CUSTOMER CASE STUDY

Grizzly Creek Fire Reclamation

Glenwood Springs, CO

FERGUSON WATERWORKS

PROJECT OVERVIEW

CUSTOMER:
White River National Forest

PRODUCT(S):
Pelletized Organic Fertilizer

LOCATION:
Glenwood Springs, CO

CHALLENGE:

The Grizzly Creek Fire's severity nearly destroyed all organic matter, the seed bank and microbiology in the soil. The sub-soils remaining were highly compacted and hydrophobic. Approximately 32,000 acres were burned in this fire in the remote mountains of Glenwood Springs, making access to revive the soil inconceivable.

SOLUTION:

Ferguson Enterprises teamed up with the White River National Forest to develop a pelletized fertilizer which could be aerially applied by helicopter.

PRODUCT ADVANTAGES:

- Increase soil organic matter and water holding capacity with microbially available carbon sources
- Balance the mineral and chemical profile of the soil for optimal revegetation by re-inoculating the soil microbial population with a diversity of both bacterial and fungal organisms
- Increase germination of seed and ongoing sustainable establishment of perennial grasses, shrubs and forbs in post fire and other
- Pelletized form factor suitable for aerial application

"This product was developed for application in post-fire restoration. Having the ability to apply a soil amendment that could be applied uniformly in remote landscapes allowed for restoration of land impacted by devastating forest fires." – USFS

BACKGROUND

In August of 2020, during one of the most severe droughts and fire seasons in history, approximately 32,000 acres of the White River National Forest burned near Glenwood Springs, Colorado near I-70. One year later, during historic monsoon rains, enormous debris and mud flows from the burn areas caused severe loss of topsoil and closed I-70. In the most severe burn areas, there has been little to to no regrowth of native vegetation in over two growing seasons.

PROJECT SCOPE

Ferguson worked hand in hand with the Forest Service and a local fertilizer manufacturer to develop a fertilizer later named the "Forest Floor Regenerator" to be applied by helicopter over 73 acres in 3 test sites. Fire reclamation and restoration projects are remote, labor intensive and costly. It was the goal of the Forest Service to find a solution that can be used in future events to avoid the devastation of the aftermath to the civil infrastructure and waterways when a fire is followed by extreme floods.

METHOD

Three test plots were proposed: 1.) The first test plot was covered with just wood chips to perform erosion control. 2.) Forest Floor Regenerator applied to provide organic matter to the soil. 3.) Both the Forest Floor Regenerator and wood chips were applied. The Forest Service did not apply seed to any of the test plots, relying on the seed bank and neighboring unaffected areas to provide sufficient germination with the assistance of the organic matter and erosion control.

THE SOLUTION: FERGUSON WATERWORKS

The Forest Floor Regenerator was successfully produced as specified, and the application succeeded perfectly, landing much-needed amendment directly to the forest floor through dead slash and debris because it was pelletized. Also, after a minimal amount of rain, the pellets dissolved as planned, providing maximum soil contact. USFS has set up monitoring stations to evaluate the soil temp and moisture through the next growing seasons. At this time the plot which used both the Forest Floor Regenerator and wood chips has proved most successful in providing vegetation.

For more information, ask an expert: Laura Finch (720) 557-5842