

- Semi-annual Report on Metropolitan's Local Resources and Conservation Programs - July through December 2005

### Summary

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In partnership with member agencies, Metropolitan encourages cost-effective water recycling, groundwater recovery and conservation programs to achieve resource targets established in the regional Integrated Resources Plan. Metropolitan is providing nearly \$40 million this year to sustain water supply reliability through development of new local projects and water-use efficiency improvements. Highlights of the last six months include:

#### LOCAL RESOURCES PROGRAM ACHIEVEMENTS

- Three projects began operation:
  - Alamitos Barrier Reclaimed Water Project (3,025 acre-feet per year)
  - The Non-Domestic Water System Expansion in Ladera Ranch and Talega Valley (2,772 acre-feet per year)
  - Harbor Water Recycling Project (5,000 acre-feet per year)
- Executed LRP agreements for three water recycling projects totaling about 9,700 acre-feet per year:
  - Sepulveda Basin Water Recycling Project Phase 4 (546 acre-feet per year)
  - Decker Canyon Recycled Water Line Extension Project (300 acre-feet per year)
  - City of Industry Regional Recycled Water Project (8,868 acre-feet per year)



Alamitos Barrier Reclaimed Water Project  
(Micro-Filtration Station)  
(sponsored by Central Basin MWD)

#### CONSERVATION PROGRAM ACHIEVEMENTS

- Board approved increase to MWD incentive level to \$195 per acre-feet up to the full purchase cost of retrofit devices, establishment of Enhanced Conservation Program, and new devices eligible for incentives.
- Executed California Proposition 50 grant agreement for \$1.7 million high-efficiency clothes washer program.
- Received home builder proposals for seven projects including 37 California Friendly Model Homes.
- Distributed 410 weather-based irrigation controllers for a total of 838 since program inception.

#### WATER USE EFFICIENCY ACHIEVEMENTS

- Reviewed and approved ten annexation statements from member agencies in compliance with water use efficiency guidelines outlined in Metropolitan's administrative code.

**Detailed Report**

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This report addresses the implementation progress for Metropolitan's local resources and conservation programs. Implementation includes working with the state and member agencies to increase regional water supply reliability and achieve resource targets identified in the IRP.

**LOCAL RESOURCES PROGRAM**

Since 1982, Metropolitan has partnered with its member and retail agencies to provide financial incentives for local development of water recycling and groundwater recovery projects that reduce demand on imported supplies. Metropolitan provides up to \$250 per acre-foot for eligible production from participating projects. Agencies apply for funding through a competitive process, which encourages development of cost-effective and regionally beneficial projects.

The following table summarizes groundwater and recycled water production and incentive payment data:

<b>LOCAL RESOURCES PROGRAM PERFORMANCE SUMMARY</b>			
	<b><u>Recovered Groundwater</u></b>	<b><u>Recycled Water</u></b>	<b><u>TOTAL</u></b>
<b>Projects</b>			
Active Contracts	19	55	74
Operating Projects	18	46	64
Concluded Contracts	5	7	12
Contract Yield (acre-feet per year)	84,110	280,700	364,810
<b>Deliveries (AF)*</b>			
FY 2005/06 (first half)	21,396	45,602	66,998
FY 2004/05	40,706	72,002	112,708
Since Inception	306,089	794,364	1,100,453
<b>Payments (\$ millions)</b>			
FY 2005/06 (first half)	4.7	8.8	13.5
FY 2004/05	7.1	14.0	21.1
Since Inception	54.9	147.0	201.9

\*Deliveries and payments are as reported through December 2005; however, not all information is complete and payments are estimated until actual costs are reconciled. Production total includes data for concluded contracts.

**LRP Performance**

In the first half of FY 2005-06, Metropolitan provided about \$13.5 million in incentive payments for about 67,000 acre-feet of production. Program expenditures and yield were less than expected due to delays in invoicing and lower irrigation demand for recycled water, as well as lower potable demand for recovered groundwater. Additionally, two projects did not start deliveries as anticipated and one project was shut down to complete capital improvements. However, total LRP production increased by about 9,500 acre-feet over same period in FY 2004/05.

### **Project Start-ups**

Operation of the Alamitos Barrier Reclaimed Water Project, sponsored by Central Basin Municipal Water District, began in October 2005. The project is owned by the Water Replenishment District of Southern California and will ultimately provide 3,025 acre-feet per year of recycled water to prevent seawater intrusion at the Alamitos Gap.



Alamitos Barrier Reclaimed Water Project  
(Ultra-violet Disinfection)  
*(sponsored by Central Basin MWD)*

Operation of the City of Los Angeles' Harbor Water Recycling Project began in December 2005. The Project will ultimately deliver about 5,000 acre-feet per year of recycled water from the Terminal Island Treatment Plant to municipal and industrial users including LADWP's Harbor Generating Station and the Tosco Anaheim Refinery.



Harbor Water Recycling Project  
*(sponsored by City of Los Angeles Department of Water & Power)*

Operation of the Non-Domestic Water System Expansion in Ladera Ranch and Talega Valley, sponsored by the Municipal Water District of Orange County and Santa Margarita Water District, began in October 2005. The project will deliver about 2,772 acre-feet per year of recycled water for golf course and landscape irrigation.



Ladera Ranch and Talega Expansion Project  
*(sponsored by Municipal Water District of Orange County & Santa Margarita Water District)*

### **2003 LRP Process**

Staff concluded the 2003 Local Resources Program request for proposals process by signing up 57,000 acre-feet of new recycled water and recovered groundwater needed to sustain regional water supply reliability. Agreements for the following three projects were executed in December 2005:

- Sepulveda Basin Water Recycling Project Phase 4, Los Angeles Department of Water and Power (546 acre-feet per year)

- Decker Canyon Recycled Water Line Extension Project, Las Virgenes Municipal Water District (300 acre-feet per year)
- City of Industry Regional Recycled Water Project – divided into three agreements:
  - Rowland Water District Portion (1,884 AFY)
  - Walnut Valley Water District Portion (2,584 AFY)
  - Upper San Gabriel Valley MWD Portion (4,400 AFY)

At the close of the December 2005 program deadline, 10 of the 13 competitively selected projects were under contract. Three project sponsors chose to not execute agreements because environmental documentation was not complete or local supply improvements were reprioritized.

**CONSERVATION PROGRAM**

Incentive-based conservation targets established in the IRP are being pursued in three basic water-use areas: Residential Indoor, Landscape, and Commercial/Industrial/Institutional.

The following table summarizes water savings and incentive payments:

<b>CONSERVATION CREDITS PROGRAM PERFORMANCE SUMMARY</b>				
	<b>Residential</b>	<b>Landscape</b>	<b>Commercial</b>	<b>Total</b>
<b>Water Savings (AF)</b>				
FY 2005/06 (first half)	1,441	570	3,492	5,503
FY 2004/05	4,453	1,316	3,012	8,781
Since Inception*	858,492	27,957	51,438	937,887
<b>Payments (\$ million)</b>				
FY 2005/06 (first half)	3.6	0.1	1.1	4.8
FY 2004/05	8.6	0.2	1.9	10.7
Since Inception	165.9	2.3	13.3	181.5

\* Includes passive conservation originated as active

Note: Recent reduction in conservation credits program primarily due to saturation of residential ultra-low flush toilets and landscape programs taking longer to commence than anticipated.

**Conservation Grants**

The following table shows the five water conservation grants that were awarded to Metropolitan totaling \$4.9 million:

<b>CONSERVATION GRANT AWARDS</b>		
<b>Grantor</b>	<b>Purpose</b>	<b>Grant Amount</b>
DWR	High-Efficiency Clothes Washers	\$1,660,000
DWR	High-Efficiency Toilets	\$1,000,000
DWR	Weather-Based Irrigation Controllers	\$1,778,700
DWR	California-Friendly Model Homes	\$423,150
DWR	Web-Based Landscape Training	\$77,500

**Conservation Action Items**

In the first half of FY 2005-06, the Board adopted the following conservation actions:

- Increased incentive level for new high-efficiency programs and devices to \$195 per acre-feet of conserved water up to the full purchase cost of the retrofit device.
- Enhanced Conservation Program with incentives up to \$250 per acre-foot to pilot and achieve new conservation.
- Continued funding of existing Innovative Conservation Program to identify new water conservation devices and technologies.
- Development of databases and market research studies to support the successful implementation of conservation programs.
- Activities targeting water savings persistence by working with industry groups and developing new water efficiency standards.
- Transition ultra low-flush toilet program to higher efficiency toilets.
- Added new eligible devices to core incentive program.

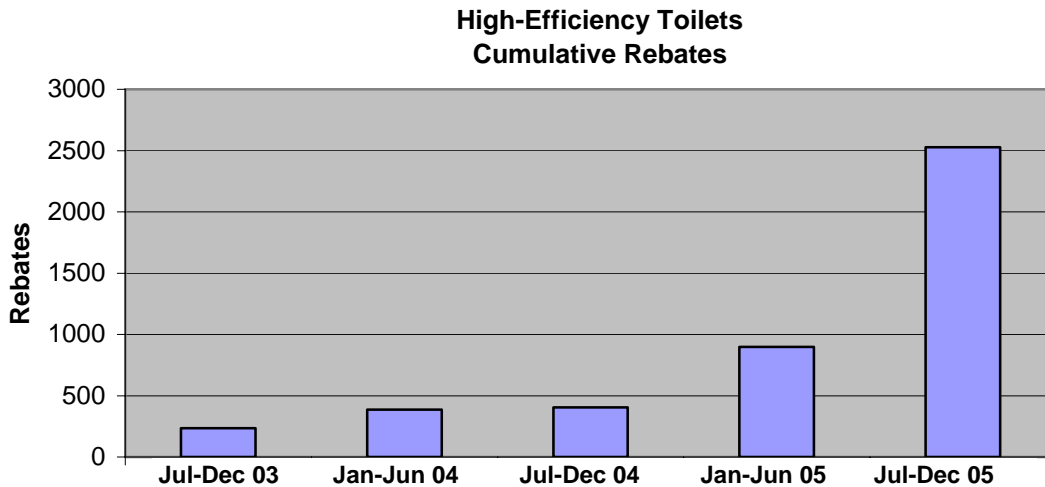
**Residential Indoor Activities**

***High-Efficiency Clothes Washer Program***

Executed Proposition 50 grant agreement with the California Department of Water Resources for the High-Efficiency Clothes Washer Program. Metropolitan will retrofit about 33,200 units using the \$1.7 million grant. This grant is to target higher efficiency models of HECW's.

***High-Efficiency Toilets***

In concert with Metropolitan's increased incentives, high efficiency toilets offer significant potential to achieve increased residential water savings in the future. While legislative efforts have resulted in promulgating ULFTs as the industry standard, Metropolitan's strategy is to continually drive the trend forward to higher efficiency devices. To that end, as of July 1, 2006, Metropolitan will only fund ultra-low-flush toilets (1.6 gallons per flush) that meet a higher standard for maintaining water savings. Beginning January 1, 2009, Metropolitan will only fund high-efficiency toilets (HET's). HET's are fixtures flushing at 20 percent below a ULFT, equating to a maximum of 1.28 gallons per flush. As part of the December 2005 board action, an incentive of \$165 per HET was approved when replacing a high water using toilet. Consumers that upgrade ULFTs and retrofit with HETs are eligible for an incentive of \$30 per HET.



### ***Model Home Pilot Program***

Since program inception through December 2005, Metropolitan has received Statements of Interest for 79 proposed California Friendly Model Homes. During the period covered by this report, proposals were received for 37 models across seven projects from two builders. Of these, three projects have advanced to the design phase, including Pardee's "Encantada" in Ladera Ranch (MWDOC), Pardee's tract at The Preserve in Chino (IEUA) and KB Home's "The Cove" in San Jacinto (Eastern MWD). This pilot effectively demonstrates two key program objectives: 1) ability to execute California Friendly designs as an integral part of new home developments; and 2) positive public acceptance of lower water using California Friendly products.



KB Home California Friendly Landscape Model home at "Valdemosa" in the City of Temecula (sponsored by Eastern MWD)

This grant-funded pilot program reached a much-anticipated milestone - the opening of the first California Friendly Landscaped model homes at each of the three participating projects:

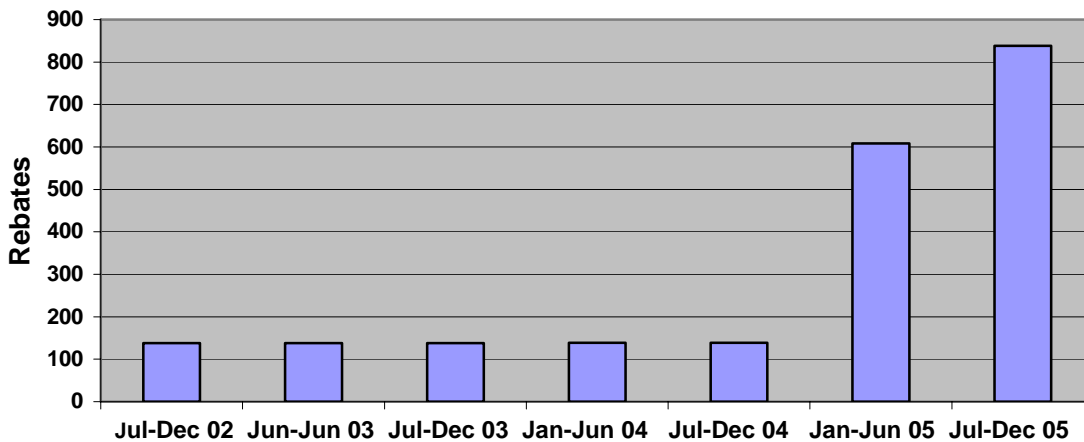
- "Valdemosa" in the City of Temecula (KB Homes)
- "Watermill at Adeline's Farm" in French Valley (Shea Homes)
- "Holiday" in Sun City (John Laing Homes)

**Landscape Activities**

***Weather-Based Irrigation Controllers***

The number of rebates provided for weather-based irrigation controllers are starting to increase as new distribution programs take root. Staff continues to promote retrofit using these devices. Future efforts include a variety of approaches including: Metropolitan’s public advertising campaign, website information, use of Protector del Agua landscape irrigation training program as a delivery vehicle for distribution, local member agency programs, Metropolitan’s regional commercial rebate program, and large distribution events. In the first half of the fiscal year, Metropolitan and its member agencies distributed 410 weather-based irrigation controllers to the public.

**Weather-Based Irrigation Controllers  
Cumulative Rebates**



The Los Angeles Department of Water and Power hosted a retail distribution event held at a local retail nursery. Local newspaper articles carried by the Daily News publicized the event, which also received local AM radio coverage. A total of 120 controllers were distributed. This included a 20-minute weather-based irrigation controller installation/programming class.



Weather- Based Irrigation Controller Distribution  
*(sponsored by City of Los Angeles Department of Water and Power)*



Armstrong Nursery  
*(Sherman Oaks, CA)*



Protector del Agua Instructor Weather- Based Irrigation Training



Collection of Replaced Controllers



LADWP and MWD Distribution Event Staff

### ***Protector del Agua Irrigation Efficiency Training***

- Started work using the Water for the West grant to convert two residential classes into web tutorials.
- Distributed about 60 weather-based irrigation controllers to qualified homeowners that attended Metropolitan's landscape irrigation efficiency training workshops held in San Diego and Camarillo. Classes were hosted by the San Diego County Water Authority and Calleguas Municipal Water District/Camrosa Water District.



Protector del Agua Residential Customer Training Class  
(sponsored by Calleguas MWD & Camrosa Water District)

### ***Synthetic Turf Program***

- The City of Glendale completed construction of two synthetic turf soccer fields that previously were natural grass. A dedication ceremony was held in September 2005.
- The Orange Unified School District and Community Foundation of Orange completed renovation of the Fred Kelly Stadium synthetic turf project.



Synthetic Turf Soccer Fields  
(City of Glendale)

### **Outdoor Conservation Outreach Program**

In October and November, Metropolitan conducted consumer research among Southern California homeowners about water usage, awareness of outreach efforts, effectiveness of the California Friendly brand and barriers to water use reduction. This included a phone survey of 500 Southern California homeowners with automatic sprinkler systems and personal intercept surveys at garden centers. The survey revealed that:



- Average homeowner waters lawn about three days per week, with 15 percent of respondents watering daily.
- Average homeowner waters 11.5 minutes per watering day, and 18 percent water over 15 minutes per watering day, down from the 20 minutes per day reported in Nov. 2003.
- Homeowners strongly agree that it is important for Southern Californians to control water consumption.
- Homeowners generally agree that they would buy more drought-tolerant plants if they were labeled and easy to find.
- About 33 percent of respondents recalled seeing or hearing ads about outdoor water conservation recently. Of those, 29 percent remembered without prompting messages about using drought-tolerant plants, 20 percent buying native California plants, and six percent remembered bewaterwise.com specifically. For comparison, in 2003, only seven percent recalled messages about using drought-tolerant or native plants.
- Only 15 percent of homeowners have heard of smart sprinkler controllers, and only five percent were aware of rebates for these devices.



Weather-Based Irrigation Controller Distribution

### **Partnership with California Green Builder Program**



Charles Gale, MWD; Greg Ray, Vice President of Landscape Architecture, Pardee Homes, and Bob Rivinius, CEO of California Building Industry Association

California Friendly landscapes, products and practices that save at least 20,000 gallons of water per year in new homes will become the definitive residential green building standard throughout the state under a new partnership announced in November between Metropolitan and the California Building Industry Association. A cornerstone of CBIA's voluntary California Green Builder Program will be the use of several California Friendly water-saving features developed by Metropolitan, including landscapes featuring smart, sustainable design, plants that are right for the climate, and state-of-the-art irrigation systems. Homebuilders that install the latest water-saving devices and practices will reduce water use in new homes by at least 12 percent.

***Native Plant Garden Hotline***

The native plant outreach program was launched in October 2004 at the Rancho Santa Ana Botanic Garden through a three-year contract with Metropolitan. Its purpose is to provide free native plant horticultural information to the general public as well as to horticultural and landscape professionals via telephone, email, web sites, popular publications, community education and public presentations. During this time period, the hotline received more than 300 phone calls from members of the public requesting information on water-wise gardening. The Native Knowledge hotline (909) 624-0838 is open from 9 a.m. to noon on Wednesdays, Fridays and Saturdays, or via email anytime at [rsabg.hortinfo@cgu.edu](mailto:rsabg.hortinfo@cgu.edu). The public can also visit the website at [www.rsabg.org](http://www.rsabg.org).

***Bewaterwise.com Activity***



The Metropolitan Web site, [www.bewaterwise.com](http://www.bewaterwise.com), devoted to water conservation received nearly 55,000 unique visitors during July through December.

***AB2717 Taskforce***

The AB 2717 Landscape Taskforce report, which was submitted to the Legislature and Governor in December 2005, includes 42 recommendations crafted by the California Department of Water Resources, local water agencies, municipalities, the California Urban Water Conservation Council and Metropolitan.

The top 12 recommendations highlighted in the report are:

<b>TOP 12 RECOMMENDATIONS</b>	
1	Adopt water conserving rate structures as defined by the Task Force.
2	Reduce the Evapotranspiration (ET) Adjustment Factor (landscape water budget) in the California Model Ordinance and review the ET Adjustment Factor every ten years for possible further reduction.
3	Enforce and monitor compliance with local ordinances and the California Model Ordinance.
4	Require dedicated landscape meters.
5	Promote the use of recycled water in urban landscapes.
6	Require that local ordinances be at least as effective as the California Model Ordinance.
7	Increase the public's awareness of the importance of landscape water use efficiency and inspire them to action.
8	Require Smart Controllers (Weather-based Irrigation Controllers).
9	Adopt and enforce statewide prohibitions on overspray and runoff.
10	Provide training and certification opportunities to landscape and irrigation professionals.
11	Support upgrading the California Irrigation Management Information System Program.
12	Adopt performance standards for irrigation equipment.

Metropolitan is working with the California Urban Water Conservation Council to implement any recommendations that are approved by the Legislature, DWR, etc.

**Commercial / Industrial / Institutional Activities**

In the first half of the fiscal year, Metropolitan and member agencies continued to provide funding to commercial, industrial and institutional customers to retrofit high water using devices with more efficient devices. Additionally, weather-based irrigation controllers were added to the list of eligible devices under the regional commercial rebate program.

**CII PERFORMANCE (6 MONTHS)**

- Applications processed: 574
- Devices Retrofitted: 7,815
- Metropolitan Cost: \$567,360
- Member Agency Cost Share: \$493,305

**RINSE AND SAVE**

- Restaurant Pre-Rinse Spray Valves retrofitted: 2,349
- Total expenditures: \$150,336

***Industrial Process Improvement Program***

- Executed second agreement for a commercial laundry project with annual projected water savings of 18 million gallons. Valet Services will receive an incentive of up to \$42,500 for metered water savings.
- IPI Program funding increased to \$3 per 1,000 gallons of water as a result of Board approval to increase incentive levels to \$195 per acre-feet.



Industrial Process Improvement Program  
*(El Monte Laundry)*

**WATER USE EFFICIENCY ACHIEVEMENTS**

- Staff reviewed ten annexation statements from Calleguas and Eastern for a total of 185 acres and 254 acre-feet per year in compliance with water use efficiency guidelines outlined in Metropolitan's administrative code.
- Four annexations from Eastern were approved by the Board.