

Water/Wastewater Case Study:  
*Otay Water District*

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### **Background**

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- Type of Agency: Water
- Location: San Diego County
- Population Served: 38,000
- Water Connections: 30,658
- Contact: William Granger  
Water Conservation Manager  
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### **Summary**

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Otay Water District designated a conservation coordinator in 1991 and has implemented several water conservation projects over the years including: school campaigns; rebates and incentive programs; residential ultra-low-flow toilet (ULFT) replacement program; and conservation programs for commercial/industrial/institutional (CII) accounts, such as water use audits, with funding from San Diego County Water Authority and Metropolitan Water District. The district also took the lead in building a Water Conservation Garden, a demonstration garden that teaches visitors how to effectively achieve water savings through Xeriscaping techniques.

In an effort to curb excessive water usage during the peak drought months of June through September 2001, Otay Water District implemented practical educational incentive programs and encouraged energy efficiency through a water conservation public awareness campaign. In the summer of 2001, the district mailed a water conservation brochure that highlighted water reduction, an energy-efficiency notification that showed the amount of energy needed to pump water to particular locations and bill inserts highlighting water conservation tips to all of its 38,000 consumers.

Referenced in Water/Wastewater Guides:

- #1, "Reduce Energy Use in Water and Wastewater Facilities Through Conservation and Efficiency Measures"

- #2, "Promote Energy Conservation and Efficiency Through Public Outreach, Incentives and Assistance"

### **Plan**

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The Water Conservation Manager planned to conduct a water and energy awareness campaign through direct mailings. Targets for the programs included primarily residential consumers, although all water consumers received notification.

### **Programs: Efficiency**

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✓ **Leak detection:** Conducted ongoing internal distribution system leak-detection investigations and compared water sold to water purchased to help detect water leaks. District crews surveyed at least three to four miles of mains and laterals per year on an ongoing basis.

### **Programs: Public Outreach**

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✓ **Communications:** Published newsletters, annual water quality Consumer Confidence Reports, brochures and bill inserts. The 2001 bills contained conservation tips. These tips were mailed twice to Otay's 38,000 customers in May and June 2001.

✓ **Free energy-efficient products:** Since the early 1990s, the District has distributed low-flow shower heads at special public information events, as well as at the main office on request.

✓ **Water Conservation Garden:** Conducted weekend public and mid-week school tours to the 4.2-acre demonstration garden, teacher in-service training, special events, seminars, workshops and community events. Otay paid for school buses to bring the students and teachers to the garden.

✓ **Internet:** Website announced washer rebate program, ULFT program CII program, school programs, conservation tips, Water Conservation Garden, landscape training and other classes.

✓ **Coordinated with school s:** The School Education Representative worked with all school districts in the service area to educate students about water issues through curriculum-based educational programs. Otay offered a variety of fun, interactive water related programs for schools, including: classroom presentation and activities;

tours of its water treatment facility; a video library; awards programs; and grants for "School-site Gardens." Grants for school site demonstration gardens and bus transportation were also available.

The District also participated in and coordinated educational programs sponsored by the San Diego County Water Authority, including teacher in-service training and CWA mini-grants. Since 1994 when the program began, Otay's School Education Representative has made over 1,100 presentations in schools, involving more than 55,000 students. In 2001, presentations reached more than 8,800 students.

✓ **Energy billing:** Each water billing statement broke down costs into two categories: Water Consumption and Energy Transport. The Energy Transport cost measured the amount of electrical energy needed to transport water to the consumer. Consumers living in more distant or elevated areas saw that they were charged an additional fee to pump water to their location. Bills also showed costs compared to the year prior. SDG&E extended the 20/20 rebate plan to include the "energy billing" of the Otay Water District (and other districts) and the guidelines to apply for the 20/20 rebate were clearly described in the billing. 75,000 consumer billing statements were adjusted.

### **Programs: Incentives**

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✓ **High-efficiency washing machine rebate:** Offered vouchers of \$125 for residential clothes washers and \$300 for commercial washers. The residential clothes washer program began in 1994 and the commercial washer program began in 1997.

✓ **Other incentive programs:** Encouraged commercial, institutional and industrial customers to participate in the

\$95 ULFT and urinal voucher program and the cooling tower retrofit program, which offered \$500 toward the installation of a conductivity controller.

### **Programs: Technical Assistance**

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✓ **Water survey:** Since 1995, this program has been free to residents, both single and multi-family. The program includes an indoor water-use review, help with identifying indoor leaks, a complete educational packet, information about other water conservation programs, free faucet aerators and low-flow shower heads, if needed, a meter leak detection test, irrigation system maintenance check, individualized seasonal suggestions of watering schedule, soil check, information about proper lawn maintenance measures and tips about low-water use landscaping where appropriate.

✓ **Landscape conservation:** The Professional Assistance in Landscape Management (PALM) and the District reviewed customers' water use and offered ongoing follow-up evaluations to customers whose total water use exceeded their total annual water budget.

### **Budget and Finance**

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Otay spent more than \$100,000 on public education and billing statement adjustments for the 2001-2002 Fiscal Year.

### **Results**

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Otay recorded approximately 9 percent reduction in water energy transportation costs and an approximate 12 percent reduction in water use per capita in seven of the last eight years. Final financial impact is not available at this time.