, as soon as practicable, a mulch or cover crop of small grains, grasses or legumes or both must be used on all regraded and resoiled areas to control erosion, promote germination of seeds and increase the moisture retention of the soil until adequate permanent cover is established.	Relevant and appropriate	
	ARM 17.24.716	Establishes the required method of revegetation and provides that introduced species may be substituted for native species as part of an approved plan.	Relevant and appropriate	
	ARM 17.24.717	Whenever tree species are necessary, trees adapted for local site conditions and climate shall be used.	Relevant and appropriate	

Standard, Requirement Criteria, or Limitation	Citation	Description	Applicable/Relevant and Appropriate?
	ARM 17.24.718	Soil amendments must be used as necessary to aid in the establishment of permanent vegetative cover. Irrigation, management, fencing, or other measures may also be used after review and approval by the department.	Relevant and appropriate
	ARM 17.24.719	Livestock grazing on reclaimed land is prohibited until revegetation is established to sustain managed grazing.	Relevant and appropriate
	ARM 17.24.721	In accordance with this section, rills and gullies may need to be filled, graded or otherwise stabilized and the area reseeded.	Relevant and appropriate
	ARM 17.24.723	Requires periodic monitoring of vegetation, soils, and wildlife.	Substantive portions are relevant and appropriate. Periodic (at least annual) monitoring will be conducted.
	ARM 17.24.724	Success of revegetation shall be evaluated.	Relevant and appropriate
	ARM 17.24.726	Sets means of measuring productivity.	Relevant and appropriate
	ARM 17.24.728	Sets requirements for composition of vegetation – must be 51% native vegetation.	Relevant and appropriate
	ARM 17.24.730	The revegetated area must furnish palatable forage in comparable quantity and quality during the same grazing period as the reference areas.	Relevant and appropriate

Standard, Requirement Criteria, or Limitation	Citation	Description	Applicable/Relevant and Appropriate?
	ARM 17.24.731	Where toxicity to plants or animals is suspected, then toxicity testing may be required.	Relevant and appropriate. Toxicity testing may be conducted if toxic conditions are suspected.
	ARM 17.24.733	Sets requirements and measurement standards for trees, shrubs, and half-shrubs.	Relevant and appropriate
	ARM 17.24.751	Pursuant to this section, required site activities must be conducted so as to avoid or minimize impacts to important fish and wildlife species, including critical habitat and any threatened or endangered species identified at the site.	Relevant and appropriate