

MASTER RESPONSE NO. 9 - WATER CONSERVATION

Comments were received that suggested the use of water conservation measures within the service area of The Metropolitan Water District of Southern California to reduce water demands. Metropolitan is not a retail water agency and delivers water only to its member agencies. This imposes limitations on Metropolitan's ability to enforce conservation measures, however, it has developed an extensive water conservation program that it implements directly and through its member agencies.

INTEGRATED RESOURCES PLANNING GOALS

Metropolitan's Integrated Resource Planning (IRP) process places equal emphasis on local and imported resource development. The IRP treats conservation as core local supply, on par with recycling and other resources. As described in the IRP, conservation savings result from both "active" and "passive" conservation efforts. "Active" conservation consists of water-agency funded programs; "passive" conservation is demand reductions attributable to conservation-oriented plumbing codes and usage reductions resulting from increases in the price of water; that is, the conservation will occur without any specific agency action targeted at conservation.

Metropolitan and its member agencies have adopted a regional water conservation goal of 1 million acre feet in annual savings by 2020. Since 1980, conservation programs and plumbing codes have resulted in annual savings that reached an estimated 480,000 acre feet in 1998. Metropolitan is continuing to implement conservation programs, such as those described in Section 2.4.4 of the Final EIR/EIS, so that the goal may be met.

IMPLEMENTATION OF CONSERVATION BEST MANAGEMENT PRACTICES

Metropolitan's conservation programs are closely linked to the efforts of the California Urban Water Conservation Council (CUWCC). As a signatory to the CUWCC's *Memorandum of Understanding Regarding Water Conservation in California* (Urban MOU), Metropolitan has pledged to make a good faith effort to implement a prescribed set of urban water conservation "Best Management Practices" (BMPs). Metropolitan is providing technical and financial support to enable its member agencies to meet the terms of the Urban MOU.

Funding for urban BMPs and other conservation-related activities is provided by Metropolitan's Conservation Credits Program (CCP). Under the CCP program, Metropolitan provides financial support to member agency conservation programs by paying either \$154 per acre-foot of water conserved or one-half of the program cost, whichever is less.¹ To be eligible for CCP funds, water conservation project proposals submitted by a member agency must have demonstrable water savings that reduce demands on Metropolitan's system. There are four main areas of focus regarding conservation: residential programs; large landscape programs; commercial, industrial and institutional programs; and measurement and evaluation.

RESIDENTIAL PROGRAMS

Residential programs include funding of ultra-low-flush toilets (ULFT) and low flow showerheads. As of June 2000, Metropolitan had provided \$95 million for installation of over 1.6 million ULFTs and \$12 million to install or distribute 2.9 million low flow showerheads. More than 200,000 ULFTs

¹ The \$154 per acre-foot represents Metropolitan's avoided cost of water attributable to conservation.

are installed each year through programs sponsored by Metropolitan and its member agencies. This level of activity is expected to continue for at least the next five years.

High-efficiency clothes washers (HECWs) are relatively new to the list of urban water conservation BMPs. In September 1997, the CUWCC adopted BMP 6 for HECWs. Prior to 1999, two of Metropolitan's member agencies sponsored rebates for HECWs: the San Diego County Water Authority (SDCWA) and the Los Angeles Department of Water and Power (LADWP). Metropolitan participates in rebate programs offered by energy companies to replace inefficient appliances by adding \$35 for the water savings generated by HECWs. As of June 2000, the number of rebates issued by all HECW rebate programs in Metropolitan's service area totaled 14,000 and Metropolitan had contributed \$590,000.

The Residential Water-Use Efficiency Survey Program was designed to meet the requirements of BMP 1. The purpose is to develop a standard approach to the design and implementation of residential survey programs. In total, approximately 57,000 surveys have been performed in Metropolitan's service area to which Metropolitan contributed more than \$3 million, including retrofits, since residential survey programs began.

Metropolitan has funded several residential research and development projects. These include a leak repair project, an Evapotranspiration Controller Pilot project, a test of various targeting components for survey programs, and several other similar projects.

LARGE LANDSCAPE

Under this program, Metropolitan offers financial assistance to its member agencies for the purchase and installation of landscape retrofit equipment that saves water and improves irrigation efficiency. The landscape retrofits have included moisture sensors, controller up-grades, and centralized computer-controlled irrigation systems. Funding is provided based on verified water savings. Because outdoor water use is affected significantly by the behavior of the people controlling watering, a pay-for-performance structure guarantees that retrofits will not only be installed, but will also be used properly. Twenty-six of these projects have been completed by eleven member agencies. In support of the retrofit program, Metropolitan funds, develops, and coordinates training and education programs for landscape workers and professionals. Metropolitan also collects and disseminates information about the effectiveness of landscape water conservation programs and strategies, participates in landscape research projects, and investigates and tests promising new technologies.

COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL PROGRAMS

The Commercial, Industrial, and Institutional (CII) community is motivated by and reached through an array of outreach and financial incentives. In addressing BMP 9, Metropolitan currently manages two types of financial incentives programs with participating member agencies. The first involves a "menu" arrangement under which Metropolitan offers financial incentives for the replacement of specific water efficient equipment such as ultra-low-flush toilets, ultra-low-flush urinals, cooling tower conductivity controllers, and coin-operated high efficiency washing machines. These incentives are based on the results of nearly 1,000 commercial audits conducted by Metropolitan and its member agencies. The most frequently identified retrofits formed the basis for the current CII Menu Program. The second program involves financial incentives for capital improvements that increase the efficiency of large water using processes. Metropolitan pays up to \$154 per acre-foot for water saved, up to one-half of the project cost over a five-year period. Since each industrial process change is unique, Metropolitan works closely with member agencies and their industrial customers to custom-tailor three-way contracts specifying performance requirements for each project.

MEASUREMENT AND EVALUATION

The Measurement and Evaluation effort has four primary functions:

- Providing a means to measure and evaluate the effectiveness of current and potential conservation programs
- Developing reliable estimates of various conservation programs and assessing the relative benefits and costs of these interventions
- Providing technical assistance and support to member agencies in the areas of research methods, statistics and program evaluation
- Documenting the results and the effectiveness of Metropolitan-assisted conservation efforts

Metropolitan's staff has served as technical advisors for a number of state and national studies involving the quantification and valuation of water savings.

OTHER CONSERVATION-RELATED ACTIVITIES AT METROPOLITAN

Metropolitan has a program of water-conservation related education programs. These provide education materials to the public and the schools.

Metropolitan's Water System Operations Group works to fulfill BMP 3 (System Water Audits, Leak Detection, and Repair) and BMP 4 (Metering With Commodity Rates for All New Connections and Retrofit of Existing Connections). Metropolitan has a variety of ongoing system-wide leak detection programs. Each month, a mathematical algorithm compares inflow with outflow for Metropolitan's entire system. Major control structures and hydroelectric plants are inspected weekly and field crews patrol Metropolitan's pipelines daily, visually inspecting for leaks. All below-ground structures are checked every six months as part of a continuous preventive maintenance program.

As a wholesale water supplier, Metropolitan has no retail customers. However, all inter-agency water service connections are metered. Any new water agency supplied by Metropolitan would likewise be metered. Metropolitan currently charges a unit price per acre-foot. The unit price does not decline with the amount of water supplied. This commodity-based rate structure complies with BMP 11.

CONCLUSION

Because of Metropolitan's commitment to conservation, water conservation savings are projected as a local supply in planning for future water resources. Even with conservation measures, however, the Cadiz Project is needed to meet dry-year demand within Metropolitan's service area.