

TEMECULA, CALIFORNIA

Murrieta Creek stabilization



Industry: Water
Sub-industry: Flood mitigation
Location: Temecula, California
Product: PROPEX® Armormax®

The purpose of this project was to mitigate flooding by conveying the 100-year flow within Murrieta Creek.

Overview

Murrieta Creek has a history of devastating flooding. Notably, the flood of 1993 that claimed the lives of five people and damaged 70 aircraft and two bridges at Pendleton Marine Corps Base. The flood also inundated pumps at the Eastern Municipal Water District,

causing 5 million gallons of raw sewage to flow into the creek. Multiple major flood events have occurred since the 1993 flood. Today, more than 600 homes and commercial structures are vulnerable to flooding.

CASE STUDY

Murrieta Creek stabilization

Solution

In 2000, the U.S. Army Corps of Engineers initiated the Murrieta Creek Flood Control, Environmental Restoration and Recreation Project to mitigate flooding. In phase two of the project, **PROPEX Armormax** was selected to provide erosion and scour protection on the creek banks. The system consists of High Performance Turf Reinforcement Mat (HPTRM) and earth anchors that provide resilient flood control for up to 75 years.

Maintaining water quality was a main concern because Murrieta Creek is recognized as one of the last high-quality, minimally disturbed riverine environments in Southern California. **PROPEX Armormax** helps to decrease sedimentation and pollutants and encourages infiltration of water back into the groundwater table. The system also promotes rapid root development for long-term vegetation, whereas rock riprap, can decrease streamside vegetation and adversely impact fish populations.

Vegetation was quickly established, and **PROPEX Armormax** has effectively protected the channel from erosion and flooding.



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