DESCRIPTION
The project consists of a pump station, and 69 kV switchyard. The switchyard, executed as a Design-Build Project by Southern Contracting, will tie into the existing 69kV switch yard owned and operated by SDG&E. Southern Contracting is thoroughly familiar with all SDG&E design and installation standards, giving it a clear edge in cost-effectively executing this key project component.

Other key project components installed by Southern Contracting include:
1. 12 kVA Switchgear
2. Bus Duct
3. Two (2) 25 MVA transformers
4. Fire alarm system
5. Security System
6. Area Lighting

OVERVIEW
This project for the San Diego County Water Authority provides a new pump house at the Lake Hodges reservoir. This project is part of a larger, emergency storage program initiated by the water authority to strategically conserve water while taking advantage of peak electricity usage to generate electricity income for the Water Authority.

Water can be transported between The Olivenhain Reservoir and Lake Hodges to conserve peak runoff that historically passed over the Lake Hodges spillway and drained into the Pacific Ocean. Now, excess water will be transported to reservoirs, reducing dependency on Colorado River water.

Another unique feature of the project is the ability to pump water at night to the Olivenhain Reservoir using the lower SDG&E electricity rates, then let the water flow downhill during the day, generating hydroelectricity and selling the electricity back to SDG&E at higher, peak day rates.

UNIQUE CHALLENGE MET
The key challenge with this project has been excavating a deep pit where the pump station will be housed below the bottom of the lake, allowing for the pump station to efficiently draw water as required. A temporary cofferdam was built to allow construction and blasting to proceed, and allow for underground tunneling to be performed to tie into the outfall structure erected in the middle of the lake. Southern Contracting worked closely with Archer Western, the general contractor, to develop the 68 kV plans that integrated into the overall project plan.