

## Lake Matthews - Tunnel

Feb. 13, 2003



The Colorado River water crosses 250 miles of desert and ends up in its terminal reservoir at Lake Matthews, California, USA.

Lake Matthews is located in Orange County and operated by the Metropolitan Water District of Los Angeles.

Lake Matthews is a fresh water reservoir. A tunnel was built under the lake to reach the center of the lake so operators could control the flood relief system.

Inside the Tunnel, a 1.5 mile redwood walkway was built for operators to walk to the center of the lake. Since the tunnel is under the lake, a substantial amount of moisture was always present. Due to the severe damp conditions underneath the lake, the California redwood corroded rapidly and had to be replaced every two years. This was not only expensive, but the redwood created an unstable, slippery and unsightly walking surface.



In 1999, The Engineering Department of Water District summoned American Grating for suggestions. American Grating's 2" T Bar, 50% open GRIDWALK Pultruded Grating (Type T-20-50) was chosen to replace the original redwood walkway. The grating was laid between the FRP support I-beams at 5' intervals. The support beams were made of 8" FRP I-Beams, fitted with rubber pads for a snug fit against the tunnel wall. The walkway and support beams were installed in 5 days.

The Walkway is still holding performing its function and Water Department does not have to worry about changing the grating for many years to come.