

● **Board of Directors**
Water Planning, Quality and Resources Committee

August 20, 2002 Board Meeting

8-5

Subject

Authorize two conservation programs and new items to receive incentives under the Conservation Credits Program

Description

In 1988, the Board authorized the Conservation Credits Program. The program provides financial incentives to achieve reductions in water use by replacing inefficient devices such as old shower heads, toilets, washing machines and irrigation control systems. Since 1988, the Board has authorized a number of expansions as new water efficient technologies and practices have entered the market. As currently authorized measures approach full implementation, Metropolitan and its member agencies will need to adopt new steps to achieve the water conservation goals of the Integrated Resource Plan and comply with statewide Best Management Practices. A strong water conservation program is consistent with sound water resource management.

Over the past year, Metropolitan and member agency staffs have explored potential benefits of new water conservation actions that would be pursued in partnership. As a result, four new technologies and two new programs are recommended for implementation as shown in Tables 1 and 2. The x-ray recirculating system and the pressurized water broom will be incorporated into the Regionwide Commercial, Industrial, Institutional Rebate Program (Regionwide Program), which the Board authorized to run through June 2004. After June 2004, the Regionwide Program, including the incentives for those two items will be re-evaluated. The following tables identify the proposed technologies and programs and their incentive levels or costs:

Table 1
Proposed New Conservation Credits Technologies

Technology	Eligible Customers	Proposed Incentive @ \$154 acre-foot (AF)
(1) Hospital X-Ray Film Processor Recirculating System	Commercial/Industrial/Institutional (CII) Sectors	\$2,000 per unit
(2) Water Pressurized Broom	Commercial/Industrial/Institutional (CII) Sectors	\$100 per unit
(3) Evapotranspiration (ET) Landscape Irrigation Controllers	Residential Sector	\$65 per unit
(4) Dual-Flush Toilets	Residential & Commercial/Industrial/Institutional (CII) Sectors	\$80 per unit

**Table 2
Proposed New Programs**

Program	Eligible Customers	Cost
(1) Innovative Conservation Program (ICP)	Member Agencies, Retail Agencies, Businesses, Community Based Organizations, Environmental Organizations, etc.	\$250,000 Biennially
(2) Hotel/Motel/Restaurant Customer Education Card Program	Hotels/Motels and Restaurants	\$75,000 Annually

Attachment 1 addresses the rationale supporting each technology and program. The proposed incentive payments for each technology are based on water savings, service life, cost and application of Metropolitan's standing incentive rate of \$154/AF of water saved for up to one-half the project cost. The programs will help meet consumers' needs, especially in the commercial and landscape sectors as these areas offer the greatest potential for water conservation in the future.

Policy

By Minute Item 37324, dated September 1988, the Board adopted the Conservation Credits Program.

By Minute Item 38290, dated May 1990, the Board set the incentive amount at \$154/AF of water conserved to a maximum contribution of one-half the project cost.

By Minute Item 44870, dated May 2002, the Board authorized a \$5.4 million increase in contract value and extended the vendor services agreement through June 2004 for the Regionwide Commercial, Industrial, Institutional Rebate Program.

California Environmental Quality Act (CEQA)

CEQA Determination for Option #1 and #2:

The proposed action is categorically exempt under the provisions of CEQA. The proposed action involves the funding and minor alterations of existing private or public facilities, along with minor modifications (e.g., new landscaping and supporting irrigation system) in the condition of land, water, and/or vegetation which do not involve removal of healthy, mature, scenic trees. These activities associated with the Conservation Credits Program would result in negligible expansion of use and no possibility of significantly impacting the physical environment. As such, the proposed action qualifies under both Class 1 and Class 4 Categorical Exemptions (Sections 15301 and 15304) of the state CEQA Guidelines.

The CEQA determination is: Determine that pursuant to CEQA, the proposed action qualifies under two Categorical Exemptions (Class 1, Section 15301 and Class 4, Section 15304) of the state CEQA Guidelines.

Board Options/Fiscal Impacts

Option #1

Adopt the CEQA determination and authorize:

- a. an incentive of \$2,000 per unit for retrofit installation of an x-ray film processing recycling unit for hospital-scale applications.
- b. an incentive of \$100 per unit for the purchase of a pressurized water broom for CII customers.
- c. an incentive of \$65 per unit for the retrofit installation of evapotranspiration controllers in residential landscapes.
- d. an incentive of \$80 per unit for the retrofit installation of dual-flush toilets in CII and residential dwellings.

- e. the Innovative Conservation Program (ICP) on a biennial basis with a proposed cost of \$250,000 per program.
- f. the Hotel/Motel/Restaurant Customer Education Card Program with a proposed annual cost of up to \$75,000.

Fiscal Impact: No additional costs beyond budgeted amounts for fiscal year 2002/2003.

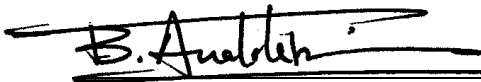
Option #2


Adopt the CEQA determination and authorize one or more of the items in Option #1.

Fiscal Impact: No additional costs beyond budgeted amounts for fiscal year 2002/2003.

Staff Recommendation

Option #1

	7/26/2002
for Anatole Falagan	Date
Stephen N. Arakawa	
Manager, Water Resource Management	

	7/30/2002
Ronald R. Gastelum	Date
Chief Executive Officer	

Attachment 1 – New Technologies and Programs

BLA #1666

NEW TECHNOLOGIES AND PROGRAMS

Proposed New Conservation Credits Technologies

1. ***Hospital X-Ray Film Processor Recirculating System:*** (Tested through the Innovative Conservation Program (ICP)). Existing x-ray processing systems in hospitals consume extremely large amounts of water and are very inefficient in their film washing process. These systems are “once-through” flow technology. The new recirculating system utilizes a reservoir, treatment and pump system to re-use the water. Through the ICP, thirty-eight systems were installed and tested in seven major southern California hospitals. Annual water savings averaged 3.2 acre-feet per year per system. These savings, along with an estimated five-year life and at the Metropolitan incentive level of \$154/AF of water saved, could warrant an incentive of \$2,464 per device. However, with the average cost of the x-ray film processing recirculating system at approximately \$4,000 the incentive level is recommended at half the cost or \$2,000 per unit. Qualifying devices will be based on size, operating hours and equipment use to ensure compatibility with projected water savings for existing x-ray systems.
2. ***Water Pressurized Broom:*** Tested through the ICP. This device replaces traditional hose nozzles used to clean large hardscape surface areas at commercial and industrial facilities such as restaurants, hotels, office buildings and convention centers. It uses a series of small-nozzles to direct multiple high-intensity water sprays in front of the “broom.” Through the ICP, twelve locations were selected within the City of Anaheim to test this technology. Annual savings per pressurized water broom averaged 60 percent or approximately 50,000 gallons per year per location. These savings along with an estimated five-year life and at the Metropolitan incentive level of \$154 per acre-foot (AF) of water saved, could warrant an incentive of \$117 per device. However, with the average cost of the water pressurized broom technology at approximately \$200, the incentive level is recommended at half the cost or \$100 per unit.
3. ***Evapotranspiration (ET) Landscape Irrigation Controllers:*** This high-technology residential irrigation controller connects the real-time information collected by weather stations and sensors to accurately provide irrigation control on the ground. Each electronic controller contains extensive information on soil types, landscape slopes, plant materials, and sprinkler application rates. This allows the controller to apply the irrigation water required to make up for lost ET (the rate at which plants lose water through evaporation and transpiration) while minimizing losses due to runoff.

Metropolitan, in cooperation with Municipal Water District of Orange County (MWDOC) and Irvine Ranch Water District, completed a pilot project at 33 single-family homes. The study found average water savings of 13,500 gallons per year per location. These savings along with an estimated ten-year life and at the Metropolitan incentive level of \$154/AF of water saved, could warrant an incentive level of \$63 per device. The average cost of an ET Controller is approximately \$250. The incentive level is recommended at \$65 per unit. The focus will be improved irrigation efficiency at the residential level. Metropolitan already has a program to address irrigation controllers for large commercial landscapes.
4. ***Dual-Flush Toilets:*** A dual-flush toilet operates at 1.6 gallons per flush for solids and 0.8 gallons per flush for liquids. This type of water-efficient toilet is common in other countries and recently was approved for sale in the United States. There have been three recent studies done to determine the additional water savings that can be achieved with dual-flush toilets compared to standard 1.6 ultra-low-flush toilets (ULFTs). All three studies had similar results, with the average additional water savings for dual-flush toilets measured at 2,250 gallons per year per toilet. These water savings are in addition to the existing authorized \$60 per unit incentive for ULFTs. The additional water savings of 2,250 gallons per year per toilet, along with an estimated 20-year life and at the

Metropolitan incentive level of \$154/AF of water saved, would warrant a \$20.02 incentive level. The additional incentive is recommended at \$20 per unit. The current incentive of \$60 per ULFT, along with the recommended additional \$20 incentive for dual-flush toilets, brings the total dual-flush incentive to \$80 per unit. Dual-flush toilets, on average, cost \$200 per unit.

Proposed New Programs

1. ***Innovative Conservation Program (ICP):*** In 2001, Metropolitan launched the ICP with an allocation of \$250,000 set aside under the Community Partnering Program. The ICP provided grants to explore new water saving strategies and technologies. Over 30 applications were received, requesting more than \$3 million in Metropolitan grant funding. Ten projects were selected for funding. In March 2002, available ICP project results to date were presented to the member agencies. The reaction from the member agencies was overwhelmingly positive. The results from two specific projects (the water pressurized broom and x-ray film processing recirculating system) showed substantial and measurable water savings for commercial/industrial/institutional (CII) customers. As a result of the ICP, the member agency representatives requested the following two actions: (a) that Metropolitan establish ICP as a sustaining biennial program; and (b) that two new commercial technologies demonstrated through the ICP become part of the conservation credits program.

Under the program, Metropolitan would solicit competitive proposals from interested parties to demonstrate new technologies and approaches to water conservation that have a potential regional application. Selected projects would be offered grants to demonstrate and evaluate innovative ideas offering the greatest potential to the region. Results would be documented and shared with member agencies for consideration in advancing water conservation in southern California.

2. ***Hotel/Motel/ Restaurant Customer Education Card Program:*** Metropolitan, MWDOC and the Orange County Water District have been conducting a pilot Hotel/Motel/Restaurant Education Program since 1999. The hotel/motel goal was to provide free cards to the businesses so guests would have an option to reuse bed linens and towels. The target was 400 hotels/motels (48,000 rooms). Currently, over 33,000 or 70 percent of the rooms are using these cards. In 2001, a restaurant water efficiency portion of the program was added. Its goal was to provide free table-tent cards to restaurants. The cards informed patrons that water is served upon request only. Approximately 4,500 restaurants were targeted. Over 200 restaurants are currently participating with more than 700 expected by this fall. Due to the pilot program success, member agencies have requested that a permanent program be established to include all of Metropolitan's service area. The permanent program would allow for Metropolitan to fund the graphic design, printing, training and distribution of the education cards. Member agencies would have the ability to customize the program for local conditions.