

ORANGE COUNTY SANITATION DISTRICT, CALIFORNIA

Upgrades to Plant Nos. 1 and 2

HIGHLIGHTS

Total combined capacity of nearly 300 mgd.

Forty-five-year client/consultant relationship.

Orange County Engineering Council's 1996 Engineering Project Achievement Award.



Carollo has provided engineering services to OCSD for nearly 100 projects with a value in excess of \$600 million.

Carollo has provided planning, design and construction support services for major treatment plant expansions and pipeline projects for the Orange County Sanitation District (OCSD) since its inception in 1953. These facilities include nearly 100 projects totaling in excess of \$600 million. Joint works treatment facility provide both primary and secondary treatment at two major plants. Reclamation Plant No. 1 in Fountain Valley has a total rated primary capacity of 108 mgd and secondary treatment capacity of 80 mgd. Treatment Plant No. 2 in Huntington Beach has a rated primary capacity of 168 mgd and secondary treatment capacity of 90 mgd.

Project highlights include:

- ▶ A \$65-million expansion of the secondary treatment facilities at both plants to increase the ratio of secondary effluent in the discharge to the ocean outfall. The project received the Orange County Engineering Council's 1996 Engineering Project Achievement Award.
- ▶ A major expansion of Headworks No. 2 and Plant No. 1.
- ▶ A foul air optimization study which included a detailed review of the nine foul air scrubbers facilities at Plant Nos. 1 and 2.
- ▶ A major 30-year master plan, the largest ever undertaken by OCSD.
- ▶ A \$25-million ocean outfall booster pumping station.
- ▶ A \$30-million solids and gas handling facilities expansion at Plant No. 1, including one of the largest cake pumping installations in the United States.
- ▶ A \$35-million digester expansion at Plant No. 1.
- ▶ An \$8-million miscellaneous improvements project at Plant No. 1.
- ▶ An ocean outfall investigation and repair.
- ▶ An \$18 million interplant pipeline and utility corridor project which included a 3.5-mile, 120-inch-diameter reinforced concrete pipeline between Plant No. 1 and Plant No. 2.
- ▶ A new rate structure and financial charges for OCSD's Strategic Plan.