

CASE STUDY

# UPRR Big Spring Slope Protection

Big Spring, TX

**FERGUSON**  
WATERWORKS



## PROJECT OVERVIEW

### PRODUCT:

ProGanics DUAL and Presto  
GEOWEB

### CUSTOMER:

Union Pacific Railroad  
(UPRR)

### ENGINEERS:

Profile & Presto

### CONTRACTOR:

LRL Construction

### CHALLENGE:

The Project was located on the east side of the train tracks. Prior to the GEOWEB installation, erosion and sheet flow were washing soil into ballast and train tracks. Once the natural hillside was stabilized, a soil test was completed to assess the organic conditions of the on-site material. The soil's organic content was shallow, and an erosion control solution would be required to protect the slope during/ after construction.

### SOLUTION:

In an effort to confine the imported soil, 6" GEOWEB was stretched downslope on top of a nonwoven fabric. The nonwoven fabric improved drainage and material separation. Next, ProGanics DUAL was hydraulically applied as a single-step solution to optimize soil conditions while providing high-performance erosion control and protection from near-storm events.

### **PROJECT GOALS:**

Stabilize and revegetate the steep slope/embankment with poor soil conditions to achieve sustainable, long term results.

### **SITE CONDITIONS:**

In situ, the material consisted of hard clays with little to no organic matter. The 2:1 slope was not stabilized and showed significant signs of reeling and erosion.

### **CONSTRAINTS:**

The project called for 6" of imported fill to be laid on the 2:1 slope. The exposed soil was subject to washing out upon the next rainfall event. The goal was to contain the imported fill while mitigating soil loss until adequate vegetation was achieved.

For more information, ask an expert: [info@ferguson.com](mailto:info@ferguson.com)