

Licensee Summary Information, page 1:

The water right county location should include Calaveras County in addition to Amador County. We found no way to correct this omission on the electronic form.

- 5c. Amounts directly diverted and collected to storage, and amounts used, are estimated values and subject to change. During this reporting period, EBMUD did not store water available under the Lodi Decree.
- 6b. Maximum daily rates of diversion (aqueduct draft) for each month, under L11109, are estimated and subject to change.
- 8. Spanning four decades, EBMUD's long-standing water conservation program continually makes an aggressive push for its customers to conserve while analyzing which programs bring the greatest level of water savings. To ensure that vital water conservation objectives are met, EBMUD continually monitors water demand, new technology, and changing consumer preferences, and works closely with other local, regional, state and national water utilities and organizations and researchers to enhance its water conservation services. EBMUD promotes demand-side conservation by working with its water customers and supply-side conservation by detecting and repairing leaks and improving efficiency of the distribution system.

EBMUD's array of demand side water conservation programs and services covers all customer categories, including single- and multi-family residential, commercial, institutional, industrial, and landscape irrigation accounts. Programs and services include free water surveys and water saving devices, incentives for installing water-saving plumbing fixtures, appliances, and process and irrigation equipment, lawn conversion, plan review for water efficiency, and education and outreach programs. EBMUD continually monitors these programs to ensure that vital objectives in water conservation are being met. The importance of water conservation is emphasized to customers not only during droughts, but in every year, drought or not, as water conservation and water recycling are both counted as a way to stretch limited resources and be a crucial part of EBMUD's water supply.

During the recent multi-year water shortage conditions, EBMUD imposed voluntary and mandatory rationing. EBMUD continued to impose 15% mandatory rationing during the first six months of 2009. In an "all-hands-on-deck" response to drought, EBMUD emphasized educating customers about which water-saving activities could bring quick savings, while reinforcing the long-term hardware, infrastructure and behavioral changes that residential and business customers can make to realize savings for years to come. EBMUD's drought response program included a dramatic increase in water conservation outreach activities, services, and incentives. A Water Saving Team of technicians supplemented existing conservation resources and established a supportive field presence by investigating water waste and distributing informational materials. EBMUD also launched a comprehensive \$1.8 million marketing campaign using television, radio and

print media to inform customers of the current water shortage, rationing goals and ways to conserve. Key fiscal year 2009 (FY09) water conservation accomplishments include:

- More than 19,000 rebates totaling nearly \$3 million were distributed to EBMUD customers;
- More than 90,000 free water saving devices (e.g. showerheads, faucet aerators) were distributed;
- More than 15,000 water use site surveys and self-survey kits were completed;
- More than 2,000 water waste reports were received during the drought and more than 1,500 customer contacts made;
- In excess of 66,000 restaurant tent cards, hotel and health club stickers were distributed to some 800 restaurants and 30 health clubs to announce the drought and ask customers to use water efficiently and sparingly; and
- EBMUD sold more than 3,500 of its award-winning plant book *Plants and Landscapes for Summer Dry Climates*.

As a result of its customer efforts and the ample spring rainfall in 2009, EBMUD ended mandatory rationing in June 2009 but maintained 10% voluntary restrictions through the remainder of the year to further protect future supplies and to support Governor Schwarzenegger's request for water savings from all Californians. A summary of EBMUD's past and ongoing water conservation efforts is provided in the attached table.

Residential Programs

Residential water conservation programs are designed to offer customers water conservation incentives and to educate them about water supply, water use habits and water-saving technologies and behaviors. Through the distribution of free devices, water use consultations, and product rebates, these programs provide customers with incentives to retrofit fixtures and to modify their water consumption.

Single Family and Multi-family Surveys

EBMUD staff works with customers to review past water consumption and assist in identifying conservation opportunities including leaks for immediate repair. The free surveys include educating customers on beneficial water use practices, providing recommendations to replace inefficient water using fixtures, appliances and irrigation systems while encouraging conservation by offering free devices and rebates. Water use surveys assess water use behavior, apply preventive maintenance techniques to sustain water savings efforts, and minimize water waste by repairing or replacing inefficient or faulty equipment. EBMUD staff use aerial photography and mapping software data to estimate irrigation area to recommend landscape water budgets. In FY09, EBMUD completed more than 15,000 on-site and self- water use surveys for residential customers.

Home Water Use Do-it -Yourself Survey Kits. In advance of a scheduled in-person survey, EBMUD provides free self survey kits to customers to help guide them through a step-by-step self-assessment of their water use. Customers who return completed self-surveys with identified high water using devices, such as showerheads or faucet aerators, may request free water-efficient replacements from EBMUD.

Leak Detection Program. EBMUD's Water Waste ordinance, Section 29, prohibits the wasteful use of water. Under this program, EBMUD responds to reports of over watering and water waste. In FY09, EBMUD continued a pilot program to use advanced metering technology to provide real time consumption information to a subset of customers to monitor their hourly and daily water use to offer assistance in detecting leaks, and helping correct problems such as broken sprinklers, runoff and over spray.

Incentives and Rebates

Rebates are offered to residential customers for indoor plumbing and appliances, and outdoor irrigation systems and landscaping. In FY09, EBMUD offered rebates for water-efficient appliance, fixture and landscape rebates, and distribution of free water-efficient devices (e.g. showerheads, faucet aerators and quick-closing toilet flappers) to residential customers, totaled more than \$2 million in financial incentives.

High-Efficiency Toilet Rebates. The HET rebate program consists of select certified high-efficiency toilets that use 20% less water than standard 1.6 gallons per flush ultra low flow toilets. As a USEPA WaterSense Partner, EBMUD continues to market its program and high-efficiency products to home improvement retailers, manufacturers, and distributors throughout its service area.

Residential High-Efficiency Clothes Washer Rebates. EBMUD continued to work with Pacific Gas and Electric in partnership with other Bay Area water agencies and appliance retailers on implementation of its Residential Clothes Washer Rebate Program. The program offers combined water and energy saving rebates for high efficiency clothes washers. By completing one rebate application, customers who purchased qualifying clothes washers could save up to \$200 per clothes washer. FY09 represented EBMUD's single highest year of participation with more than 10,300 clothes washer rebates totaling \$1.26 million in incentives distributed. This brings the total number of clothes washer rebates to more than 66,000 since the program began in 1996.

Residential Landscape Consultations and Rebate Program. Since 1998, EBMUD has offered residential customers free on-site landscape consultations to help with new plantings and improvements to their landscape irrigation efficiency. The consultations emphasize proper irrigation scheduling, low water-use plant selection, and other sustainable landscape practices such as mulching and proper maintenance. In FY09, EBMUD continued to offer rebates of up to \$1,000 to qualifying residential customers for a new lawn conversion and mulch program.

Commercial, Industrial, and Institutional (CII) Programs

EBMUD provides tailored business water conservation programs to assist business customers with improving indoor and outdoor water use efficiency. Similar to the residential programs, services include free water use surveys, water conserving device distribution, plan review, life cycle cost savings estimates, and financial incentives covering the installation of water-efficient commercial appliances, plumbing fixtures, and process equipment.

In FY09, EBMUD continued to market its WaterSmart Business Development

Guidebook to city planners, commercial, industrial and institutional customers, and water professionals to promote latest water efficient technologies, products and best practices. EBMUD partnered with the California Urban Water Conservation Council to conduct WaterSmart Guidebook training workshops in northern and southern California.

In FY09, EBMUD formally launched its WaterSmart Business Certification Program. Mirror closely around other green business certification programs, EBMUD's program is designed to heighten awareness of water (and energy) conservation benefits by recognizing businesses that implement water-efficiency measures and reach or exceed defined efficiency benchmarks. EBMUD staff work with businesses one-on-one, green business certification programs and PG&E to promote changes that not only help customers save money by lowering water use, but save energy and chemical costs as well.

Business Water Conservation Surveys

EBMUD completed more than 1,000 commercial, industrial, institutional and irrigation customer water use surveys in FY09. Surveys consist of free on-site visits conducted by EBMUD staff, often accompanied by technical consultants with specific expertise. The survey identifies opportunities to increase water use efficiency and achieve associated benefits in reduced energy use, wastewater discharge, chemicals, and downsized treatment facilities. Irrigation water surveys include a review of current and past water use efficiencies, on-site inspection of irrigation equipment, tests for system leaks and sprinkler uniformity, training of landscape personnel in principles of efficient irrigation systems, assistance with irrigation scheduling, and recommendations for improving irrigation system efficiency. Following the site visit, the customer is provided with a comprehensive written report of findings and recommendations, including estimated payback periods for recommended conservation measures.

Incentives and Rebates

EBMUD also offers financial incentives in the form of customized individual customer rebates, free water-efficient device distributions, and fixed rebates for water-efficient products including plumbing fixtures, commercial appliances, process and cooling equipment, and irrigation system upgrades. In FY09, EBMUD provided 369 conservation rebates to businesses.

Water-Efficient Fixtures and Appliances. EBMUD provides rebates to business customers for water efficient plumbing fixtures such as high-efficiency gravity and pressurized toilets, low or zero-water using urinals, commercial-grade clothes-washers, pre-rinse dishwashing spray valves, boiler-less food steamers, air-cooled ice machines and recirculating cooling systems.

Custom Financial Incentives. EBMUD offers custom financial and technical assistance to businesses that undertake specialized water-efficiency projects. On a case-by-case basis, EBMUD also partners with business and industrial customers on joint research to develop new technologies and water management practices that demonstrate and promote cost effective water savings. Each custom project is required to enter into a performance contract with EBMUD and achieve a project-defined water budget to be eligible for EBMUD financial assistance.

Toilet/ Urinal Replacement Program. EBMUD administers both a fixed and customized rebate program for the purchase of qualifying high-efficiency toilet (HET) and high-efficiency urinal (HEU) models. In FY09 EBMUD continued testing of one-pint per flush urinals within its own facilities to further improve efficiency beyond the current federal standards.

Commercial Clothes Washer Rebates. EBMUD offers rebates for the installation of family-sized clothes washers in multi-family housing and commercial grade units in common area laundries, businesses or institutions with on-premise laundry facilities, and coin laundry stores. EBMUD partners energy utility provided rebates funded under the California Public Utilities Commission to help promote its program.

Commercial Landscape Irrigation Upgrade Program. Designed to help large-landscape irrigators improve the efficiency of existing irrigation systems, this program seeks to minimize customer water consumption and utility costs, and to introduce customers to new efficient irrigation technology. Rebates of up to 50 percent of material costs of installing water-efficient equipment for a maximum of \$4,000 per account provide financial incentives to large-landscape irrigator survey participants to upgrade existing systems.

Irrigation Reduction Information System (IRIS). EBMUD's IRIS continues to be a leader in landscape water budget programs across the state. The Geographic Information System (GIS) based program is designed to inform EBMUD irrigation customers how much water should have been used during a billing period. Water use estimates are based on actual irrigated landscape areas and real time weather data from local weather stations. The IRIS program prints the water budget on every water bill the customer receives after joining the program. The information assists customers with improving management of their irrigation systems, reducing water use, and increasing cost savings. In FY09, more than 2,600 irrigation customers received more than 15,000 landscape water budgets printed on their water bills throughout the year.

Education and Outreach

EBMUD has a long history of providing customers with educational services including publications, newsletters, school curricula, public workshops and events, and demonstration projects. To make its water conservation programs and services more visible, EBMUD works cooperatively with other agencies and organizations by participating in trade shows and community events. Outreach activities include general and targeted marketing, community presentations and workshops, and EBMUD participation in regional and statewide conservation organizations.

EBMUD initiated a strong public information campaign to spread the word about ways the customers could save water in their homes and businesses. EBMUD expanded its school outreach programs to help increase water efficiency at schools to save water and money; provided school community outreach and support; and educated students on responsible water use and environmental protection. In FY09 EBMUD expanded its website and on-line *Drought Help Center*, a one-stop education resource. Online videos

highlighted what customers were doing in their own homes and yards to save water and weekly conservation tips showcased simple changes that could add up to significant savings. Customers could order free water saving devices such as showerheads, faucet aerators, hose shut-off nozzles and conservation publications.

Partnerships. Partnerships broaden the visibility of conservation programs, create cost-sharing opportunities and potential economies of scale, and can expand customer benefits by addressing multiple conservation areas such as water, energy, wastewater, and solid waste. In FY09, EBMUD continued its co-sponsorship with Pacific, Gas & Electric, and the U.S. Green Building Council of the 2009 Water Conservation Showcase at the Pacific Energy Center in San Francisco. Each year the event draws a larger audience and more vendor exhibitors showcasing water efficient technologies and services. Other FY09 EBMUD partnerships included:

- Bay Area Green Business Program certifications
- StopWaste and Bay Friendly Landscaping Program training workshops
- Food Service Technology Center equipment performance testing
- Build It Green Public Agency Advisory Council
- USEPA WaterSense Program

Regional, State and Federal Efforts

EBMUD is a member of the Bay Area Water Agencies Coalition (BAWAC). The Coalition was established by several Bay Area water agencies to act in a unified manner on water planning activities. EBMUD is active in statewide water conservation venues and is represented in all significant industry-related discussions involving state and federal agencies, public interest groups, and professional associations. EBMUD remains active as a Board member of the California Urban Water Conservation Council, California Urban Water Agencies, and the national Alliance for Water Efficiency.

Research and Pilot Programs

EBMUD regularly partners with a number of California, U.S. and international water agencies, energy utilities and green business organizations and other research entities to study water use and pilot new water-efficiency programs and technologies. Some examples of on-going EBMUD water-efficiency research are described below.

WaterSmart Irrigation Controller Program. WaterSmart Irrigation Controllers (WSIC), a new generation of landscape irrigation timers, use actual weather and site conditions to automatically adjust irrigation schedules. Throughout FY09, EBMUD continued to implement a new WSIC incentive program while working with other Northern California agencies and the California Department of Water Resources (DWR) to further ongoing statewide evaluation of the smart controller technology.

End Use Demand and Metering Technology Study. EBMUD is conducting several small advanced metering infrastructure (AMI) pilot studies in its service area to test new metering technologies that can collect, record, and remotely transmit monthly, daily, and hourly water consumption data to improve customer water efficiency practices. The pilot studies are co-funded by grants from DWR and the United States Bureau of Reclamation (USBR).

Water Loss Control Research. One of EBMUD's ongoing FY09 research projects involved testing state-of-the-art acoustic technologies for finding leaks on small to large diameter pipelines and distribution aqueducts. EBMUD is also one of the first water utilities in the nation to conduct research on remote leak detection sensors to monitor pipes throughout a 240 mile pipeline network.

Water Efficiency Regulations

In FY09, EBMUD further refined its water service regulation (Section 31) that identifies the types of water efficiency requirements for new water service and a procedure for notification to Applicants that water efficiency measures are required. Water service shall not be furnished to any Applicant for new or expanded service unless all the applicable water-efficiency measures described in this Section 31 are installed at the Applicant's expense. Applicants for expanded service may be required to retrofit existing water service facilities or uses to comply with these requirements. Applicants are required to maintain design documents and construction and installation records and furnish a copy of said documents and records to EBMUD upon request. EBMUD may also inspect the installation of water efficiency measures to verify that the items are installed and performing to the required water use levels.

In FY09, EBMUD enacted a new water service regulation (Section 3) affecting multi-family and multi-space commercial/industrial developments of less than 4 stories in height. Effective January 1, 2009, the new regulation requires a developer to plumb every unit or space so that it can be individually metered by EBMUD at an approved metering site. EBMUD will require individual metering of each separate unit in a structure of three stories or less in height whenever is it feasible in the opinion of EBMUD to do so.

9. As noted above, in 2009, EBMUD implemented both voluntary and mandatory water rationing and other water conservation measures in response to the multi-year water shortage conditions. In accordance with Water Code Section 1011, the total amount of water conserved system-wide by EBMUD in 2009 in lieu of appropriated water is approximately 91,646 acre-feet. This savings was determined based on the difference in 1976 and 2009 unit water consumption rates and the current number of accounts. 1976 was the year EBMUD and its customers initiated significant water conservation efforts (beginning with the 1976-77 drought). EBMUD reserves the right to amend this report in order to reflect the outcome of future analysis.
11. In accordance with Water Code Section 1010, EBMUD reclaimed approximately 10,196 acre-feet of water system-wide in lieu of appropriated water in 2009. EBMUD reserves the right to amend this report in order to reflect the outcome of future analysis.

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