

WALLER COUNTY, TEXAS

# Harvey Ditch stabilization



**Industry:** Water  
**Sub-industry:** Flood mitigation  
**Location:** Waller County, Texas  
**Product:** **PROPEX® Armormax®**  
**PROPEX Scourlok®**

Harvey caused the roadside drainage ditch to experience erosion and slope instability, reducing the channel's capacity.

The severe erosion and reduction in channel capacity prompted BKDD to pursue permanent erosion protection.

## Overview

Brookshire-Katy Drainage District (BKDD) maintains a drainage channel that runs along Stalknecht Road in Waller County, Texas. Extreme stormwater flows caused by Hurricane

**PROPEX Scourlok can be filled with on-site soil, reducing the number of trucks transporting materials to the site, thus reducing carbon emissions.**

## CASE STUDY

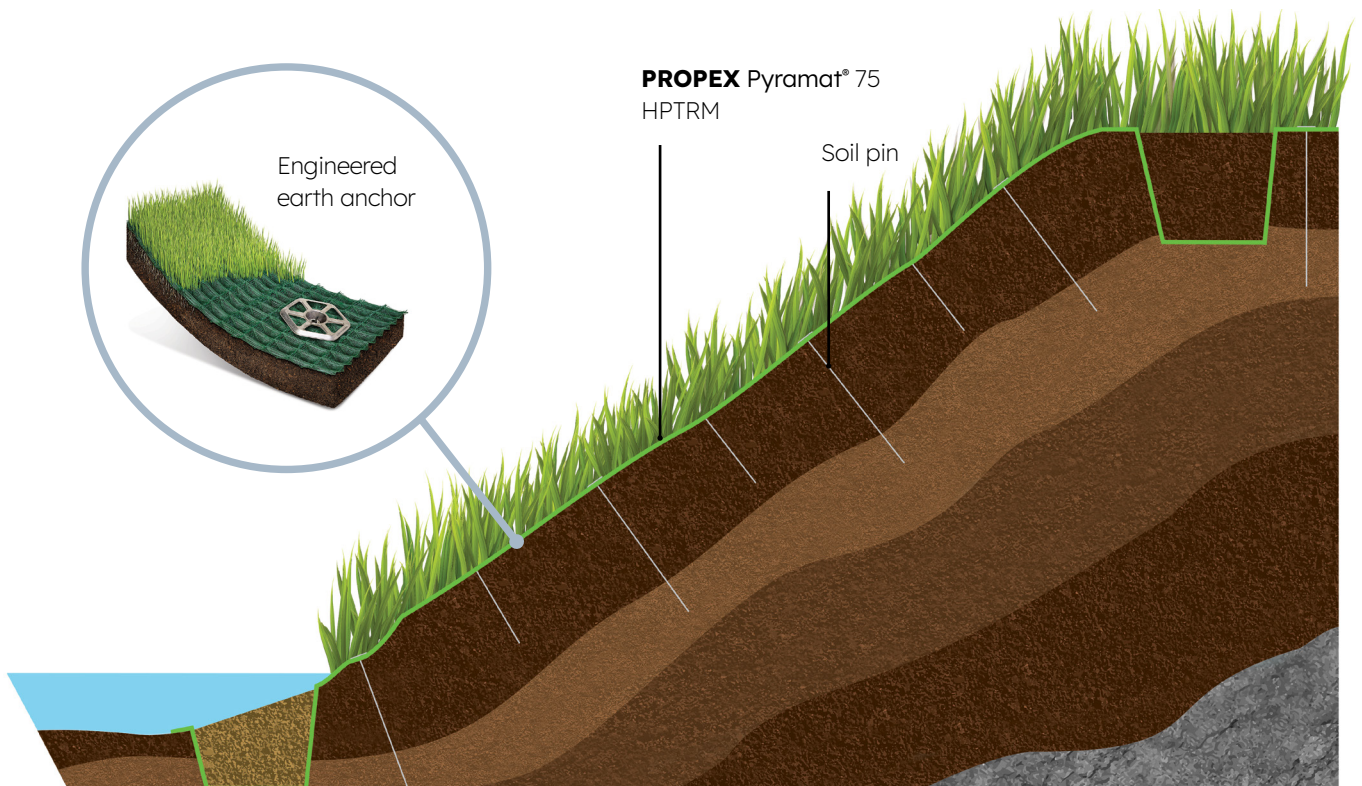
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## Solution

An early phase in the design process used rock filled gabion baskets to armor the channel, however, the design engineer wanted a more economical and environmentally-friendly solution. Gabion baskets require the removal and transportation of excavated material from the site, but **PROPEX Scourlok** allows the reuse of on-site soil to fill the units.

Stakeholders selected **PROPEX Scourlok** for the remaining phases of the project because it was a more cost-effective solution. **PROPEX Scourlok** is a stabilization system that features rigid and interlocking cells armored with erosion protection from a highly UV stabilized High Performance Turf Reinforcement Mat (HPTRM). The system is engineered to provide a vegetated, gravity wall system that resists sliding and overturning for up to 75 years.

The design included an eight-foot wall, comprised of two tiers of **PROPEX Scourlok** that spans 500 feet along the eastern side of the channel. The design also included 300 square yards of **PROPEX Armormax** along the top of the channel.



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