

Title:

Abstract: The 235-acre Eagle Mine Superfund Site is situated between Gilman and Minturn, in Eagle County, Colorado, and includes the Eagle Mine workings, the town of Gilman, eight former mine tailings piles, Rock Creek Canyon below Highway 24, and at least 14 waste rock piles.

The cleanup plan included flooding the mine workings by bulkheading mine adits, relocating all processed mine wastes and impacted soils to one main on-site tailings pile, capping the TAILINGS pile with a multi-layer clean soil cap, and revegetating all disturbed areas with native plant species. A full-scale water treatment plant was installed by others in 1991 to treat the mine water and contaminated surface and groundwater. Ramboll took over operations of the plant in mid-2010, and after upgrades, the plant was able to reliably operate at 400 GPM to lower the mine pool elevation, which is crucial prior to the spring thaw. Significant upgrades to the plant continue to be performed to ensure reliable operations.

Numerous challenges exist that must be managed to maintain successful operation of the treatment plant. The consistent challenge is the fact that the treatment plant is part of an overall Superfund Site with the administrative, reporting and legal obligations that accompany a Superfund listing. Other challenges include maintaining relations with an active Stakeholder group, changing discharge permit conditions, operation during difficult winters in the Rocky Mountains, maintaining the mine pool elevation at a safe level during snowmelt, conveyance system maintenance, aging infrastructure, wildlife, trespassing, staffing, a changing climate, and a pandemic to name a few. The type and magnitude of the challenges can change abruptly which requires flexibility, ingenuity, patience and persistence from the Responsible Party and the Water Treatment Plant Operator. The Eagle Mine Water Treatment Plant has met these challenges and operated successfully over the years and is taking the necessary steps to prepare for continued successful operation. This presentation will provide an overview of the operations of the treatment plant within the Superfund Site, improvements being made, some of the challenges faced, and the solutions.

Speaker: David Heinze, Sr Managing Consultant, Ramboll US, Denver, CO.