

Bonita Peak Mining District Site Strategy

February 2020



COLORADO
Department of Public
Health & Environment



EPA's Site Strategy Development: A Collaborative Approach

EPA developed the Site Strategy for the Bonita Peak Mining District Superfund site as a part of the Superfund Task Force Adaptive Management Pilot Initiative. The site strategy prioritizes the investigation and remediation of the 48 sources of mining-related contamination at the site to make progress toward EPA's three goals established in March 2019. EPA collaborated with site partners - U.S. Forest Service, Bureau of Land Management, Colorado Department of Public Health and Environment – to select this site strategy after discussing the many potential site strategy options with community stakeholder groups and considering comments received from these groups.

Site Strategy: A Reach-by-Reach Approach

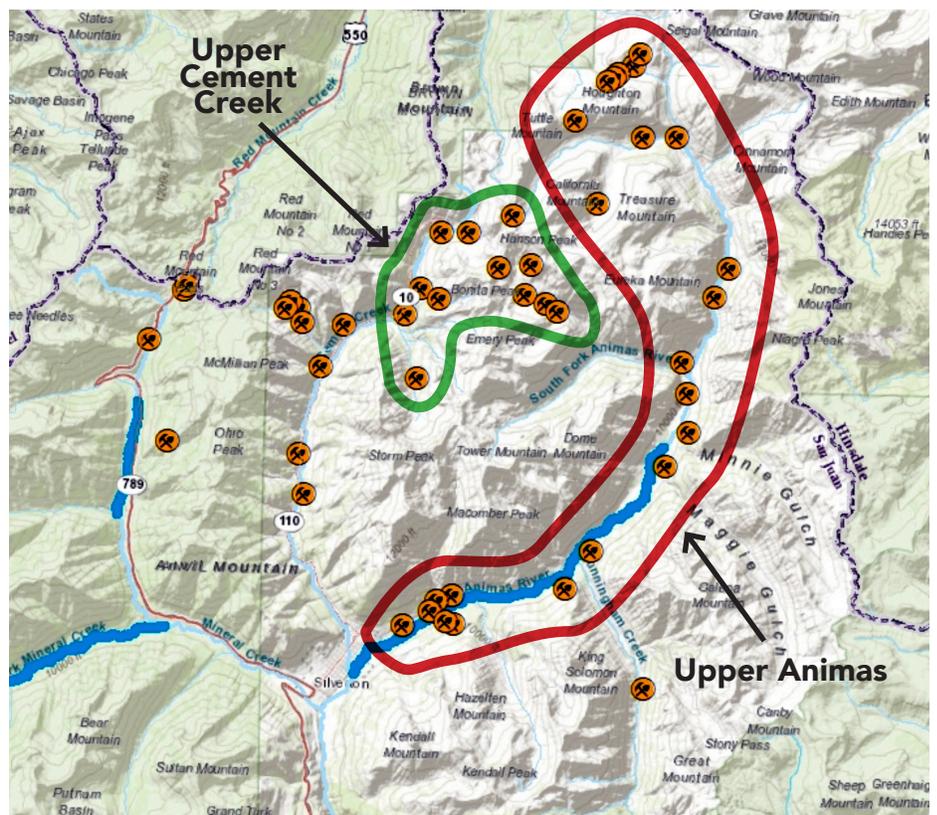
The selected Site Strategy includes continued operation of the interim water treatment plant (IWTP), siting and construction of a sitewide repository, design and construction of the remedial actions specified in the 2019 interim record of decision (IROD), and continued enforcement actions.

Future actions, consistent with EPA site goals, will focus on progress toward water quality improvements in the Animas River. The Upper Cement Creek and Upper Animas reaches both contain sources that contribute significant amounts of metals to the watershed. By focusing on these reaches, EPA will expedite selection of long term remedial solutions to stabilize sources, reduce metal loading into the Animas River, and improve water quality in areas where aquatic life will benefit the most.

Near term efforts will be focused on conducting concurrent Remedial Investigation/Feasibility Studies (RI/FS) in both reaches with the purpose of selecting Superfund remedies. Working with the state, Federal Land Management Agencies, and community stakeholders, EPA will address remaining site reaches (e.g., Mineral Creek), mine drainages, and solid media sources at the site.

EPA's Site Goals

- 1) improve water quality with a focus on mine drainage, 2) stabilize source areas with a focus on solid media, and 3) minimize unplanned releases.



Selected site strategy will focus on the two reaches circled.

CERCLA Remedial Investigation/Feasibility Study (RI/FS)

The objective of the RI/FS is to gather information sufficient to support an informed risk management decision regarding which remedy appears to be most appropriate for a given site or part of a site.

The RI is the process for collecting data to characterize site conditions, determine the nature of the contamination, assess risk to human health and the environment, and conduct treatability testing to evaluate the potential performance and cost of the treatment technologies that are being considered. The FS is the mechanism for the development, screening, and detailed evaluation of alternative remedial actions. Each RI/FS will result in the selection of a remedial solutions.

Following the RI/FS process, remedies will be designed, constructed, and assessed to inform progress towards site goals and future work at the site.

Site Strategy includes these concurrent activities.

Upper Cement Creek RI/FS: EPA will conduct a comprehensive RI/FS of Upper Cement Creek consistent with the site goals and with a focus on determining the feasibility of bulkheading mine drainages that contribute the greatest metals load to Cement Creek. Bulkheads may be used when they are practical and effective for improving water quality and minimizing unplanned releases. EPA may also propose the use of other remedial technologies with or instead of bulkheading depending on site conditions and feasibility. The proposed remedial solutions will be subject to public comment and input.



This engineered, reinforced bulkhead (essentially a plug) controls the discharge of contaminated water from a mine.

Interim Water Treatment Plant: EPA will continue to operate the IWTP to collect and treat mine discharge from the Gold King Mine. Meanwhile, EPA will conduct an RI/FS in Upper Cement Creek to inform the selection of suitable remedies. A final decision on the use of water treatment in Upper Cement Creek will be made as part of the proposed Upper Cement Creek remedial solutions that will be subject to public comment and input.

EPA Upper Animas RI/FS: EPA will conduct a comprehensive RI/FS of the Upper Animas upstream of the Mayflower Tailing Facility. The RI/FS will focus on selecting remediation approaches that align with site goals and the proposed remedial solutions will be subject to public comment and input.

Mayflower Tailing Facility RI/FS: Concurrent with the EPA Upper Animas RI/FS, EPA will continue oversight of Sunnyside Gold Corp's RI/FS at the Mayflower Tailings Facility. RI activities will characterize contaminant source areas and groundwater at the facility. The FS will evaluate remedial alternatives necessary to address the contamination at the facility. The proposed remedial solutions will be subject to public comment and input.



Aerial photograph of waste repository concept at another mine site.

Waste Repository: EPA will continue to assess possible locations for a sitewide repository for waste rock/tailing and IWTP sludge. The site selection process will entail geotechnical and site investigation activities, analysis of alternatives for repository location(s), and concepts. The proposed repository will be subject to public comment and input.

2019 IROD Activities: Remedies selected in the 2019 IROD will be designed and constructed at locations throughout the site. Assessment and monitoring of these remedies will inform future site activities.

Prioritize sites with potential for unplanned releases. EPA will coordinate with the Colorado Division of Reclamation, Mining and Safety (DRMS) to complete an inventory of draining mines and source areas in the district. EPA will prioritize sites with the greatest need for stabilization or potential for unplanned releases. This inventory will inform the need and timing of future actions.

The U.S. Environmental Protection Agency encourages private citizens to participate fully in the cleanup program. To learn more about the Bonita Peak Mining District Superfund Site, visit www.epa.gov/superfund/bonita-peak or to inquire about public involvement opportunities, contact Katherine Jenkins, Community Involvement, (303) 312-6351.