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Bonita Peak Mining District Sitewide Repository Proposed Plan

July 2020

United States Environmental Protection Agency

COLORADO Department of Public Health & Environment

http://www.epa.gov/superfund/bonita-peak

The U.S. Environmental Protection Agency (EPA) is issuing a proposed plan for a sitewide mine waste repository at the Bonita Peak Mining District (BPMD) Superfund Site. The repository is to be located on one or more of the existing tailings impoundments of the Mayflower Mill. The proposed plan provides an overview of the site, alternatives evaluated in the focused feasibility study (FFS), and the preferred alternative.

Public Comment Opportunities

EPA will accept comments on the BPMD sitewide repository proposed plan from July 29 through August 27, 2020.

More detailed information on the repository options evaluated, including a presentation about the proposed plan, are available on EPA's website.

Site Background

The BPMD was listed on the National Priorities List and was designated a Superfund Site in 2016. The site consists of historic and ongoing releases from mining operations in three drainages—Mineral Creek, Cement Creek, and Upper Animas—which converge into the Animas River near Silverton, Colorado.

A sitewide repository is needed for the proper long-term disposal of mine wastes at the BPMD site. Currently, sludge from the interim water treatment plant (IWTP) is stored at Gladstone (adjacent to the IWTP) and capacity there is expected to be exhausted by late 2021 or early 2022. A sitewide repository is needed for permanent disposal of the IWTP sludge to allow for continued operation of the IWTP. Additionally, the repository will be designed to accept mine waste from other response actions such as the planned interim remedial actions described in the 2019 interim record of decision (IROD) as well as future remedial actions.

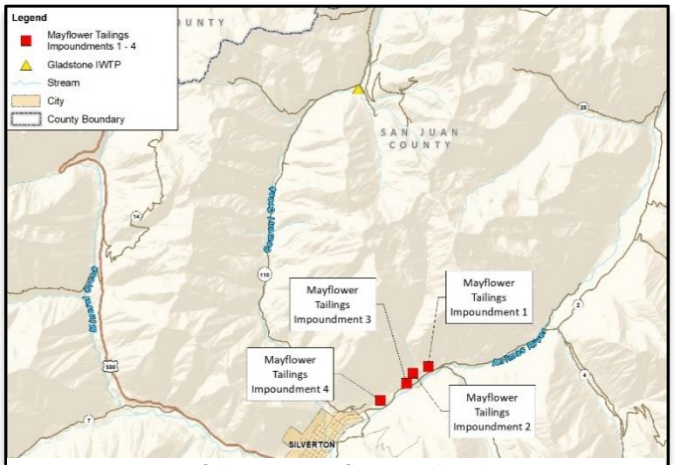

Figure 1. Location of the Four Mayflower Mill Tailings Impoundments Evaluated as Potential Sitewide Repository

The Mayflower Mill tailings impoundments were identified as a favorable location over other sites evaluated as potential sitewide repository locations (**Figure 1**). Reasons for selecting the Mayflower Mill impoundments as a favorable sitewide repository site include:

- The impoundments are centrally located within BPMD with easy access
- The tailings impoundments are already a contaminated site
- The existing impoundments have capacity to store many years' worth of additional mine waste once the repository is constructed

Summary of Alternatives

An FFS was conducted and finalized in June 2020 and compared repository alternatives at the Mayflower Mill impoundments. Each Mayflower Mill repository alternative was evaluated against seven Superfund Evaluation Criteria including overall protection of human health, regulatory compliance, long- and short-term effectiveness, toxicity reduction potential, implementability, and cost.

Common elements for all repository alternatives include:

- Lined drying cell used to dewater mining-related wastes prior to final disposal
- Stockpile cell used to temporarily store mining-related wastes prior to final disposal
- Lined leachate cell that collects leachate from the drying cell and final disposal cell
- Final disposal cell

Table 1. Summary of the Four Mayflower Mill Tailings Impoundments Evaluated as Potential Sitewide Repository Locations in the FFS

REPOSITORY ALTERNATIVES

	Size (acres)*	Max Waste Capacity (ECY)	Years of Sludge Placement
Alternative 1 Repository at Mayflower Impoundment 1	7	67,000	13
Alternative 2 Repository at Mayflower Impoundment 2	4.5	33,800	4
Alternative 3 Repository at Mayflower Impoundment 3	3	22,800	1
Alternative 4 Repository at Mayflower Impoundment 4	21	508,300	128

*Total acreage takes into account a setback along the top of the impoundment to increase stability
ECY = embankment cubic yards

Leachate collected at any repository site will be transferred to the IWTP for treatment. Waste placement would primarily occur in summer and/or fall, after which the repository would be winterized with a temporary cover over the disposal cell as appropriate. Differences between the alternatives are primarily the impoundment location and size as shown in **Table 1**.

Summary of Preferred Alternative

EPA's preferred alternative for a sitewide repository combines Alternatives 1, 2, and 4. It offers a phased implementation approach that meets the human health and regulatory compliance criteria and provides the best balance of tradeoffs with respect to long- and short-term effectiveness, contaminant reduction potential, implementability, and cost as explained below.

The combined preferred alternative would use the Mayflower Mill tailings impoundment 1 as the initial disposal location while impoundment 2 would serve as a waste management site that would hold and dry waste prior to final disposal at the impoundment 1 repository. Tailings impoundment 4 would be reserved for future waste disposal once impoundment 1 has reached its maximum capacity and other future response actions waste-disposal decisions have been made.

Next Steps

EPA will accept comments on the proposed plan from July 29 through August 27, 2020. Before making a final decision, EPA will review comments received during the public comment period. EPA encourages you to review and comment on this proposed plan. EPA's final decision on the remedy for the repository will be announced in local newspapers and presented in a document called an interim record of decision, or IROD. The IROD will include a responsiveness summary that summarizes EPA's responses to public comments on this proposed plan.

For more information or to submit your comments, contact:

Katherine Jenkins, Community Involvement Coordinator
Jenkins.Katherine@epa.gov
(303) 312-6351

Rob Parker P.E., Superfund Remedial Project Manager
Parker.Robert@epa.gov
(303) 312-6664