The San Vicente Dam Raise Project is in the final phase of construction for the San Diego County Water Authority's (SDCWA) Emergency Storage Plan. The raised dam creates a 242,000-acre-foot capacity and includes a new spillway, a new outlet tower, and inlet structures to accommodate the higher reservoir levels.

PROJECT RESULTS

Having worked on the project since its inception 12 years ago, Kleinfelder was able to provide upgrades consistent with and tailored to the dam’s history and design. Kleinfelder’s dam knowledge and experience helped the client ensure safety and maintain quality during all phases of construction.

CHALLENGING EXISTING CONDITIONS

The project required moving massive amounts of material, including excavation of 60,000 cubic yards of rock for the dam raise and saddle foundations, placement of 10,000 cubic yards of dental concrete for the foundation footprint of both dams, and placement of 600,000 cubic yards of roller-compacted concrete (RCC). Additionally, existing Marina facilities must be improved to accommodate new reservoir levels for recreational users, including placing 700,000 cubic yards of material for new boat ramps, docks, and piers.

MULTIPLE SERVICES PROVIDED

Kleinfelder provided RCC mix design and construction administration, inspection, change management, schedule monitoring, and quality control services for the project, including startup support to assure project goals and design criteria were met. Kleinfelder’s around-the-clock, onsite materials laboratory and testing personnel provided timely and accurate testing reports that could be reviewed in realtime as construction progressed, to ensure contract compliance by the designer and state dam regulators. Kleinfelder developed a software system that transmitted testing information from each testing machine to a Tablet PC in realtime, which reduced redundancy and delivered improved, accurate information.

Location:
San Diego, California

Owner:
San Diego County Water Authority