



● **Board of Directors**
Water Planning and Stewardship Committee

4/13/2010 Board Meeting

9-1

Subject

Proposed Water Conservation Plan for fiscal year 2010/11

Summary

Staff is preparing recommendations for Metropolitan's fiscal year (FY) 2010/11 Water Conservation Plan to improve financial performance, achieve water savings consistent with Metropolitan's Integrated Resources Plan (IRP) and transition into a long-term conservation strategy. The FY 2010/11 conservation program has been planned to meet the annual growth in conservation savings of 10,000 acre-feet as established by the IRP. This conservation goal would be met by programs that incentivize conservation savings in residential, commercial, manufacturing, and agriculture sectors and through the development of innovative technology.

Developed in consultation with the member agencies, the Plan includes:

- Incentives based on existing board policies and proposed guiding principles;
- Regional programs that effectively target water savings opportunities in the urban sector;
- MWD-Funded/Member Agency Administered Program for locally targeted projects; and
- Technical assistance to help increase local conservation efforts.

The Plan provides Metropolitan, member agencies, and retail agencies with several benefits, including improved effectiveness, increased water savings, and flexibility for member agencies to focus on specific service area goals. The recommendations staff plans to bring to the Board in May will establish a one-year program for FY 2010/11 and provide additional time to finalize a recommendation for Metropolitan's Long-Term Conservation Plan.

For the regional residential and commercial programs, the marketing, incentives and application processes provided throughout the Metropolitan service area have been expedited through the use of a vendor as the program administrator. The benefits of this approach include improved customer access to incentives, increased water savings, reduced regional overhead, and improved public outreach. Staff will be selecting a new vendor through a competitive bid process to implement the FY 2010/11 commercial program. The approval of a new vendor agreement will be presented to the Board for consideration in May 2010. In the interim, an increase in the contract authority will be needed for the current vendor, Honeywell International, to continue processing customer applications over the next five months until a new vendor agreement is executed. The increased contract authority for the current vendor is within the FY 2009/10 budget.

Detailed Report

Status of Long-Term Conservation Plan

As reported in December 2009, Metropolitan conducted a series of workshops with member agencies and retail agencies to develop a framework for the Long-Term Conservation Plan that would help achieve water savings goals in the IRP Update. The framework includes multiple strategies such as legislation, technical and financial assistance, device incentives, and education and outreach. Financial incentives would drive market transformation for specific water conservation devices and strategies. Other approaches that do not rely on incentives will play an increasing role in achieving program objectives. The balance of responsibilities between Metropolitan and the member agencies for program implementation is still under discussion. A proposal for Metropolitan's Long-Term Conservation Plan will be completed after the 2010 IRP is finalized.

FY 2010/11 Water Conservation Plan

Through a collaborative process with the member agencies, staff is developing recommendations for the FY 2010/11 Water Conservation Plan that would meet the IRP goal for annual conservation savings of 10,000 acre-feet. The Plan would include both regional and locally targeted programs to incentivize conservation savings in the residential, commercial, industrial, institutional, and agricultural sectors. It would also encourage development of innovative programs and technologies that yield additional conservation savings.

The Plan would be based on existing board-approved policies and proposed guiding principles ([Attachment 1](#)). These guiding principles provide consistency across programs and a smooth transition to the Long-Term Conservation Plan. The FY 2010/11 Plan includes several programs:

- **Regional Residential and Commercial Programs:** The regional programs provide standardized incentives for water-saving devices throughout Metropolitan's service area, offering uniform coverage that improves customer access and increases water savings. Metropolitan would continue to provide incentives through these programs as shown in [Attachment 2](#). Incentive adjustments would be based on the proposed guiding principles and existing board-approved policy of \$195 per acre-foot of water savings, up to one-half of average retail device cost. In addition, incentives would only be recommended for devices where incentive amounts would likely affect consumer purchase decisions. As a result, incentive levels for some devices would be increased while others would be reduced from current levels, and others completely eliminated from funding. On balance, these changes would improve the performance of the regional conservation programs.

Recent market studies indicate high saturation levels for residential toilets on a region-wide basis, but considerable variation between agencies. For this reason the residential toilet incentives would be moved from the regional programs to the MWD-Funded/Member Agency Administered Program to provide a more efficient and effective means to target areas with lower saturation levels.

- **MWD-Funded/Member Agency Administered Program:** Metropolitan provides funding to support locally implemented programs administered by member and retail agencies, allowing flexibility for agencies to implement projects specific to their service area and to explore innovative new projects. Staff intends to recommend modifying the existing member agency-implemented program, including allocating budgeted funds to member agencies. Staff has considered four allocation methods and would recommend using Total Municipal and Industrial Demand (Column B of [Attachment 3](#)). This method provides the best proxy for water savings opportunity, and is consistent with best management practices to reduce urban demand and the approach the Board used to establish policy in 1992 to allocate Conservation Credits Program funding among member agencies. Additionally, the base period for measurement of each agency's Total Municipal and Industrial Demand will be 2004 through 2006, the same base period used in Metropolitan's Water Supply Allocation Plan. Two methods, Total Service Area Demand (Column A) and Total Purchased from MWD (Column C), are not recommended because they include agricultural water, which is funded through the separate Agricultural Conservation Program.

Metropolitan's funding would be available to member agencies for two types of projects or programs:

- **Device-based:** Metropolitan's approved incentives (**Attachment 2**) would be provided for member agency programs that (1) offer direct incentives for devices not included in the regional programs, such as residential toilet rebates, and (2) other implementation approaches, such as direct installation and distribution of devices. Incentives for residential and landscape audits and other interventions would also be provided in accordance with the approved incentive schedule.
- **Customized Projects:** For projects that result in water savings through customized site improvements, Metropolitan's funding would be limited to \$195 per acre-foot of estimated water savings, up to one-half of eligible project costs. Eligible costs include items such as equipment, landscape plants, mulch, pervious hardscape, post-installation verification, and up to one year of irrigation management fees. Funding may be used for projects such as industrial process improvements, commercial kitchen improvements, turf removal, and major irrigation system upgrades.

Program details are included in **Attachment 3**. Member agencies would have the option of using Metropolitan's regional vendors to administer both direct incentive programs and customized projects, and would be responsible for associated administrative costs. Incentives paid through the MWD-Funded/Member Agency Administered Program are intended to provide flexibility, increase water savings, and meet agency-specific needs or program implementation preferences that are not included in the regional program.

- **Agricultural Conservation Program:** The agricultural program would provide incentives to assist agricultural customers that opt out of Metropolitan's Interim Agricultural Water Program (IAWP) or pay full service rates to use water more efficiently. Based on feedback from member agencies and other key stakeholders, the Agricultural Conservation Program would be launched in FY 2010/11 as a member agency-administered program (**Attachment 4**). Metropolitan's funding would be based on \$195 per acre-foot of estimated water savings resulting from improvements in irrigation system efficiency due to capital improvements, up to one-half of eligible project costs. Efficiency improvements would be determined through irrigation system audits conducted before and after equipment installation. Member agencies would be responsible for any pre-installation audit costs while Metropolitan would pay for post-installation audits. Post-installation audits will provide updated information to the customer on irrigation system management and additional water savings potential.
- **Enhanced Conservation and Water Savings Performance Programs:** The Enhanced Conservation Program provides funding directly to member agencies to encourage new approaches to water conservation, and the Water Savings Performance Program provides funding to retail customers for large landscape water use efficiency and industrial process improvements. Staff intends to recommend that these programs be phased out upon completion of the existing agreements. These types of projects would be eligible under the proposed MWD-Funded/Member Agency Administered Program, which offers greater flexibility for member agencies to focus on specific service area goals.
- **Technical Assistance:** Staff intends to recommend collaborating with member agencies using Metropolitan staff resources to provide technical assistance to member agencies and retail agencies to assist in program design, ordinance development, retail-tiered rate structures, and water savings calculations. Staff would also assist with research, technology evaluation, market studies and other efforts that contribute to increased water savings. By providing technical assistance, Metropolitan would help increase local conservation efforts through means other than providing direct financial incentives.

Transition to FY 2010/11 Water Conservation Plan

Staff would propose that changes become effective June 1, 2010. This will provide continuity and a smooth transition to FY 2010/11 programs. Due to typical rebate processing time, eligible products purchased in June will result in rebate expenditures by Metropolitan in FY 2010/11.

Expected Benefits from Proposed Plan

Implementing the proposed FY 2010/11 Water Conservation Plan offers several benefits that accrue to Metropolitan, member agencies, and retail agencies:

- **Improved effectiveness:** The proposed Plan represents a more balanced, effective approach to address regional and local agency goals, reflects lessons learned from recent activities in existing programs, and is a good first step in transitioning to the Long-Term Water Conservation Plan.
- **Increased water savings:** High activity levels are expected to continue in the commercial program, which offers the potential for significant water savings. In addition, increased local conservation would occur through technical assistance and the MWD-Funded/Member Agency Administered Program.
- **Flexibility:** MWD-funded locally administered programs would allow member agencies to focus on their specific service area needs.

Regional Commercial Conservation Program Contracts

In order to implement the FY 2010/11 Water Conservation Plan, Metropolitan would need to authorize a new vendor agreement for processing commercial rebates. With a regional vendor, program marketing, incentives, and the application process are uniform across Metropolitan's service area. This approach offers several benefits to Metropolitan, member agencies and retail agencies, including improved customer access to incentives, increased water savings, reduced regional overhead, and improved public outreach. The regional commercial vendor would also provide an additional benefit to member agencies as a means to cost-effectively administer direct incentive programs and customized projects for commercial, industrial, and institutional customers through the MWD-Funded/Member Agency Administered Program described above. Staff is reviewing proposals submitted through a competitive Request for Proposals. When Metropolitan-funded reservations were fully subscribed in December, some member agencies opted to provide commercial rebates through Metropolitan's regional vendor, funding both rebate and administrative costs using Metropolitan's existing contract authority. As a result, a large portion of the remaining contract authority was consumed using member agency funding. Therefore, the current agreement with Honeywell International needs to be amended to increase the contract authority and extend the time period to allow timely processing of all customer applications while the contract with the new vendor is implemented.

Next Steps

Staff will finalize the proposed FY 2010/11 Water Conservation Plan and recommendations for a new regional commercial vendor agreement for board consideration in May. Staff will also coordinate with member agency managers on implementation of the Plan and rollout of the conservation programs.

Policy

By Minute Item 47964, dated July 14, 2009, the Board authorized modifications to Metropolitan's Water Conservation Program.

By Minute Item 47926, dated June 9, 2009, the Board authorized water use efficiency program changes.

By Minute Item 47393, dated February 12, 2008, the Board approved the Water Supply Allocation Plan using 2004-2006 as the three-year baseline period.

By Minute Item 47165, dated July 10, 2007, the Board authorized refinements to Metropolitan's water use efficiency programs.

By Minute Item 46773, dated August 15, 2006, the Board authorized upgrades to the commercial and landscape water efficiency programs.

By Minute Item 46486, dated December 13, 2005, the Board set the incentive amount at \$195 per acre-foot of water conserved not to exceed 100 percent of product cost or one-half of a program cost.

By Minute Item 45841, dated July 13, 2004, the Board adopted the Integrated Water Resources Plan Update.

By Minute Item 45208, dated February 11, 2003, the Board adopted policy principles regarding water conservation activities.

By Minute Item 39795, dated August 20, 1992, the Board approved member agency allocations for the Conservation Credits Program based on total urban demand in Metropolitan's service area.

Fiscal Impact

The FY 2010/11 Water Conservation Plan would be implemented within the approved Conservation Credits Program budget.


Deven N. Upadhyay
Manager, Water Resource Management

3/30/2010

Date


Jeffrey Knightlinger
General Manager

3/30/2010

Date

Attachment 1 – MWD Water Conservation Plan Proposed Guiding Principles for FY 2010/11 Program Design and Changes

Attachment 2 – MWD Water Conservation Plan Proposed FY 2010/11 Conservation Incentives

Attachment 3 – MWD Water Conservation Plan Proposed MWD-Funded/Member Agency Administered Program

Attachment 4 – MWD Water Conservation Plan Proposed Agricultural Conservation Program

Ref# WRM12604875

MWD Water Conservation Plan

Proposed Guiding Principles for FY 2010/11 Program Design and Changes

1. The Water Conservation Plan (Plan) should be designed to achieve the IRP goal for annual water savings.
2. The Plan should drive market transformation, leading to the adoption of state or federal law, local ordinances, retail customer preference, or industry standard, producing long-term conservation without the need for further incentives.
3. Incentives should be used to cause a change in consumer purchase decisions. Incentive amounts should be based on the following criteria:
 - a. Maximum incentive: up to \$195 per acre-foot of water savings, not to exceed 50 percent of average retail device cost.¹
 - b. Reduce or eliminate incentives for devices when:
 - i. Device has achieved market acceptance;
 - ii. Regulatory requirements set water efficient device standards; or
 - iii. Calculated incentive amount from Metropolitan and other sources is less than 20 percent of average device cost, which staff believes is the minimum level to affect consumer purchasing decisions.
4. The Plan should provide for new and innovative approaches to explore other water saving opportunities with Metropolitan's funding based on the following criteria:
 - a. Maximum incentive: \$195 per acre-foot of verifiable water savings for the site of the action, up to one-half of eligible project costs.
5. The Plan should maximize use of strategies that are not dependent on direct financial incentives:
 - a. Building code and equipment standards,
 - b. Local ordinances and code compliance,
 - c. Conservation-based rate structures,
 - d. State and federal legislation, and
 - e. Technical assistance.
6. The Plan must ensure that conservation programs can be managed within budget.

¹By Minute Item 47964, dated July 14, 2009, the Board authorized modifications to Metropolitan's Water Conservation Program, with incentives based on \$195 per acre-foot of water savings, not to exceed 50 percent of average retail device cost.

MWD Water Conservation Plan Proposed FY 2010/11 Conservation Incentives

(1) Authorized Incentives

The following proposed incentive schedule is complete and would supersede all previously approved incentives. For commercial rebate reservations, the incentive would be based on the incentive amount in effect on the date the reservation is approved. Staff may move incentives between programs to improve administrative management.

Device	FY 2009/10 Incentive	FY 2010/11 Incentive (Proposed Effective 06/01/2010)	Reason for Incentive Change
Regional Residential Program			
High Efficiency Clothes Washer – Single and Multi-family (Water Factor <4.0)	\$50	\$85 \$135 with grant	Incentive based on water savings @ \$195/AF plus reinstated Prop 50 grant (\$50 per washer) and anticipated member agency contributions
Rotating Nozzles for pop-up spray head retrofits	\$4 No minimum, pressure regulation required ¹	\$3 Minimum 25 per application, pressure regulation not required	Average retail cost of device has decreased
Weather-based Irrigation Controller – under 1 acre	\$80	\$80	No change
Weather-based Irrigation Controller – 1 acre or larger	\$25 per station	\$25 per station	No change
Regional Commercial Program (including Multi-family Landscape)			
pH Cooling Tower Controller	\$1,900	\$1,750	Average retail cost of device has decreased
Rotating Nozzles for pop-up spray head retrofits	\$4 Minimum 25 per application, pressure regulation required	\$3 Minimum 25 per application, pressure regulation not required	Average retail cost of device has decreased
Water Broom	\$150	\$110 limited eligibility ²	Average retail cost of device has decreased; support water conservation ordinances
Commercial High Efficiency Toilet (tank or flushometer)	\$50	\$50	No change
Commercial High Efficiency Toilet – New Construction Upgrade	\$30	\$30	No change
Urinals – Zero Water Use and Ultra Low Water Use (0 – 0.25 gal/flush)	\$200	\$200	No change

Device	FY 2009/10 Incentive	FY 2010/11 Incentive (Proposed Effective 06/01/2010)	Reason for Incentive Change
Urinals – Zero Water Use and Ultra Low Water Use – New Construction Upgrade (0 – 0.25 gal/flush)	\$60	\$60	No change
Dry Vacuum Pump	\$125 per 0.5 hp	\$125 per 0.5 hp	No change
Connectionless Food Steamer	\$485 per compartment	\$485 per compartment	No change
Cooling Tower Conductivity Controller	\$625	\$625	No change
Ice Making Machine (Tier III)	\$300	\$300	No change
Weather-based or Central Computer Irrigation Controller	\$25 per station	\$25 per station	No change
Large Rotary Nozzles	\$7 per set	\$7 per set	No change
Other Incentives Eligible in MWD-Funded/Member Agency Administered Program³			
Residential High Efficiency Toilet – Single and Multi-family	\$50	\$50	No change
Residential High Efficiency Toilet – New Construction Upgrade	\$30	\$30	No change
Single-family Indoor Survey	\$12.50	\$12.50	No change
Irrigation Evaluation (without irrigation timer)	\$8	\$8	No change
Irrigation Evaluation (with irrigation timer)	\$18	\$18	No change
Commercial Landscape Survey	\$200 per acre ⁴	\$200 per acre ⁴	No change
Water Use Accountability	\$3.50 per acre ⁵	\$3.50 per acre ⁵	No change
Customized Projects		\$195 per AF, up to 50% of eligible project costs	Provide for new approaches

¹Pressure regulation was problematic for residential customers and not enforced in FY 2009/10.

²Eligibility limited to customers required to wash down surfaces to comply with health and safety regulations.

³Incentives listed under regional programs may be used for MWD-Funded/Member Agency Administered Program for implementation approaches other than direct customer rebates.

⁴Up to the full cost of the survey with no wait for device incentives.

⁵Limited to one-half of project cost.

(2) Incentives Eliminated

Steam sterilizer retrofit: industry standard, market transformation achieved.

Synthetic turf: incentive insufficient to affect consumer purchasing decision.

MWD Water Conservation Plan

Proposed MWD-Funded/Member Agency Administered Program

1. FY 2010/11 Allocation

Staff recommends allocating budgeted funds to member agencies based on a three-year average of water demand consistent with the base period used for the Water Supply Allocation Plan. Staff considered four alternative funding allocation methods for the MWD-Funded/Member Agency Administered Program, shown below in **Table 1 Program Funding Allocation Methods**. Staff recommends Column B, Total Municipal and Industrial (M&I) Service Area Demand since it provides the best proxy for water savings opportunity and is consistent with best management practices to reduce urban demand. This method is also consistent with the approach the Board used to establish policy in 1992 to allocate Conservation Credits Program funding among member agencies. Additionally, the base period for measurement of each agency's Total Municipal and Industrial Demand will be 2004 through 2006. This is consistent with the base period used in Metropolitan's Water Supply Allocation Plan. Two methods, Total Service Area Demand (Column A) and Total Purchased from MWD (Column C), are not recommended because they include agricultural water, which is funded through the separate Agricultural Conservation Program.

2. Eligible Programs and Projects

Based on the approved allocation described above, Metropolitan's funding would be provided for two types of member agency-implemented programs or projects:

- **Device-based programs:** Metropolitan incentives would be provided for programs that (1) offer direct incentives not offered through the regional programs, and (2) other implementation approaches. Program examples include customer rebates for residential high-efficiency toilets, direct installation or distribution of devices, and audits for landscape projects.
- **Customized projects:** For projects that result in water savings through customized site improvements, Metropolitan's funding would be limited to \$195 per acre-foot of estimated water savings, based on project life and up to one-half of eligible project costs. Project examples include industrial process changes, commercial kitchen improvements, turf removal, and major irrigation system improvements.
 - Eligible project costs include items such as:
 - Equipment
 - Landscape plants
 - Mulch
 - Pervious hardscape
 - Post-installation verification
 - Up to one year of irrigation management fees
 - Project Life:
 - Landscape irrigation system improvements: 10 years
 - Commercial upgrades and industrial process improvements: 5 years
 - Other custom installations: approved project life after review of member agency supplied documentation, technical studies, etc.

3. Implementation

Member agencies would have the option to use Metropolitan's regional residential and commercial vendors to administer device-based programs and customized projects and would be responsible for all vendor administrative costs.

For customized projects, member agencies will submit project proposals, including estimated water savings, for approval.

4. Member Agency Reimbursement

Upon Metropolitan's review and approval of project documentation certifying installation, Metropolitan will approve payment for eligible costs through the monthly water bill. Metropolitan will coordinate with member agencies to track approved projects in order to manage the program budget. All incentives for the MWD-Funded/Member Agency Administered Program must be paid within Metropolitan's fiscal year.

MWD Water Conservation Plan
Proposed MWD-Funded/Member Agency Administered Program

Table 1. Program Funding Allocation Methods

Agency	(A)	(B)	(C)	(D)
	Base Period ¹ = 2004 – 2006			
	Total Service Area Demand	Total M&I Service Area Demand ²	Total Purchased from MWD	Total M&I Purchased from MWD
Anaheim	1.8%	2.0%	1.3%	1.5%
Beverly Hills	0.3%	0.4%	0.6%	0.7%
Burbank	0.6%	0.7%	0.7%	0.8%
Calleguas MWD	4.0%	4.0%	5.4%	6.1%
Central Basin MWD	7.7%	6.8%	4.6%	3.5%
Compton	0.2%	0.3%	0.1%	0.2%
Eastern MWD	6.1%	5.0%	5.4%	5.3%
Foothill MWD	0.5%	0.6%	0.6%	0.6%
Fullerton	0.8%	0.9%	0.8%	1.0%
Glendale	0.8%	0.9%	1.1%	1.3%
Inland Empire	7.0%	6.5%	4.0%	3.1%
Las Virgenes MWD	0.7%	0.8%	1.1%	1.3%
Long Beach	1.8%	2.0%	2.1%	2.3%
Los Angeles DWP	15.5%	17.6%	11.7%	13.8%
MWD of Orange County	12.5%	13.0%	13.4%	14.2%
Pasadena	0.9%	1.0%	1.1%	1.3%
San Diego CWA	16.4%	14.6%	26.4%	24.2%
San Fernando	0.1%	0.1%	0.0%	0.0%
San Marino	0.1%	0.2%	0.1%	0.1%
Santa Ana	1.1%	1.2%	1.0%	1.2%
Santa Monica	0.4%	0.4%	0.6%	0.7%
Three Valleys MWD	3.1%	3.4%	3.3%	3.8%
Torrance	0.8%	0.9%	1.0%	1.1%
Upper San Gabriel MWD	5.4%	5.2%	2.4%	0.8%
West Basin MWD	4.7%	4.9%	6.7%	7.2%
Western MWD	6.8%	6.8%	4.6%	4.1%
Total	100.0%	100.0%	100.0%	100.0%

¹By Minute Item 47393, dated February 12, 2008, the Board approved the Water Supply Allocation Plan that uses 2004-2006 as the three-year baseline period.

²By Minute Item 39795, dated August 20, 1992, the Board approved member agency allocations for the Conservation Credits Program based on total urban demand in Metropolitan's service area.

MWD Water Conservation Plan Proposed Agricultural Conservation Program

In March 2009, the Board approved adding the Agricultural Conservation Program to assist agricultural customers that opt out of Metropolitan's Interim Agricultural Water Program (IAWP) or pay full service rates. Staff worked with member agencies and met with stakeholders in an effort to finalize program guidelines and get feedback on methods to improve agricultural irrigation efficiency. Based on feedback from member agencies and other stakeholders, staff proposes that the agricultural conservation incentive program begin in FY 2010/11.

1. Implementation

Metropolitan will provide incentives for agricultural irrigation system capital improvements to improve water use efficiency. Metropolitan's funding would be limited to \$195 per acre-foot of water savings, based on a 10-year equipment life, up to one half of eligible project costs. Eligible costs include items such as irrigation equipment, mulch when done in conjunction with an irrigation equipment upgrade, and up to one year of irrigation management fees.

Agricultural customers are eligible to participate, provided they are not participating in Metropolitan's IAWP at the time of equipment installation. A pre-installation audit is required to evaluate the existing irrigation system. Based on audit recommendations, customers would apply to the program, complete the improvements, and participate in a post-installation audit that measures the change in irrigation system efficiency and provides information to further increase conservation savings. Metropolitan will coordinate with member agencies to track participation in order to manage the program budget.

Estimated water savings would be determined based on the change in irrigation system efficiency measured during the post-installation audit. Metropolitan would establish minimum audit guidelines to allow evaluation of water savings. Audits would be performed by entities that have the technical expertise to assess agricultural irrigation systems and make recommendations, such as local resource conservation districts or the Department of Water Resources. Member agencies would be responsible for any pre-installation audit costs while Metropolitan would be responsible for post-installation audit costs, up to a predetermined cost limit per site. Metropolitan will work with member agencies to establish post-installation audit reimbursement limits.

2. Member Agency Reimbursement

Member agencies will notify Metropolitan and provide project documentation when a customer application is approved. After project completion, member agencies will submit invoices with supporting documentation certifying installation to Metropolitan for review. Upon approval, member agencies will be reimbursed for customer incentives (100 percent of the estimated water savings, up to one-half of eligible project costs) and post-installation audit costs through Metropolitan's monthly water bill.