

**5-YEAR STRATEGIC PLAN
FOR THE
BONITA PEAK MINING DISTRICT SUPERFUND SITE
SAN JUAN COUNTY, COLORADO**



**DRAFT FINAL
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ACRONYMS

BLM	Bureau of Land Management
BPMD	Bonita Peak Mining District
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
EPA	U.S. Environmental Protection Agency
FLMA	Federal Land Management Agency
FS	feasibility study
IROD	interim record of decision
IWTP	interim water treatment plant
O&M	operation and maintenance
OU	operable unit
PRP	potentially responsible party
RA	remedial action
RI	remedial investigation
SMP	site management plan
TVS	Table Value Standards
USFS	U.S. Forest Service

1.0 INTRODUCTION

This Five-Year Strategic Plan was developed as part of the adaptive management pilot study process that is currently being employed at the Bonita Peak Mining District Superfund Site. The Site, located in San Juan County, Colorado, consists of 48 mining-related source areas within five operable units (OUs). The adaptive management process provides a framework for decision-making, documentation, planning, and prioritization of activities to meet overall goals and objectives for the Site. Site background information and details of the adaptive management process selected for the Site can be found in the *Adaptive Management Site Management Plan* (<https://semspub.epa.gov/work/08/100009168.pdf>) (U.S Environmental Protection Agency [EPA] 2020).

1.1 SITE PRINCIPLES AND STRATEGIC PLANNING

The adaptive management decision-making process consists of activities aimed at assisting the project team by providing a strategic direction; focusing Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process implementation on key milestones and results; and helping to manage change. The initial step in strategic planning is to define high-level project goals and objectives. EPA developed their initial goals for the Site in March 2019 (EPA 2019). EPA's primary goal for response work at the Site is:

- Project Goal #1: Improve water quality, with a focus on mine drainage

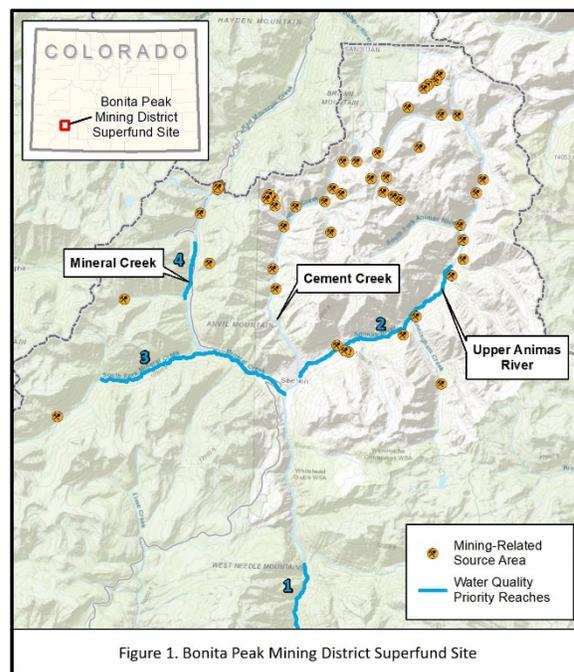
To support improvements in water quality throughout the Site and address impacts from legacy mining activities, EPA established two additional goals:

- Project Goal #2: Stabilize source areas, with a focus on solid media
- Project Goal #3: Minimize unplanned releases

Additionally, EPA established two objectives specific to water quality improvement (EPA 2019):

- Identify achievable actions necessary to meet Table Value Standards (TVS)¹ in the Animas River at a location downstream of Elk Creek
- Improve water quality to meet or exceed state water quality goals in priority reaches

These objectives align with the strategy for sustaining and protecting ecosystems and will achieve desired conditions for water quality as discussed in the *Land and Resource Management Plan* (U.S. Forest Service [USFS] 2013).



¹ TVS are from the Colorado Department of Public Health and Environment's Water Quality Control Commission Regulation No. 31 – The Basic Standards and Methodologies for Surface Water. This regulation establishes acute and chronic aquatic life criteria values for surface water bodies where protection of aquatic life is the designated beneficial use.

EPA established a site strategy by focusing on four priority reaches, as shown in Figure 1. The Site Management Plan (SMP) (EPA 2020) provides details on how these high-level goals, objectives, and strategies were selected.

The second step in strategic planning involves developing interim milestones (Section 3) and anticipated activities (Section 4) with specific timeframes to guide project planning and demonstrate progress in advancing the site strategy and achieving the goals and objectives for the Site. Strategic planning includes both annual and out-year planning activities. EPA elected to conduct out-year strategic planning on a five-year basis (EPA 2020).

1.2 PLAN PURPOSE

The purpose of this plan is to present results of the five-year BPMD strategic planning process for fiscal years 2021 through 2025. The BPMD five-year strategic planning process was initiated in 2020 in parallel with the development of the SMP. As part of this process, the six internal EPA workgroups involved with the Site met individually during planning board meetings to identify near-term and out-year milestones to achieve the site principles (i.e., goals, objectives, and strategies). The milestones were planned and arranged to facilitate the CERCLA process and accommodate anticipated funding and resource allocations on an annual basis. Other BPMD agencies that provided input to this plan include the Bureau of Land Management (BLM), State of Colorado, and USFS.

This plan will be updated every 5 years to detail activities that will be accomplished in the next 5-year period. The next plan is anticipated to be released in 2025 for fiscal years 2026 through 2030.

1.3 PLAN ORGANIZATION

This plan is organized to present the following topics:

- Section 1 – Introduction
- Section 2 – Summary of results from work executed under the previous five-year strategic plan
- Section 3 – Established milestone(s) and priority actions for each site goal and objective
- Section 4 – Sequence of activities and a general timeline for completion
- Section 5 – References

1.4 ANNUAL PROJECT PLANNING

During the annual fall interagency planning meeting, EPA and the other agencies will conduct a review of this plan to assist with planning activities for the following year. Project workgroups will establish a list of tasks to meet established milestones and present them in the annual task list.

2.0 SUMMARY OF RESULTS

As part of the adaptive management process, EPA and the other agencies will evaluate progress toward meeting milestones and priority actions discussed in the strategic plan on a five-year basis. This evaluation will include assessing work completed under the current five-year strategic plan and how progress was made toward achieving the site principles.

As this plan is the first five-year strategic plan developed for the Site, there is no summary of results presented in this version. However, details of work performed to date at the site prior to development of this plan can be found at EPA’s website (<https://cumulis.epa.gov/supercpad/cursites/csinfo.cfm?id=0802497>). The next five-year strategic plan, assumed to be developed in 2025 for fiscal years 2026 through 2030, will include a summary of work completed under this plan.

3.0 MILESTONES AND PRIORITY ACTIONS

This section presents the established milestones for each project goal that is anticipated to be completed over the next 5 years. Milestones were developed during EPA workgroup planning board meetings in 2020. Table 1 presents anticipated milestones that will be accomplished for each project goal.

Table 1. Anticipated Milestones For Each Project Goal

Project Goal#1 Improve Water Quality
Complete the OU1 RI/FS for the Upper Animas source areas
Complete the IROD for the Upper Animas fluvial tailings area (Howardsville, Eureka, Kittimac)
Complete the OU1 RI for Upper and Lower Cement Creek source areas
Develop background strategy
Oversee completion of the OU2 – Mayflower RI/FS by the PRP
Complete the OU3 – Bonita Peak Groundwater System Phase 1 RI and first IROD
Complete all 2019 IROD actions and conduct a 5-year review to evaluate implementation and performance of the IROD actions
Continue operations of the IWTP
Complete construction of the repository
Transport IWTP sludge and mine waste from interim actions to the repository
Project Goal#2 Stabilize Source Areas
Perform field surveys at all source areas to identify data gaps and plan data collection activities
Conduct removal actions at source areas to reduce metals loading, as needed
Project Goal#3 Minimize Unplanned Releases
Perform field surveys at all source areas to identify data gaps and plan data collection activities
Conduct removal actions at source areas with elevated potential for unplanned releases, as needed

FS – feasibility study

IROD – interim record of decision

IWTP – interim water treatment plant

PRP – potentially responsible party

RI – remedial investigation

4.0 SEQUENCE OF ACTIVITIES

This section provides details on anticipated activities by agency from 2021 through 2026. Activities were developed to achieve established milestones and sequenced by year based on priority actions, the CERCLA process, enforcement activities, and anticipated funding allocations. An annual task list will be prepared that specifies the tasks planned each year to meet anticipated annual milestones.

Table 2. Anticipated Activities By Agency For Fiscal Years 2021 Through 2025

	2021	2022	2023	2024	2025	
EPA	Complete two to three 2019 IROD actions per year		Complete remaining 2019 IROD actions and prepare the remedial action completion report	Complete a 5-year review on completed 2019 IROD actions		
	Finalize the background strategy	Conduct OU1 RI field activities and data gaps collection				
	Conduct OU1 RI planning and field activities of the fluvial tailings area within the Upper Animas River		Complete the fluvial tailings OU1 RI report	Complete the fluvial tailings focused FS	Complete the proposed plan and IROD for the Howardsville, Eureka, and Kittimac source areas	
	Complete predesign investigation and design activities for the repository	Complete construction activities for the repository Phase I cells and transport sludge from the IWTP	Transport sludge from the IWTP and continue repository O&M			
	Continue conveyance maintenance, operations, and postremoval site control activities at the IWTP					
		Perform removal actions at priority source areas, if needed	Perform removal actions at priority source areas for project goals 2 and 3, if needed			
	Perform oversight of PRP OU2 RI activities			Finalize the PRP OU2 RI report Coordinate preparation of the FS by the PRP for OU2	Finalize the PRP FS report for OU2	
	Conduct Phase 1 OU3 RI planning and field activities	Continue Phase 1 OU3 RI field activities	Prepare an FS for the first IROD for OU3 Continue Phase 1 RI field activities for OU3	Prepare the Phase 1 IROD for OU3 Begin Phase 2 OU3 RI field activities	Complete the Phase 1 OU3 RI Prepare an FS for a second IROD for OU3	
BLM	Perform operation and maintenance (O&M) activities at BLM source areas, data collection and evaluation, and performance evaluation measurement plan (PEMP) review and update as needed.					
	Support 2019 IROD actions on BLM land	Support 2019 IROD actions on BLM land at Mammoth, following EPA actions	Support 2019 IROD actions on BLM land following EPA actions	Support 2019 IROD actions on BLM land following EPA actions, as applicable		
	Provide technical support to DOI solicitors for litigation					
	BLM cadastral survey and site discovery and verification					
	Gunnison Field Office – resource management plan revision					
	Continued support of stream gauges and benthic macroinvertebrates sampling with MSI					

		2021	2022	2023	2024	2025
	Conduct additional characterization in Burrows Creek (RI focus area)					
BLM cont.	Evaluate lidar data gaps					
	Lackawanna O&M & Mighty Monarch removal site evaluation (RSE) and possible removal action (in support of Recreation and Public Purposes [R&PP] transfer to Town of Silverton)					
	Complete 2020 O&M at Forest Queen					
	Complete O&M technical evaluation for Prospect Gulch	Complete O&M for Prospect Gulch (as needed)				
State of Colorado	Complete construction reports for remedial actions (RAs) completed in 2020	Complete construction reports for RAs completed in 2021				
	Complete two to three 2019 IROD actions					
	Complete field surveys at all source areas to assess condition and potential data gaps for project goals 2 and 3					
	Conduct data gap sampling for project goals 2 and 3					
	Begin the draft RI/FS for Amy Tunnel and Legal Tender Tunnel Sites	Complete the draft RI/FS for Amy Tunnel and Legal Tender Tunnel Sites	Perform RA for Amy Tunnel and Legal Tender Tunnel Sites			
USFS	Perform RA at the Brooklyn Mine as part of the 2019 IROD actions				Perform IROD RA monitoring	
	Support Federal Land Management Agency (FLMA) interests					
	Support natural background determination work					
	Conduct a watershed assessment within Mineral Creek					

5.0 REFERENCES

EPA. 2019. *Bonita Peak Mining District, Introducing EPA's Goals*. U.S. Environmental Protection Agency Region 8, Denver, CO. <https://semspub.epa.gov/work/08/100005970.pdf>

EPA. 2020. *Adaptive Management Site Management Plan for the Bonita Peak Mining District, San Juan County, Colorado*. Final. U.S. Environmental Protection Agency Region 8, Denver, CO. <https://semspub.epa.gov/work/08/100009168.pdf>

USFS. 2013. *Land and Resource Management Plan*. BLM Tres Rios Field Office and San Juan National Forest. September. <https://www.fs.usda.gov/detail/sanjuan/landmanagement/planning/?cid=stelprdb5432707>