

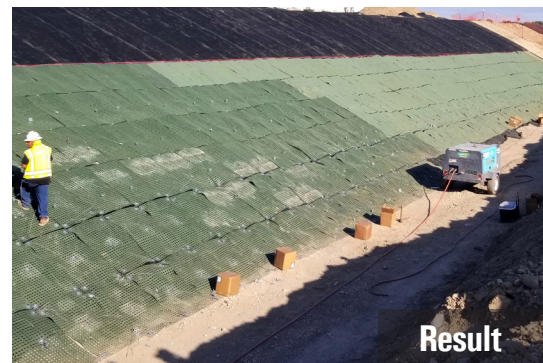
SANTA CLARA RIVER & COAST ACTON, CA



Problem



Solution



Result

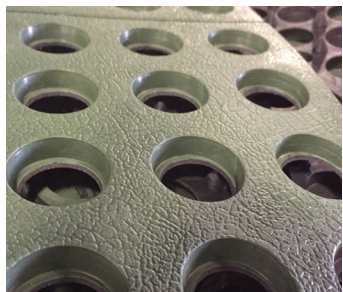
Application: River Stabilization
Product: P550, ShoreMax, Anchors

Site Issues: Riverbank stabilization • Airport expansion •
Waterway • Endangered wildlife species • Climate change

Problem: The Santa Clara River flows from Acton, CA to the Pacific Ocean near Oxnard. The problems began in 2005 when the rain-soaked Santa Clara River, running parallel to an airport, eroded a jetty adjacent to the runway. The runway was exposed and at risk for structural failure. When the river flooded and took with it 155 feet of the 2,650-foot runway in 2007, officials came to the aid of the airport by helping the owners obtain a grant from the Natural Resources Conservation Service (NRCS) to pay for repairs to the riverbank. As the Santa Clara River is one of the last relatively unaltered rivers in southern California, its restoration and conservation became a high priority area. The project scope included restoration of habitat for biodiversity recovery and critical ecosystem services, wildfire risk reduction and sea level rise adaptation. Additionally, the repair needed to restore hydrological function and habitat connectivity while planning for future functionality in the face of a changing climate.

Solution: When it came to erosion control and surface habitat restoration, permanent erosion control products were analyzed to protect against the hydraulic forces. The Project Engineer developed a multifaceted solution utilizing North American Green permanent turf reinforcement mat: VMax P550, a flexible scour protection product: ShoreMax Transition Mat, and the Falcon Anchor Systems ground anchors: F80-X-Z percussion driven anchors. P550 was installed on the north side of the streambank slope with rebar staples to secure the matting. The ShoreMax transition mat was then placed to cover the P550 on the toe of the slope to normal water mark. The Falcon F80-X-Z anchors were then installed across the entirety of the slope. The site was not actively vegetated, but because of the nature of the product system, will naturally vegetate with native species as the site ages.

Result: Since installation, the completed erosion control system including the P550, ShoreMax, and Falcon F80-X-Z anchors have prevented the area from erosion events, and have set up the area for protection against future storm events. Additional phases of stabilization are expected as the 10 year mission of the NCRC project area continues.



PRODUCT HIGHLIGHTS

- ShoreMax (far left) is a UV stable, flexible revetment mat designed to provide scour protection while still allowing vegetation establishment through the mat.
- Falcon Anchors provided pull-out strength and support of the systems subsoils.
- The permanent longevity of the full product system allows for continuous erosion protection, a vegetated design, while being more cost effective than most hard armor systems.

mkbcountry.com | 888-578-0777