

**Federal Applicable or Relevant and Appropriate Requirements
Orphan Boy Mine Removal Action**

Media/Location/Action	Requirements	Prerequisite	Citation(s)
Federal Location-Specific ARARs			
Presence of cultural resources within work areas	<p>This statute and implementing regulations require federal agencies to take into account the effect of this response action upon any district, site, building, structure, or object that is included in or eligible for the National Register of Historic Places (generally, 50 years old or older).</p> <p>Federal agencies are required to take into account their undertakings on historic properties and must determine whether there will be an adverse effect, and if so, how the effect may be minimized or mitigated in consultation with the appropriate state historic preservation office.</p>	Identification of cultural resources on or eligible for the National Register by surveys	National Historic Preservation Act (NHPA) 16 United States Code (U.S.C.) § 470 and Implementing Regulations 36 Code of Federal Regulations (CFR) § 63.1-63.3; 800.4, 800.5. Substantive provisions only; not procedural.
Presence of archaeological or historical artifacts within work areas	<p>This statute and implementing regulations establish requirements for the evaluation and preservation of historical and archaeological data, which may be destroyed through alteration of terrain as a result of a federal construction project or a federally licensed activity or program.</p> <p>The unauthorized removal of archaeological resources as a result of a federally licensed activity or program is prohibited without compliance with substantive, but not administrative, aspects of permitting.</p>	Identification of archaeological resources by an archaeological investigation	Archaeological and Historic Preservation Act 16 U.S.C. §469 and Implementing Regulations 43 CFR §7

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Potential for remediation work in habitat for bald and or golden eagles	<p>This statute makes it unlawful for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any bald or golden eagle, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to federal regulations. In addition to immediate impacts, this requirement also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment.</p> <p>If bald or golden eagles are identified during the response action, activities must be modified and conducted to conserve the species and their habitat.</p>	<p>Identification of bald or golden eagles and actions that could impair the species and their habitat – potentially applicable.</p> <p>It is not anticipated that bald or golden eagles will be observed at the mine waste piles, however, is potential for bald or golden eagles and their habitat within the OUS study area.</p>	Bald and Golden Eagle Protection Act 16 U.S.C. § 668(a) and 50 CFR 22.6
Potential for remediation work in habitat for federally endangered or threatened species	<p>This statute and implementing regulations provide that federal activities not jeopardize the continued existence of any threatened or endangered species. 16 U.S.C. 1536(a) of the Endangered Species Act (ESA) requires consultation with the U.S. Fish and Wildlife Service to identify the possible presence of protected species and mitigate potential impacts on such species. Substantive compliance with the ESA means that the lead agency must identify whether a threatened or endangered species, or its critical habitat, will be affected by a proposed response action. If so, the agency must avoid the action or take appropriate mitigation measures so that the action does not affect the species or its critical habitat. If, at any point, the conclusion is reached that endangered species are not present or will not be affected, no further action is required.</p> <p>If threatened or endangered species, listed in 50 CFR 17, are identified during the response action, activities must be modified and conducted to conserve the species and their habitat, following the substantive applicable requirements outlined in 15 USC 1536 and 50 CFR 17.21, 17.31, 17.61, 17.71 and 17.82.</p>	Actions that may negatively impact the species and their habitat	Endangered Species Act 16 U.S.C. § 1536(a)(2), and Implementing Regulations with listings of threatened species and endangered species at 50 CFR 17.11 and 17.12, or designation of critical habitat at 50 CFR 17.95 and 50 CFR 402
Potential for remediation work in habitat for migratory birds	<p>This statute and implementing regulations makes it unlawful for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird.</p> <p>If migratory birds, listed in 50 CFR 10.13, are identified during the response action, activities must be modified and conducted to conserve the species and their habitat.</p>	Actions that may negatively impact the migratory birds and their habitat	Migratory Bird Treaty Act 16 U.S.C. § 703(a) and Implementing Regulations 50 CFR 10.13 (List of Migratory Birds)

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State Location-Specific ARARs			
Relevant wildlife habitat	Prohibits willfully damaging or destroying any wildlife den or nest, or their eggs, or harassing any wildlife. "Harass" means to unlawfully endanger, worry, impede, annoy, pursue, disturb, molest, rally, concentrate, harry, chase, drive, herd, or torment wildlife. See C.R.S. § 33-1-102(24) (Definitions)	Performing response activities in relevant wildlife habitat.	Colorado Wildlife Enforcement and Penalties Act, Colorado Revised Statutes (C.R.S.) § 33-6-128(1) Contact: Colorado Division of Parks and Wildlife (DNR)
Relevant wildlife habitat	Prohibits harassment, taking or possession of nongame species and subspecies, including threatened or endangered wildlife, with limited exceptions. The designations of species as endangered, threatened, or a nongame species, are made pursuant to 2 C.C.R. 406-10:1002-4. This regulation incorporates definitions of terms found in the Colorado Wildlife Enforcement and Penalties Act, C.R.S. § 33-1-102.	Performing response activities in relevant wildlife habitat.	Colorado Non-game, Endangered, or Threatened Species Act, C.R.S. §§ 33-2-104(3) and Colorado Wildlife Commission Regulations, 2 Code of Colorado Regulations (C.C.R.) 406-10:1002-1004 4(Protected Species) Contact: Colorado Division of Parks and Wildlife (DNR)
Noxious weeds area	Requires use of integrated methods to manage noxious weeds, if noxious weeds are likely to be materially damaging to the land of neighboring landowners. Integrated methods include: biological management, chemical management, cultural management, and mechanical management (as defined in C.R.S. § 35-5.5-103(9)(a-d)).	Performing response activities in an area with noxious weeds.	Colorado Noxious Weed Act, C.R.S. § 35-5.5-104 (Duty to Manage Noxious Weeds) Contact: Colorado Hazardous Materials and Waste Management Division (CDPHE)
Noxious weeds area	Prohibits allowing any plant of any population on "List A" to produce seed or develop other reproductive propagules. (Section 3.1 sets forth "List A.") Prescribed management techniques must be applied to every population of List A noxious weeds including: <ul style="list-style-type: none"> • Elimination of plants of every population of List A prior to seed development. • Once all mature plants are eliminated, appropriate efforts must be made to detect and eliminate new plants arising from seed, reproductive propagule, or root stock for the duration of the seed longevity for the particular species. • Any plant with flowers, seeds, or other reproductive propagules must be placed in sealed plastic bags and disposed of by: <ul style="list-style-type: none"> ○ High intensity burning in a controlled environment that completely destroys seed viability ○ Removal of plant materials to a solid waste landfill which covers refuse daily with six inches of soil or alternative material; or ○ Any other method approved by the Colorado Department of Agriculture Commissioner. 	Performing response activities in an area with "List A" noxious weeds.	Rules Pertaining to the Administration and Enforcement of the Colorado Noxious Weed Act, 8 C.C.R. 1206-2, Sections 3.1, 3.3, and 3.4 Contact: Colorado Hazardous Materials and Waste Management Division (CDPHE)

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Noxious weeds area	<p>Prohibits allowing any plant of any population on “List B” to produce seed or develop other reproductive propagules after the time specified in the Park County Elimination Plan. (Section 4.1 sets forth “List B.”)</p> <p>Prescribed management techniques for species on List B include:</p> <ul style="list-style-type: none"> • Elimination prior to seed development in the year specified in the county management plan. • Any population that is discovered in areas designated for elimination subsequent to the year specified for elimination must be eliminated prior to the development of viable seed. If the population is discovered after seed development has occurred, then efforts must be made to minimize the dispersion of seed and elimination is required prior to seed development in the following year. • Once all plants are eliminated, appropriate efforts must be made in subsequent years to detect and eliminate new plants arising from seed, reproductive propagule, or root stock prior to seed development for the duration of the seed longevity for the particular species. • In order to ensure that seeds or other reproductive propagules are not produced or spread, any plant with flowers, seeds, or other reproductive propagules must be placed in sealed plastic bags and disposed of by: <ul style="list-style-type: none"> ○ High intensity burning in a controlled environment that completely destroys seed viability; ○ Removal of plant materials to a solid waste landfill which covers refuse daily with six inches of soil or alternative material; or ○ Any other method approved by the Colorado Department of Agriculture Commissioner. <p>Additional species-specific techniques for specified areas in Park County detailed in 8 C.C.R. 1206-2-4.8</p>	Performing response activities in an area with noxious weeds.	<p>Colorado Noxious Weed Act and Park County Noxious Weed regulations, C.R.S. § 35-5.5-104 (Duty to Manage Noxious Weeds); 8 C.C.R. 1206-2, Sections 4.1, 4.4.</p> <p>Contact: Colorado Hazardous Materials and Waste Management Division (CDPHE)</p>

Location or Action	Requirements	Prerequisite	Citation(s)
Relevant land use zone	<p>Sound levels that exceed the limits at a distance of 25 feet from the property line or greater are prima facie evidence of a public nuisance.</p> <p>Activities must be conducted in a manner so that any noise produced is not objectionable due to intermittence, beat frequency, or shrillness.</p> <p>For construction projects, maximum noise levels will be those specified for industrial zones for the time period within which construction is to be completed. For industrial zones, the maximum permissible sound level from 7:00 am to the next 7:00 pm is 80 A-weighted decibels (db[A]) and from 7:00 pm to the next 7:00 am is 75 db(A).</p>	Location of response activities is within a designated land use zone subject to noise regulation.	<p>Colorado Noise Abatement Statute, C.R.S. § 25-12-103 (Maximum Permissible Noise Levels)</p> <p>Contact: Colorado Hazardous Materials and Waste Management Division (CDPHE)</p>
Relevant land use zone	<p>Sets forth maximum permissible noise levels specific to off-highway vehicles defined in 25-12-102 (5.6) as a self-propelled vehicle with wheels or tracks in contact with the ground that is designed primarily for use off the public highways:</p> <p>(a) If manufactured before January 1, 1998; 99 db(A);</p> <p>(b) If manufactured on or after January 1, 1998; 96 db(A).</p> <p>Measurements should be conducted using SAE J1287.</p>	Use of off-highway vehicles in response activities	<p>Colorado Noise Abatement Statute, CRS § 25-12-103(1) (Maximum Permissible Noise Levels)</p> <p>Contact: Colorado Hazardous Materials and Waste Management Division (CDPHE)</p>
Area where waste left in place above unrestricted use standards or where engineered features are incorporated into the remedy	Requires environmental covenants (ECs) or notice of environmental use restrictions (RNs) whenever residual contamination not safe for all uses is left in place or an engineered feature or structure that requires monitoring, maintenance, or operation is included in the remedy. ¹	Performing response activities in locations leaving waste in place above standards for unrestricted use or incorporating engineered features or structures.	<p>Colorado Environmental Covenants Statute C.R.S. § 25-15-317 <i>et seq.</i></p> <p>Contact: Colorado Hazardous Materials and Waste Management Division (CDPHE)</p>

¹ The waste rock pile will be an area where waste will be left in place above standards for unrestricted use and is therefore subject to the Environmental Covenants (EC) Statute, as is any other area where waste is left in place above unrestricted use standards. The constructed diversion channels will be “engineered features” of the removal action, and likewise trigger the EC Statute. Pursuant to C.R.S. § 25-15-320(2), an EC or RN is required to serve as an institutional control and should be identified as such in EPA’s final decision document.

State Action-Specific ARARs			
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Constructing channels and recontouring/revegetating the mine waste pile	Establishes requirements and procedures for land disposal of solid wastes. Pursuant to the Solid Wastes Disposal Sites and Facilities Act, C.R.S. § 30-20-102(4), mining operations including reclamation activities with approved reclamation plans under a Colorado Mined Land Reclamation Board (MLRB) permit may dispose of solid wastes generated by such operations within the permitted area without obtaining a Certificate of Designation. CDPHE interprets this provision to allow CERCLA response actions performed consistently with the MLRB regulation 2 C.C.R. 407-1 Rule 3 (Reclamation Performance Standards) to be compliant with Colorado's regulation pertaining to solid waste disposal.	Disposing solid waste.	Colorado Solid Waste Disposal Sites and Facilities Regulations, 6 C.C.R. 1007-2, pursuant to C.R.S. §§ 30-20-100.5, <i>et seq.</i> Contact: Colorado Hazardous Materials and Waste Management Division (CDPHE)
Constructing channels and recontouring/revegetating the mine waste pile	The MLRB Regulations require reclamation of permitted mined lands, defined as "employment of procedures reasonably designed to minimize as much as practicable the disruption from mining operations and to provide for the establishment of plant cover, stabilization of soil, the protection of water resources, or other measures appropriate to the subsequent beneficial use of such affected lands." Reclamation must be conducted in accordance with the performance standards in Rule 3 of the Regulations. Substantive requirements are relevant and appropriate to mine reclamation activities including constructing the lined drainage tunnel, consolidating waste rock and other mine related materials and vegetating the engineered cover.	Reclaiming mined lands.	Colorado Mined Land Reclamation Board Regulations ("MLRB Regulations"), Reclamation Performance Standards, 2 C.C.R. § 407-1, Rule 1.1 (definitions) and Rule 3.1.5 (1)-(3), 3.1.8, 3.1.9, 3.1.10 (Reclamation Performance Standards), pursuant to the Co. Mined Land Reclamation Act, C.R.S. § 34-32-101, <i>et seq.</i> Contact: Colorado Hazardous Materials and Waste Management Division (CDPHE)
Constructing channels and recontouring/revegetating the mine waste pile	Acid forming or toxic producing mined materials must be handled and disposed in a manner that will control unsightliness and protect the surface and groundwater drainage system from pollution.	Reclaiming mined lands.	MLRB Regulations, Rule 3.1.5(5), (10), (11) Contact: Colorado Hazardous Materials and Waste Management Division (CDPHE)

Constructing channels and recontouring/ revegetating the mine waste pile	Reclamation activities must take into account the safety and protection of wildlife on the mined site and along access roads with special attention given to critical periods in the life cycle of species requiring special consideration (elk calving, migration routes, peregrine falcon nesting, grouse strutting grounds).	Reclaiming mined lands.	MRLB Regulations Rule 3.1.8 Contact: Colorado Hazardous Materials and Waste Management Division (CDPHE)
Constructing channels and recontouring/ revegetating the mine waste pile	Any grading shall be done in a manner to control erosion and siltation and protect from slides and other damage. High walls shall be stabilized or eliminated. Grading shall create a final topography appropriate to the future land use. Slopes and slope combinations shall be compatible with the configuration of surrounding conditions and future land use.	Reclaiming mined lands.	MLRB Regulations Rule 3.1.5(1), (3) Contact: Colorado Hazardous Materials and Waste Management Division (CDPHE)
Constructing channels and recontouring/ revegetating the mine waste pile	Backfilling shall ensure adequate compaction for stability and prevent leaching of toxic or acid forming materials.	Reclaiming mined lands.	MLRB Regulations Rule 3.1.5(2) Contact: Colorado Hazardous Materials and Waste Management Division (CDPHE)
Conducting activities generating dust.	Establishes regulations concerning fugitive emissions from construction activities, storage and stockpiling activities, haul trucks, and tailings ponds	Conducting activities generating dust.	Colorado Fugitive Dust Control Plan/Opacity, Regulation No. 1, 5 C.C.R. 1001-3(III)(D)(2)(b),(h) (Particulate Matter – Construction Activities), pursuant to Colorado Air Pollution Prevention and Control Act, C.R.S. § 25-7-101 <i>et seq.</i> Contact: Colorado Hazardous Materials and Waste Management Division (CDPHE)

Managing storm water runoff during response action activities.	<p>The Colorado Discharge Permit System general permit COR40000 includes the following substantive requirements:</p> <ol style="list-style-type: none"> Control measures must be installed before the commencement of activities at the site that could contribute pollutants to stormwater discharges. Such control measures should minimize the discharge of pollutants at the site. The control measures must meet the following requirements: <ol style="list-style-type: none"> Where vehicle tracking occurs, vehicle tracking controls that minimize vehicle tracking of sediment from disturbed areas. Containment or filtration of stormwater flows from disturbed areas and soil storage areas, such that flows from such areas must go to at least one control measure. Where there are discharges from basins and impoundments, outlets that withdraw water from or near the surface (unless infeasible). Maintenance of pre-existing vegetation or equivalent control measures for areas within 50 horizontal feet from receiving waters. Minimization of soil compaction where there are infiltration control measures, or final stabilization, from vegetative cover. In areas where vegetative final stabilization is utilized, preservation of topsoil (unless infeasible). Minimization of soil exposed during construction activity. Where there is bulk storage of liquid chemicals (including petroleum products), secondary containment or equivalent protection. Concrete washout control measures sufficient to ensure the washing activities do not add pollutants to stormwater runoff or receiving waters. Discharges to the ground of concrete washout waste must go through soil with buffering capacity, and cannot occur in areas near natural drainages, shallow groundwater, springs, or wetlands. For earth disturbing activities, temporary stabilization measures such as tarps, soil tackifier, and hydroseed, which must be implemented wherever construction activity disturbed the ground and has ceased for fourteen days or is permanently ceased. For all construction sites after all ground surface disturbing activities have ceased, final stabilization that achieves vegetative cover with plant density at least 70% of pre-disturbance levels, or an equivalent stabilization measure. All control measures must remain in effective operating condition and be protected from activities that would make them less effective. The adequacy of control measures must be monitored, and corrective action must be taken when a measure becomes inadequate. 	Discharging storm water from a construction activity.	<p>Colorado Discharge Permit System (CDPS) Regulations 5 C.C.R. 1002-61.3(2)(a), (b), (d), (e), (f), (g), (j), (k), and CDPS general permit No. COR400000 (Stormwater discharges associated with construction activity), pursuant to C.R.S. § 25-8-501</p> <p>Substantive provisions of permit available (as of June 28, 2024) at:</p> <p>https://drive.google.com/file/d/1Cs_nfVYo-sTVmStX9pwtnpKoN7DYmumYP/view</p> <p>Contact: Colorado Water Quality Control Division (CDPHE)</p>
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	<p>4. Discharges may not cause, have the reasonable potential to cause, or measurably contribute to an exceedance of any applicable water quality standard.</p> <p>5. Site inspections with one of the following minimum frequencies:</p> <ul style="list-style-type: none"> a. One per every 7 calendar days b. One per every 14 calendar days, and post storm event inspections within 24 hours after the end of any precipitation or snowmelt event that causes surface erosion. c. If the two options above are impractical, an alternate schedule. d. If the site is temporarily idle or completed, less frequent inspections depending on the circumstances. 		
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