



CASE STUDY

PARADISE CREEK WATER QUALITY ENHANCEMENT

Streambank & Slope Stabilization

National City, CA

Approving Agencies: CA Regional Water Quality Control Board & CA Department of Fish and Wildlife

PROJECT SUMMARY

The Paradise Creek Water Quality & Community Enhancement project is part of National City capital improvement program to treat stormwater runoff. Erosion along the creek's bank was depositing sediment into the water and impacting water quality. Additionally, the creek's channel was blocked by debris, which resulted in flooding during rain events.

The first phase of the project sought to divert and convey stormwater flow collected from Paradise Creek to a bio-filtration detention basin for treatment prior to discharge back into Paradise Creek. This phase also included removing debris from the creek channel, implementing erosion control protection, and establishing native, drought tolerant vegetation.

PYRAMAT® 25, a woven turf reinforcement mat (TRM), was chosen by the design engineer to protect the 1.5H:1V creek bank slopes and channel bottom from erosion and to help establish native vegetation. Designed with patented X3® Fiber Technology, PYRAMAT 25 is engineered for superior erosion control on moderate slopes and vegetated waterways. Approximately 2,500 square yards of PYRAMAT 25 was installed and then soil filled, hydroseeded and covered with a bio-degradable erosion control blanket to help establish vegetation.



PROBLEM

The Paradise Creek channel and side slopes were eroding and depositing sediment into the creek, negatively impacting the water quality



SOLUTION

PYRAMAT 25 TRM was chosen to protect the 1.5H:1V creek banks and channel from erosion while helping to promote the establishment of native vegetation to improve water quality

 **PYRAMAT**[®]
PropexGlobal.com/Pyramat

FEATURES & BENEFITS

- Superior UV resistance for up to 25 year design life
- Recognized by the Environmental Protection Agency (EPA) as a Best Management Practice (BMP) to improve water quality
- Patented trilobal X3® Fiber Technology helps lock in seeds and promote rapid root mass development
- Promotes infiltration of surface water
- Resistant to both hydraulic and non-hydraulic stresses
- Environmentally-friendly solution for improving groundwater quality and protecting wildlife
- Easy installation equals reduced time and costs



PERFORMANCE

PYRAMAT 25 TRM provides significant cost savings and water quality improvements and is more aesthetically pleasing than hard armoring solutions like rock riprap.



Propex®
GEOSOLUTIONS

INNOVATION TO BUILD ON™

Visit our website for more information, Product Samples, or other inquiries, or call Customer Service at 800 624 1273

PO Box 19269
4019 Industry Drive
Chattanooga, TN 34716

p: 800 621 1273
f: 423 899 5005
PropexGlobal.com

PGS-1647E-001 (06/2020)