Product: Rock Mesh, Barrier

Problem

A 12 million gallon water tank, the largest in the Coachella Valley Water District, is exposed to potential rockfall hazards. The massive surface area must be contained with only mesh. There is a need to create a protective system to prevent the water tank from impact of both small and large falling rocks and will therefore require a rockfall protection system.

Solution

Maccaferri B900 Rock Mesh was used in cooperation with an on-site 150 foot ton barrier 10’ x 450’ (3.05 m x 137.16 m) with 10 foot (3.05 m) posts is used. The top 8 feet (2.44 m) of the barrier is utilized for large rockfall events. The bottom 2 feet (0.61 m) of the barrier is utilized to raise the B900 Rock Mesh and create a chute effect to control and allow passage of smaller rock.

Maccaferri products used include:
7,000 S.Y. gray PVC B900 Rock Mesh
10,000 lineal feet of 5/16” lacing cable
400 5/16” clamps
560 lineal feet of ¾” top support cable

Best Features of the Structure

It combines and capitalizes on the performance values of each product.

• Economic Standpoint
  ◦ Minimizes costs of labor and materials for installation
  ◦ Reduced maintenance costs

• Functionality Standpoint
  ◦ Reduced maintenance
  ◦ Allows for passage of smaller rock
  ◦ Prevents loading on barrier
  ◦ Reducing chance of Jumps

Client:
Coachella Valley Water District

Main contractor:
Hi-Tech Rockfall

Designer:
Kane GeoTech

Products used:
B900 ROCK MESH; 500 KJ BARRIER

Date of construction:
June 2008
Construction

• A 5 person crew worked an 8 hour shift or 40 man hours.
• 450 lineal feet of barrier was installed in 11 days or 440 hours.
• *56,000 square feet of Rock Mesh was installed in 10 days or 400 hours.
• In total it took 21 working days or 840 hours to complete the installation.