

CUSTOMER CASE STUDY

Silverton Mine Revegetation

San Juan Mountains, SW Colorado



PROJECT OVERVIEW

CUSTOMER:

Bureau of Land Management

PRODUCT(S):

Biotic Soil Amendment, Slow Release Organic Fertilizer with Mycorrhizae Fungi, Humates, Fast-Acting Lime and Pelletized Mulch

LOCATION:

Silverton, Colorado

CHALLENGE:

Soil samples from the sites were analyzed, and results showed that in the waste rock and disturbed areas there were concentrations of metals, very low pH and low organic matter. In addition, the sites were only accessible by rough 4-wheel trails or by foot.

SOLUTION:

In order to promote and sustain revegetation, a custom set of soil amendments and logistics was

designed for this set of sites. This custom solution included fast-acting lime, liquid application of microbiology and soil enhancers, mycorrhizae fungi, humates, as well as Biotic Soil Amendments and native seed. This approach allowed life to return to these dead soils without the need for large quantities of agricultural limestone, which would not have been feasible given the remoteness of these sites.

PRODUCT ADVANTAGES:

- Increased time efficiency and prevented additional environmental impact.
- Able to amend soils with low pH and poor nutrients without importing large quantities of agricultural limestone.
- Deliver value engineering economical solutions to establish vegetation in extremely remote locations.

“After several seeding attempts on some of these sites, the first-year germination and active growth are noted with great success. The bare-ground kill-zone areas and virtually all impacted meadow areas have returned to life.” – NWG Construction, Superintendent

BACKGROUND

Silverton, deep in the San Juan Mountains of SW Colorado, hosts thousands of visitors each year looking to dig deeper into the area’s beauty and rich history. In addition to the Durango-Silverton train ride, rugged 4-wheel roads, hiking trails and other recreational activities, Silverton is known for its historic mining industry. Many of these sites, initially mined in the late 1800s, are now being reclaimed with a focus on reducing impact on nearby water and native re-vegetation.

PROJECT SCOPE

Over the last several years, the Bureau of Land Management (BLM) has identified several high-priority locations above the historic mining town of Animas Forks, including the Sunbank meadow and Lewis Lake waste dump site. Typical scope of work has included waste rock and tailings remediation, re-contouring, and now final stabilization/revegetation. The contractor began to work with Ferguson Waterworks in the summer of 2022 to evaluate and prescribe the best options for quicker and more sustainable results with workable processes given complex logistics.

METHOD

This approach is one of many value-engineering solutions that Ferguson Waterworks has developed to provide effective in-situ mine reclamation. Working with the contractor, aerial support was brought in, and 32,000 pounds of materials were air-lifted from the valley floor to the high-mountain sites, greatly increasing time efficiencies and preventing additional environmental impacts. Hand and small equipment were then used to apply the prescribed mixes and seeds.

THE SOLUTION: FERGUSON WATERWORKS

Innovative, value-engineered solutions were developed for the contractor and, ultimately, for everyone to enjoy a better environment on public lands (BLM). Ferguson Waterworks' approach of comprehensive project management was implemented from the planning phase, with budgeting, implementation, and on-site support during the job, as well as follow-through with monitoring and evaluation.