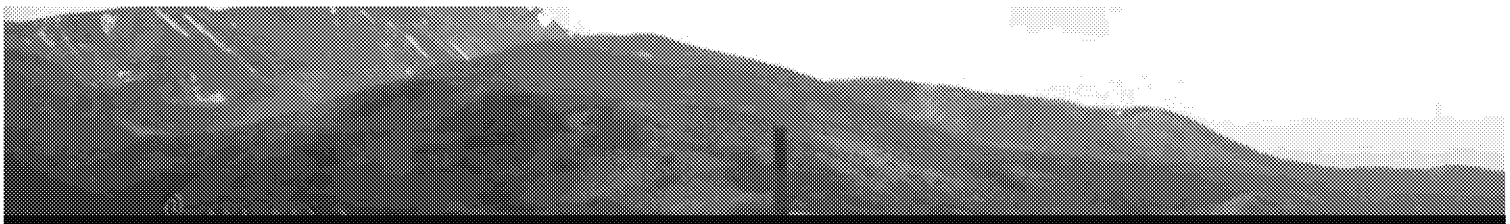

# Proposed Plan to Amend the 1998/2011 Record of Decision

## Anaconda Regional Water, Waste and Soils Operable Unit

### Anaconda Smelter Superfund Site, Anaconda, MT

United States Environmental Protection Agency

**# MTD093291656** **July 2019**

This proposed plan presents the U.S. Environmental Protection Agency's (EPA's) proposed changes to the existing 1998 Record of Decision (ROD), as modified by the 2011 ROD Amendment for cleanup of surface water in the Anaconda Regional Water, Waste, and Soils Operable Unit (ARWW&S OU) of the Anaconda Smelter Superfund Site (the Site). The 1998 ROD and 2011 ROD Amendment are referenced collectively as "1998/2011 ROD" herein. This proposed plan has been prepared by EPA, the lead agency for the Site, in consultation with the Montana Department of Environmental Quality (DEQ), the support agency.

This proposed plan, initially released in June 2017, has been revised based on public comments received. Those comments generally disagreed with the proposed waiving of any surface water standards prior to the implementation of remedial action. EPA's response to public comments is provided in a *responsiveness summary.*

A proposed plan is required as part of EPA's public participation responsibilities under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA, or Superfund) and National Oil and Hazardous Substance Pollution Contingency Plan (40 Code of Federal Regulations Part 300). This is the federal regulation that guides the Superfund program. This proposed plan includes:

- Brief overview of the history and characteristics of the ARWW&S OU
- Description of the current surface water remedy, the need for modification of the 1998/2011 ROD, and EPA's proposed modification
- Comparison of the proposed modification with the current remedy
- Information on how the public can provide input on the proposed plan within the 45-day public comment period
- Sources for documents and other information

**Public Comment Opportunities**

The release of the proposed plan starts the 60-day public comment period

**July 15 through September 1, 2019**

See page 11 for how to provide comments and where and when the public meetings will be held.

All information received during the public comment period will be carefully reviewed. If significant new information is received, it could result in selection of a final ROD Amendment that differs from the proposed modification described in this plan. In consultation with DEQ, EPA will select the final modifications to the current remedy and will prepare an ARWW&S ROD Amendment that documents any changes to the 2006/2011 ROD. Public comments will be answered in a responsiveness summary that will be part of the 2019 ARWW&S ROD Amendment. Any changes will be reflected in the legal instruments, which will implement the remedial decisions made.



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## Site Background and Description

The Site is in the Deer Lodge Valley in southwestern Montana, in and around the city of Anaconda. Milling and smelting activities conducted in the area for nearly 100 years resulted in the contamination of soils, surface water, and ground water, primarily through airborne emissions and disposal practices from smelting operations. The primary contaminants of concern are arsenic, cadmium, copper, lead, and zinc. Exhibit 1 shows the timeline for smelting activities at the Site.

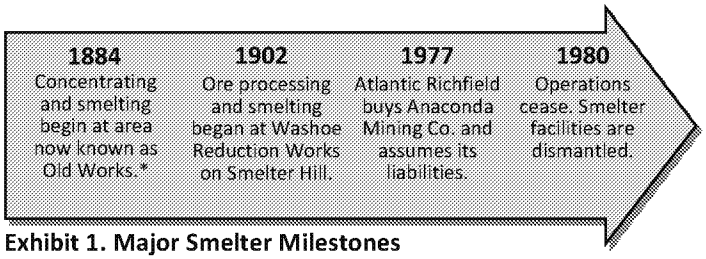


**Exhibit 1. Major Smelter Milestones**

The Site was added to EPA's National Priorities List in 1983, under Superfund authority. The Atlantic Richfield Company was identified as the primary potentially responsible party. Since then, Atlantic Richfield has been actively involved in the investigation and cleanup of the following five Anaconda Smelter OUs (listed in order of cleanup):

1. **Mill Creek OU (1987 ROD)**. Cleanup involved relocating residents from Mill Creek and stabilization of soils.

2. **Flue Dust OU (1991 ROD)**. Cleanup addressed flue dust on Smelter Hill through removal, treatment, and containment. At the same time, Arbiter and beryllium wastes were similarly addressed through removal, treatment and containment. The above wastes are contained within the Smelter Hill Repository Complex.

3. **Old Works/East Anaconda Development Area (OW/EADA) OU (1994 ROD)**. Cleanup addressed waste sources within the Old Works smelter facility.

4. **Community Soils OU (1996 ROD, 2013 ROD Amendment).** Cleanup addressed residential and commercial soils contaminated with arsenic and lead in Anaconda, Opportunity, and the surrounding area.

5. **Anaconda Regional Water, Waste, and Soils (ARWW&S) OU (1998 ROD, 2011 ROD Amendment).** Provides for cleanup of all remaining contamination, including large volumes of wastes, slag, tailings, debris, and contaminated soil, ground water, and surface water spread over 170 square miles of agricultural, pasture, rangeland, forests, and riparian and wetland areas in nine subareas (Exhibit 2).

The ARWWS OU surface water remedy is the subject of this proposed plan.

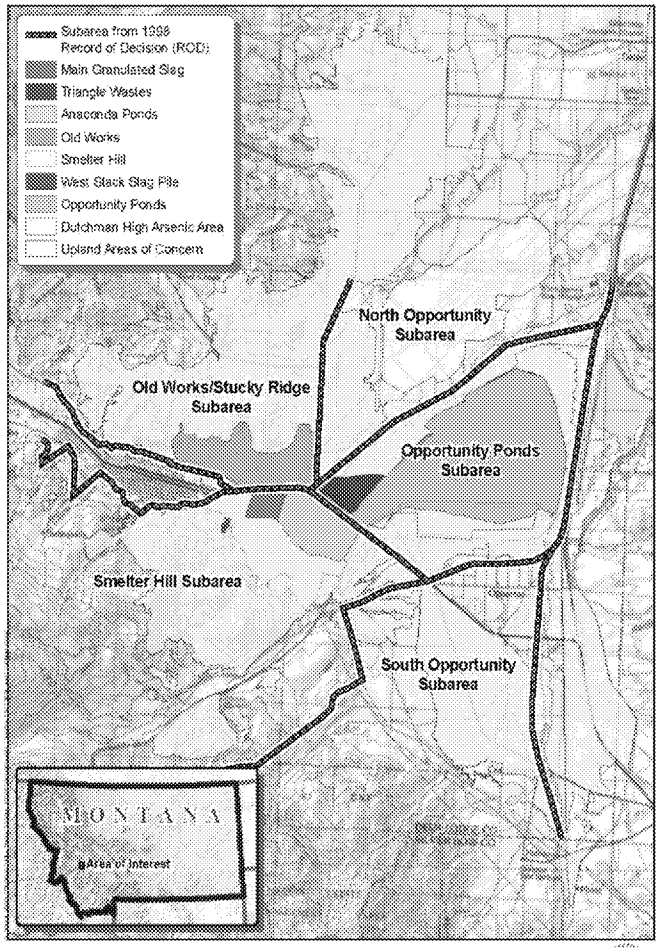


**Exhibit 2. Site Layout**

## Nature and Extent of Surface Water Contamination

The original 1998 ROD identified cleanup requirements for Mill, Willow, and Warm Springs Creeks. The 2011 ROD Amendment added Lost Creek and California Creek. Exhibit 3 shows these streams and their drainages and identifies the technical impracticability evaluation area which is approximately 170 square miles.

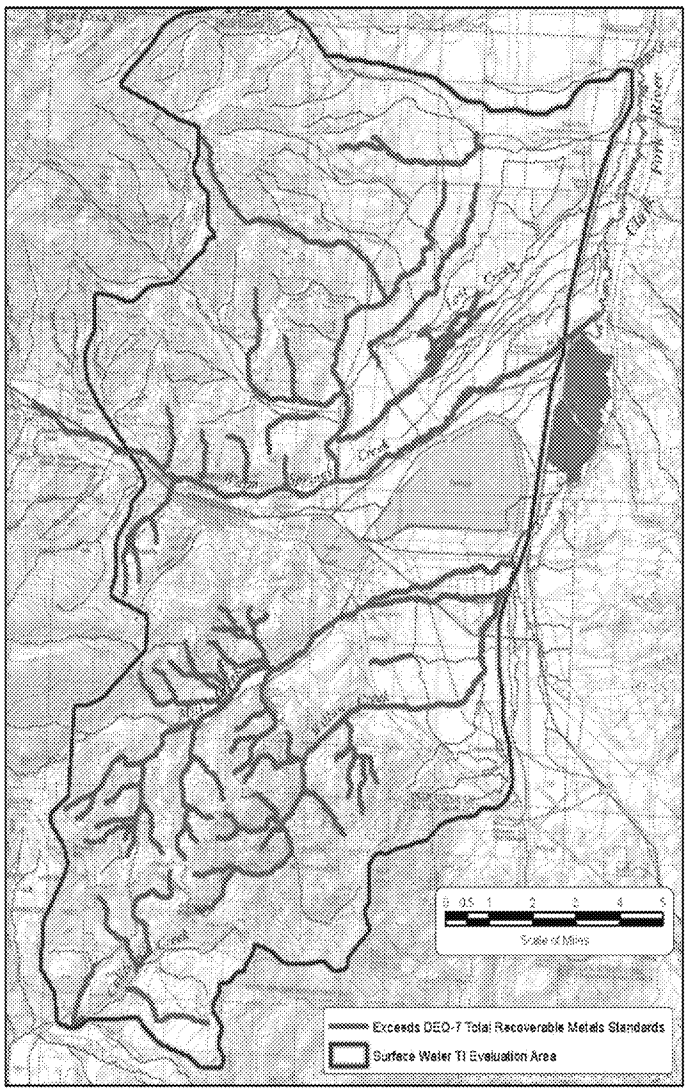


**Exhibit 3. Stream Reaches That Have Exceeded DEQ-7 Total Recoverable Metals Standards**

Surface water monitoring has been conducted since the early 1990s, resulting in a database of nearly 2,000 metals samples. Under the technical impracticability evaluation, additional high-flow, storm-flow, and sediment sampling was conducted in 2013. In 2014, additional soil sampling based on vegetation condition was performed to better understand the source of metals loading to streams during runoff events.

Data show that State of Montana water quality standards, which are based on total recoverable analysis, are routinely exceeded in all the Anaconda Smelter site steams and tributaries during high flows and storm events (Exhibit 3). Specifically, standards for copper and lead, and to a lesser extent cadmium, are exceeded during these events. Tributaries generally have higher exceedance rates than the main streams. Under base flow conditions, copper only periodically exceeds State standards.

The conceptual site model developed under the technical impracticability evaluation, to help understand how and why water quality varies across seasonal flow patterns in the streams, indicated that:

- Surficial soils are contaminated with metals from aerial deposition of past smelter emissions.
- Runoff from the uplands is contaminated with these metals during spring snowmelt and periodic storm events resulting in higher suspended sediment and total recoverable metals concentrations (copper, lead and (less often) cadmium).
- Both state and federal water quality standards are hardness-based. Water hardness decreases during wet weather events, resulting in lower calculated standards and consequent increased exceedances.
- During base flow when ground water recharge supplies most surface water flow, exceedances are less frequent.

This suggests that runoff of sediment is the most important pathway of metals to surface water. Exhibit 4 defines the flow regimes at the Site.

- **Base flow.** Times when groundwater inflow comprises the greatest percentage of flow within surface water. Both surface water and groundwater flow vary seasonally, but base flow generally occurs in late summer and winter when surface water conditions are stable (i.e., not rising or falling and stormwater or snowmelt runoff is not occurring).
- **Normal high flow**. Normal flow that increases above base flow when the regional winter mountain snowpack melts and there are no local wet weather events. In general, the highest concentrations of contaminants are associated with normal high flows.

**Exhibit 4. Flow Regimes at the Anaconda Smelter Site**

## Summary of Site Risks

The contaminants of concern identified in the 1998 ROD are: arsenic, lead, cadmium, copper and zinc. Human health risk from exposure to impacted surface water is minimal, because concentrations of cadmium, copper, lead and zinc are below human health standards in area streams. Arsenic concentrations in surface water that exceed human health standards were waived in the 2011 ROD amendment (but remain for aquatic life standards).

Based on the 1998 ROD, potential ecological risks to aquatic receptors were identified based on contaminant concentrations and exposure criteria. Acute and chronic ambient water quality criteria for both total recoverable and dissolved metals were evaluated in surface water and sediments. These criteria also provided the acceptable range of risk to metals in surface water and sediments, with total recoverable metals being more conservative than dissolved.

The primary ecological risk to surface water and sediment at the Site is the periodic exceedance of acute and chronic ambient water quality criteria.

## Previous Cleanup Activities

Major components of the original remedy include:

1. Reclamation of contaminated soils and engineered storm water management options to control overland runoff into surface waters.
2. Selective source removal and stream bank stabilization to minimize transport of fluvial deposited tailings into surface waters.

Since 2000, the Atlantic Richfield Company, under the direction and authority of the EPA and Montana DEQ, has been completing remedial designs and implementing remedial actions throughout the nearly 170 square miles of land impacted by smelter emissions and mining and smelting waste deposition in the ARWW&S OU (Exhibit 5). Surface water monitoring is also being conducted by the U.S. Geological Survey at two locations on each of the four major streams that drain the Site (Mill Creek, Lost Creek, Willow Creek, and Warm Springs Creek).

**Exhibit 5. Remedial Action Construction Example**

Remedial actions to address contaminants have been implemented on more than 11,500 acres of the site. Specifically, sparsely-vegetated soils and mining wastes have been treated or covered and revegetated and controls to manage storm water runoff have been constructed.

Remedies have been completed in the most contaminated areas of the Site (waste management areas and surrounding valley lowlands) where heavy equipment can be readily used. Remaining remedies are still required in the upland areas where steep slopes will limit the use of heavy equipment for construction.

## Applicable or Relevant and Appropriate Requirements

Applicable or relevant and appropriate requirements (ARARs) are existing laws and regulations that a Superfund cleanup must meet on its way to being

protective of human health and the environment. They vary from site to site and include standards, requirements, criteria, and limitations.

ARARs fall into two categories:

- **Applicable**. Pertains directly to the site.
- **Relevant and Appropriate**. Addresses a contaminant or situation that is similar enough to the site to be considered "well-suited" for use at the site.

A cleanup must comply with site-specific ARARs unless there is a reasonable justification to allow part or all of the ARAR to be legally waived pursuant to the CERCLA law. While CERCLA does not require permits for any removal or remedial action work conducted wholly on-site, it does require that work complies with substantive permit requirements.

## Surface Water Remedial Action Objectives

This proposed plan only addresses the surface water remedy of the 1998/2011 ROD. As such, the following remedial action objectives generally remain unchanged:

- Minimize source contamination to surface waters that would result in exceedances of State of Montana water quality standards.
- Return surface water to its beneficial use by reducing loading sources of contaminants of concern.

## Current Surface Water Remedy

Major components of the current remedy for surface water identified in the 1998/2011 ROD are as follows:

- Reclamation of contaminated soils and engineered storm water management options to control overland runoff into surface waters.
- Selective source removal and stream bank stabilization to minimize transport of contaminants of concern from fluvially deposited tailings into surface waters. Removed material will be place within a designated Waste Management Area.

These requirements led to the development of the following actions at the Site:

- Soil removal
- Soil remediation (*in-situ* treatment and revegetation)
- Steep slope reclamation (revegetation and on-slope best management practices [BMPs])
- Storm water BMPs (check dams and erosion controls in drainages)
- Engineered storm water controls (retention/detention basins)

## Why Modification is Needed

Despite the extensive work completed to date, certain streams do not meet State of Montana acute and chronic aquatic life standards (Circular DEQ-7, October 2012) for surface water. The 1998/2011 ROD identified contingency actions for surface water if it was determined—after completion of remedial actions—that applicable water quality standards cannot be achieved.

Those contingency actions are:

1. An analysis of the technical impracticability of achieving further contaminant reduction and the potential waiver of the water quality standard.
2. Re-evaluation of remedial technologies for treatment of surface water.
3. Consideration of additional BMPs.

In recognition of this, EPA and DEQ directed Atlantic Richfield to complete a technical impracticability evaluation to determine if those standards could be achieved with additional work. That evaluation, the *ARWW&S OU Surface Water Technical Impracticability Evaluation Report*, was completed in April 2017. The report concludes that that it may be difficult to achieve these standards, even with additional remediation.



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The possibility of treatment of surface water was evaluated in previous surface water technical impracticability evaluations (summarized in the 2011 ROD amendment). Treatment was determined to be impracticable due to cost and inordinate impact to the environment (construction of water treatment plants, conveyance channels, and large holding ponds). Thus, surface water treatment alternatives are again dismissed from further consideration.

Additional large-scale removal of contaminated soil was also ruled out, based on the results of the 2017 technical impracticability evaluation and visual inspections of the Site by EPA and DEQ. Such aggressive actions to address what are low level contaminated soils would entail destruction of extensive stands of mature vegetation (see Exhibits 6 and 7) which would cause unnecessary and potential irreparable harm to the environment for relatively low benefit). Thus, soil removal alternatives are dismissed from further consideration.

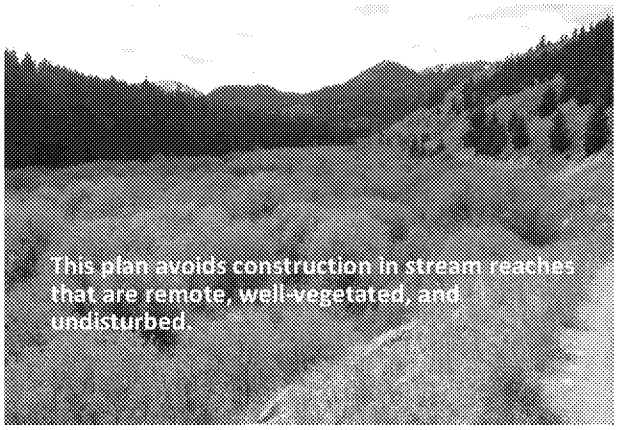


**Exhibit 6. Upper Willow Creek Within the Evaluation Area**

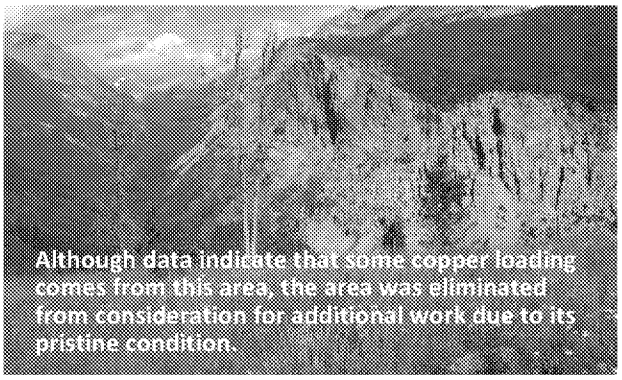


**Exhibit 7. Upper Mill Creek Outside of the Evaluation Area**

Additionally, large scale soil treatment, such as that currently being implemented in the southern Deer Lodge valley, is determined to be technically impracticable in this mountainous region due to limited accessibility and steepness of slopes. Thus, this alternative has been dismissed from further consideration.

Because active water treatment and large-scale removal or treatment of soils was determined impracticable, the technical impracticability evaluation focused on additional engineered controls, storm water BMPs, and steep slope reclamation. Enhancements to existing steep slope reclamation remedies include aerial application of seed and/or fertilizer to improve vegetation cover on moderately vegetated to barren steep slopes.

## EPA's Proposed Modification for Surface Water Remedy

EPA's current proposed modification includes one fundamental change to the 1998/2011 ROD. A fundamental change requires a ROD amendment under Superfund guidance, including evaluation against Superfund evaluation criteria. This change is described in detail below. It is the change for which EPA is seeking public comment. The four primary components of the preferred alternative are shown in Exhibit 8.

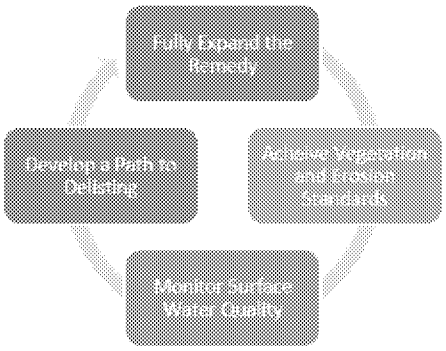


**Exhibit 8. Primary Components of the Preferred Alternative**

### Expand Remedy

EPA's proposed modification would revise the existing surface water remedy's iterative approach to move directly to completion of the *maximum practicable remediation* in the smelter-impacted drainages of the Anaconda uplands. This would speed up remediation by implementing contingency actions concurrent with the construction of the remedy rather than after. The expansion adds roughly 12,417 acres to the existing

23,851 acres already remediated, for a total of 36,268 acres (Exhibit 9).

The added areas are primarily "steep slopes" or areas where the horizontal rise is no more than three times the vertical rise (3H:V1). Steep slopes cannot be accessed by the modified farm equipment used for soil treatment.

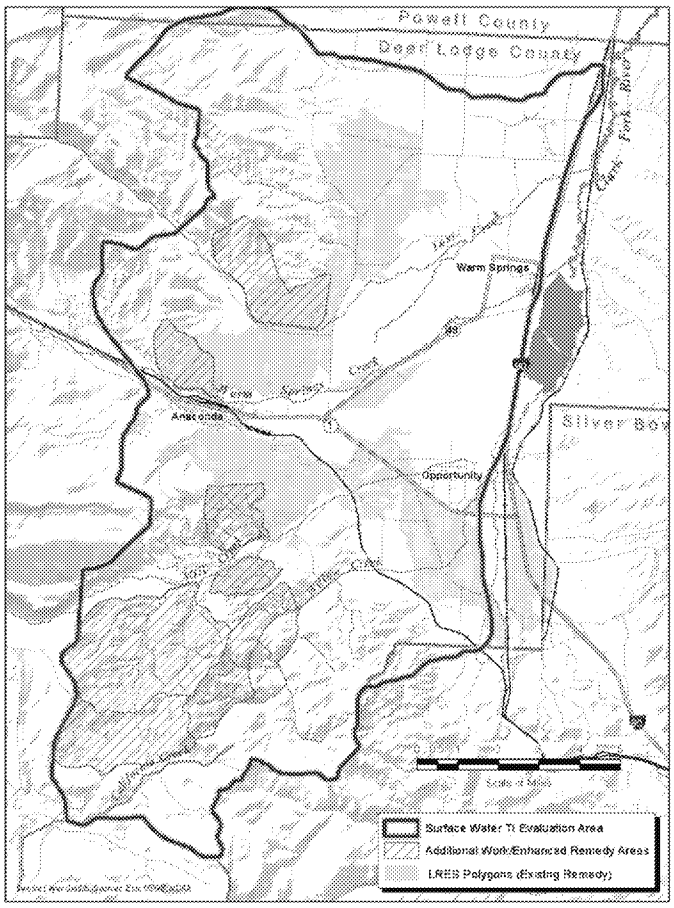


**Exhibit 9. Areas of Additional Work/Enhanced Remedy under the Preferred Alternative**

Work to be completed in these expanded areas includes some or all of the following:

- Hand planting of trees and shrubs.
- Aerial broadcast seeding of grasses and/or fertilizer to improve vegetation cover on moderately vegetated to barren steep slopes.
- Aerial weed control.
- Slope grading and/or creation of dozer basins.
- On-slope BMPs to control slope erosion. These include short-term construction BMPs (straw mulch, wattles, silt fencing, and dozer tracking) and long-term BMPs (soil roughening, surface re-contouring, and dozer basins).
- BMPs in drainage channels (stone, log, or geo-bag check dams; rock grade control structures; geotextile matting; willow fascines; vegetative buffers; and other long-term, permanent BMPs).

The type of steep slope reclamation is dependent on such factors as the degree of erosion, existing plant cover, and whether construction equipment such as excavators and dozers can access the slope.

## Achieve Vegetation and Erosion Standards

This expanded area will have to meet the same vegetation and erosion performance standards used for the existing remedy. These standards ensure that the remediation of surface soils support vegetation, stabilize slopes and reduce erosion of soils.

## Monitor Surface Water Quality

EPA and DEQ will develop a surface water management plan for the ARWW&S OU that details the specifics of the water quality monitoring to be done (frequency, locations, analytical parameters, duration, etc.). Monitoring will be conducted during and following remediation. It will continue for six years after vegetation and erosion performance standards are met.

## Develop a Path for Delisting

At the end of six years, an assessment will be made to determine the effectiveness of the remedy. The surface water monitoring plan will dictate actions to be taken in each creek (Warm Springs, Lost, Willow, and Mill Creeks). Generally, monitoring will cease as the creeks come into compliance. The exception is monitoring at four lower points of compliance in Warm Springs, Lost, Willow, and Mill Creeks for evaluating protectiveness under EPA's five-year review.

If a stream reach fails to come into compliance after the maximum practicable remediation has been conducted and soil/vegetation performance standards have been met, the surface water monitoring plan will allow for the standards against which it is measured to be changed due to technical impracticability. State of Montana acute and chronic

aquatic life surface water quality standards will be waived, and Federal ambient water quality criteria will be adopted as performance standards. Both standards are protective of aquatic environments. The difference between these two is described below.

## Surface Water Quality Standards

Surface water quality standards are developed to protect fish and other species that live in aquatic environments. The federal government has developed recommended related criteria under the Clean Water Act (CWA). The CWA allows states to use the federal criteria as state standards or set their own. However, state standards must not be less protective than the federal criteria. The State of Montana chose to set their own water quality standards.[1]

### Differences Between Federal and Montana Surface Water Quality Standards

Surface water may contain a variety of minerals, metals, and other constituents like soil or sediment. Some of these constituents are suspended in water (*particulates*). Others are smaller and become incorporated into water (*dissolved*). A single constituent can be present in both dissolved and particulate forms.

Federal surface water quality criteria for metals are based on analysis of the *dissolved* fraction of the water sample—water that passes through a 0.45-micron filter (Exhibit 10). State of Montana water quality standards are based on the unfiltered or *total* analysis which includes both dissolved and particulate forms.

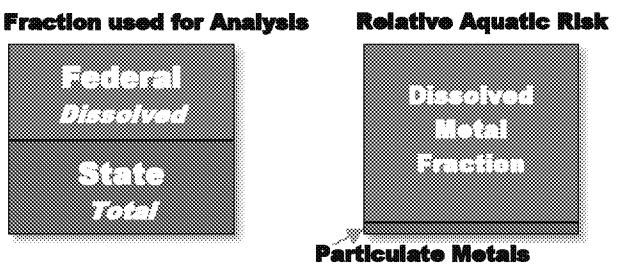


**Exhibit 10. Federal vs. State Surface Water Quality Standards**

### How the Choice of Standard Impacts Fish and Other Aquatic Organisms

Ecological risk is a complicated subject with many variables. Simply put, *dissolved* metals in water impact fish differently than do *particulate* metals and can be the primary cause for metal toxicity. Dissolved metals are more biologically available to fish or other aquatic organisms than particulate metals. They can be more toxic in small amounts and can negatively affect vital operations such as respiration and osmoregulation, reproduction, immune system functions, and organ health.

In contrast, particulates generally do not impact the organism unless they are swallowed (ingested) and digested. A fish can swallow a much greater quantity of metals as particulates without toxic effects. Concentrations of particulates are most often elevated during and shortly after wet weather events, when water runs over the land surface, carrying dirt, debris, and other materials into local water bodies.

### Why Montana Chose a Total Recoverable-Based Standard

In setting surface water quality standards based on total recoverable metal, the State of Montana opted for the *most* protective standards, even though generally the differences in the degree of protectiveness between the federal (dissolved) and state (total recoverable) standards are small. Setting the water quality standard based on the unfiltered (total recoverable) measurement allows the state more control over sediment runoff into the waters of the state. Water quality standards based on the dissolved fraction have been adopted by almost 75 percent of states in the U.S. The federal criteria protect the most sensitive pathway for exposure—uptake of dissolved metals in surface water by fish and other aquatic organisms.

CERCLA allows for state standards to be waived[2] if meeting that standard is found to be technically impracticable. This is the criteria that will be examined under the surface water management plan should a stream reach fail to reach compliance with Montana surface water quality standards after the

[1] *State of Montana, Department of Environmental Quality , Circular DEQ-7, Montana Numeric Water Quality Standards*

[2] Section 121(d)(4)(C) of CERCLA, 42 U.S.C. § 9621(d)(4)(C), referred to as the technical impracticability waiver.

expanded remediation, achievement of vegetation and erosion standards, and six years of compliance monitoring. Similar waivers have occurred for the Clark Fork River, Milltown Reservoir, and Silver Bow Creek/Butte Area Sites.

## Modified Remedy Evaluation

Superfund requires that any fundamental change to an existing ROD be evaluated using the nine criteria used for all RODs (Exhibit 11). Evaluation ensures the modified remedy can meet EPA's mission of protecting human health and the environment.

The modified remedy for surface water remediation is first evaluated against the two threshold criteria. Threshold criteria must be met for an alternative to be considered further. The five primary balancing criteria are then used to compare the 1998/2011 ROD to the modified remedy. Evaluation against the two modifying criteria is not done until after the public comment period ends as comments are an important indicator of public acceptance. Results of the evaluation are presented below.

### Threshold Criteria

#### Protection of Human Health and the Environment

The 1998/2011 ROD and the modified remedy are protective of human health and the environment. Both will continue to meet federal and/or state standards for surface water and sediment (based on total recoverable and/or dissolved). The modified remedy will increase overall protection of the environment through expansion and enhancement of the current remedy.

#### Compliance with ARARs

Both remedies comply with ARARs. The modified remedy adopts a surface water management plan that includes a process to evaluate technical impracticability waivers for the State of Montana water quality standards (Montana Numeric Water Quality Standards, DEQ-7, total recoverable fraction) for arsenic, cadmium, copper, and lead if, after remediation and monitoring, a stream reach fails to come into compliance with those standards.

Tributaries to the Clark Fork River have been identified as critical Bull Trout habitat. EPA has and will continue to consult with the US Fish & Wildlife Service to address any potential adverse effects due to the modified remedy.

**Threshold Criteria**

1. **Overall Protection of Human Health and the Environment.** Are human health and the environment adequately protected by eliminating, reducing, or controlling exposures?
2. **Compliance with ARARs.** Are federal and state environmental statutes, regulations, and other requirements that pertain to the alternative met? If not, is a waiver justified?

**Primary Balancing Criteria**

3. **Long-term Effectiveness and Permanence.** What is the magnitude of residual risk from untreated wastes? Are human health and the environment protected over time?
4. **Reduction of Toxicity, Mobility, or Volume of Contaminants through Treatment.** Is treatment used to reduce harmful effects of principal contaminants, their ability to move, and the amount of contamination present?
5. **Short-term Effectiveness.** What is the length of time needed to implement the remedy and what risks are posed to workers, the community, and the environment during implementation?
6. **Implementability.** What are the technical issues and feasibility of implementation, such as availability of goods and services?
7. **Cost.** What are the estimated costs?

**Modifying Criteria**

8. **State/Support Agency Acceptance.** Does the state agree with the proposed modification?
9. **Community Acceptance.** Does the community agree with the proposed modification?

**Exhibit 11. Nine Superfund Evaluation Criteria**

### Balancing Criteria

#### Long-Term Effectiveness and Permanence

The modified remedy will provide greater long-term effectiveness through implementation of enhanced storm water controls and greater permanence through the implementation of enhanced soil treatment and vegetation techniques. Vegetative growth from the current remedy indicates that the vast majority (over 90 percent) of remediated soils support adequate vegetation and have been doing so for up to 20 years in some locations. Thus, it is expected that the revegetation of the preferred alternative will also be permanent in the long-term



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and effective in reducing loading to area streams. The engineered controls inspection and maintenance plan will ensure that storm water engineered controls continue to be effective.

### Reduction of Toxicity, Mobility, or Volume through Treatment

Neither remedy reduces the toxicity, mobility, or volume of contamination through treatment. Treatment alternatives are considered technically impracticable.

### Short-Term Effectiveness

The current remedy for surface water specified an iterative process of constructing remedies, monitoring, and then implementing additional work or conducting a technical impracticability evaluation if standards are not met. The modified remedy would essentially speed up that process by implementing contingency actions concurrent with the remedy. Therefore, the modified remedy would accelerate the cleanup process. Cleanup is anticipated to be completed by 2025.

### Implementability

The modified remedy uses construction practices currently used by Atlantic Richfield. New technologies under consideration for additional work, such as aerial application of fertilizer, have been successfully demonstrated by the State of Montana's Natural Resource Damage Program.

### Cost

The modified remedy is anticipated to cost $20 million and is within the range of cost estimated in the original 1998/2011 ROD.

## Modifying Criteria

### State Acceptance

The State of Montana will make its determination after review and consideration of the information received during the public comment period.

### Community Acceptance

Community acceptance will be assessed based on comments received on this proposed plan.

## Non-Significant or Minor Modifications

Four *non-significant or minor modifications* to the existing remedy are included in this proposed plan. These do not significantly or fundamentally alter the existing remedy. Thus, Superfund guidance requires only that they be recorded in the post-decision document file.

They are presented below to inform the public and stakeholders. EPA and DEQ will carefully consider any public comment on these matters as an amended ROD is developed.

1. **Evaluate long-term management of slag**. Given the lack of long-term use agreements, the 1998/2011 ROD allows EPA and DEQ to re-evaluate and select additional actions (e.g., soil covers) for long-term management of the slag and underlying property. Slag re-use and development will continue to be allowed.

2. **Allow continued waste consolidation into the BP-Atlantic Richfield (Opportunity Ponds) waste management area**. The 1998/2011 ROD allows mining waste from the Butte/Silver Bow Creek, Clark Fork River and Milltown Reservoir sites to be disposed of in the Opportunity Ponds. Additional waste materials from both the Clark Fork River and Silver Bow Creek (Rocker and Ramsay areas) will be allowed to be disposed into the waste management area. Final closure will meet the requirements established for the ARWW&S OU.

3. **Clarify stormwater monitoring requirements**. The 1998/2011 ROD requires stormwater performance monitoring. Based on a comparison of storm water data with current USGS high flow water quality data, EPA and DEQ have determined that the USGS high flow water quality monitoring to be an adequate surrogate for storm water monitoring and measuring acute water criteria.

4. **Finalize remedies for OU 9 (Beryllium) and OU 12 (Arbiter).** Removal actions conducted on Arbiter and Beryllium wastes and subsequent long-term deposition of the waste materials and



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reclamation of the excavated areas have been determined to achieve final remedial requirements of the ARWW&S OU. This determination is documented in the *OU 9/12 Completion Report*. No further action is required for OU's 9 and 12.

## Protectiveness Summary

Based on information available at this time, EPA believes the modified remedy will continue to be protective of human health and the environment, comply with ARARs (in consideration of waivers), and will be cost effective. All other components of the 1998 ROD and 2011 ROD amendment will remain in effect. Once public comments are received, EPA, in consultation with DEQ, will make a final decision. EPA will publish a 2019 ROD amendment providing the rationale for its decision. It will include a responsiveness summary, which provides EPA's responses to comments received during the public comment period.

## Community Participation

### Upcoming Public Meeting

EPA will provide a short presentation about the proposed plan at a public meeting. Please join us. It's a great opportunity to learn.

**ARWW&S Public Comment Meeting**
**August xx, 2019**
**xxxxx Street**
**Anaconda, Montana**
**6:00 to 8:30 p.m.**

If you like, you can provide your comments orally at the public meetings. They will be recorded by a stenographer.

### Providing Written Comment

The 45-day public comment period for the proposed plan runs from **July 15, 2019 to September 1, 2019**.

Please send written comments (regular or email) to:

Chris Wardell
U.S. EPA, Region 8
1595 Wynkoop Street (8OC-PAI)
Denver, CO 80202
ARWWSOUcomments@epa.gov

## Site Contacts

If you have questions or need additional help, please contact the following representatives:

### U.S. EPA, Region 8

- Charlie Coleman, Remedial Project Manager, 406-457-5038, coleman.charles@epa.gov
- Chris Wardell, Community Involvement Coordinator, (800) 227-8917, ext. 312-6062 wardell.christopher@epa.gov

### Montana DEQ

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## Acronyms Used

| | |
|---|---|
| **ARARs** | applicable or relevant and appropriate requirements |
| **ARWW&S** | Anaconda Regional Water, Waste, and Soils |
| **BMPs** | best management practices |
| **CERCLA** | Comprehensive Environmental Response, Compensation, and Liability Act of 1980 |
| **CWA** | Clean Water Act |
| **DEQ** | Montana Department of Environmental Quality |
| **EPA** | U.S. Environmental Protection Agency |
| **OU** | operable unit |
| **ROD** | record of decision |
| **TI** | technical impracticability |



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## Documents

Background information EPA used to prepare this proposed plan came from several sources:

- *EPA Superfund Record of Decision: Anaconda Company Smelter (ARWW&S) OU, Anaconda, MT, 9/29/1998.* PB98-964406. November 1998
- *Record of Decision Amendment, Anaconda Regional Water, Waste, and Soils Operable Unit, Anaconda Smelter National Priorities List Site, Anaconda-Deer Lodge County, Montana.* September 2011. 1211311-R8 SDMS
- *ARWW&S OU Surface Water Technical Impracticability Evaluation Report.* April 2017.
- *Responsiveness Summary of Public Comments to the 2017 Proposed Plan*
- *Supplemental Biological Assessment, June 2019*

This information and other site documents are available in the site record at EPA's office in Helena and at the Community Center in Anaconda (see box).

All public project reports and documents are available for viewing at EPA's website or at one of the document repositories. These are also excellent sources for all sorts of project information (fact sheets, brochures, etc.).

- **www.epa.gov/region8/superfund/mt/anaconda**
- **EPA Superfund Records Center, 10 West 15th Street, Suite 3200, Helena**
- **Arrowhead Foundation, 118 East 7th Street, Anaconda**



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