

MEETING OF THE
BOARD OF DIRECTORS OF THE
MUNICIPAL WATER DISTRICT OF ORANGE COUNTY
Jointly with the
PLANNING & OPERATIONS COMMITTEE
June 2, 2014, 8:30 a.m.
MWDOC Conference Room 101

P&O Committee:

Director Osborne, Chair
Director Barbre
Director Hinman

Staff: R. Hunter, K. Seckel, R. Bell,
H. De La Torre, K. Davanaugh, J. Berg

Ex Officio Member: L. Dick

MWDOC Committee meetings are noticed and held as joint meetings of the Committee and the entire Board of Directors and all members of the Board of Directors may attend and participate in the discussion. Each Committee has designated Committee members, and other members of the Board are designated alternate committee members. If less than a quorum of the full Board is in attendance, the Board meeting will be adjourned for lack of a quorum and the meeting will proceed as a meeting of the Committee with those Committee members and alternate members in attendance acting as the Committee.

PUBLIC COMMENTS - Public comments on agenda items and items under the jurisdiction of the Committee should be made at this time.

ITEMS RECEIVED TOO LATE TO BE AGENDIZED - Determine there is a need to take immediate action on item(s) and that the need for action came to the attention of the District subsequent to the posting of the Agenda. (Requires a unanimous vote of the Committee)

ITEMS DISTRIBUTED TO THE BOARD LESS THAN 72 HOURS PRIOR TO MEETING --
Pursuant to Government Code section 54957.5, non-exempt public records that relate to open session agenda items and are distributed to a majority of the Board less than seventy-two (72) hours prior to the meeting will be available for public inspection in the lobby of the District's business office located at 18700 Ward Street, Fountain Valley, California 92708, during regular business hours. When practical, these public records will also be made available on the District's Internet Web site, accessible at <http://www.mwdoc.com>.

ACTION ITEMS

1. RETAIL WATER AGENCY PASS-THROUGH FUNDING AGREEMENTS FOR WATER USE EFFICIENCY PROGRAMS

INFORMATION ITEMS (The following items are for informational purposes only – background information is included in the packet. Discussion is not necessary unless a Director requests.)

2. THE ECOLOGY CENTER RAIN BARREL PROGRAM

3. CALIFORNIA AIR RESOURCES BOARD – AB 32 SCOPING PLAN
SEQUENTIAL LOADING ORDER FOR WATER SUPPLY SOURCES
4. STATUS REPORTS
 - a. Ongoing MWDOC Reliability and Engineering/Planning Projects
 - b. WEROC
 - c. Water Use Efficiency Projects
 - d. Water Use Efficiency Programs Savings and Implementation Report
5. REVIEW OF ISSUES RELATED TO CONSTRUCTION PROGRAMS, FACILITY
AND EQUIPMENT MAINTENANCE, WATER STORAGE, WATER QUALITY,
CONJUNCTIVE USE PROGRAMS, EDUCATION, DISTRICT FACILITIES, and
MEMBER-AGENCY RELATIONS

ADJOURNMENT

NOTE: At the discretion of the Committee, all items appearing on this agenda, whether or not expressly listed for action, may be deliberated, and may be subject to action by the Committee. On those items designated for Board action, the Committee reviews the items and makes a recommendation for final action to the full Board of Directors; final action will be taken by the Board of Directors. Agendas for Committee and Board meetings may be obtained from the District Secretary. Members of the public are advised that the Board consideration process includes consideration of each agenda item by one or more Committees indicated on the Board Action Sheet. Attendance at Committee meetings and the Board meeting considering an item consequently is advised.

Accommodations for the Disabled. Any person may make a request for a disability-related modification or accommodation needed for that person to be able to participate in the public meeting by telephoning Maribeth Goldsby, District Secretary, at (714) 963-3058, or writing to Municipal Water District of Orange County at P.O. Box 20895, Fountain Valley, CA 92728. Requests must specify the nature of the disability and the type of accommodation requested. A telephone number or other contact information should be included so that District staff may discuss appropriate arrangements. Persons requesting a disability-related accommodation should make the request with adequate time before the meeting for the District to provide the requested accommodation.



ACTION ITEM

June 18, 2014

TO: Board of Directors

FROM: **Planning & Operations Committee**
(Directors Osborne, Barbre, Hinman)

Robert Hunter, General Manager
Staff Contact: Joe Berg, Water Use Efficiency Programs Manager

SUBJECT: Retail Water Agency Pass-Through Funding Agreements for Water Use Efficiency Programs

STAFF RECOMMENDATION

Staff recommends the Board of Directors authorize the General Manager to sign pass-through funding agreements with member agencies to enhance incentives paid to their respective customers.

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

SUMMARY

The Metropolitan Water District administers a regional rebate program on behalf of all agencies in its service area. Rebates are paid to residential, commercial, industrial and institutional customers for installing water saving devices including, but not limited to, smart irrigation timers and sprinkler nozzles, toilets and urinals, food steamers, and ice machines.

MWDOC and its member agencies add additional funding to Metropolitan's base rebate incentives to enhance the incentive for our customers. MWDOC's enhanced incentives come from grants obtained from state and federal sources. Retail agency enhanced incentives usually come from their general operating budgets.

To facilitate enhanced incentives from member agencies, MWDOC and the participating member agency enter into a pass-through funding agreement. Agencies can pick and choose what devices they want to provide and the level of enhanced rebates for their customers. In this manner each retail agency can tailor the program to the needs within its service area. A pass-through agreement template is provided as Attachment A. Prior to

Budgeted (Y/N): N/A	Budgeted amount: N/A	Core __	Choice <u>X</u>
Action item amount: N/A	Line item: N/A		
Fiscal Impact (explain if unbudgeted): N/A			

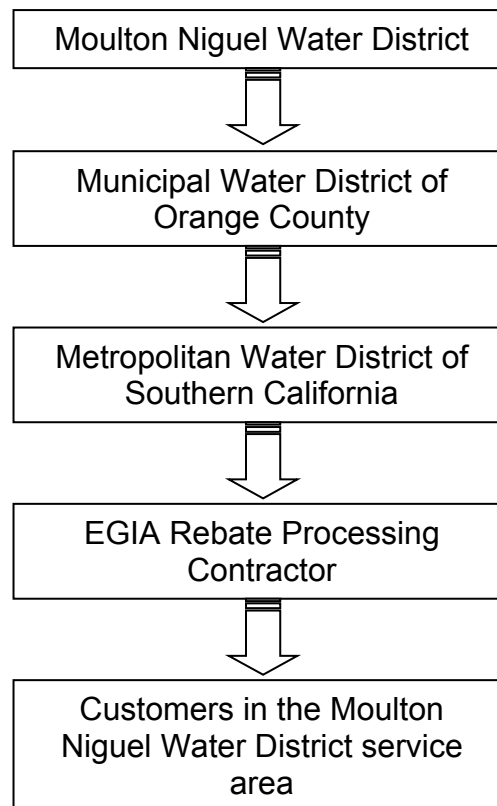
September 2013, these agreements were signed at the discretion of the General Manager. The purpose of this staff report is to inform the Board of pass-through funding agreements and to request Board authorization for the General Manager to continue signing pass-through funding agreements with member agencies.

DETAILED REPORT

After approval of this item and application to MNWD and TCWD, MWDOC will have pass-through funding agreements with all but four member agencies (Emerald Bay, La Palma, San Juan Capistrano, and Seal Beach). The majority of these agreements facilitate funding for smart timers, which is captured as matching funds for our federal grants. Several agencies provide enhanced incentives for other devices such as toilets, clothes washers, and turf removal.

Staff is currently in the process of establishing pass-through funding agreements with Moulton Niguel Water District and Trabuco Canyon Water District with the intent of becoming effective July 1, 2014. For the past three years, Moulton Niguel Water District has administered a rebate program for their customers. To save staff time processing rebates and streamline the rebate process for their customers, the Moulton Niguel Water District Board authorized passing their funding through MWDOC to the regional rebate program. MWDOC then passes this funding to Metropolitan who pays the rebate processing contractor. See Figure 1: Pass-Through Funding Flow Chart.

Figure 1: Pass-Through Funding Flow Chart



On a monthly basis, MWDOC reports rebate program activity and invoices each agency for their participation. Metropolitan and MWDOC monitor the drawdown of retail agency funding on a weekly basis to insure that funding is not over committed. Should an agency's designated amount of funding be exhausted, they can add additional funding at any time. The agency may also cease to provide funding upon 30 days' written notice.

Staff recommends the Board of Directors authorize the General Manager to sign pass-through funding agreements with member agencies to enhance incentives paid to their respective customers.

Attachment A

**Agreement for Participation and Funding
By Moulton Niguel Water District in
Specified Municipal Water District of Orange County
Rebate Programs**

This agreement for participation ("Agreement") is made by and between the MUNICIPAL WATER DISTRICT OF ORANGE COUNTY ("MWDOC") and MOULTON NIGUEL WATER DISTRICT ("MNWD"). The Agreement provides for participation and co-funding by MNWD of water use efficiency devices through Metropolitan Water District of Southern California's ("Metropolitan") SoCal Water\$mart ("Water\$mart") rebate program in MNWD's service area.

1. Rebate Programs. MWDOC has developed and arranged funding through Metropolitan and other sources for a program to provide rebates to water users within MNWD's service area upon the purchase and installation of common plumbing devices designed to increase water use efficiency. Through Metropolitan's "Water\$mart" rebate program ("Program"), property owners within MNWD's service area are eligible for rebates in varying amounts for a range of devices. The Program's objectives are to achieve savings in water consumption, reduce water runoff to storm drains and natural water bodies, and promote the goals of the applicable Best Management Practices.

2. Rebate Contractor. In connection with the Program, MWDOC and Metropolitan have contracted for the services of a qualified rebate contractor ("Rebate Contractor") to provide information about the Program and participation criteria to eligible participants, administer the rebates, and report the results of the Program. Participants qualify for rebates, and rebate checks are issued, when proper installation and operation of particular devices have occurred.

3. MNWD Participation and Funding. In addition to the existing funding for rebates provided directly through Metropolitan's Water\$mart program, MNWD will provide additional funding or "co-funding" to the Program in the "Maximum Funding" amounts identified on Exhibit A to this Agreement, entitled "Proposed Rebate Funding Levels FY 2013-2014." MNWD shall have the ability to transfer funding between devices as it deems necessary by sending written notice to MWDOC. Such a notice shall specify changes to the "Maximum Funding" for each device affected by the transfer and shall not result in a net increase in total funding. For example, if the Water\$mart high efficiency clothes washer rebate is nearing the "Maximum Funding" amount, while the Water\$mart high efficiency toilet rebate has funding remaining, MNWD may notify MWDOC in writing to transfer funding between the devices, thereby increasing the Maximum Funding for one device and decreasing it for the other. MNWD may also, upon notice by MWDOC of depleted funds prior to Program Expiration, as defined herein, make additional funding available, without formal amendment of this Agreement, up to an additional \$_____. This can be accomplished by letter from an authorized MNWD representative to MWDOC's General Manager. If the Maximum Funding for a particular device is exhausted prior to the Program Expiration, as defined in Paragraph 8 below, and MNWD does not elect to add additional funding or transfer available funding from another device, MWDOC will direct the Rebate Contractor to

discontinue offering the additional rebate funding for that device in MNWD's service area.

4. MWDOC's Obligations. Under this Agreement:

- MWDOC will be responsible to MNWD for ensuring that timely reports on the Program's results are prepared by the Rebate Contractor and MWDOC's own staff.
- MWDOC will develop a database of information regarding participation in the Program and provide monthly electronic and written reports of activity to MNWD.
- The electronic reports will include, at a minimum, MNWD customer account number, customer name, service address, quantity and type of device rebated, and rebate amount paid.
- MWDOC will invoice MNWD for its funding obligation pursuant to Exhibit A on a monthly basis for rebates issued during the previous month.
- MWDOC, through the Rebate Contractor or its own staff, will provide MNWD with monthly electronic and written reports and shall monitor the number of rebate applications provided in MNWD's service territory to ensure that it is within the "Maximum Funding" as provided in Exhibit A to this Agreement.
- MWDOC does not guarantee any minimum number of rebates will be available for MNWD's service area.

5. MNWD's Obligations. MWDOC will invoice MNWD on a monthly basis for rebates issued in the previous month period, and payment by MNWD will be made pursuant to Exhibit A and within thirty (30) days of the date of the MWDOC invoice.

6. Confidentiality. MWDOC agrees to maintain the confidentiality of MNWD's customer names, addresses and other information about participants in the Program gathered in connection with the Program, and MWDOC will not cause or permit the disclosure of such information except as required by law and as necessary to carry out the Program. To the extent MWDOC contracts with the Rebate Contractor or other third party contractors to carry out all or any portion of the Program, MWDOC will require such contractors to similarly maintain the confidentiality of such customer information.

7. Indemnification. To the extent MWDOC and/or MNWD or their respective staffs perform any activities in connection with the Program, each agrees to indemnify and hold the other harmless from any and all liability, claims, obligations, damages and suits arising out of its negligence or liability without fault in the performance of such activities, except to the extent such liability, claims, obligations, damages or suits arise from the other's negligence or liability without fault.

8. Term. This Agreement shall commence on (mm/dd/yy) and continue until (mm/dd/yy) or until the Total Funding for the Program, as shown on Exhibit A hereto, has been exhausted, whichever occurs first ("Program Expiration"). If the Total Funding for the Program is exhausted prior to Program Expiration, MWDOC will notify MNWD and inquire about the availability of additional funding, as provided herein. If MNWD

declines to provide additional funding, MWDOC will direct its Rebate Contractor to discontinue offering rebate funding for the Program in MNWD's service area.

9. Early Termination. MNWD may terminate this Agreement at any time upon thirty (30) days' written notice to MWDOC. MWDOC may terminate this Agreement prior to the Program Expiration date, or prior to the exhaustion of the Total Funding for the Program for MNWD's service area, without prior notice in the event funding for the Program is exhausted, reduced, or eliminated from any funding source. If MWDOC deems it necessary to terminate this Program for any other reason, MWDOC will give MNWD thirty (30) days' written notice. In the event of termination by either party, MNWD will be responsible for payment of its funding contribution for all rebates initiated by participants of the Program within MNWD's service area prior to the effective date of the termination. For purposes of this paragraph, an application is deemed initiated when a participant in the Program submits an online rebate application or obtains a rebate reservation.

Dated: _____

MUNICIPAL WATER DISTRICT OF
ORANGE COUNTY

By: _____
Robert J. Hunter
General Manager

Dated: _____

MOULTON NIGUEL WATER DISTRICT

By: _____
_____, General Manager

Dated: _____

APPROVED AS TO FORM:

By: _____

Legal Counsel

Exhibit A: Proposed Rebate Funding Levels FY 2013-2014

<i>Program</i>	Maximum Funding*	Devices	MNWD Rebate Funding Level Per Device
<i>SoCal Water\$mart</i> Residential Program	\$450,000	High Efficiency Clothes Washer (HECW)	\$165
		High Efficiency Toilet (HET)	\$50
Program	Maximum Funding*	Devices	MNWD Rebate Funding Level Per Device
<i>SoCal Water\$mart</i> Commercial Program	\$50,000	Commercial High Efficiency Toilet	\$100
		Zero Water/Ultra Low Water Urinals	\$100
		Connectionless Food Steamer	\$485 Per Compartment
		Commercial Ice Making Machine (Tier III)	\$250
		Hotel Connectionless Food Steamer	\$485 Per Compartment
		Hotel Commercial Ice Making Machine (Tier III)	\$250.00
Total Funding for All Programs	\$500,000		

* Where indicated, "Maximum Funding" amounts for certain programs are subject to the provisions of Paragraph 3 of the Agreement and will be adjusted upon notification by MNWD to transfer funding between programs.



INFORMATION ITEM

June 2, 2014

TO: **Planning & Operations Committee**
(Directors Osborne, Barbre, Hinman)

FROM: **Robert Hunter, General Manager**

Staff Contact: Joe Berg, Water Use Efficiency Programs Manager

SUBJECT: **The Ecology Center Rain Barrel Program**

STAFF RECOMMENDATION

Staff recommends the Planning & Operations Committee receive and file this report.

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

SUMMARY

In December 2013, the Board authorized staff to enter into pass-through funding agreements with member agencies to implement customized local programs using the Metropolitan Funded Member Agency Administered funding program. Staff is planning to expand this effort to include rain barrels distributed by The Ecology Center in San Juan Capistrano. The Ecology Center is a non-profit “educational center that engages individuals, families, and students in fun, hands-on activities that teach practical, environmental solutions at the household and community level. The Ecology Center seeks to bring all members of the community together in a solutions-based educational setting to inspire and create a healthy and abundant future for all of Southern California.” Staff has discussed this effort with member agencies who are supportive of this partnership with The Ecology Center.

DETAILED REPORT

Staff is in the process of entering into a pass-through funding agreement with The Ecology Center to implement a Rain Barrel Distribution Program. A total of 250 rain barrels are targeted for distribution over the next several months. The Ecology Center will be paid \$75

Budgeted (Y/N): Y	Budgeted amount: \$18,750	Core __	Choice <u>X</u>
Action item amount: \$18,750	Line item:		
Fiscal Impact (explain if unbudgeted): MWDOC will be reimbursed \$18,750 through the Metropolitan Funded-Member Agency Administered Program.			

per rain barrel for a total of \$18,750 (Metropolitan incentive of \$75 X 250 barrels = \$18,750). The Ecology Center will be required to comply with Metropolitan's requirements including data basing program participant information such as name, street address, contact information, water agency, and water agency account number. The Ecology Center will report this information to MWDOC monthly. MWDOC will then report implementation to Metropolitan. Metropolitan will credit MWDOC's water bill, and MWDOC will reimburse The Ecology Center.



INFORMATION ITEM

June 2, 2014

TO: Planning & Operations Committee
(Directors Osborne, Barbre, Hinman)

FROM: Robert Hunter, General Manager

Staff Contact: Karl Seckel and Richard Bell

SUBJECT: California Air Resources Board – AB 32 Scoping Plan
Sequential Loading Order for Water Supply Sources

STAFF RECOMMENDATION

Staff recommends the Planning & Operations Committee:

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

SUMMARY

Assembly Bill 32 required the California Air Resources Board (CARB) to develop a Scoping Plan that specifies how California will reduce greenhouse gases (GHG) to achieve the goal of reducing emissions to 1990 levels by 2020. The Scoping Plan was first adopted by the CARB Board in 2008 and is required to be updated every five years. CARB adopted its updated Scoping Plan at its May 22 meeting. This current update includes a section on Water and outlines a plan for reducing the Water Sector greenhouse emissions. This includes a recommended “conservation first”, water “loading order” concept analogous to that used for the electricity generation sector. The intention of this policy is that water planning be accomplished on an energy intensity basis, with conservation first since it is the least energy intensive “new water”. Details regarding this update are discussed below. ACWA, SDCWA, CalDesal, MET and SCWD presented comments at the meeting asking CARB to remove the reference to a loading order for water. Although two CARB Board members expressed support for removal of the loading order language, Chair Nichols declined to modify the Scoping Plan, saying the proposal was in the Water Action Plan. The Scoping Plan was then adopted unanimously by the Board. (The recent State Water Action Plan does not contain this recommendation; this concept was first raised by the CEC and then in the CPUC Water Action Plan).

Budgeted (Y/N):	Budgeted amount:	Core __	Choice __
Action item amount:	Line item:		
Fiscal Impact (explain if unbudgeted):			

DETAILED REPORT

By way of background, the Executive Order signed by former Gov. Arnold Schwarzenegger in June 2005 established short- and long-term greenhouse gas (GHG) emission targets to reduce GHG emissions to 1990 levels by 2020 and 80% below 1990 levels by 2050. The 2020 GHG reduction target was subsequently codified in California's landmark climate change law, the Global Warming Solutions Act of 2006, more commonly known as AB 32. The 2050 goal has not been codified as of this time, although several pieces of legislation have been authored.

Furthermore, the conservation first and loading order policy are being developed through the lead of the CEC and CPUC under the umbrella of the California Water-Energy Team of the Climate Action Team (WET-CAT) of State agency officials, with the intent to implement this approach through new legislation that would extend these requirements to all public water suppliers.

The CPUC Water Action Plan adopted in 2010 added to the CPUC initial 2005 CPUC Water Action Plan, with a two-fold goal of applying regulatory best practices from the investor-owned energy utilities to the investor-owned water utilities and to place water conservation at the top of the loading order as the best, lowest-cost supply. The CPUC is currently conducting its water-energy nexus rulemaking to implement these goals with a schedule to complete this effort by 2016.

WET-CAT is tasked with coordinating its efforts on both greenhouse gas (GHG) emission reduction and adaptation actions. These actions would affect that portion of the energy sector that supports the storage, transport and delivery of water for agricultural, residential, and commercial needs. This group may have already proposed a similar conservation-first, loading order policy and would likely advocate for this approach through a joint agency process once the CPUC Water-Energy Nexus process rulemaking is completed.

This First Update to California's Climate Change Scoping Plan (Update) was developed by the Air Resources Board (ARB) in collaboration with the Climate Action Team and reflects the input and expertise of a range of state and local government agencies (WET-CAT group). Another draft Proposed Update released in February 2014 contained the reference to a loading order. CARB held scoping meetings on the update, and released a draft in Fall 2013. ACWA and CMUA engaged in comments on the draft.

The Climate Change Scoping Plan Update lays out a set of new actions towards the State's goal of a "...low-carbon, sustainable future..." including specific recommended actions with lead agency assignments and anticipated implementation compliance dates. Some of the actions are near-term, while others are focused on longer-term efforts.

The updated scoping plan that was adopted by CARB on May 22 included the following statement on page 62. This statement was opposed by the agencies and associations that provided oral comments at the May 22 meeting.

"Establishing a conservation-first policy for water-sector investment and action would help to sustain declining per-capita usage. This policy would be similar to the State's "loading order" policy for energy, which prioritizes investments in

energy efficiency ahead of developing new power supplies. The conservation-first policy could be implemented through legislation or joint-agency action.

The updated Scoping Plan makes the following “Key Recommended Actions for the Water Sector”:

Funding

DWR and SWRCB to give priority to funding integrated management plans that include robust existing or proposed water and energy conservation and efficiency and measures that achieve GHG emission reductions. Conservation programs should include numeric targets.

Technology

CEC to implement new water-related energy conservation measures and efficiency standards.

CPUC to complete water-energy nexus rulemaking by 2016 and to continue implementation of joint water-energy utility efficiency programs and partnerships.”

The exact implication of the “conservation-first, loading order” policy is uncertain and depends on interpretation and implementation actions. Legislation and administration support is likely. Staff supports the implementation of water use efficiency measures to reduce per capita consumption, but water supply planning should be based on reliability first with the energy intensity of supply alternatives a lower ranking objective. Mitigation of energy and related GHG emissions impacts can be achieved by investments in renewable energy and/or emission offsets. Staff will monitor and report back on how this effort proceeds. MET is also actively following this process.

April 28, 2014

Mr. Michael Tollstrup, Chief
Project Assessment Branch
Air Resources Board
1001 "I" Street
P. O. Box 2815
Sacramento, CA 95812

Subject: Proposed First Update to California's Climate Change Scoping Plan

Dear Mr. Tollstrup:

The Association of California Water Agencies (ACWA) appreciates this opportunity to comment on the Proposed First Update to California's Climate Change Scoping Plan (Proposed Update). ACWA represents nearly 430 public water agencies in California that collectively supply 90% of the water delivered in California for domestic, agricultural and industrial uses.

ACWA also appreciates the efforts of the Air Resources Board (ARB) to tackle climate change in a comprehensive way through ambitious actions that are designed to drive down greenhouse gas emissions. Climate change will have a dramatic impact on California's resources including water supply and quality. ACWA members continue to respond to these climate-related challenges by developing innovative local adaptation and mitigation strategies best suited for local conditions. Water agencies are playing a leadership role in shaping and implementing renewable energy and greenhouse gas reduction (GHG) programs, promoting water conservation measures, implementing water recycling projects and deploying cleaner fleets and fuels.

Discussion Draft Revisions

ACWA has noted and supports the revisions made to the groundwater management sections of the Proposed Update that address ACWA's prior concerns. On April 7, 2014, ACWA released its *Recommendations for Achieving Groundwater Sustainability*. This groundbreaking document calls for actions that will significantly improve groundwater management capabilities where they are deficient, accelerate the achievement of sustainability by local and regional entities, and guide

enhanced state support where needed.¹ Groundwater management is best implemented by local agencies with limited but key roles for the State Water Resources Control Board and the Department of Water Resources. ACWA is actively working with the Brown Administration in this area.

Proposed First Update

ACWA supports many of the key recommended actions for the water sector in the Proposed Update including the need for additional outreach and education related to water-energy conservation. However, ACWA is concerned with one of the recommendations in the accomplishments and next steps section of the Proposed Update.

In this section, the Proposed First Update to the Climate Change Scoping Plan states that:

Additional gains in water conservation, especially use reductions in both agricultural and urban landscape irrigation, are critical not only for meeting GHG emission reduction goals, but also for resilience to more frequent and severe droughts. Establishing a conservation-first policy for water-sector investment and action would help to sustain declining per-capita usage. This policy would be similar to the State's "loading order" policy for energy, which prioritizes investments in energy efficiency ahead of developing new power supplies. The conservation-first policy could be implemented through legislation or joint-agency action. (The State's Energy Action Plan, for example, was jointly approved by the CEC, CPUC, and CAISO). (pg. 73)

ACWA is very concerned about this suggestion for a loading order policy for the water sector for investment and action. ACWA questions whether there is authority for such a policy under the Global Warming Solutions Act or other existing law. That said, ACWA agrees with the statement in the Brown Administration's California Water Action Plan that "conservation must become a way of life for everyone in California" and that water conservation and water use efficiency should be central elements of the state's strategy to enhance water supply reliability, restore ecosystems and respond to climate change.

ACWA included enhanced conservation and water-use efficiency efforts as a key component of its Statewide Water Action Plan (SWAP).² However, these activities are only one component of a broader set of strategies that are needed to address overall water supply reliability and ecosystem health in California. As such, it is not feasible for California water agencies to sequentially secure additional water supplies or develop a new water resource based solely upon the amount of its relative embedded energy. While water and energy utilities are closely connected in many ways, such as the application of integrated planning tools for future efforts, the concept of a preferred "loading order" does not directly translate from the energy sector to the water sector.

¹ [ACWA Recommendations for Achieving Groundwater Sustainability](#)

² [Statewide Water Action Plan](#)

As opposed to electricity, which a utility/generator can create or purchase when needed, successful water delivery is dependent upon the availability of the resource. Because this availability is driven by many factors, agencies often must utilize a diverse set of water sources to ensure a reliable water supply for their customers. The factors include geography, infrastructure and precipitation events that are outside the control of the local agencies.

In addition, a proposed “loading order” would only take into account the embedded energy in the water source. While that approach may be successful in the energy industry, water is unique to the source and the reasons affecting why one source is selected over another vary greatly. These factors include the distribution system, water pressure requirements, environmental regulations, water rights, water treatment, and reduced allocations in drought conditions. One water source may take less energy to deliver, but the cost and energy needed to remove chromium-6 or arsenic once it enters the distribution system may make that water cost-prohibitive for the agency and its customers.

In drought years such as 2014, many water agencies are working to secure any available water for their customers to comply with basic needs and options can be very limited. These sources may be energy-intensive like desalination or deep-well groundwater pumping but may also be the only options and water systems must have the flexibility to make these choices when necessary.

ACWA recognizes the important role of water-use efficiency and water conservation in the state’s overall water supply portfolio. ACWA proudly serves as a partner with the California Department of Water Resources (DWR) on Save Our Water, the state’s largest water conservation program. Save Our Water was launched in 2009 to help Californians permanently reduce their everyday water usage regardless of whether California is in a drought.

Local and regional water agencies have made significant multi-decade investments in water conservation and water use-efficiency activities and continue to do so under new state requirements. Additionally, many of the agencies pursue investments beyond the requirements in water recycling, stormwater capture and conjunctive use projects. As evidenced by the increasingly innovative ways that local agencies are meeting the needs of their systems and communities, these local agencies will continue to help the state meet the goals outlined in the Proposed Update. The state should respect and support these local programs, including through financial support for innovative GHG programs, rather than pursue a statewide “loading order” for water resource investments.

All parts of California are in drought. Water conservation plays a key role in the solution, but investments in other means of obtaining and managing a reliable water supply cannot be deterred. Public health and safety, our ecosystems and California agriculture depend on it.

Based on this concern, ACWA recommends that ARB revise the language quoted above from page 73 with the following:

Additional gains in water conservation are critical not only for meeting GHG emission reduction goals, but also for resilience to more frequent and severe droughts. Many local agencies throughout California have invested in water conservation and water use-efficiency activities that adhere to new efficiency requirements and fit the needs of their local or regional water system and customers. The state should encourage and facilitate local water conservation investments by eliminating barriers to co-funding projects with water and energy benefits and expand and prioritize funding and technical support for water and wastewater agencies that achieve energy efficiency co-benefits and greenhouse gas reductions.³

ACWA appreciates ARB's consideration of our comments. Please feel free to contact me with questions at 916-441-4545 or danielleb@acwa.com.

Sincerely,

Danielle Blacet
Special Projects Manager

cc: Mr. Richard Corey, Executive Officer, Air Resources Board
Ms. Edie Chang, Deputy Executive Officer, Air Resources Board
Ms. Cynthia Marvin, Chief, Stationary Source Division, Air Resources Board
Mr. Steve Cliff, Assistant Division Chief, Stationary Source Division, Air Resources Board
Mr. David Mallory, Manager, Climate Change Policy Section, California Air Resources Board
Dr. Tim Quinn, Ph.D., Executive Director, ACWA
Ms. Cindy Tuck, Deputy Executive Director for Government Relations, ACWA

³ [California Water Action Plan](#), pg. 5

First Update to the **Climate Change Scoping Plan**

Building on the Framework

California Air Resources Board

May 2014

Chapter 4. Water

In addition to being an essential element for all life, a reliable, clean, and abundant supply of fresh water is a critical component of California's economy. The State's developed surface and groundwater resources support a variety of residential, commercial, industrial, and agricultural activities. Therefore, the development and management of the State's water resources has implications for each of the focus areas evaluated in the updated Scoping Plan.

More than 40 percent of California's total fresh water supply (or about 80 percent of developed water resources) is used to support the State's extensive agricultural industry and, therefore, has critical ramifications for the agricultural focus area. A significant amount of water is also used to support residential, commercial, and industrial activities within California's extensive metropolitan and suburban areas. Therefore, a reliable water supply also has important ramifications for future population growth and economic development as examined within the transportation, fuels, and land use focus area. Water is also used to cool power plants and produce hydropower, and therefore has important implications for the energy focus area.

California's water system includes a complex infrastructure that has been developed to support the capture, use, conveyance, storage, conservation, and treatment of water and wastewater. Greenhouse gas emissions from the water sector come primarily from the energy used to pump, convey, treat, and heat water. As such, water sector emission reductions are primarily associated with reducing the amount of electricity and natural gas used within the water sector.

The storage, conveyance, and treatment of water in California consume large amounts of electricity. Approximately 19 percent of the electricity and 30 percent of non-power plant natural gas consumption is used by the water sector. Water is used to grow crops, support urban and industrial needs, and produce energy. Therefore, most of the water measures included in the Scoping Plan focused on the GHG emission benefits derived from reduced energy use, and the emission benefits are reflected in those sectors.

The State is currently implementing several targeted, agricultural, urban- and industrial-based water use efficiency, recycling, and conservation programs as part of an integrated water management effort that achieves GHG emission reductions within the water sector. California's water community is continuing collaborative efforts to reduce its carbon footprint while improving water supply reliability, drought resilience, and public safety; fostering environmental stewardship; and supporting a stable State economy.

California's 2009 Water Conservation Act (Senate Bill x7-7) specifically addresses urban and agricultural water conservation. The Act's key urban provision established an aggressive statewide goal to reduce per capita water use by 20 percent by 2020. To date, 400 urban water agencies have prepared water management plans, which cover close to 80 percent of California's population.

The State has also set ambitious goals for development of alternative water sources such as recycled water and stormwater. The State Water Resources Control Board (SWRCB) adopted recycled water and stormwater goals through a stakeholder-driven process. Recycled water usage is to be increased above the 2002 usage levels by at least one million acre-feet per year by 2020 and by at least two million acre feet per year by 2030. Stormwater usage is to increase above the 2007 usage levels by at least 500,000 acre-feet per year by 2020 and by at least one million acre-feet per year by 2030. Grant and loan programs have provided over \$1.15 billion for recycling and stormwater capture infrastructure, and projects are coming online.

In addition, the State has invested \$1.5 billion to support 48 regional collaborative efforts to develop water management plans, diversify regional water portfolios, and increase regional water supply self-reliance to support future growth and development. Governor Brown has also taken action to permanently reduce water use consumption by directing State agencies and departments to reduce their overall water use by ten percent by 2015 and 20 percent by 2020.⁸⁵ (See Executive Order B-18-12, issued on April 25, 2012).

The ongoing drought in California affects energy management as well as water systems. Reduced snowpack decreases hydroelectricity production, and reduced surface flows create additional demands for groundwater pumping. These relationships highlight the need for closer coordination between water and energy managers. Coordinated water and energy investments can be coordinated to maximize GHG emission reductions, if local and State agencies work together to identify project designs that best serve both purposes.

Maintaining Momentum

The primary mechanisms to reduce water-related energy use are energy efficiency and water conservation strategies. Many water and wastewater agencies are already leading the way through conservation-adjusted business plans, investments in efficient infrastructure, reuse of wastewater, and self-generation of renewable energy; but more work is needed. Achieving industry-wide shifts will require sustained State leadership and new policy and regulatory frameworks that account for water supply, water and energy use, water quality standards with regional flexibility and funding, and effective

data collection and analysis. Reducing GHG emissions from the water sector will require close coordination between water agencies and energy agencies. Greater attention will need to be paid to the water-related impacts of land use and development. Most important, the State and local water agencies will need to play a key role in three areas:

- Prioritizing investments in conservation.

- Adopting rate structures and pricing that maximize conservation.

- Promoting less-energy intensive water management, such as a comprehensive groundwater policy.

Additional gains in water conservation, especially use reductions in both agricultural and urban landscape irrigation, are critical not only for meeting GHG emission reduction goals, but also for resilience to more frequent and severe droughts. Many local agencies throughout California have invested in water conservation and water use-efficiency activities. The State should encourage and facilitate local water conservation projects that achieve co-benefits of energy efficiency and greenhouse gas emission reductions.

Establishing a conservation-first policy for water-sector investment and action would help to sustain declining per-capita usage. This policy would be similar to the State's "loading order" policy for energy, which prioritizes investments in energy efficiency ahead of developing new power supplies. The conservation-first policy could be implemented through legislation or joint-agency action. (The State's Energy Action Plan, for example, was jointly approved by the CEC, CPUC, and CAISO).

Pricing policies are another key tool to deter waste, encourage efficiency, and require those who use the most to pay the costs of assuring the water supply. It is important that such policies also protect the ability of low-income households to purchase minimum necessary water supplies. While water rates are set at the local level, the State can use financial and regulatory incentives to promote widespread adoption of strong and equitable price signals to maximize conservation. These incentives could be made available within State grants and loans, or through applicable regulatory relief processes such as water rights applications.

California must also develop policies that thoroughly and accurately reflect the economic, social, and environmental value of water, to ensure the effectiveness of future water management practices, and to evaluate competing water use demands and trade-offs. For example, in the California Water Action Plan, the State proposed a comprehensive groundwater policy to reduce overdraft and energy-intensive pumping from deep underground. This policy will require collaboration between the SWRCB, Department of Water Resources (DWR), Department of Food and Agriculture, and other agencies.

Successfully meeting the water sector goals will also require balancing multiple policy objectives, such as flood protection, sustainable food production, and renewable energy development. Interagency coordination, such as the recent efforts of the SWRCB to develop the Water Quality Control Policy on the Use of Coastal and Estuarine Waters

for Power Plant Cooling (once-through cooling), shows interagency coordination is possible without a drastic overhaul of regulatory responsibilities. Nevertheless, additional challenges posed by the changing climate and economic pressures to successfully achieve mitigation goals across multiple economic sectors must be addressed. Multiple policy objectives must be balanced across a wide spectrum of State water and climate planning documents, such as the AB 32 Scoping Plan, the Safeguarding California Plan, the California Water Plan, the Delta Plan, the Bay Delta Conservation Plan, and the Integrated Regional Water Management Strategic Plan. The California Water Action Plan provides some guidance on the relationship between the priorities established in these water and climate planning documents by establishing priorities for the next five years.

State agency collaboration and policy alignment requires a foundation of information sharing and feedback. Both agency staff and executives will need to devote more time to inter-agency dialogue to ensure that policy differences are resolved with a full understanding of the consequences of decisions taken. In addition, achieving efficient and aligned policies across agencies may require alterations to existing agency authorities and decision-making procedures.

Key Recommended Actions for the Water Sector

Funding

DWR and SWRCB to give priority to funding integrated management plans that include robust existing or proposed water and energy conservation and efficiency and measures that achieve GHG emission reductions. Conservation programs should include numeric targets.

Technology

CEC to implement new water-related energy conservation measures and efficiency standards.

CPUC to complete water-energy nexus rulemaking by 2016 and to continue implementation of joint water-energy utility efficiency programs and partnerships

SWRCB and CPUC to incent resource-recovering wastewater treatment projects by 2015.

SWRCB and RWQCB by 2016 to implement green infrastructure permits to treat and capture urban runoff for local use.

Administration

As directed by the California Water Action Plan, the DWR, the SWRCB, CPUC, CEC, CDFA, and ARB to guide adoption of GHG emission-reducing policies for water sector investments and action by 2015. Conservation measures and regulations to reduce GHG emissions and maintain water supply reliability during drought periods will be a centerpiece of this administration action.

As directed by the California Water Action Plan, DWR, SWRCB, CPUC in consultation with the CDFA, to identify and incent implementation of rate structures that accurately

reflect the economic, social, and environmental value of water in California while maintaining affordability for basic services.

As directed by the California Water Action Plan, the SWRCB to develop a comprehensive groundwater management strategy, and the DWR and CDFA to provide technical and financial assistance to exceed SBx7-7 targets.

SWRCB and RWQCBs by 2016 to modify State and regional water board policies and permits to achieve conservation, water recycling, stormwater reuse, and wastewater-to-energy goals.

Education

As directed by the California Water Action Plan, DWR, SWRCB, CPUC, CEC, and CAISO to promote water-energy conservation outreach and education.

Climate Change Scoping Plan: *Chapter IV: Accomplishments and Next Steps* 66

Climate Change Scoping Plan: *Chapter IV: Accomplishments and Next Steps*

Status of Ongoing MWDOC Reliability and Engineering and Planning Projects

May 27, 2014

Description	Lead Agency	Status % Complete	Scheduled Completion Date	Comments
Baker Treatment Plant or Expansion of Baker Water Treatment Plant	IRWD, MNWD, SMWD, ETWD Trabuco CWD		On line date is late 2016	MWDOC has been asked to help secure MET's concurrence on the quality of water being introduced into the South County Pipeline. Staff is awaiting a draft of an amendment from MET staff and legal counsel.
MET Interconnections – Second Lower Cross Feeder	MWDOC			<p>Karl Seckel, Harvey De La Torre, Richard Bell and Lee Jacobi met with the 10 Participants for the Second Lower Cross Feeder Project to review the MET report on the project and to wrap discussions among the participating agencies. MET Chief Engineer Gordon Johnson attended the meeting along with engineering staff member Dave Clark and System Operations staff Brent Yamasaki. Gordon gave an update on the Diemer Plant Reliability enhancements and noted that \$570 million had been invested at Diemer and there was about \$166 million remaining under various contracts. Gordon also mentioned that he had been invited to the July WACO meeting to discuss the Diemer Plant improvements and the potential impact that seismic uplift may have on the Colorado River Aqueduct (he has good news on that – come to WACO to get the details).</p> <p>The Second Lower Cross Feeder Workgroup revisited the</p>

Description	Lead Agency	Status % Complete	Scheduled Completion Date	Comments
				<p>reasons for formation of the workgroup – the possibility that a Diemer outage could occur and drastically limit deliveries within OC. The SLCF Project concept was to increase flows from the MET system in LA County and move that water into OC. Unfortunately, MET is unable to provide any certainty regarding the amount of water that can be moved in this direction to enable the SLCF pipeline to deliver water throughout OC via the East Orange County Feeder No. 2. Staff reviewed a chronology of the project and summarized the various discussions that occurred over time. The group was in agreement that the information developed for the project should be maintained, but that other active work on the project should cease at this time. The good news from the study efforts is that the work completed by MWDOC and MET helped to clarify and establish the potential duration of outages from the Diemer Plant and the MET conveyance system in OC to between 1 week and up to 60 days in duration. This helps to more definitively establish the criteria for local reliability planning in OC.</p> <p>Karl Seckel also outlined and discussed upcoming reliability work in OC. Comments included forming a workgroup to help the study efforts, make sure and include climate variability in the analysis, be sure to establish expectations, objectives and priorities for the study work and to make sure and cover risk planning and response workshops (combined with WEROC) and consider whether to utilize OCBC and Wallace Walrod in</p>

Description	Lead Agency	Status % Complete	Scheduled Completion Date	Comments
				an update of the prior work from 2003 on the cost of NOT being reliable.
Doheny Desalination Project	MWDOC			<p>MWDOC staff (Rob, Karl & Richard) met with EBD Bauer following discussions at the Water Summit regarding skid mounted ocean desalination treatment units they have in stock in Orange County. The two existing units are capable of producing 880,000 gallons per day of product water from the ocean. There are other firms that provide similar types of equipment; Bauer indicated that there may be some synergies for having a project in their own back yard (they are located in Tustin).</p> <p>Karl and Richard also met with Andy Brunhart and Dave Youngblood to discuss the plans and schedule for South Coast Water District proceeding with work at the Doheny Desal site. South Coast is still interested in involving other agencies and would like to have them join in the work. South Coast has scoped out a three year work plan to get up to a 5 mgd plant operating by 2019:</p> <ul style="list-style-type: none"> • Complete the Foundational Action Plan work in 2015 • Begin Environmental Baseline monitoring in 2014 • Begin Preliminary Engineering in 2014 to support CEQA • Begin brine disposal outfall modeling in 2014 • Complete CEQA in 2016 • Complete Permitting in 2017 • Bid the project construction

Description	Lead Agency	Status % Complete	Scheduled Completion Date	Comments
				<ul style="list-style-type: none"> Plant up and operating in 2019 <p>The South Coast Board will be considering how best to fund these activities. Andy discussed potential areas of help MWDOC could provide including seeking outside grant funding for any of the efforts. We also discussed the potential for skid-mounted desalination treatment to fit into the efforts. To get 10 mgd of feedwater would likely require two new wells plus the one existing well, if it can be rehabilitated. Andy indicated a desire to always preserve the options for upsizing the treatment works to 15 mgd as a future expansion.</p>
Poseidon Resources Ocean Desalination Project in Huntington Beach				<p>Rob and Karl met with Poseidon to discuss the various aspects of the project formulation and the efforts needed to secure MET's approval both for the Local Resources Program funding and for use of the EOCF#2 for moving the water into the OC system.</p> <p>OCWD approved their staff seeking financial consultants to help with the evaluation of the Poseidon Project. OCWD received and evaluated five proposals. They will be considering action in June to award a contract. The work is to be completed by August. The selected consultant will help review and assess all aspects of the project financing plan and improving that plan, risk transfer and keying in on the certainty of the project costs.</p>
OC-88 Metering Issue				<p>Staff is awaiting a proposal from MET regarding how to make</p>

Description	Lead Agency	Status % Complete	Scheduled Completion Date	Comments
on the South County Pipeline				appropriate billing adjustments for having the incorrect operating data in the OC-88 master meter since 2004 that led to being out of calibration by about 3.4%.
Other Meetings/Work				
				MWDOC and EOCWD have requested MET to proceed with installation of a transfer switch at service connection OC-70 to allow a trailer mounted generator to power the pumps at the service connection in the event of a power outage of the local power grid. The lead time for the parts is about 8-10 weeks, after which the construction will take a few days.
				Karl Seckel was invited by MNWD to participate with their consultant in reviewing work on their reliability plan. A draft of the plan is scheduled for June and will be helpful towards upcoming work on the Orange County Reliability Plan.
				Karl Seckel and Lee Jacobi met with Mike Hoolihan from IRWD to discuss their water demand projection update and the completion of the master plan and hydraulic model. The purpose of the meeting was to discuss and understand flexibility in the IRWD system to potentially extend the 2006 Irvine Interconnection Agreement that allows IRWD to exchange MET water and groundwater for conveyance to South Orange County. Under the Agreement, IRWD committed to providing up to 30 cfs of emergency supplies to South Orange County, however, based on the build-up of demands in the IRWD system, the 30 cfs drops to zero by 2030. MWDOC is

Description	Lead Agency	Status % Complete	Scheduled Completion Date	Comments
				interested in options for extending or expanding the opportunity. MWDOC and IRWD will continue to work together on this effort.
				MWDOC, Anaheim and Fullerton (Santa Ana could not make it) met with MET staff to go over updated demand projects from the MWD Main Model, the key demand forecasting model from MET. The purpose of the meeting was to review the demand projections in Orange County and the projections of passive water use efficiency efforts. MWDOC will be comparing the projections to information provided by the retailers in the County and including projections of active water use efficiency savings. MWDOC is also reviewing the projections of local water supplies included in the projections by MET.
				<p>Richard Bell has been reviewing BDCP and other state planning documents and will provide three updates at the upcoming P&O Committee meeting, including:</p> <ul style="list-style-type: none"> • Western Delta Intake Concept (discussed at the OC Summit) that uses Sherman Island as a forebay reservoir for a BDCP alternative by Robert Pyke. The alternative has a number of problems. • Recently released BDCP Science Program Report that concludes that “the science in this BDCP effort falls short of what the project requires”. • California Air Resources Board Scoping Plan for AB-32 including development of a policy for water planning by energy “loading schedules”. The water community is

Description	Lead Agency	Status % Complete	Scheduled Completion Date	Comments
				critical of this policy; it is not clear what implications will result as water planning does not fall under CARB.

**Status of Ongoing WEROC Projects
May 2014**

Description	Comments
General Activities	Kelly Hubbard worked with Gilbert Associates Inc to conduct a mock grant audit of the WEROC Water Trailer grant. A report or summary has not been provided as of this date. This is an effort being led by Joe Berg.
Member Agency Coordination	<p>The WEROC Emergency Coordinator Quarterly Meeting was held on May 6th. Topics included an after-action discussion on the La Habra Earthquake, drought planning, grant proposal feedback, Fuel Planning Gap Analysis, and the sharing of any lessons learned on the care and maintenance of the water trailers.</p> <p>Kelly provided the management staff of Costa Mesa Sanitary District training on WebEOC and Resource Manager.</p> <p>Kelly attended the first MET Exercise design meeting for a disaster exercise that will be coordinated between MET, the three MET cities, WEROC and its member agencies. The exercise is being scheduled for October or early November. There will be monthly planning meetings with MET. Kelly will start a planning process with the WEROC member agencies once the exercise date is set.</p>
Coordination with the County of Orange	<p>Kelly attended the May Orange County Emergency Management Organization (OCOMO) meeting at the City of Irvine. The primary topic was a presentation about emergency response by the California Gas Company and a review of the OC Operational Area Emergency Plan. The emergency plan review will be a multiple month process.</p> <p>Kelly attended the Operational Area Executive Board meeting as the voting member representing the Independent Special Districts of Orange County. This meeting included various updates from all areas of emergency response on activities over the last quarter and upcoming planning efforts. One item of interest is the State of California's Capstone Exercise. The Capstone exercise is</p>

Description	Comments
	<p>similar to the “Golden Guardian” exercise held in 2008 in which there is a disaster scenario that agencies at the local, county and state level all respond to in a simulated EOC exercise on the same day and time. The Capstone Exercise will actually be a series of tabletop exercises (discussion based), seminars, regional planning that will lead up to a functional exercise (EOC based) for all participants on one day. The effort will be throughout the 2015/2016 fiscal year. All emergency response partners, including special districts, private and non-profit will be encouraged to participate.</p> <p>Louay Toma met with the County Emergency Management staff to continue to troubleshoot database problems with the county’s reverse notification system, Alert OC. The database issues are minor, but do create potential hiccups in the delivery of messages to WEROC EOC staff. Louay has identified the issue in how the contacts were inputted and has put in a significant effort to clean up the database and resolve this issue.</p>
Coordination with Outside Agencies	<p>Ongoing (last month’s report as reference): <i>Kelly was asked to join the California Office of Emergency Services Southern Region Drought Conference Calls as the Region 1 Mutual Aid Coordinator for the California Water and Wastewater Agency Response Network (CalWARN). This is a weekly conference call to provide an update to the Southern Region and the State Operations Center (SOC) on drought impacts, activities and needs.</i></p> <p>Kelly attended the California Emergency Services Association (CESA) Southern Chapter Board Meeting as the First Vice President.</p> <p>Kelly presented two grant proposals to the Urban Area Working Group on May 14th. The first proposal is for the purchase of generator cabling and camlocks to make it easier to share generators agency to agency and make the required electrical adjustments. This project was tentatively approved for 2014 grant funding and will be submitted as part of the County’s package. The second project is for portable fuel trailers to assist agencies with fuel delivery to essential facilities when power is out. This project is tentatively approved with no-assigned fiscal year.</p>

Description	Comments
WEROC Emergency Operations Center (EOC) Readiness	<p>Kelly has been working with ATT to see if the two EOC's can have U-Verse Cable installed. U-Verse is cheaper with higher internet speed. Unfortunately, it was determined that the South EOC was not eligible due to the lack of proper infrastructure in the area. The North EOC is still being evaluated.</p> <p>Staff successfully participated in the MARS and OA Radio test this month. The WEROC Radio Test was conducted on May 27th with great participation by a large majority of the agencies. This month was a unique test in that we asked agencies to respond to a simulated emergency prompt with damage reports. This allows the agencies to practice in a more realistic manner and for the WEROC staff to evaluate how they collect information for real events.</p> <p>Louay went to the NEOC for pest control and both EOCs for cleaning.</p>

Status of Water Use Efficiency Projects

June 2014

Description	Lead Agency	Status % Complete	Scheduled Completion or Renewal Date	Comments
Smart Timer Rebate Program	MWDSC	Ongoing	September 2015	<p>For April 2014, 45 smart timers were installed in the residential sector and 22 in the commercial sector.</p> <p>In April 2014, Newport Beach installed 9 smart timers through its ongoing smart timer installation program. These numbers are included in the program totals listed above.</p> <p>For program water savings and implementation information, see MWDOC Water Use Efficiency Program Savings and Implementation Report.</p>
Rotating Nozzles Rebate Program	MWDSC	Ongoing	June 2015	<p>For April 2014, 1,069 residential and 0 commercial rotating nozzles were installed in Orange County.</p> <p>In the month of April 2014, Newport Beach installed 0 rotating nozzles. These numbers are included in the program totals listed above.</p> <p>For program savings and implementation information, please see MWDOC Water Use Efficiency Program Savings and Implementation Report.</p>
Water Smart Landscape Program	MWDOC	On-going	September 2014	<p>In March 2014, a total of 12,373 meters received monthly irrigation performance reports comparing actual water use to a landscape irrigation budget customized to each meter.</p> <p>For program savings and implementation information, please see MWDOC Water Use Efficiency Program Savings and Implementation Report.</p>

Description	Lead Agency	Status % Complete	Scheduled Completion or Renewal Date	Comments
SoCal Water\$mart Residential Indoor Rebate Program	MWDSC	On-going	June 2015	In April 2014, 498 high efficiency clothes washers and 320 high efficiency toilets were installed through this program. For program savings and implementation information, please see MWDOC Water Use Efficiency Program Savings and Implementation Report.
SoCal Water\$mart Commercial Rebate Program	MWDSC	On-going	On-going	In April 2014, 8 high efficiency toilets and 12 zero water urinals were installed through this program. For program savings and implementation information, please see MWDOC Water Use Efficiency Program Savings and Implementation Report.
Industrial Process Water Use Reduction Program	MWDOC	84%	December 2014	Survey scheduling is ongoing. A total of 40 Focused Surveys and 19 Comprehensive Surveys have been completed or are in progress. To date, 12 companies have signed Incentive Agreements. Updated discharger lists have been obtained, and outreach is continuing to sites with feasible water savings potential. Fabrica Fine Carpets is interested in implementing process improvements as part of production expansion.
MWDOC Conservation Meeting	MWDOC	On-going	Monthly	This month's meeting was held on May 1, 2014 at the City of Newport Beach. The next meeting will be on June 5, 2014 at MWDOC and will be a joint water use efficiency/public affairs workgroup meeting.
Metropolitan Conservation Meeting	MWDSC	On-going	Monthly	This month's meeting was held on May 15, 2014. The next meeting will be June 19, 2014 at Metropolitan.
Water Smart Hotel Program	MWDOC	53%	June 2014	MWDOC was awarded a Bureau of Reclamation grant, to be matched with Metropolitan funds, to conduct up to 30 commercial and landscape audits of hotels. Enhanced financial incentives will be provided to augment the current SoCal Water\$mart rebates.

Description	Lead Agency	Status % Complete	Scheduled Completion or Renewal Date	Comments
Water Smart Hotel Program (cont.)				Surveys were conducted at the Best Western Plus in Anaheim on May 6 th and the Best Western Pavilions in Anaheim on May 15 th . A request for a one-year term extension was sent to the Bureau on May 5th.
Turf Removal Program	MWDOC	On-going	Ongoing	<p>In April 2014, 10 rebates were paid, representing 8,383 square feet of turf removed in Orange County. To date, the Turf Removal Program has removed approximately 1,446,011 square feet of turf.</p> <p>For program savings and implementation information, please see MWDOC Water Use Efficiency Program Savings and Implementation Report.</p>
California Sprinkler Adjustment Notification System	MWDOC	95%	September 2014	<p>MWDOC was awarded a grant from the Bureau of Reclamation to develop the California Sprinkler Adjustment Notification System (CSANS). This system will e-mail or “push” an irrigation index to assist property owners with making global irrigation scheduling adjustments. Participants will voluntarily register to receive this e-mail and can unsubscribe at any time.</p> <p>Pilot implementation is scheduled to conclude in August 2014, with broad implementation to begin throughout Orange County in September 2014.</p>
Public Spaces Program	MWDOC	10%	December 2015	<p>Through the Integrated Regional Watershed Management (IRWM) process, MWDOC is implementing a Proposition 84 grant to target the implementation of comprehensive landscape improvements for publicly owned landscape properties throughout the South Orange County IRWM Plan area.</p> <p>The program encourages the removal of non-functional turfgrass, the upgrade of antiquated irrigation timers, and the conversion of high-precipitation-rate fixed spray irrigation to low-precipitation-rate rotating nozzles and/or drip irrigation.</p>

Description	Lead Agency	Status % Complete	Scheduled Completion or Renewal Date	Comments
Public Spaces Program (cont.)				<p>These improvements are meant to result in water savings, a reduction of dry-weather runoff, pollution prevention, and reduced maintenance costs on not only the landscape itself, but also the asphalt street material.</p> <p>To date, 10 cities, water districts, or other special districts (i.e., school districts) have applied for funding through this program, and 4 project proposals have been received.</p>
Home Certification Program	MWDOC	3%	July 2015	<p>This program will provide single-family sites with indoor and outdoor audits to identify areas for water savings improvements and opportunities. The program will also provide rebates for the installation of residential water efficiency devices, including smart timers and high efficiency rotating nozzles.</p> <p>In April 2014, MWDOC received twenty-two (22) applications for the Home Certification Program. Fifteen surveys were conducted, and survey results are pending for the remaining applications.</p>
Landscape Irrigation Survey Program	MWDSC	Ongoing	June 2016	<p>Through this program, Metropolitan offers, at no cost, the services of a certified landscape irrigation auditor who will survey and provide written recommendations for qualifying non-residential properties within Metropolitan's service area. To participate, properties must have a minimum of one acre of irrigated area. Eligible landscapes include commercial and industrial sites, homeowner association common areas, and institutional sites such as schools, parks, and government facilities.</p> <p>To date, 96 sites in the MWDOC service area have contacted Metropolitan to request surveys.</p>

Description	Lead Agency	Status % Complete	Scheduled Completion or Renewal Date	Comments
Spray to Drip Conversion Pilot Program	MWDOC	15%	October 2014	<p>This is a pilot program designed to test the efficacy of replacing conventional spray heads in shrub beds with low-volume, low-precipitation drip technology. Through a rebate program format, residential sites will be encouraged to convert their existing spray nozzles to drip.</p> <p>The program launched in March. To date, 15 contractors have attended the drip training course, and 4 sites have signed up to receive rebates.</p>
Commercial, Industrial, and Institutional Performance-Based Water Use Efficiency Program	MWDOC	2%	December 2015	<p>This program will provide enhanced rebate incentives to commercial, industrial, and institutional sites and large-landscape properties (landscapes ≥ 1 acre). The program is scheduled to launch during the second Quarter of 2014.</p>
Landscape Training and Outreach	MWDOC	5%	Ongoing	<p>The Orange County Garden Friendly (OCGF) Pilot Program promotes the use of climate appropriate plants and water efficient irrigation practices, with the overall goals of reducing water runoff and improving outdoor water use efficiency. The OCGF Pilot Program is a collaborative effort of the Orange County Stormwater Program (OCSP) and the University of California Cooperative Extension (UCCE). Each partner plays a role in planning and implementing the Program. Various water-related organizations also provide program support and assist with implementation.</p> <p>The May events (May 3rd at the Laguna Niguel Home Depot and May 17th at the Brea Home Depot) were successful, with each subsequent event resulting in an increase in device and plant movement.</p>

Orange County

Water Use Efficiency Programs Savings and Implementation Report

Retrofits and Acre-Feet Water Savings for Program Activity

Program	Program Start Date	Retrofits Installed in	Month Indicated		Current Fiscal Year		Overall Program		
			Interventions	Water Savings	Interventions	Water Savings	Interventions	Annual Water Savings[4]	Cumulative Water Savings[4]
High Efficiency Clothes Washer Program	2001	April-14	498	1.15	4,615	64.16	95,646	2,642	15,072
Smart Timer Program - Irrigation Timers	2004	April-14	67	1.39	901	127.23	11,102	3,752	19,670
Rotating Nozzles Rebate Program	2007	April-14	1,069	0.36	60,399	147.50	371,446	1,992	7,862
SoCal WaterSmart Commercial Plumbing Fixture Rebate Program	2002	April-14	20	0.15	1,460	26.02	45,288	3,396	26,972
Water Smart Landscape Program [1]	1997	March-14	12,373	882.93	12,373	7,873.50	12,373	10,367	55,175
Industrial Process Water Use Reduction Program	2006	April-14	1	0.00	1	0.00	11	252	899
Turf Removal Program [3]	2010	April-14	8,383	0.10	368,825	52	1,446,011	202	450
High Efficiency Toilet (HET) Program	2005	April-14	320	1.13	2,428	101.56	31,001	1,146	7,106
Home Water Certification Program	2013	April-14	15	0.029	30	0.202	30	0.706	0.706
Synthetic Turf Rebate Program	2007		0	0	0	0	685,438	96	469
Ultra-Low-Flush-Toilet Programs [2]	1992		0	0	0	0	363,926	13,452	150,509
Home Water Surveys [2]	1995		0	0	0	0	11,867	160	1,708
Showerhead Replacements [2]	1991		0	0	0	0	270,604	1,667	19,083
Total Water Savings All Programs				887	451,032	8,392	3,344,743	39,123	304,975

⁽¹⁾ Water Smart Landscape Program participation is based on the number of water meters receiving monthly Irrigation Performance Reports.

⁽²⁾ Cumulative Water Savings Program To Date totals are from a previous Water Use Efficiency Program Effort.

⁽³⁾ Turf Removal Interventions are listed as square feet.

⁽⁴⁾ Cumulative & annual water savings represents both active program savings and passive savings that continues to be realized due to plumbing code changes over time.

HIGH EFFICIENCY CLOTHES WASHERS INSTALLED BY AGENCY through MWDOC and Local Agency Conservation Programs

Agency	FY 01/02	FY 02/03	FY03/04	FY 04/05	FY 05/06	FY 06/07	FY 07/08	FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY13/14	Total	Current FY Water Savings Ac/Ft (Cumulative)	Cumulative Water Savings across all Fiscal Years
Brea	17	107	178	132	143	132	175	156	42	186	144	93	93	1,598	1.24	251.44
Buena Park	9	45	88	81	84	85	114	146	59	230	145	105	95	1,286	1.38	183.19
East Orange CWD RZ	3	8	20	20	11	18	22	17	3	23	10	10	7	172	0.11	28.41
El Toro WD	21	88	108	103	83	91	113	130	32	162	112	134	94	1,271	1.44	186.59
Fountain Valley	36	127	209	196	178	205	219	243	72	289	158	115	81	2,128	1.13	345.10
Garden Grove	39	173	278	243	243	238	304	332	101	481	236	190	130	2,988	1.90	467.27
Golden State WC	37	195	339	374	342	339	401	447	168	583	485	265	229	4,204	3.07	647.92
Huntington Beach	114	486	857	738	680	761	750	751	211	963	582	334	232	7,459	3.18	1,234.66
Irvine Ranch WD	159	626	1,087	1,093	1,445	1,972	2,052	1,844	1,394	2,621	2,170	1,763	1,360	19,586	19.42	2,873.22
La Habra	8	40	86	81	66	96	136	83	22	179	128	82	95	1,102	1.23	160.31
La Palma	3	5	13	21	18	33	35	51	25	76	46	34	23	383	0.33	54.07
Laguna Beach CWD	17	88	119	84	68	57	77	77	27	96	57	38	26	831	0.33	135.52
Mesa Water District	24	117	228	240	212	239	249	246	73	232	176	114	64	2,214	0.92	373.45
Moulton Niguel WD	158	630	841	640	570	652	716	742	250	1,127	679	442	353	7,800	4.80	1,216.31
Newport Beach	17	144	343	277	243	245	270	259	57	197	142	116	73	2,383	1.06	409.68
Orange	58	247	304	358	330	366	365	403	111	349	262	218	133	3,504	1.85	581.38
Orange Park Acres	-	-	-	-	-	4	8	-	-	-	-	-	-	12	0.00	2.43
San Juan Capistrano	16	95	120	107	102	109	103	127	43	190	110	76	61	1,259	0.75	196.24
San Clemente	32	182	235	170	136	204	261	278	63	333	206	140	73	2,313	1.10	361.44
Santa Margarita WD	140	510	743	573	592	654	683	740	257	1,105	679	553	510	7,739	7.08	1,170.56
Seal Beach	13	28	57	39	46	47	46	57	7	81	51	31	25	528	0.38	82.05
Serrano WD	9	16	54	39	39	30	31	23	7	21	20	13	10	312	0.17	54.47
South Coast WD	35	138	165	97	103	107	130	148	43	183	112	89	68	1,418	1.04	218.49
Trabuco Canyon WD	10	63	76	58	44	69	60	62	28	82	62	30	42	686	0.56	107.13
Tustin	21	89	152	138	127	152	146	144	45	174	97	78	50	1,413	0.63	233.32
Westminster	37	159	235	196	186	213	171	233	74	329	208	121	63	2,225	0.79	355.38
Yorba Linda	36	214	342	355	333	288	350	367	117	394	273	181	124	3,374	1.74	556.22
MWDOC Totals	1,069	4,620	7,277	6,453	6,424	7,406	7,987	8,106	3,331	10,686	7,350	5,365	4,114	80,188	57.61	12,486.26
Anaheim	917	677	904	1,364	701	854	847	781	860	910	477	331	229	9,852	2.97	1,685.09
Fullerton	40	196	369	289	263	269	334	330	69	397	270	200	159	3,185	2.18	494.56
Santa Ana	15	69	188	269	244	236	235	257	87	355	190	163	113	2,421	1.40	406.22
Non-MWDOC Totals	972	942	1,461	1,922	1,208	1,359	1,416	1,368	1,016	1,662	937	694	501	15,458	6.55	2,585.88
Orange County Totals	2,041	5,562	8,738	8,375	7,632	8,765	9,403	9,474	4,347	12,348	8,287	6,059	4,615	95,646	64.16	15,072.14

SMART TIMERS INSTALLED BY AGENCY
through MWDOC and Local Agency Conservation Programs

Agency	FY 08/09		FY 09/10		FY 10/11		FY 11/12		FY 12/13		FY 13/14		Total Program		Cumulative Water Savings across all Fiscal Years
	Res	Comm	Res	Comm	Res	Comm	Res	Comm	Res	Comm	Res	Comm	Res	Comm.	
Brea	3	9	0	0	2	0	8	0	9	8	4	0	37	66	293.68
Buena Park	3	1	0	0	0	0	4	19	3	0	0	0	10	20	44.07
East Orange CWD RZ	0	0	0	0	1	0	5	0	2	0	0	0	11	0	2.35
El Toro WD	0	25	2	18	5	5	26	2	7	2	8	0	62	321	1,524.72
Fountain Valley	1	0	0	6	2	2	8	2	3	2	1	0	35	17	74.26
Garden Grove	2	1	6	0	5	4	7	0	5	2	5	0	46	13	62.23
Golden State WC	1	2	9	22	7	4	13	3	9	49	5	25	91	127	320.35
Huntington Beach	13	1	6	27	6	36	15	4	18	33	14	35	117	160	433.40
Irvine Ranch WD	29	56	14	145	28	153	267	71	414	135	56	48	1,104	1,338	5,572.41
La Habra	0	0	0	21	0	0	3	0	4	7	2	0	17	29	89.27
La Palma	0	0	0	0	0	0	1	0	1	0	1	0	3	0	0.28
Laguna Beach CWD	2	0	2	14	4	1	109	2	76	2	70	0	297	19	96.45
Mesa Water District	6	7	13	7	7	22	21	0	10	2	12	2	113	73	338.06
Moulton Niguel WD	21	23	17	162	36	60	179	31	51	74	35	38	464	470	1,514.51
Newport Beach	10	27	7	58	6	0	275	12	242	26	167	74	968	344	1,370.83
Orange	5	2	2	13	5	8	25	0	20	24	11	9	145	111	461.30
San Juan Capistrano	10	0	7	49	13	1	103	2	14	18	4	0	172	79	276.35
San Clemente	81	20	13	209	46	11	212	17	26	7	17	2	949	334	1,477.98
Santa Margarita WD	25	44	10	152	61	53	262	7	53	171	50	83	572	684	2,130.85
Santiago CWD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
Seal Beach	0	0	0	1	0	0	0	3	1	0	1	36	2	40	33.79
Serrano WD	0	0	11	0	4	0	3	0	1	0	0	0	19	0	3.78
South Coast WD	11	6	3	10	13	3	78	10	13	16	5	3	155	127	533.13
Trabuco Canyon WD	1	0	2	0	2	10	12	0	6	0	2	0	68	103	548.16
Tustin	7	9	10	14	10	0	11	0	8	4	9	1	59	35	138.18
Westminster	3	0	3	0	1	1	2	0	1	1	0	0	26	14	85.13
Yorba Linda	8	5	5	21	25	0	22	0	20	0	11	5	172	83	394.43
MWDOC Totals	242	238	142	949	289	374	1,671	185	1,017	583	490	361	5,714	4,607	17,819.95

Anaheim	9	59	5	46	12	11	23	60	19	10	8	26	119	361	1,376.31
Fullerton	2	2	2	39	9	33	22	51	9	29	6	0	72	154	384.79
Santa Ana	2	4	1	8	8	0	6	5	8	19	2	8	31	44	89.40
Non-MWDOC Totals	13	65	8	93	29	44	51	116	36	58	16	34	222	559	1,850.50

Orange County Totals	255	303	150	1,042	318	418	1,722	301	1,053	641	506	395	5,936	5,166	19,670
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ROTATING NOZZLES INSTALLED BY AGENCY
through MWDOC and Local Agency Conservation Programs

Agency	FY 09/10			FY 10/11			FY 11/12			FY 12/13			FY 13/14			Total Program			Cumulative Water Savings across all Fiscal Years
	Small		Large	Small		Large	Small		Large	Small		Large	Small		Large	Small		Large	
	Res	Comm.	Comm.	Res	Comm.	Comm.	Res	Comm.	Comm.	Res	Comm.	Comm.	Res	Comm.	Comm.	Res	Comm.	Comm.	
Brea	8	100	0	32	0	0	130	0	0	65	120	0	84	0	0	341	220	0	6.57
Buena Park	0	0	2,535	29	0	0	32	0	0	65	0	0	53	0	0	216	75	2,535	447.88
East Orange	0	0	0	0	0	0	340	0	0	55	0	0	30	0	0	530	0	0	7.16
El Toro	145	2,874	890	174	0	0	357	76	0	23	6,281	0	36	3,288	0	823	12,809	890	296.85
Fountain Valley	21	0	0	83	0	0	108	0	0	35	0	0	0	0	0	381	0	0	6.74
Garden Grove	151	45	0	38	0	0	119	0	0	95	0	0	61	0	0	661	151	0	14.40
Golden State	280	29	0	303	943	0	294	0	0	257	2,595	0	165	0	0	1,543	3,567	0	59.59
Huntington Beach	39	3,420	305	203	625	0	458	0	0	270	0	0	120	0	0	1,505	4,909	2,681	719.35
Irvine Ranch	1,034	54,441	1,479	2,411	2,861	0	1,715	4,255	0	25,018	1,014	0	10,939	4,257	0	43,321	79,371	2,004	2304.30
La Habra	0	273	0	0	0	0	33	90	0	0	0	0	15	0	0	72	898	900	213.71
La Palma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0.24
Laguna Beach	191	0	0	156	0	0	763	0	0	3,596	0	0	2,948	878	0	7,870	925	0	66.29
Mesa Water District	195	83	0	118	0	0	297	277	0	270	0	0	361	0	0	1,522	385	343	110.07
Moulton Niguel	234	0	959	1,578	0	0	1,225	0	0	512	1,385	0	272	227	0	4,544	8,615	2,945	833.66
Newport Beach	92	4,781	0	337	1,208	0	640	3,273	0	25,365	50	0	19,349	6,835	0	45,870	16,886	0	499.17
Orange	129	0	0	135	30	0	343	0	0	264	0	0	165	0	0	2,155	193	0	43.49
San Clemente	729	1,299	0	2,612	851	0	4,266	117	1,343	631	172	0	265	5,074	0	9,087	7,538	1,343	332.36
San Juan Capistrano	656	5,709	0	1,452	0	0	949	0	0	684	30	0	355	0	0	4,600	7,399	0	221.17
Santa Margarita	1,731	937	611	3,959	3,566	0	4,817	0	0	983	0	0	318	0	0	13,052	4,571	611	379.66
Seal Beach	0	291	0	0	0	0	0	0	0	0	0	0	0	0	0	115	291	0	8.58
Serrano	1,498	0	0	364	0	0	58	0	0	190	0	0	105	0	0	2,333	0	0	41.61
South Coast	0	0	0	318	1,772	0	688	359	0	435	0	0	70	0	0	1,700	2,264	0	58.30
Trabuco Canyon	1,357	791	0	0	0	0	379	0	0	34	0	0	0	0	0	1,900	791	0	51.40
Tustin	314	0	0	512	0	0	476	1,013	0	378	0	0	329	0	0	2,581	1,013	0	50.48
Westminster	80	0	0	0	0	0	26	0	0	15	0	0	0	0	0	232	0	0	4.69
Yorba Linda	371	3,256	0	529	0	0	559	0	0	730	0	0	40	940	0	3,232	4,309	500	231.45
MWDOC Totals	9,255	78,329	6,779	15,343	11,856	0	19,072	9,460	1,343	59,970	11,647	0	36,080	21,499	0	150,196	157,180	14,752	7009.17

Anaheim	273	164	105	372	382	0	742	38,554	0	459	813	0	162	0	0	2,405	39,913	105	531.14
Fullerton	48	0	1,484	416	0	0	409	0	0	119	0	0	107	0	0	1,640	64	1,484	288.49
Santa Ana	48	572	0	53	0	0	22	65	0	99	0	0	18	2,533	0	481	3,226	0	32.98
Non-MWDOC Totals	369	736	1,589	841	382	0	1,173	38,619	0	677	813	0	287	2,533	0	4,526	43,203	1,589	852.61

Orange County Totals	9,624	79,065	8,368	16,184	12,238	0	20,245	48,079	1,343	60,647	12,460	0	36,367	24,032	0	154,722	200,383	16,341	7861.78
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SOCAL WATER\$MART COMMERCIAL PLUMBING FIXTURES REBATE PROGRAM^[1]

INSTALLED BY AGENCY

through MWDOC and Local Agency Conservation Programs

Agency	FY 01/02	FY 02/03	FY 03/04	FY 04/05	FY 05/06	FY 06/07	FY 07/08	FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Totals	Cumulative Water Savings across all Fiscal Years
Brea	0	51	0	22	52	2	27	113	24	4	1	234	0	530	263
Buena Park	10	83	28	55	64	65	153	432	122	379	290	5	0	1,686	691
East Orange CWD RZ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
El Toro WD	23	23	73	42	5	2	0	92	143	1	137	0	212	753	393
Fountain Valley	1	94	2	59	35	63	17	35	0	2	314	0	0	622	409
Garden Grove	21	199	51	297	34	136	5	298	130	22	0	4	1	1,198	1,058
Golden State WC	11	197	34	232	80	531	46	414	55	68	135	0	0	1,803	1,367
Huntington Beach	5	191	73	185	82	209	48	104	126	96	156	104	138	1,517	1,076
Irvine Ranch WD	306	1,085	87	325	1,044	429	121	789	2,708	1,002	646	1,090	433	10,065	4,498
La Habra	10	37	52	45	60	16	191	75	53	4	0	0	0	543	385
La Palma	0	0	0	0	5	0	0	140	21	0	0	0	0	166	56
Laguna Beach CWD	2	30	2	18	9	12	20	137	189	0	0	0	27	446	219
Mesa Water District	424	155	22	130	241	141	141	543	219	669	41	6	0	2,732	1,438
Moulton Niguel WD	31	74	65	172	3	0	9	69	151	6	0	0	0	580	595
Newport Beach	4	230	9	77	24	94	98	27	245	425	35	0	0	1,268	873
Orange	84	144	22	553	127	88	18	374	67	1	73	1	268	1,820	1,250
San Juan Capistrano	0	34	21	181	0	6	2	1	1	0	0	0	14	260	306
San Clemente	0	36	5	95	40	173	2	18	43	0	19	0	0	431	287
Santa Margarita WD	0	16	3	56	0	0	6	23	11	0	0	0	0	115	149
Santiago CWD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Seal Beach	3	34	44	40	61	45	1	2	124	0	0	0	0	354	309
Serrano WD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
South Coast WD	0	31	8	54	8	4	9	114	56	422	84	148	0	938	304
Trabuco Canyon WD	0	1	0	6	0	0	0	4	0	0	0	0	0	11	11
Tustin	9	114	16	82	14	7	115	145	25	230	0	0	0	757	574
Westminster	16	109	32	153	57	104	40	161	16	63	35	1	28	815	731
Yorba Linda	0	36	12	42	4	118	10	24	8	30	0	1	0	285	402
MWDOC Totals	960	3,004	661	2,921	2,049	2,245	1,079	4,134	4,537	3,424	1,966	1,594	1,121	29,695	17,643
Anaheim	1,042	400	947	362	1,113	780	766	3,298	582	64	48	165	332	9,899	4,847
Fullerton	28	41	138	270	91	96	133	579	29	4	0	94	0	1,503	1,141
Santa Ana	115	153	589	227	624	373	493	815	728	39	12	16	7	4,191	3,341
Non-MWDOC Totals	1,185	594	1,674	859	1,828	1,249	1,392	4,692	1,339	107	60	275	339	15,593	9,329
Orange County Totals	2,145	3,598	2,335	3,780	3,877	3,494	2,471	8,826	5,876	3,531	2,026	1,869	1,460	45,288	26,972

[1] Retrofit devices include ULF Toilets and Urinals, High Efficiency Toilets and Urinals, Zero Water Urinals, High Efficiency Clothes Washers, Cooling Tower Conductivity Controllers, Ph Cooling Tower Conductivity Controllers, Flush Valve Retrofit Kits, Pre-rinse Spray heads, Hospital X-Ray Processor Recirculating Systems, Steam Sterilizers, Food Steamers, and Water Pressurized Brooms.

Water Smart Landscape Program

Total Number of Meters in Program by Agency

Agency	FY 04-05	FY 05-06	FY 06-07	FY 07-08	FY 08-09	FY 09-10	FY 10-11	FY 11-12	FY 12/13	FY 13/14	Overall Water Savings To Date (AF)
Brea	0	0	0	0	0	0	0	22	22	22	34.54
Buena Park	0	0	0	0	0	17	103	101	101	101	325.76
East Orange CWD RZ	0	0	0	0	0	0	0	0	0	0	0.00
El Toro WD	88	109	227	352	384	371	820	810	812	812	3,756.00
Fountain Valley	0	0	0	0	0	0	0	0	0	0	0.00
Garden Grove	0	0	0	0	0	0	0	0	0	0	0.00
Golden State WC	0	0	0	14	34	32	34	32	32	32	157.20
Huntington Beach	0	0	0	0	0	31	33	31	31	31	106.40
Irvine Ranch WD	277	638	646	708	1,008	6,297	6,347	6,368	6,795	6,797	29,131.87
Laguna Beach CWD	0	0	0	0	57	141	143	141	124	124	564.95
La Habra	0	0	0	0	23	22	24	22	22	22	106.90
La Palma	0	0	0	0	0	0	0	0	0	0	0.00
Mesa Water District	191	170	138	165	286	285	288	450	504	511	2,248.96
Moulton Niguel WD	80	57	113	180	473	571	595	643	640	662	3,204.82
Newport Beach	32	27	23	58	142	171	191	226	262	299	1,094.58
Orange	0	0	0	0	0	0	0	0	0	0	0.00
San Clemente	191	165	204	227	233	247	271	269	269	303	1,873.90
San Juan Capistrano	0	0	0	0	0	0	0	0	0	0	0.00
Santa Margarita WD	547	619	618	945	1,571	1,666	1,746	1,962	1,956	2,271	11,053.20
Seal Beach	0	0	0	0	0	0	0	0	0	0	0.00
Serrano WD	0	0	0	0	0	0	0	0	0	0	0.00
South Coast WD	0	0	0	62	117	108	110	118	118	118	630.53
Trabuco Canyon WD	0	0	0	12	49	48	62	60	60	60	269.17
Tustin	0	0	0	0	0	0	0	0	0	0	0.00
Westminster	0	0	0	10	18	18	20	18	18	18	92.05
Yorba Linda WD	0	0	0	0	0	0	0	0	0	0	0.00
MWDOC Totals	1,406	1,785	1,969	2,733	4,395	10,025	10,787	11,273	11,766	12,183	54,650.8
Anaheim	0	0	0	0	0	142	146	144	190	190	523.92
Fullerton	0	0	0	0	0	0	0	0	0	0	0.00
Santa Ana	0	0	0	0	0	0	0	0	0	0	0.00
Non-MWDOC Totals	0	0	0	0	0	142	146	144	190	190	523.92
Orange Co. Totals	1,406	1,785	1,969	2,733	4,395	10,167	10,933	11,417	11,956	12,373	55,174.74

INDUSTRIAL PROCESS WATER USE REDUCTION PROGRAM

Number of Process Changes by Agency

Agency	FY 07/08	FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Overall Program Interventions	Annual Water Savings[1]	Cumulative Water Savings across all Fiscal Years[1]
Brea	0	0	0	0	0	0	0	0	0	0
Buena Park	0	1	0	0	0	0	0	1	54	288
East Orange	0	0	0	0	0	0	0	0	0	0
El Toro	0	0	0	0	0	0	0	0	0	0
Fountain Valley	0	0	0	0	0	0	0	0	0	0
Garden Grove	0	0	0	0	0	0	0	0	0	0
Golden State	1	0	0	0	0	0	0	1	3	18
Huntington Beach	0	0	0	0	0	2	0	2	54	96
Irvine Ranch	0	0	2	1	1	1	1	6	98	227
La Habra	0	0	0	0	0	0	0	0	0	0
La Palma	0	0	0	0	0	0	0	0	0	0
Laguna Beach	0	0	0	0	0	0	0	0	0	0
Mesa Water District	0	0	0	0	0	0	0	0	0	0
Moulton Niguel	0	0	0	0	0	0	0	0	0	0
Newport Beach	0	0	0	0	0	0	0	0	0	0
Orange	1	0	0	0	0	0	0	1	43	269
San Juan Capistrano	0	0	0	0	0	0	0	0	0	0
San Clemente	0	0	0	0	0	0	0	0	0	0
Santa Margarita	0	0	0	0	0	0	0	0	0	0
Seal Beach	0	0	0	0	0	0	0	0	0	0
Serrano	0	0	0	0	0	0	0	0	0	0
South Coast	0	0	0	0	0	0	0	0	0	0
Trabuco Canyon	0	0	0	0	0	0	0	0	0	0
Tustin	0	0	0	0	0	0	0	0	0	0
Westminster	0	0	0	0	0	0	0	0	0	0
Yorba Linda	0	0	0	0	0	0	0	0	0	0
MWDOC Totals	2	1	2	1	1	3	1	11	252	899

[1] Acre feet of savings determined during a one year monitoring period.

If monitoring data is not available, the savings estimated in agreement is used.

TURF REMOVAL BY AGENCY^[1]
through MWDOC and Local Agency Conservation Programs

Agency	FY 10/11		FY 11/12		FY 12/13		FY 13/14		Total Program		Cumulative Water Savings across all Fiscal Years
	Res	Comm.	Res	Comm.	Res	Comm.	Res	Comm.	Res	Comm.	
Brea	0	0	3,397	9,466	7,605	0	0	0	11,002	9,466	7.53
Buena Park	0	0	0	0	0	0	0	0	0	0	-
East Orange	0	0	0	0	0	0	1,964	0	1,964	0	0.27
El Toro	0	0	4,723	0	4,680	72,718	2,908	0	12,311	72,718	24.06
Fountain Valley	0	0	1,300	0	682	7,524	1,054	0	3,036	7,524	2.99
Garden Grove	0	46,177	14,013	0	4,534	0	4,930	0	23,477	46,177	33.70
Golden State	0	0	42,593	30,973	31,813	3,200	22,490	8,424	96,896	42,597	45.03
Huntington Beach	801	3,651	27,630	48,838	9,219	12,437	15,021	0	52,671	64,926	42.78
Irvine Ranch	5,423	12,794	6,450	1,666	32,884	32,384	26,441	67,381	71,198	114,225	45.02
La Habra	0	7,775	0	8,262	0	0	0	0	0	16,037	7.82
La Palma	0	0	0	0	0	0	0	0	0	0	-
Laguna Beach	978	0	2,533	0	2,664	1,712	3,203	226	9,378	1,938	3.32
Mesa Water District	0	0	6,777	0	10,667	0	8,008	0	25,452	0	6.95
Moulton Niguel	956	16,139	4,483	26,927	11,538	84,123	4,537	20,388	21,514	147,577	53.04
Newport Beach	0	0	3,454	0	3,548	2,346	894	0	7,896	2,346	3.23
Orange	0	0	12,971	0	15,951	8,723	2,320	0	31,242	8,723	12.68
San Clemente	0	0	21,502	0	16,062	13,165	14,311	10,000	51,875	23,165	20.62
San Juan Capistrano	0	0	22,656	103,692	29,544	27,156	6,986	0	59,186	130,848	69.92
Santa Margarita	4,483	5,561	1,964	11,400	10,151	11,600	11,477	10,257	28,075	38,818	20.37
Seal Beach	0	0	0	0	3,611	0	0	0	3,611	0	1.01
Serrano	0	0	0	0	0	0	2,971	0	2,971	0	0.42
South Coast	0	16,324	6,806	0	9,429	4,395	8,874	101,127	25,109	121,846	31.27
Trabuco Canyon	0	0	272	0	1,542	22,440	2,009	0	3,823	22,440	7.11
Tustin	0	0	0	0	9,980	0	1,410	0	11,390	0	2.99
Westminster	0	0	0	0	0	0	0	0	0	0	-
Yorba Linda	11,349	0	0	0	0	0	0	0	11,349	0	6.36
MWDOC Totals	23,990	108,421	183,524	241,224	216,104	303,923	141,808	217,803	565,426	871,371	448.49

Anaheim	0	0	0	0	0	0	0	0	0	0	-
Fullerton	0	0	0	0	0	0	0	9,214	0	9,214	1.29
Santa Ana	0	0	0	0	0	0	0	0	0	0	-
Non-MWDOC Totals	0	0	0	0	0	0	0	9,214	0	9,214	1.29

Orange County Totals	23,990	108,421	183,524	241,224	216,104	303,923	141,808	227,017	565,426	880,585	449.78
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[1]Installed device numbers are listed as square feet

HIGH EFFICIENCY TOILETS (HETs) INSTALLED BY AGENCY

through MWDOC and Local Agency Conservation Programs

Agency	FY05-06	FY 06-07	FY 07-08	FY 08-09	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	Total	Cumulative Water Savings across all Fiscal Years
Brea	0	2	7	43	48	8	0	0	28	136	26.51
Buena Park	0	1	2	124	176	7	0	0	31	341	72.56
East Orange CWD RZ	0	0	10	12	1	0	0	0	2	25	6.34
El Toro WD	0	392	18	75	38	18	0	133	180	854	188.11
Fountain Valley	0	69	21	262	54	17	0	0	26	449	112.14
Garden Grove	0	14	39	443	181	24	0	0	35	736	173.60
Golden State WC	2	16	36	444	716	37	80	2	93	1,426	303.32
Huntington Beach	2	13	59	607	159	76	0	0	106	1,022	229.05
Irvine Ranch WD	29	1,055	826	5,088	2,114	325	0	1,449	555	11,441	2,567.76
Laguna Beach CWD	0	2	17	91	28	11	0	0	25	174	37.88
La Habra	0	3	18	296	34	20	0	0	10	381	93.03
La Palma	0	1	10	36	26	13	0	0	17	103	20.98
Mesa Water District	0	247	19	736	131	7	0	0	160	1,300	313.58
Moulton Niguel WD	0	20	104	447	188	46	0	0	246	1,051	210.24
Newport Beach	0	5	19	163	54	13	0	0	32	286	64.05
Orange	1	20	62	423	79	40	0	1	86	712	161.04
San Juan Capistrano	0	10	7	76	39	11	0	0	26	169	36.18
San Clemente	0	7	22	202	66	21	0	0	42	360	79.93
Santa Margarita WD	0	5	14	304	151	44	0	0	415	933	140.79
Seal Beach	0	678	8	21	12	1	0	2	8	730	241.82
Serrano WD	0	0	1	13	5	0	0	0	2	21	5.53
South Coast WD	2	2	29	102	41	12	23	64	63	338	57.97
Trabuco Canyon WD	2	0	4	23	23	0	0	0	5	57	12.17
Tustin	0	186	28	387	479	17	0	0	44	1,141	277.19
Westminster	0	17	25	541	167	23	0	0	24	797	191.86
Yorba Linda WD	0	14	89	323	96	18	0	0	26	566	138.36
MWDOC Totals	38	2,779	1,494	11,282	5,106	809	103	1,651	2,287	25,549	5,761.99

Anaheim	0	255	78	2,771	619	114	0	0	95	3,932	972.82
Fullerton	0	4	28	286	60	23	0	0	25	426	100.48
Santa Ana	0	11	25	925	89	23	0	0	21	1,094	271.14
Non-MWDOC Totals	0	270	131	3,982	768	160	0	0	141	5,452	1,344.44

Orange County Totals	38	3,049	1,625	15,264	5,874	969	103	1,651	2,428	31,001	7,106.43
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HOME WATER SURVEYS PERFORMED BY AGENCY

through MWDOC and Local Agency Conservation Programs

Agency	FY 13/14		FY 14/15		Total		Cumulative Water Savings
	Surveys	Cert Homes	Surveys	Cert Homes	Surveys	Cert Homes	
Brea	0	0	0	0	0	0	0.00
Buena Park	0	0	0	0	0	0	0.00
East Orange	13	0	0	0	13	0	0.31
El Toro	0	0	0	0	0	0	0.00
Fountain Valley	2	0	0	0	2	0	0.05
Garden Grove	0	0	0	0	0	0	0.00
Golden State	0	0	0	0	0	0	0.00
Huntington Beach	0	0	0	0	0	0	0.00
Irvine Ranch	0	0	0	0	0	0	0.00
La Habra	0	0	0	0	0	0	0.00
La Palma	0	0	0	0	0	0	0.00
Laguna Beach	3	0	0	0	3	0	0.07
Mesa	0	0	0	0	0	0	0.00
Moulton Niguel	1	0	0	0	1	0	0.02
Newport Beach	0	0	0	0	0	0	0.00
Orange	0	0	0	0	0	0	0.00
San Clemente	1	0	0	0	1	0	0.02
San Juan Capistrano	1	0	0	0	1	0	0.02
Santa Margarita	7	0	0	0	7	0	0.16
Serrano	0	0	0	0	0	0	0.00
South Coast	2	0	0	0	2	0	0.05
Trabuco Canyon	0	0	0	0	0	0	0.00
Tustin	0	0	0	0	0	0	0.00
Westminster	0	0	0	0	0	0	0.00
Yorba Linda	0	0	0	0	0	0	0.00
MWDOC Totals	30	0	0	0	30	0	0.71

Anaheim	0	0	0	0	0	0	0.00
Fullerton	0	0	0	0	0	0	0.00
Santa Ana	0	0	0	0	0	0	0.00
Non-MWDOC Totals	0	0	0	0	0	0	0.00

Orange County Totals	30	0	0	0	30	0	0.706
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SYNTHETIC TURF INSTALLED BY AGENCY^[1]
through MWDOC and Local Agency Conservation Programs

Agency	FY 07/08		FY 08/09		FY 09/10		FY 10/11		Total Program		Cumulative Water Savings across all Fiscal Years
	Res	Comm.	Res	Comm.	Res	Comm.	Res	Comm.	Res	Comm.	
Brea	0	0	2,153	2,160	500	0	0	0	2,653	2,160	3.30
Buena Park	0	0	1,566	5,850	0	0	0	0	1,566	5,850	5.19
East Orange	0	0	0	0	983	0	0	0	983	0	0.55
El Toro	3,183	0	2,974	0	3,308	0	895	0	10,360	0	6.98
Fountain Valley	11,674	0	1,163	0	2,767	0	684	0	16,288	0	12.46
Garden Grove	1,860	0	0	0	3,197	0	274	0	5,331	0	3.47
Golden State	6,786	0	13,990	0	15,215	0	2,056	0	38,047	0	24.88
Huntington Beach	15,192	591	12,512	0	4,343	1,504	0	0	32,047	2,095	25.29
Irvine Ranch	11,009	876	13,669	0	2,585	0	0	0	27,263	876	21.00
La Habra	0	0	0	0	0	0	0	0	0	0	-
La Palma	429	0	0	0	0	0	0	0	429	0	0.36
Laguna Beach	3,950	0	3,026	0	725	0	0	0	7,701	0	5.84
Mesa Water District	4,114	0	3,005	78,118	4,106	0	2,198	0	13,423	78,118	63.46
Moulton Niguel	14,151	0	25,635	2,420	7,432	0	0	0	47,218	2,420	35.69
Newport Beach	2,530	0	6,628	0	270	0	0	0	9,428	0	6.92
Orange	4,169	0	7,191	0	635	0	0	0	11,995	0	8.89
San Clemente	9,328	0	11,250	455	2,514	1,285	500	0	23,592	1,740	18.37
San Juan Capistrano	0	0	7,297	639	2,730	0	4,607	0	14,634	639	9.02
Santa Margarita	12,922	0	26,069	0	21,875	0	7,926	0	68,792	0	44.68
Seal Beach	0	0	817	0	0	0	0	0	817	0	0.57
Serrano	7,347	0	1,145	0	0	0	0	0	8,492	0	6.97
South Coast	2,311	0	6,316	0	17,200	0	1,044	0	26,871	0	16.43
Trabuco Canyon	1,202	0	9,827	0	0	0	0	0	11,029	0	7.89
Tustin	6,123	0	4,717	0	2,190	0	0	0	13,030	0	9.67
Westminster	2,748	16,566	8,215	0	890	0	0	0	11,853	16,566	22.47
Yorba Linda	11,792	0	12,683	0	4,341	5,835	0	0	28,816	5,835	24.48
MWDOC Totals	132,820	18,033	181,848	89,642	97,806	8,624	20,184	0	432,658	116,299	384.83

Anaheim	4,535	0	7,735	20,093	13,555	65,300	4,122	0	29,947	85,393	69.18
Fullerton	4,865	876	5,727	0	6,223	0	105	0	16,920	876	12.36
Santa Ana	0	0	2,820	0	525	0	0	0	3,345	0	2.27
Non-MWDOC Totals	9,400	876	16,282	20,093	20,303	65,300	4,227	0	50,212	86,269	83.81

Orange County Totals	142,220	18,909	198,130	109,735	118,109	73,924	24,411	0	482,870	202,568	468.63
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[1] Installed device numbers are calculated in square feet

ULF TOILETS INSTALLED BY AGENCY
through MWD OC and Local Agency Conservation Programs

Agency	Previous Years	FY 95-96	FY 96-97	FY 97-98	FY 98-99	FY 99-00	FY 00-01	FY 01-02	FY 02-03	FY 03-04	FY 04-05	FY 05-06	FY 06-07	FY 07-08	FY 08-09	Total	Cumulative Water Savings across all Fiscal Years
Brea	378	189	299	299	122	144	867	585	341	401	26	48	17	4	0	3,720	1,569.44
Buena Park	361	147	331	802	520	469	524	1,229	2,325	1,522	50	40	18	9	0	8,347	3,221.94
East Orange CWD RZ	2	0	33	63	15	17	15	50	41	44	19	18	13	2	0	332	127.24
El Toro WD	1,169	511	678	889	711	171	310	564	472	324	176	205	61	40	0	6,281	2,883.15
Fountain Valley	638	454	635	858	1,289	2,355	1,697	1,406	1,400	802	176	111	58	32	0	11,911	4,988.63
Garden Grove	1,563	1,871	1,956	2,620	2,801	3,556	2,423	3,855	3,148	2,117	176	106	67	39	0	26,298	11,284.48
Golden State WC	3,535	1,396	3,141	1,113	3,024	2,957	1,379	2,143	3,222	1,870	167	116	501	43	0	24,607	10,916.54
Huntington Beach	3,963	1,779	2,600	2,522	2,319	3,492	3,281	2,698	3,752	1,901	367	308	143	121	0	29,246	12,886.15
Irvine Ranch WD	4,016	841	1,674	1,726	1,089	3,256	1,534	1,902	2,263	6,741	593	626	310	129	0	26,700	10,965.00
Laguna Beach CWD	283	93	118	74	149	306	220	85	271	118	32	26	29	6	0	1,810	785.75
La Habra	594	146	254	775	703	105	582	645	1,697	1,225	12	31	6	7	0	6,782	2,733.13
La Palma	65	180	222	125	44	132	518	173	343	193	31	27	20	17	0	2,090	858.31
Mesa Water District	1,610	851	1,052	2,046	2,114	1,956	1,393	1,505	2,387	988	192	124	56	14	0	16,288	7,114.85
Moulton Niguel WD	744	309	761	698	523	475	716	891	728	684	410	381	187	100	0	7,607	3,119.21
Newport Beach	369	293	390	571	912	1,223	438	463	396	1,883	153	76	36	16	0	7,219	2,927.69
Orange	683	1,252	1,155	1,355	533	2,263	1,778	2,444	2,682	1,899	193	218	88	53	4	16,600	6,798.18
San Juan Capistrano	1,234	284	193	168	323	1,319	347	152	201	151	85	125	42	39	0	4,663	2,170.00
San Clemente	225	113	191	65	158	198	667	483	201	547	91	66	37	34	0	3,076	1,212.77
Santa Margarita WD	577	324	553	843	345	456	1,258	790	664	260	179	143	101	29	0	6,522	2,785.02
Seal Beach	74	66	312	609	47	155	132	81	134	729	29	10	6	12	0	2,396	994.45
Serrano WD	81	56	68	41	19	52	95	73	123	98	20	15	14	2	0	757	313.59
South Coast WD	110	176	177	114	182	181	133	358	191	469	88	72	32	22	0	2,305	913.71
Trabuco Canyon WD	10	78	42	42	25	21	40	181	102	30	17	20	12	14	0	634	252.02
Tustin	968	668	557	824	429	1,292	1,508	1,206	1,096	827	69	89	26	12	0	9,571	4,106.91
Westminster	747	493	969	1,066	2,336	2,291	2,304	1,523	2,492	1,118	145	105	70	24	0	15,683	6,544.89
Yorba Linda WD	257	309	417	457	404	1,400	759	1,690	1,155	627	158	136	81	41	0	7,891	3,148.16
MWD OC Totals	24,256	12,879	18,778	20,765	21,136	30,242	24,918	27,175	31,827	27,568	3,654	3,242	2,031	861	4	249,336	105,621.20

Anaheim	447	1,054	1,788	3,661	1,755	7,551	4,593	6,346	9,707	5,075	473	371	462	341	1	43,625	16,914.77
Fullerton	1,453	1,143	694	1,193	1,364	2,138	1,926	2,130	2,213	1,749	172	77	44	23	2	16,321	6,894.71
Santa Ana	1,111	1,964	1,205	2,729	2,088	8,788	5,614	10,822	10,716	9,164	279	134	25	5	0	54,644	21,078.27
Non-MWD OC Totals	3,011	4,161	3,687	7,583	5,207	18,477	12,133	19,298	22,636	15,988	924	582	531	369	3	114,590	44,887.75

Orange County Totals	27,267	17,040	22,465	28,348	26,343	48,719	37,051	46,473	54,463	43,556	4,578	3,824	2,562	1,230	7	363,926	150,508.96
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