

**MEETING OF THE  
BOARD OF DIRECTORS OF THE  
MUNICIPAL WATER DISTRICT OF ORANGE COUNTY**  
Jointly with the  
**PLANNING & OPERATIONS COMMITTEE**

May 4, 2015, 8:30 a.m.  
MWDOC Conference Room 101

Teleconference Site:

105 Quarry Lane  
Santa Cruz, CA 95065  
(949) 244-3043

(Members of the Public may attend and participate in the meeting  
at both locations.)

**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

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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. AWARD OF CONTRACT TO EAGLE COMMUNICATIONS FOR THE PROVISION OF A WEROC RADIO EQUIPMENT ASSESSMENT

**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. STATUS UPDATE ON THE OC WATER RELIABILITY STUDY – MAY 2015
3. DRAFT ALERT OC APRIL 7, 2015 REGIONAL TEST EXERCISE AFTER ACTION REPORT
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, WATER USE EFFICIENCY, 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

May 20, 2015

**TO:** Board of Directors

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

Robert Hunter  
General Manager

Staff Contact: Kelly Hubbard  
Emergency Manager

**SUBJECT:** **Award of Contract to Eagle Communications for the provision of a WEROC Radio Equipment Assessment**

### **STAFF RECOMMENDATION**

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Staff recommends the Board of Directors approve the Award of Contract to Eagle Communications for the provision of a WEROC Radio Equipment Assessment in an amount not to exceed \$15,000, plus a contingency amount of \$3,000 for a total not to exceed \$18,000.

### **COMMITTEE RECOMMENDATION**

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Committee recommends (To be determined at Committee Meeting)

### **DETAILED REPORT**

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The WEROC radio system operates on a VHF Low Band repeater system. The FCC license and repeaters are maintained by the Municipal Water District of Orange County (MWDOC), on behalf of WEROC. WEROC maintains two (2) repeater sites, one at Black Jack Peak and one at Pleasants Peak (these are NOT part of the assessment) and then three (3) base radio stations. It is the responsibility of each Member Agency to purchase and maintain their own equipment in proper operational condition. Every WEROC Member Agency has at least one WEROC Radio. Agencies are encouraged to have more than one WEROC radio located at separate locations as back-up to each other. Radio installations include both base stations within utility facilities and mobile radios within utility vehicles.

|  |   |        |           |
|--|---|--------|-----------|
| Budgeted (Y/N): N                      | Budgeted amount: \$0                            | Core X | Choice __ |
| Action item amount:                    | Line item: Up to \$18,000                       |        |           |
| Fiscal Impact (explain if unbudgeted): | Project will be paid from WEROC Reserve Account |        |           |

In January 1987, WEROC provided the initial procurement and installation of the WEROC radio system for its offices and its Member Agencies. Since that initial installation, the Member Agencies have been responsible for the repair, replacement and programming of their own WEROC radio equipment. Over the years, WEROC staff provided recommendations for replacement equipment and programming. However, Agencies purchased the equipment that made the most sense for their agency and often programmed the radios with different settings.

WEROC seeks to hire a qualified contractor to complete a full assessment of the radio equipment operated at the WEROC EOCs, MWDOC office and its 35 member agencies. The purpose of the radio system assessment is to provide a comprehensive report on all of the operational components of the radio network, so that the WEROC Program Administrators can assist member agencies in the proper use of the system and most efficiently manage the network.

As part of the Assessment, the role of the Contractor will be to (1) document the specific model of equipment being used by each member agency at each site, (2) evaluate and document the antenna system connected to each user radio, (3) document how each radio function is programmed to access the various repeaters, (4) label all equipment and buttons appropriately (for accessing the different repeaters) when applicable, (5) deliver a quick (10-15 min) training seminar to staff on-site, (6) document any recommended maintenance or reliability changes/improvements that should be made, and (7) lastly provide a summary report to WEROC for future reference.

WEROC staff sent a Request for Quotes to four radio technician companies on April 1, 2015 and encouraged our member agencies to send the RFQ to any contractors they may work with. Staff received no requests for clarification and received 2 quotes from Eagle Communications and Pacific Communications Technology.

Each company was asked to provide a base quote for the requested services, as well as a quote for contingency costs. Additionally, the contract was to include a pre-authorization for up to \$50 in repairs per agency on radio equipment while on-site. The two proposals received included the following costs estimates:

| <b>Company</b>                          | <b>Base Cost</b> | <b>Contingency Repair Cost (Not to Exceed)</b> | <b>Contingency Cost for Assessment Per Hour</b> |
|---|------------------|--|---|
| Eagle Communications                    | \$13,027.50      | \$1,750.00                                     | \$98  |
| Pacific Communications Technology, Inc. | \$16,640.00      | \$1,750.00                                     | \$128   |

In evaluating the quotes received, a significant reason for the cost difference is the hourly rate charge by each company. Pacific Communications Technology's quote includes a significantly higher fee per hour and committed less time to the actual project. Additionally, staff has worked with Eagle Communications on previous repairs in which they have provided quality work with good customer service. Staff recommends award of the contract to Eagle Communications.



**Item No. 2**

## **INFORMATION ITEM**

May 4, 2015

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

**FROM:** **Robert Hunter, General Manager**  
Staff Contact: Karl Seckel/Richard Bell

**SUBJECT:** **Status Update on the OC Water Reliability Study – May 2015**

### **STAFF RECOMMENDATION**

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Staff recommends the Planning & Operations Committee receives and files the report.

### **COMMITTEE RECOMMENDATION**

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Committee recommends (To be determined at Committee Meeting)

### **DETAILED REPORT**

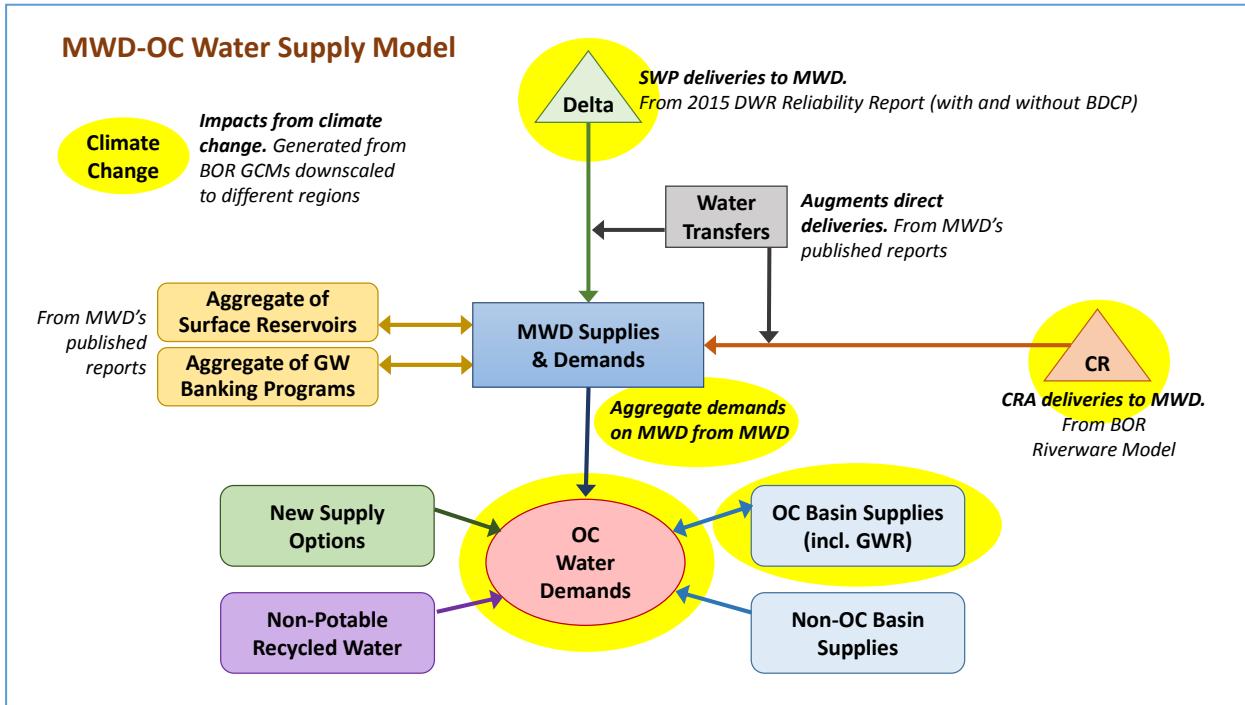
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Following is the current status on the study through April 2015:

- CDM-Smith has analyzed historical demands and is in the process of working with MET to develop updated projection of future demands. The historical analysis requires detailed work with respect to recycled water and how it affects the unit water use factors derived from the historical analysis. Another related task that is underway is projecting the potential for future WUE investments to reduce future demands in OC. This information should be released in draft form within the next two months.
- CDM-Smith is developing their water supply model that mimics the MET system. Below is a graphical representation of the system to be modeled. The model includes supplies from the State Water Project and the Colorado River Aqueduct as well “puts” into and “takes” out of MET storage accounts. Variations to be included in the modeling will involve climate variability impacts and biops impacts on supplies

|   |                  |         |           |
|---|------------------|---------|-----------|
| Budgeted (Y/N):                               | Budgeted amount: | Core __ | Choice __ |
| Action item amount:                           | Line item:       |         |           |
| <b>Fiscal Impact (explain if unbudgeted):</b> |                  |         |           |

as well as “with” and “without” a BDCP solution (note – our time frame is out to 2035, so under almost any condition, a BDCP solution will not be in place at that time).



- CDM-Smith is also working on modeling of supplies to the OCWD basin in conjunction with information provided by OCWD. Since the imported supplies will be driven by associated hydrology, the modeling work will be improved to align the groundwater basin supplies with its associated hydrology. A recent meeting with OCWD staff and IRWD outlined issues to be addressed in the modeling. CDM-Smith will prepare a schematic to review with OCWD before proceeding.
- With respect to incorporating climate variability into the modeling work, CDM-Smith is working with David Yates from the National Center for Atmospheric Research (NCAR), a research and development center devoted to the atmosphere in Boulder Colorado. They are recommending a technique to apply to both Colorado River and State Water Project supplies to help inform future planning implications. They will also be using the Water Evaluation and Planning Model (WEAP) David Yates developed for the Southwest U.S. to inform scenarios for the Colorado River and State Water Project yields over time.
- We are still awaiting the DWR release of the 2015 Reliability analysis of the State Water Project which will be used in the modeling. The report was due out in March, but has not yet been published. The report information is critical to the modeling work. We also discussed including a repeat of the 2000 to 2015 hydrology we have experienced to estimate impacts assuming the last 15 years is the NEW Norm.

- In June, our expectations are to have a SUPPLY GAP Analysis in DRAFT form for a number of scenarios
- Work with our Seismic Experts and our own staff is proceeding on the SYSTEM GAP Analysis. Staff recently visited five well sites at five different agencies with our seismic experts John Eidinger, G&E Engineering and Rambod Hadidi from GeoPentech to get a feel for typical types of installations in OC. Background information on wells and pipelines in Orange County was collected for the consultants and a phone conference call with MET to discuss various aspects of seismic damage and recovery efforts. Our consultants are aiming at a June Draft Report with the final report to be prepared in July or August. This information is central to the System Reliability Planning for OC. Based on prior work completed by MET, the ability of the local water systems to provide supplies for 60 days assuming there is an outage of the MWD system will be made.
- The Center for Demographic Research developed historical and projected demographic information by member agency on population, housing, employment and economics; this information will be used in the demand modeling.
- Staff is still analyzing the myriad of data provided by our agencies on their operational scenarios with and without the power grid and with and without MET supplies. This information is key to the System reliability analysis.

The current schedule is provided below.

| <b>Revised OC Reliability Study Schedule – April 2015</b> |  |
|---|--|
| <b>Anticipated Date</b>                                   | <b>Proposed Meeting Topics</b>   |
| May   | Discussion with the Agencies on the levels of Demand for Emergency Scenarios                               |
| June  | Review Draft Water Demand Analysis and Method for Forecasting and potentially the first look at Supply GAP |
| June  | Seismic Impacts to Local Operations  |
| July  | Present Supply and System Gap Analysis   |
| Aug   | Present Example Portfolios of New/Potential Projects   |
| Sep - Oct   | Review Draft Report Sections   |



Item No. 3

## INFORMATION ITEM

May 4, 2015

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

**FROM:** **Robert Hunter, General Manager**

Staff Contact: Kelly Hubbard, WEROC Program Manager

**SUBJECT:** **Draft AlertOC April 7, 2015 Regional Test Exercise After Action Report**

### **STAFF RECOMMENDATION**

Staff recommends the Planning & Operations Committee review the AlertOC April 7, 2015 Regional Test Exercise After Action Report.

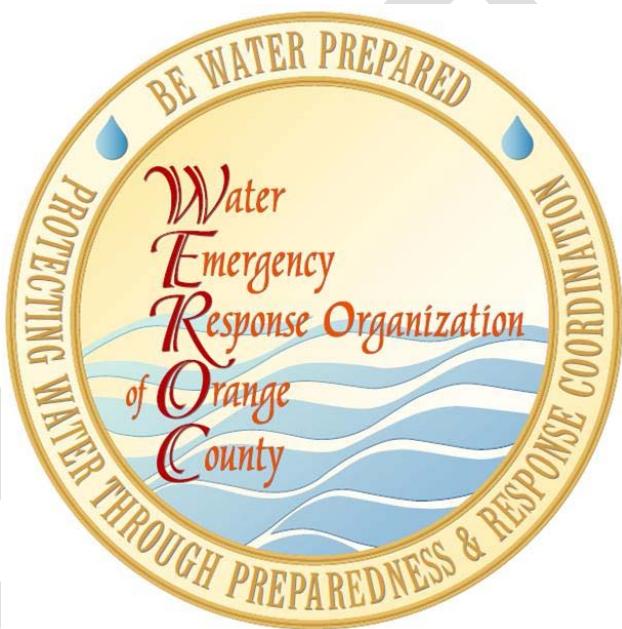
### **COMMITTEE RECOMMENDATION**

Committee recommends (To be determined at Committee Meeting)

### **SUMMARY**

The Draft AlertOC April 7, 2015 Regional Test Exercise After Action Report is attached for the board's review. This report was completed by the staff of the Water Emergency Response Organization of Orange County (WEROC), in coordination with MWDOC staff, the Orange County Operational Area, Orange County Cities, and the WEROC Member Agencies. Comments on the draft report were requested by May 1, 2015. The final report will be shared with the above noted contributing agencies and the Southern Region staff of the California Office of Emergency Services.

|   |                     |  |                                 |
|---|---------------------|--|---------------------------------|
| Budgeted (Y/N): NA                            | Budgeted amount: NA | Core <input checked="" type="checkbox"/> X | Choice <input type="checkbox"/> |
| Action item amount:                           | Line item:          |  |                                 |
| <b>Fiscal Impact (explain if unbudgeted):</b> |                     |  |                                 |



# AlertOC Regional Test Exercise After Action Report

## April 7, 2015

## **Purpose and Scope:**

The purpose of the regional exercise was to conduct a test of AlertOC's capability, capacity and effectiveness to deliver emergency notifications from Orange County water utilities to the public in advance of a major disaster.

### Exercise Name

AlertOC Regional Test

### Type of Exercise

Drill

### Exercise Date

April 7, 2015, 3:00 pm

### Location

Joint Agency Hotline  
Operational Area Emergency Operations Center  
2644 Santiago Canyon Road  
Silverado, CA 92676

Multiple agencies participated from their administrative offices or customer call service centers.

## **Overview:**

Overall, exercise objectives were satisfactorily achieved. Participating agencies launched 669,100 messages to communities residing in multiple jurisdictions across the entire County, simulating a very large scale emergency incident. Prior to the test, and on test day, jurisdictions reached out to the public and provided education about the system and its intended use. This resulted in 1,164 households subscribing additional contact information into the AlertOC system through the self-subscription website portal. The Orange County Public Information Hotline was activated for three hours and took over 300 phone calls from residents.

The test being led by the Water Utilities was a great opportunity to ensure that the notification system worked as expected when utilizing the GIS maps and pre-defined system boundaries. Participating Water Utilities indicated that the exercise was a great learning opportunity and that they look forward to their next opportunity to test the system.

Outcomes from this After Action Report will aid individual jurisdictions, the AlertOC Advisory Committee, and the Orange County Operational Area working towards continued enhancement of the AlertOC Mass Notification System.

## **Objectives:**

1. Test the effectiveness of the System to execute a large volume of notifications across the County simultaneously. This will simulate probable use of the System during a "real" incident. Upon test completion, each jurisdiction will review call results to determine the

system's efficiency to deliver calls within an acceptable timeframe at a high percent of success.

2. Perform AlertOC public outreach to all Orange County residents to provide education on how the system will be used during an emergency and to encourage registration of additional contact information. The current number of voluntary registrations is low and the current exercise will provide an opportunity to reach out directly to nearly 700,000 Orange County residents.
3. Provide a drought conservation message to the residents of Orange County to encourage conservation as California heads into its fourth consecutive year of drought.

**Participating Jurisdictions:**

| <b>Jurisdiction</b>                      | <b>Representative</b> |
|--|-----------------------|
| Anaheim, City                            | Melissa Seifen        |
| Brea, City of                            | Anna Cave             |
| Buena Park, City of                      | Michael Grisso        |
| Costa Mesa, City of                      | Keith Davis           |
| <b>East Orange County Water District</b> | Sylvia Prado          |
| El Toro Water District                   | Sherri Seitz          |
| Garden Grove, City of                    | Rebecca Meeks         |
| Huntington Beach, City of                | Brevyn Mettler        |
| La Habra, City of                        | John Rees             |
| La Palma, City of                        | Raul Morales          |
| Laguna Beach, City of                    | Jordan Villwock       |
| Moulton Niguel Water District            | Kelly Winsor          |
| Municipal Water District of Orange       | Kelly Hubbard         |
| Placentia, City of                       | Michelle Munoz        |
| San Clemente, City of                    | Katie Carpenter       |
| San Juan Capistrano, City of             | Tom Bokosky           |
| Santa Ana, City of                       | Steve Rhyner          |
| Santa Margarita Water District           | Jonathan Volzke       |
| Seal Beach, City of                      | Mike Henderson        |
| Serrano Water District                   | Laura Heflin          |
| South Coast Water District               | Trisha Woolslayer     |
| Stanton, City of                         | Julie Roman           |
| Trabuco Canyon Water District            | Michael Perea         |
| Westminster, City of                     | Sonia Kelly           |
| Yorba Linda Water District               | Damon Micalizzi       |

## **Areas of Success:**

The April 7, 2015 AlertOC Regional Test was overall a successful test of the County's mass notification system. Below are a few highlights of success within specific areas:

- This was the first opportunity OC water utilities, where both special districts and city water divisions had an opportunity to enhance internal capabilities by performing a live test of the notification system to the public. The exercise was a positive learning experience for all involved, especially the water utility staff. Many participants indicated the process of setting up a message reinforced training and procedures. Additionally, testing the system gave the water utilities a better perspective of how effective the system will be within their service area prior to an actual event occurring.
- Many cities are served by two or more water utilities, sometimes which may include an internal city water division. The planning process for the test became a great forum for utilities and city emergency coordinators to understand various service boundaries and collaborate on how best to coordinate the messaging within and among the various jurisdictions.
- There were several areas of message development that were new for all participants, including those with experience. Participating agencies indicated that the utilization of the water retail service boundary maps was a learning experience and provided an opportunity to review the accuracy of the maps within the system. Additionally, many agencies had never used the "script" and "template" function within Blackboard connect.
- Six agencies utilized the County Hotline as a call-back number in their outgoing message to their residents. All six expressed appreciation for being able to use the hotline call center and the effectiveness of utilizing multiple agencies to assist in answering phone calls. A brief report on the number of calls and type of information requested at the County Hotline is provided in Attachment A.
- A few concepts of successful practices were shared by participating agencies:
  - City of Seal Beach is utilizing "Neighbor 4 Neighbor" (a cross between CERT and Neighborhood Watch type programs) as a tool to assist our community understand the importance of these trainings and messages.
  - Several agencies utilized answering machines on their call-back lines to repeat the AlertOC message and then ask if residents still had more questions to either push a button for a live person or to leave a message. These agencies felt this provided the resident another opportunity to hear the message before requesting more information.
- Positive feedback was received on the exercise packet which included an expanded user checklist for exercise preparation, draft media messaging (including social media) and resources on water conservation to help all call centers answer questions from residents.
- Lastly, the test resulted in positive press and residential phone calls regarding the AlertOC notification system and in particular, significant inquiries on drought efforts and

concerns. The test was highlighted on NBC 4, KCAL 9, in the OC Register and in multiple local circulars. All the news coverage included information about how to register additional information in AlertOC and where to find more information about water use efficiency programs. Many of the calls received at the County Hotline in regards to the drought were positive and typically were residents asking what else they can do to conserve water.

### **Areas of Improvement:**

As with all emergency test exercises, it is important for participating agencies to review not only what went well, but also areas needing improvement. Once areas needing improvement are identified, corrective actions and responsible agencies are also identified to ensure that improvements are made.

Overall, the biggest area of concern is how to measure the effectiveness of the system in terms of successful notifications. Overall county-wide notifications for each method was as follows (Attachment B: Jurisdiction Call Report is a more comprehensive agency by agency report):

- 296,566 (45%) successful phone calls
- 75,707 emails sent
- 23,624 text messages sent

It is recognized that reverse notification systems will never reach 100% of attempted notifications for several reasons, however there is no guideline to what is an acceptable success rate. There are several reasons why phone calls would not be successful: bad phone numbers, a busy signal, it's a fax or modem phone line, no answer, immediate hang-up, or the phone network was busy. Problems with the phone number data are considered largely outside the control of the County, Cities, or Blackboard Connect (the provider of the AlertOC program). This is information provided by the phone companies or by residents is wrong and require updates. Successful Calls include live answers and answering machines. A forty-five percent success rate is actually considered successful in comparison to other notification systems nationally. OC cities, water utilities and the County will continue to discuss how to increase the system's success rate. Additionally, it is important to remember that AlertOC is only one method of communication and should be used in conjunction with other notification methods during a real emergency.

Additional areas of improvement for consideration:

- Recommendations for hotline tools:
  - Create a County-wide Call Tracking Sheet with all cities listed to track incoming calls at all call centers.
  - Provide all participating agencies with "Follow-Up Forms" that ask for phone number, address and issue to be followed up on. This would include tracking residents who report issues with message delivery timing.
  - Provide a better explanation of answering process (i.e. transfer, people asking for supervisors, translators or call backs with inquiries that could not be answered).

- Provide hotline staff with a script for answering the phones. One hotline volunteer created a script while answering phones that was effective and will be used for future drills
  - Make sure that translators or bilingual staff are available at the County Hotline. Language needed should be determined based on the dominant language needs of the communities served by the agencies utilizing the hotline.
  - Agencies need to notify all staff at their agency, not just hotline staff, regarding the system test in case they receive phone calls.
- Recommendations for message creation and setup:
  - Set up the countywide template with as many of the “required options” already selected as possible, such as the message set-up option of “one call only” as a setting.
  - Highlight or bold steps in the Pre-Exercise Checklist and the Drill Checklist that participants are likely to skip (i.e. one call only, caller ID set-up, etc.).
  - Strict deadlines for the setup of messages to ensure they are ready and accurate for the exercise, and to eliminate any last minute issues with set-up.
  - Agencies, even those who have created messages before, should utilize the Pre-Exercise Checklist and Drill Checklist in the Exercise Plan to ensure that all the little details needed for a successful test have been completed.
- Message issues:
  - Some messages experienced a delay before the phone message started and more than a few agency’s messages stuttered, meaning part of the message was repeated a couple times before finishing – kind of like a person stuttering. It was also reported that one agency’s message did not trigger to play on answering machines.
- System recommendations:
  - Add a time stamp and identification of who made updates to groups/employee database information.

**Attachment A:**

**Hotline Report:**

|                    |            |
|--------------------|------------|
| Aliso Viejo        | 1          |
| Anaheim            | 1          |
| Dana Point         | 9          |
| Fountain Valley    | 1          |
| Fullerton          | 2          |
| Garden Grove       | 18         |
| Huntington Beach   | 3          |
| Irvine             | 3          |
| Laguna Beach       | 3          |
| Laguna Hills       | 1          |
| Laguna Niguel      | 8          |
| Midway             | 1          |
| Mission Viejo      | 2          |
| Moulton Niguel WD  | 75         |
| Orange             | 3          |
| Rossmoor           | 1          |
| San Clemente       | 3          |
| Santa Ana          | 2          |
| Seal Beach         | 61         |
| Serrano            | 0          |
| South Coast WD     | 63         |
| Stanton            | 18         |
| Tustin             | 1          |
| Other/Out of State | 84         |
| <b>Total</b>       | <b>364</b> |

**Types of Calls:**

|                        |    |
|------------------------|----|
| Alert OC               | 55 |
| Rebates                | 16 |
| Emergency Preparedness | 1  |
| Drought                | 5  |

## Attachment B: Jurisdiction Call Report

| Agency                                    | Emails Sent | SMS Sent | Called | Reached* | %   | Bad Number** | %   | No Answer | %   | Busy   | %   | Hang-ups | %  | Network Busy | %  |
|---|-------------|----------|--------|----------|-----|--------------|-----|-----------|-----|--------|-----|----------|----|--------------|----|
| Anaheim                                   | 3,645       | 1,539    | 47,382 | 20,672   | 44% | 513          | 1%  | 20,162    | 43% | 5,332  | 11% | 260      | 1% | 266          | 1% |
| Brea                                      | 3,954       | 1,511    | 13,022 | 4,951    | 38% | 99           | 1%  | 5,546     | 43% | 2,065  | 16% | 43       | 0% | 316          | 2% |
| Brea #2                                   | 0           | 0        | 7927   | 1,661    | 21% | 81           | 1%  | 4,666     | 59% | 1,389  | 18% | 22       | 0% | 108          | 1% |
| Buena Park                                | 1,284       | 471      | 10,726 | 7,166    | 67% | 190          | 2%  | 2,816     | 26% | 87     | 1%  | 21       | 0% | 411          | 4% |
| Costa Mesa                                | 2,857       | 1,287    | 19,205 | 12,220   | 64% | 510          | 3%  | 5,833     | 30% | 1,711  | 1%  | 38       | 0% | 432          | 2% |
| East Orange County Water District         | 239         | 65       | 1,624  | 1,027    | 63% | 50           | 3%  | 477       | 29% | 33     | 2%  | 6        | 0% | 31           | 2% |
| El Toro Water District                    | 1,573       | 425      | 23,357 | 7,885    | 34% | 2,522        | 11% | 12,538    | 54% | 1,64   | 1%  | 15       | 0% | 230          | 1% |
| Garden Grove                              | -           | -        | 14,672 | 2,053    | 14% | 1,419        | 10% | 10,871    | 74% | 202    | 1%  | 4        | 0% | 123          | 1% |
| Garden Grove #2                           | -           | -        | 15,543 | 1,166    | 8%  | 5,743        | 37% | 6,142     | 40% | 2,428  | 16% | 18       | 0% | 46           | 0% |
| Huntington Beach                          | 9,381       | 3,771    | 59,209 | 34,222   | 58% | 3,745        | 6%  | 19,671    | 33% | 391    | 1%  | 109      | 0% | 1,068        | 2% |
| La Habra                                  | 1,486       | 652      | 27,957 | 15,785   | 56% | 1,371        | 5%  | 9,185     | 33% | 435    | 2%  | 118      | 0% | 929          | 3% |
| La Palma                                  | 847         | 234      | 3,489  | 2,670    | 77% | 194          | 6%  | 576       | 17% | 49     | 1%  | -        | 0% | -            | 0% |
| Laguna Beach                              | 3,211       | 1,234    | 21,090 | 9,680    | 46% | 900          | 4%  | 9,293     | 44% | 378    | 2%  | 188      | 1% | 646          | 3% |
| Laguna Beach #2                           | -           | -        | 11,066 | 2,677    | 24% | 776          | 7%  | 6,531     | 59% | 541    | 5%  | 62       | 1% | 478          | 4% |
| Moulton Niguel Water District             | 9,555       | 2,762    | 66,457 | 26,723   | 40% | 2,225        | 3%  | 31,527    | 47% | 1,813  | 3%  | 719      | 1% | 3,449        | 5% |
| Municipal Water District of Orange County | 80          | 75       | 132    | 117      | 89% | 1            | 1%  | 14        | 11% | -      | 0%  | -        | 0% | -            | 0% |
| Placentia                                 | 2,207       | 905      | 10,010 | 6,261    | 63% | 395          | 4%  | 3,142     | 31% | 108    | 1%  | 13       | 0% | 88           | 1% |
| San Clemente                              | 3,430       | 1,139    | 18,783 | 8,478    | 45% | 1,333        | 7%  | 7,990     | 43% | 1,37   | 1%  | 54       | 0% | 790          | 4% |
| San Juan Capistrano                       | 4,152       | 1,242    | 22,154 | 15,624   | 71% | 1,705        | 8%  | 4,498     | 20% | 241    | 1%  | 54       | 0% | 30           | 0% |
| Santa Ana                                 | 3,084       | -        | 41,207 | 8,736    | 21% | 1,159        | 3%  | 18,018    | 44% | 12,523 | 30% | 65       | 0% | 702          | 2% |
| Santa Margarita Water District            | 11,709      | 3,572    | 62,082 | 34,121   | 55% | 3,505        | 6%  | 21,919    | 35% | 1,821  | 3%  | 37       | 0% | 669          | 1% |
| Seal Beach                                | 2,536       | 813      | 35,648 | 18,572   | 52% | 1,585        | 4%  | 11,558    | 32% | 654    | 2%  | 1,523    | 4% | 248          | 1% |
| Seal Beach #2                             | -           | -        | 11,809 | 497      | 4%  | 640          | 5%  | 10,156    | 86% | 452    | 4%  | 18       | 0% | 46           | 0% |
| Serrano Water District                    | 444         | 46       | 2,164  | 1,025    | 47% | 545          | 25% | 574       | 27% | 18     | 1%  | 1        | 0% | -            | 0% |
| South Coast Water District                | 2,077       | 214      | 14,789 | 6,463    | 44% | 2,273        | 15% | 5,638     | 38% | 291    | 2%  | 6        | 0% | 118          | 1% |
| South Coast Water District #2             | -           | -        | 6,902  | 1,954    | 28% | 855          | 12% | 3,914     | 57% | 178    | 3%  | 1        | 0% | -            | 0% |

| Agency                        | Emails Sent | SMS Sent | Called | Reached* | %   | Bad Number** | %  | No Answer | %   | Busy | %  | Hang-ups | %  | Network Busy | %  |
|-------------------------------|-------------|----------|--------|----------|-----|--------------|----|-----------|-----|------|----|----------|----|--------------|----|
| Stanton                       | 435         | 206      | 5,175  | 2,970    | 57% | 84           | 2% | 1,733     | 33% | 60   | 1% | 18       | 0% | 279          | 5% |
| Stanton #2                    | -           | -        | 2,072  | 422      | 20% | 157          | 8% | 1,394     | 67% | 99   | 5% | -        | 0% | -            | 0% |
| Trabuco Canyon Water District | 1,132       | 241      | 5,141  | 3,310    | 64% | 242          | 5% | 1,304     | 25% | 128  | 2% | 1        | 0% | 154          | 3% |
| Westminster                   | 1,426       | 664      | 18,159 | 10,197   | 56% | 937          | 5% | 6,177     | 34% | 224  | 1% | 42       | 0% | 579          | 3% |
| Yorba Linda Water District    | 4,750       | 356      | 26,887 | 17,842   | 66% | 1,973        | 7% | 6,014     | 22% | 580  | 2% | 50       | 0% | 427          | 2% |

|              |        |        |         |         |     |         |     |         |     |        |     |       |    |        |    |
|--------------|--------|--------|---------|---------|-----|---------|-----|---------|-----|--------|-----|-------|----|--------|----|
| 2015 Results | 75,707 | 23,624 | 668,682 | 296,566 | 44% | 39,209  | 6%  | 265,410 | 40% | 47,511 | 7%  | 3,678 | 1% | 13,687 | 2% |
| 2014 Results | 78,001 | 31,261 | 704,149 | 282,413 | 40% | 95,352  | 14% | 229,145 | 33% | 90,439 | 13% | 1,190 | 0% | 5,396  | 1% |
| 2013 Results | 75,796 | 23,612 | 640,582 | 313,486 | 49% | 131,213 | 20% | 168,124 | 26% | 21,795 | 3%  | 734   | 0% | 4,778  | 1% |

\*Includes Live Delivery and Answering Machine.

\*\*Includes bad numbers, faxes, modems, and undeliverable.

**Status of Ongoing MWDOC Reliability and Engineering and Planning Projects**

**April 28, 2015**

| <b>Description</b>   | <b>Lead Agency</b>                                | <b>Status % Complete</b>   | <b>Scheduled Completion Date</b> | <b>Comments</b>  |
|--|---|----------------------------|----------------------------------|--|
| <b>Baker Treatment Plant or Expansion of Baker Water Treatment Plant</b> | IRWD,<br>MNWD,<br>SMWD,<br>ETWD<br>Trabuco<br>CWD | On line date is early 2016 |                                  | Karl Seckel and Kevin Hostert participated in a number of coordination calls and meetings related to the shutdown of the South County Pipeline and Pump Station to allow for the connection of the Baker Treatment Plant Pipeline to the South County Pipeline. As of this printing the shutdown is in process and the IRWD Contractor had cut into the South County Pipeline and was in the process of removing a section of 66" pipe for installation of a 66" x 36" tee for the tie-in. The work should be completed and pipeline refilled and put back into operation the first week in May. |
| <b>Doheny Desalination Project</b>                                       | South Coast Water District                        |                            |                                  | Work continued under the MET Foundational Action Plan and with the baseline monitoring work required for the coastal lagoon and the lower portion of San Juan Creek. The South Coast Water District Board of Directors held a meeting to discuss priorities for the District and determined that progress on the Doheny Desal Project was a high priority for the District.  |
| <b>Poseidon Resources Ocean Desalination Project in Huntington Beach</b> |   |                            |                                  | The OCWD staff developed and circulated a revised term sheet for the Poseidon Project that has been the subject of two Citizen's Advisory Meetings and will be the subject of one last meeting on April 30 prior to the OCWD considering action on May.  |
|  |   |                            |                                  | Rob Hunter, Harvey De La Torre and Karl Seckel attended a meeting with MET staff, Poseidon and OCWD staff to discuss   |

| Description                                  | Lead Agency | Status % Complete | Scheduled Completion Date | Comments   |
|--|-------------|-------------------|---------------------------|--|
|  |             |                   |                           | planning for the project to receive LRP funding and to utilize the EOCF#2 to convey part of the water. Two subsequent meetings on water quality and system operations are being planned with MET staff to further investigate the integration issues.  |
| <b>Orange County Water Reliability Study</b> |             |                   |                           | Karl Seckel and Richard Bell hosted the April Workgroup meeting for the OC Water Reliability Study following the Manager's meeting. The bulk of discussions were held regarding Climate Modeling and how climate variability could be incorporated into the modeling work. The discussion was led by Dan Rodrigo from CDM and David Yates from the National Center for Atmospheric Research (NCAR), a research and development center devoted to the atmosphere in Boulder Colorado. They recommended a technique to apply to both Colorado River and State Water Project supplies to help inform future planning implications. They will also be using the Water Evaluation and Planning Model (WEAP) David Yates developed for the Southwest U.S. to inform scenarios for the Colorado River and State Water Project yields over time. |
| <b>Other Meetings/Work</b>                   |             |                   |                           | Director Susan Hinman attended the San Juan Basin Authority meeting in April where discussions continued on basin monitoring and management. Director Hinman also attended the City of San Juan Utilities Commission meeting where Cathrene  |

| Description | Lead Agency | Status % Complete | Scheduled Completion Date | Comments  |
|-------------|-------------|-------------------|---------------------------|---|
|             |             |                   |                           | Glick and Dan Ferons discussed the SJBA Groundwater Management Plan and the City of San Juan Capistrano's operating plan for the coming year. Groundwater supplies in the basin remain tight.   |
|             |             |                   |                           | Karl Seckel and Kevin Hostert met with Eric Nicoll, Ron Krause and Brian Ingalinera from Brea to discuss the OC Water Reliability Study and emergency planning for the City of Brea. Discussions also included the SWRCB actions, MET allocations and potential irrigation supplies in Brea to be recovered from oil field recovery water and water from the landfill.  |
|             |             |                   |                           | Kevin Hostert and Keith Lyon were also involved in MET's Orange County Feeder shutdown to relocation a portion of the pipeline in the City of Fullerton.  |
|             |             |                   |                           | Karl Seckel, Harvey De La Torre, Richard Bell and Joe Berg participated in an Urban Water Management Plan webinar and in interviews with consultants interested in completing our 2015 UWMP. Staff has prepared a DRAFT RFP to be sent out to our agencies and the consulting community in advance of a mandatory consultant meeting. A final RFP will be sent out, proposals will be secured and evaluated and a contract awarded in June or July. |
|             |             |                   |                           | Richard Bell and Kevin Hostert visited five well sites at five different agencies with our seismic experts John Eidingen, G&E Engineering and Rambod Hadidi from GeoPentech to get a feel for typical types of installations in OC. Background information  |

| Description | Lead Agency | Status % Complete | Scheduled Completion Date | Comments  |
|-------------|-------------|-------------------|---------------------------|---|
|             |             |                   |                           | on wells and pipelines in Orange County was collected for the consultants and a phone conference call with MET to discuss various aspects of seismic damage and recovery efforts. Our consultants are aiming at a June Draft Report with the final report to be prepared in July or August. This information is central to the System Reliability Planning for OC.  |
|             |             |                   |                           | Richard Bell developed and sent a MWDOC response letter and assisted in the preparation of the CalDesal response letter for the most recent release from the State Water Resources Control Board for the Draft Substitute Environmental Documentation and Amendment to the Water Quality Control Plan for Ocean Waters of California addressing Desalination Facility intakes, brine discharges and the incorporation of other non-substantive changes. The SWRCB will conduct hearings on May 6. Quite a few of the MWDOC and CalDesal comments have been incorporated, however, there are a number of suggestions and input still provided. Attached are copies of the letters. |
|             |             |                   |                           |   |
|             |             |                   |                           |   |
|             |             |                   |                           |   |
|             |             |                   |                           |   |
|             |             |                   |                           |   |



April 9, 2015

Felicia Marcus, Chair  
State Water Resources Control Board  
1001 I Street, 24th Floor  
Sacramento, CA 95814

**SUBJECT: Comment letter – Desalination Amendments**

Dear Ms. Marcus:

CalDesal is pleased to submit the following comments in response to the State Water Resources Control Board's (Board) recent publication of the final draft staff report, draft amendment to the Ocean Plan, and the draft substitute environmental documentation. CalDesal members generally find the final draft is positive and productive, and we appreciate the opportunities for stakeholder involvement provided by the Board and staff.

CalDesal is a nonprofit association of water agencies and other entities that advances the use of desalination and salinity management as important options for local and regional sustainable water supply reliability. CalDesal has actively participated in the Board's California Ocean Plan Amendment process for Desalination from the start and hereby incorporates by reference all previously submitted comments.

The Board should and we believe does recognize desalination as an important local and regional sustainable water supply and reliability option in order to improve water supply reliability, to help reduce reliance on imported water and in the face of climate change, to better meet future regional and local needs.

We appreciate the SWRCB staff considering and addressing several of the water industries' concerns on key issues in the proposed final draft regulations. CalDesal supports and would like to express its appreciation for many of the revisions to the proposed regulations, including those where water agency studies and research are recognized.

We agree with and support the SWRCB establishing a screen slot size of no greater than 1.0 mm for surface water intakes if subsurface are not feasible (L2d(1)(c)ii.), which is supported by studies performed by West Basin MWD and other water agencies. West Basin's study demonstrated how slot sizes less than 1.0 mm faced problematic fouling and related operational issues. CalDesal also supports revising the study period for entrainment mitigation estimates and related studies from 36 months to 12 months (L2(1)(a)). As recognized in staff's response to comments in Appendix H, page H-180, a properly designed one-year study should provide sufficient information. The potential costs and permitting delay of 36 month studies would have presented a major barrier to several projects in California.

Ms. Felicia Marcus  
April 9, 2015  
Page two

Another revision we support is the ability to use “out-of-kind” mitigation in developing mitigation projects, as it adds flexibility to the proposed regulations and improves the ability of water agencies to mitigate marine life impacts. CalDesal is particularly supportive of the inclusion of the California Environmental Quality Act definition for ‘feasibility’.

We wish to reiterate that CalDesal is open to a mitigation fee, but we believe it is critical that the fee have a direct nexus to the potential impacts of a project and that it should be calculated and applied one time to cover all marine organism mitigation requirements for a project, inclusive of all state permitting agencies. Assuming the Board is able to develop a mitigation fee that CalDesal and other stakeholders can support, CalDesal submits that each desalination project proponent should have the option of paying the mitigation fee or building their own mitigation project or utilizing an existing restoration project. Moreover, CalDesal is ready to work with the appropriate state agencies to pass legislation to set up the mechanics for the mitigation fee.

### *CalDesal Issues of Concern*

1. CalDesal supports the protection of larval, juvenile, and adult stages of marine life through the use of marine protective technologies (e.g., wedge wire screens) to avoid impingement and minimize entrainment losses. Project applicants should be credited more than just one percent for using such marine protective technologies when calculating Empirical Transport Model (ETM) for mitigation purposes since the ETM methodology assumes open intakes. Industry experts working for West Basin Municipal Water District believe the credit should be much larger, around 50%, by applying a 1.00mm wedge wire screen. When comparing the ETM/APF analysis of a large open pipe compared to a wedge wire screen with a 1.00mm opening the 1% credit does not take into account all of the juvenile and reproductive adult marine life that will be protected. The 1% that is cited from the Intake Expert Panel report is only referencing 1% of larvae being protected with the screen, but does not take into account all of the juvenile and adult organisms that will be 100% protected.. Therefore, CalDesal joins West Basin recommending a larger ETM/APF credit of 50% to account for the protection of juvenile and adult organisms that are being 100% protected and not being accounted for in the ETM calculation.
2. The proposed final Amendment also provides that brine discharges from desalination facilities shall not exceed 2.0 parts per thousand (ppt) above the “Natural Background Salinity.” Natural background salinity is defined as the 20-year mean monthly salinity at the project location. Given that the natural background salinity can and does fluctuate, the definition of Natural Background Salinity should be modified to account for this natural salinity range.

To address this problem, CalDesal recommends that the proposed final Amendment be revised such that the Natural Background Salinity is defined as the 20-year mean monthly salinity at the project location unless the actual salinity measured at the facility intake, absent any influence

Ms. Felicia Marcus  
April 9, 2015  
Page three

from the discharge, is greater than the 20 year mean monthly salinity, in which case, the Natural Background Salinity shall be the actual salinity measured at the intake, absent any influence from the discharge.

CalDesal is grateful that the Board staff took into consideration many of our previous comments. Our members would be happy to meet with staff to discuss these comments further.

Finally, CalDesal would like to extend our appreciation to the Board Members and Board staff for their open and transparent process in developing the draft Desalination rules and regulations for the Ocean Plan.

Please contact me directly if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Ronald Davis". The signature is fluid and cursive, with "Ronald" on top and "Davis" below it.

Ron Davis  
Executive Director  
CalDesal

CC: Members, State Water Resources Control Board  
Vicky Whitney, Deputy Director  
Claire Waggoner, Environmental Scientist  
Jeanine Townsend, Clerk of the Board.



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#### **MEMBER AGENCIES**

City of Brea  
City of Buena Park  
East Orange County Water District  
El Toro Water District  
Emerald Bay Service District  
City of Fountain Valley  
City of Garden Grove  
Golden State Water Co.  
City of Huntington Beach  
Irvine Ranch Water District  
Laguna Beach County Water District  
City of La Habra  
City of La Palma  
Mesa Water District  
Moulton Niguel Water District  
City of Newport Beach  
City of Orange  
Orange County Water District  
City of San Clemente  
City of San Juan Capistrano  
Santa Margarita Water District  
City of Seal Beach  
Serrano Water District  
South Coast Water District  
Trabuco Canyon Water District  
City of Tustin  
City of Westminster  
Yorba Linda Water District

April 8, 2015

Via Email  
[commentletters@waterboards.ca.gov](mailto:commentletters@waterboards.ca.gov)

Jeanine Townsend, Clerk to the Board  
State Water Resources Control Board  
1001 I Street, 24th Floor  
Sacramento, CA 95814

**Subject: Comment Letter – Desalination Amendment (Ocean Plan)**

We thank the Board for the opportunity to submit comments on the Proposed Final Amendment to the Ocean Plan for desalination facilities. We compliment staff for their excellent work on this important amendment.

We offer two comments:

1. L.2.b (7) page 5: Applicability and General Provisions, Site: Requires brine disposal siting at sufficient distances from MPA/SWQPA areas so that there are "no impacts" on the MPA or SWQPA. Suggest this be modified to read "no discernible impacts" as "no impacts" is an absolute and can't be achieved.
2. L.4 Monitoring page 21: definition for Natural Salinity. The Expert Panel recommended an "... incremental salinity limit at the mixing zone boundary of no more than 5% of that occurring naturally... a percentage increase allows for natural variability in the background waters..." We request that the definition be modified to read "... ocean salinity from a representative area that is not under the influence of brine discharge and storm flows..." Compliance for brine discharge should be allowed above the natural ocean variability as recommended by the Expert Panel. Ocean salinity may exceed the long-term mean by 2 to 3 percent (670 to 1,000 mg/l) in El Nino years. As proposed the allowance of 2,000 mg/l from the long-term mean would reduce by up to 50% the discharge allowance in El Nino years, making compliance difficult or not achievable in certain cases. We recommend that the Regional Board's apply this receiving water limitation as a technology based effluent limitation. This should be addressed in the staff report. This approach reduces burdensome and unnecessary compliance salinity monitoring, saving public funds.

If you should have any questions or need to further discuss our comments, please do not hesitate to contact the undersigned at (714) 593-5003 or by email at [rbell@mwdoc.com](mailto:rbell@mwdoc.com). Thank you for the opportunity to provide comments.

Sincerely,

Richard B. Bell, PE  
Manager, Water Resources and Facility Planning

**Status of Ongoing WEROC Projects**  
**April 2015**

| Description               | Comments  |
|---------------------------|---|
| <b>General Activities</b> | <p>Kelly Hubbard participated in the Value of Water Public Service Announcement (PSA) filming at Doheny Desalination Test Site and at the South Coast Water District Treatment facility.</p> <p>Kelly met with Director Sat Tamaribuchi to provide the director with history on the WEROC program and to discuss current planning efforts.</p> <p>Brandon Stock attended the “Strategic Overview of Disaster Management for Water &amp; Wastewater Training” in San Diego. He also attended the California Emergency Services Association (CESA) Southern Chapter Spring workshop which included presentations on damage assessment lessons learned from the La Habra Earthquake and an informational presentation on a new technology that FEMA is developing to assist the damage assessment process in the future.</p> <p>Kelly attended and presented at the Partners in Preparedness Conference on April 14-16 in Tacoma Washington. Kelly provided a presentation titled, “Collaboration with Water Utilities - An Essential Service for Response &amp; Recovery” that was well received. She attended sessions on Emergency Manager Preparedness, Building Regional Resilience Through Active Partnerships, Water Response to Napa Earthquake, Seattle Pacific University Shooting Response, Business Recovery After a Disaster, Volcano Hazard Management, and Balkan Crude Oil Response. She will be providing a lessons learned summary to the WEROC member agencies at their next meeting on May 5<sup>th</sup>.</p> <p>Kelly facilitated the California Emergency Services Association (CESA) Southern Chapter conference call on April 1<sup>st</sup>, as the Chapter President. She also attended the CESA State Board Meeting at the California Office of Emergency Services in Sacramento on April 27<sup>th</sup>, as a Southern Chapter Director and State Treasurer.</p> |

| Description                              | Comments   |  |
|--|--|--|
| <b>Coordination with Member Agencies</b> | <p>UPDATE: Kelly led the Alert OC live notification drill on April 7<sup>th</sup> with support from Jessica Ouwerkerk, Darcy Burke and Brandon. The drill was very successful and a full report is provided as an agenda item.</p> <p>WEROC hosted a planning meeting for its member agencies for Surf Quake 2015, the disaster exercise to be held on May 21. The planning meetings are used to assist member agencies in their planning and development of their internal exercises, as well as WEROC's exercise.</p> <p>Kelly provided a presentation on WEROC to the City of San Juan Capistrano Utilities Commission on Tuesday, April 21<sup>st</sup>. The presentation included how WEROC is structured, as well as the services provided day to day and during disaster response.</p> <p>WEROC hosted an EPA Vulnerability Self-Assessment Tool (VSAT) and Water Health and Economic Analysis Tool (WHEAT) training for Southern California utilities on April 22 and 23<sup>rd</sup>. Approximately 30 attendees, many from WEROC agencies, attended the 2 day training. The overall objective of the training was to educate participants in the use of the EPA computer based tools to conduct or update a high quality risk assessment on a water or wastewater systems. The training covered how to use these tools, as well as more challenging aspects like estimating changes in threat, vulnerabilities, and consequences with the application of additional countermeasures.</p> |  |
|  |  | <p>Kelly attended the April Orange County Emergency Management Organization (OCEMO) meeting in Mission Viejo. The primary presentation was on Vector Control Response and Communications. Kelly also provided a presentation on the Drought and the Governor's Orders. Kelly also attended the county-wide Exercise Planning meeting on the same day.</p> <p>Kelly and Brandon participated in the County Communications Committee meeting on April 13<sup>th</sup>. The meeting included the AlertOC April 7<sup>th</sup> Drill after-action discussion, as well as a discussion on proposed changes to WebEOC forms.</p> |

| Description  | Comments   |
|--|--|
|  | <p>WEROC hosted the Operational Area Exercise Design Training and Surf Quake 2015 Master Scenario Events List (MSEL) Conference on April 9<sup>th</sup>. A training on exercise development was provided by Anna Cave, Emergency Manager of the City of Brea. Then County staff led a discussion on the Surf Quake exercise to further develop the damage concepts that will be used for the May 21<sup>st</sup> exercise. Approximately 50 attendees had a great discussion regarding what actual disaster impacts should be expected for various sectors of government, utilities and private sector for this disaster exercise scenario based on realistic expectations of system and agency capabilities.</p>  |
| <b>Coordination with Outside Agencies</b>                | <p>Kelly participated in the California Office of Emergency Services (Cal OES) Southern Region Drought Conference Call on April 20th. These conference calls are back to being hosted weekly with the expectation that drought response concerns will start to increase due to the higher temperatures already seen this season and with the Governor's Executive Order.</p> <p>Kelly participated in the California Water/Wastewater Agency Response Network (CalWARN) State Steering Committee Conference Call on April 24<sup>th</sup>. The group discussed ways to use the CalWARN site to engage the traditional first responder community and to facilitate coordination.</p>  |
| <b>WEROC Emergency Operations Center (EOC) Readiness</b> | <p>WEROC successfully participated in the OA Radio test for April. Staff were not available for the MARS (MET) radio test due to a last minute conflict in schedule, however the radio was tested and is in working order. WEROC facilitated its bi-monthly radio test exercise on March 31<sup>st</sup> with good participation.</p> <p>Brandon worked with MWDOC and WEROC EOC staff to ensure that all MWDOC staff information is current in Alert OC for staff notifications following a disaster. He also completed an update of all WEROC group contact information within AlertOC. These group contacts are used for notification to Member Agencies. Brandon developed a message to send to WEROC EOC staff, MWDOC staff, and Member Agencies to test WEROCs use of AlertOC for employee and agency notifications. The message included a reminder to all recipients to download the</p> |

| Description | Comments   |
|-------------|--|
|             | <p>WEROC emergency plan phone application, In Case of Crisis. Following the test exercise Brandon assisted staff and agencies with downloading the application and how to use it.</p> <p>A Request for Quotes for the WEROC Radio Assessment closed on April 17, 2015. The purpose of this assessment is to understand:</p> <ul style="list-style-type: none"> <li>• How all the member agency radios are programmed;</li> <li>• What type of equipment is being used;</li> <li>• How and where their radios are installed;</li> <li>• And to provide each agency with a short radio training while the contractor is on site.</li> </ul> <p>Two quotes were received and a full report is provide as an agenda item.</p> <p>Brandon has spent a significant amount of time at the WEROC EOC's to implement corrective actions from the last exercise in November and to update all documents in the EOC. Some of the more significant efforts are: updates to all EOC forms and binders utilizing multiple databases, purchase of materials and supplies identified in the last exercise, facilitated site cleanings, installed new equipment on the TV's to allow for internet use through the TV's, and purchased and installed new phones.</p> <p>UPDATE - Both EOC's continue to have construction onsite, however at both sites construction has largely wrapped up. The North EOC site has the IRWD Baker Raw Water Pump Station construction in process and the South EOC has a communications infrastructure construction project onsite for El Toro Water District. Both sites are still accessible and in working order, but because the North EOC is physically a smaller site with construction traffic, the South EOC will continue as the primary EOC at this time.</p> |

## Status of Water Use Efficiency Projects

May 2015

| Description  | Lead Agency | Status % Complete | Scheduled Completion or Renewal Date | Comments   |
|--|-------------|-------------------|--------------------------------------|--|
| <b>Smart Timer Rebate Program</b>                          | MWDSC       | Ongoing           | September 2015                       | For March 2015, 135 smart timers were installed in the residential and 90 in the commercial sectors.   |
| <b>Rotating Nozzles Rebate Program</b>                     | MWDSC       | Ongoing           | Ongoing                              | For program water savings and implementation information, see MWDOC Water Use Efficiency Program Savings and Implementation Report.  |
| <b>Water Smart Landscape Program</b>                       | MWDSC       | On-going          | November 2015                        | For March 2015, a total of 12,477 meters received monthly irrigation performance reports comparing actual water use to a landscape irrigation budget customized to each meter. |
| <b>SoCal Water\$mart Residential Indoor Rebate Program</b> | MWDSC       | On-going          | On-going                             | For program savings and implementation information, please see MWDOC Water Use Efficiency Program Savings and Implementation Report.   |
|  |             |                   |                                      | In March 2015, 979 high efficiency clothes washers and 1,208 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.   |

**Item**

|   |       |          |               |   |
|---|-------|----------|---------------|---|
| <b>SoCal Water\$mart Commercial Rebate Program</b>    | MWDSC | On-going | On-going      | In March 2015, 2 high efficiency toilets were installed through this program.   |
| <b>Industrial Process Water Use Reduction Program</b> | MWDSC | 90%      | December 2015 | For program savings and implementation information, please see MWDOC Water Use Efficiency Program Savings and Implementation Report.  |
| <b>MWDOC Conservation Meeting</b>                     | MWDSC | On-going | Monthly       | A total of 41 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. As a result of this program, 346 AFY of water savings is being achieved. |
| <b>Metropolitan Conservation Meeting</b>              | MWDSC | On-going | Monthly       | This month's meeting was held on April 2, 2015 and was hosted by Mesa Water District. The next meeting will be on May 7, 2015 at the City of Santa Ana.   |
| <b>Water Smart Hotel Program</b>                      | MWDSC | 85%      | June 2015     | This month's meeting was held on April 16, 2015. The next meeting will be May 21, 2015 at Metropolitan.   |

All grant funding for this program has all been reserved, and a wait list for has been created. In the event that any of the sites with reserved funding are unable to complete their projects, wait list sites would then become eligible on a first-come, first-served basis. Staff will be requesting an extension through December 2015 to allow all hotels currently in process to complete their retrofits.

**Item**

|  |       |          |               |  |
|--|-------|----------|---------------|--|
| <b>Turf Removal Program</b>  | MWDOC | On-going | Ongoing       | In March 2015, 535 rebates were paid, representing 1,087,314 square feet of turf removed in Orange County. To date, the Turf Removal Program has removed approximately 5,370,717 square feet of turf.  |
| <b>California Sprinkler Adjustment Notification System – Base Irrigation Schedule Calculator</b> | MWDOC | 10%      | December 2015 | <p>For program savings and implementation information, please see MWDOC Water Use Efficiency Program Savings and Implementation Report.</p> <p>MWDOC was awarded an additional grant from the Bureau of Reclamation to develop the Base Irrigation Schedule Calculator in support of 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>   |
| <b>Public Spaces Program</b>   | MWDOC | 20%      | December 2015 | <p>The CSANS program is currently being promoted via a bill insert. Staff has also completed a Request for Proposals for the development of the Base Irrigation Schedule Calculator, with responses due by April 30<sup>th</sup>.</p> <p>This program targets publicly-owned landscape properties located in the South Orange County IRWM Plan area and 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> <p>To date, 10 cities, water districts, or other special districts (i.e., school districts) have applied for funding through this program, six cities have worked with MWDOC on completing their project funding calculation worksheet, and four complete project proposals have been received.</p> |

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| <b>Home Certification Program</b>                         | MWDOC                     | 17%     | July 2015     | This program provides single-family sites with indoor and outdoor audits to identify areas for water savings improvements and opportunities and offers rebates for the installation of residential water efficiency devices, including smart timers and high efficiency rotating nozzles. |
| <b>Landscape Irrigation Survey Program</b>                | MWDSC                     | Ongoing | June 2016     | In March 2015, MWDOC received twenty-two (22) applications for the Home Certification Program. Eight (8) surveys were conducted, and survey results are pending.  |
| <b>Spray to Drip Conversion Pilot Program</b>             | MWDOC                     | 35%     | April 2016    | 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.   |
| <b>CII Performance-Based Water Use Efficiency Program</b> | MWDOC                     | 2%      | December 2017 | To date, 133 sites in the MWDOC service area have contacted Metropolitan to request surveys.  |
| <b>Landscape Training and Outreach</b>                    | MWDOC & County Stormwater | Ongoing | Ongoing       | 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.      |
|   |                           |         |               | To date, 119 residential applications and 37 commercial applications have received a Notice to Proceed. Of these, 60 residential sites and 15 commercial sites have been completed.   |
|   |                           |         |               | This program will provide enhanced rebate incentives to commercial, industrial, and institutional sites and large-landscape properties (landscapes $\geq$ 1 acre).  |
|   |                           |         |               | The program launched during the first Quarter of 2015.  |
|   |                           |         |               | 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   |

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| <b>Landscape Training and Outreach (cont.)</b> |  |  | <p>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.</p> <p>The OCGF program held five events during Spring 2015 at the Home Depots in Cypress, Lake Forest, Irvine, Mission Viejo, and Costa Mesa. One more event is scheduled to be held on May 2<sup>nd</sup> at Green Thumb in Lake Forest.</p> |
|--|--|--|--|

# Orange County Water Use Efficiency Programs Savings and Implementation Report

4d

## Retrofits and Acre-Feet Water Savings for Program Activity

| Program  | Program Start Date | Retrofits Installed in | Month Indicated |                  | Current Fiscal Year |                  | Overall Program |                         | Cumulative Water Savings[4] |
|--|--------------------|------------------------|-----------------|------------------|---------------------|------------------|-----------------|-------------------------|-----------------------------|
|  |                    |                        | Interventions   | Water Savings    | Interventions       | Water Savings    | Interventions   | Annual Water Savings[4] |                             |
| High Efficiency Clothes Washer Program                       | 2001               | March-15               | 979             | 2.25             | 5,142               | 56.49            | 101,869         | 2,814                   | 17,659                      |
| Smart Timer Program - Irrigation Timers                      | 2004               | March-15               | 225             | 5.45             | 1,444               | 380.25           | 12,676          | 4,417                   | 24,118                      |
| Rotating Nozzles Rebate Program                              | 2007               | March-15               | 16,464          | 5.48             | 51,243              | 721.84           | 423,645         | 2,201                   | 8,608                       |
| SoCal Water\$mart Commercial Plumbing Fixture Rebate Program | 2002               | March-15               | 2               | 0.01             | 1,504               | 20.23            | 46,863          | 3,461                   | 30,441                      |
| Water Smart Landscape Program <sup>[1]</sup>                 | 1997               | March-15               | 12,477          | 890.35           | 12,477              | 7,970.26         | 12,477          | 10,454                  | 65,796                      |
| Industrial Process Water Use Reduction Program               | 2006               | March-15               | 0               | 7.75             | 2                   | 7.75             | 13,00           | 346                     | 1,162                       |
| Turf Removal Program <sup>[3]</sup>                          | 2010               | March-15               | 1,087,314       | 12.68            | 3,740,741           | 1,047            | 5,370,717       | 752                     | 1,979                       |
| High Efficiency Toilet (HET) Program                         | 2005               | March-15               | 1,208           | 4.28             | 9,051               | 288.74           | 41,231          | 1,524                   | 8,911                       |
| Home Water Certification Program                             | 2013               | March-15               | 8               | 0.016            | 133                 | 1,142            | 211             | 4,963                   | 6,798                       |
| Synthetic Turf Rebate Program                                | 2007               |                        | 0               | 0                | 0                   | 0                | 685,438         | 96                      | 469                         |
| Ultra-Low-Flush-Toilet Programs <sup>[2]</sup>               | 1992               |                        | 0               | 0                | 0                   | 0                | 363,926         | 13,452                  | 162,561                     |
| Home Water Surveys <sup>[2]</sup>                            | 1995               |                        | 0               | 0                | 0                   | 0                | 11,867          | 160                     | 1,708                       |
| Showerhead Replacements <sup>[2]</sup>                       | 1991               |                        | 0               | 0                | 0                   | 0                | 270,604         | 1,667                   | 19,083                      |
| <b>Total Water Savings All Programs</b>                      |                    |                        | <b>928</b>      | <b>3,821,737</b> | <b>10,494</b>       | <b>7,341,537</b> | <b>41,348</b>   | <b>342,503</b>          |                             |

(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     | 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     | FY 14/15     | 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           | 115          | 92           | 1,712         | 0.99  | 294.88   |
| Bueno Park          | 9            | 45           | 88           | 81           | 85           | 114          | 146          | 59           | 230          | 145           | 105          | 106          | 75           | 1,372        | 0.89          | 219.29                                      |  |
| East Orange CWD RZ  | 3            | 8            | 20           | 22           | 18           | 23           | 17           | 3            | 23           | 10            | 8            | 10           | 8            | 6            | 179           | 0.09  | 32.92  |
| El Toro WD          | 21           | 88           | 108          | 103          | 83           | 91           | 113          | 130          | 32           | 162           | 112          | 134          | 121          | 87           | 1,385         | 0.99  | 222.38   |
| Fountain Valley     | 36           | 127          | 209          | 196          | 178          | 205          | 219          | 243          | 72           | 289           | 158          | 115          | 102          | 91           | 2,240         | 0.94  | 402.06   |
| Garden Grove        | 39           | 173          | 278          | 243          | 238          | 304          | 332          | 301          | 481          | 236           | 190          | 162          | 125          | 3,145        | 1.28          | 547.79                                      |  |
| Golden State WC     | 37           | 195          | 339          | 342          | 339          | 401          | 447          | 168          | 583          | 265           | 283          | 275          | 4,533        | 2.99         | 766.19        |   |  |
| Huntington Beach    | 114          | 486          | 857          | 738          | 680          | 761          | 750          | 751          | 211          | 963           | 582          | 334          | 295          | 231          | 7,753         | 2.54  | 1,429.06   |
| 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        | 1,664        | 1,478        | 21,368        | 16.80                                       | 3,444.18   |
| La Habra            | 8            | 40           | 86           | 81           | 66           | 96           | 136          | 83           | 22           | 179           | 128          | 82           | 114          | 70           | 1,191         | 0.78  | 191.76   |
| La Palma            | 3            | 5            | 13           | 21           | 18           | 33           | 35           | 51           | 25           | 76            | 46           | 34           | 25           | 23           | 408           | 0.24  | 65.09  |
| Laguna Beach CWD    | 17           | 88           | 119          | 84           | 68           | 57           | 77           | 77           | 27           | 96            | 57           | 38           | 37           | 27           | 869           | 0.26  | 156.53   |
| Mesa Water          | 24           | 117          | 228          | 240          | 212          | 239          | 249          | 246          | 73           | 232           | 176          | 114          | 86           | 63           | 2,299         | 0.65  | 432.12   |
| Moulton Niguel WD   | 158          | 630          | 841          | 640          | 570          | 652          | 716          | 742          | 250          | 1,127         | 679          | 442          | 421          | 580          | 8,448         | 5.51  | 1,427.50   |
| Newport Beach       | 17           | 144          | 343          | 277          | 243          | 245          | 270          | 259          | 57           | 197           | 142          | 116          | 92           | 78           | 2,480         | 0.85  | 471.27   |
| Orange              | 58           | 247          | 304          | 358          | 330          | 366          | 365          | 403          | 111          | 349           | 262          | 218          | 163          | 120          | 3,654         | 1.34  | 674.15   |
| Orange Park Acres   | -            | -            | -            | -            | 4            | 8            | -            | -            | -            | -             | -            | -            | -            | -            | 12            | 0.00  | 2.76   |
| San Juan Capistrano | 16           | 95           | 120          | 107          | 102          | 109          | 103          | 127          | 43           | 190           | 110          | 76           | 73           | 68           | 1,339         | 0.84  | 230.14   |
| San Clemente        | 32           | 182          | 235          | 170          | 136          | 204          | 261          | 278          | 63           | 333           | 206          | 140          | 94           | 105          | 2,439         | 1.15  | 422.77   |
| Santa Margarita WD  | 140          | 510          | 743          | 573          | 592          | 654          | 683          | 740          | 257          | 1,105         | 679          | 553          | 662          | 640          | 8,531         | 7.21  | 1,389.84   |
| Seal Beach          | 13           | 28           | 57           | 39           | 46           | 47           | 46           | 57           | 7            | 81            | 51           | 31           | 29           | 27           | 559           | 0.26  | 96.16  |
| Serrano WD          | 9            | 16           | 54           | 39           | 39           | 30           | 31           | 23           | 7            | 21            | 20           | 13           | 10           | 22           | 334           | 0.24  | 62.53  |
| South Coast WD      | 35           | 138          | 165          | 97           | 103          | 107          | 130          | 148          | 43           | 183           | 112          | 89           | 79           | 50           | 1,479         | 0.61  | 254.86   |
| Trabuco Canyon WD   | 10           | 63           | 76           | 58           | 44           | 69           | 60           | 62           | 28           | 82            | 62           | 30           | 45           | 36           | 725           | 0.45  | 125.04   |
| Tustin              | 21           | 89           | 152          | 138          | 127          | 152          | 146          | 144          | 45           | 174           | 97           | 78           | 59           | 57           | 1,479         | 0.57  | 270.56   |
| Westminster         | 37           | 159          | 235          | 196          | 186          | 213          | 233          | 74           | 329          | 208           | 121          | 82           | 84           | 2,328        | 0.98          | 413.85                                      |  |
| Yorba Linda         | 36           | 214          | 342          | 355          | 333          | 288          | 350          | 367          | 117          | 394           | 273          | 181          | 167          | 122          | 3,539         | 1.42  | 646.42   |
| <b>MWDOC Totals</b> | <b>1,069</b> | <b>4,620</b> | <b>7,277</b> | <b>6,453</b> | <b>6,424</b> | <b>7,406</b> | <b>7,987</b> | <b>8,106</b> | <b>3,331</b> | <b>10,586</b> | <b>7,350</b> | <b>5,365</b> | <b>5,094</b> | <b>4,632</b> | <b>85,800</b> | <b>50.88</b>                                | <b>14,691.90</b>                                 |

|                             |              |              |              |              |              |              |              |              |              |               |              |              |              |              |                |              |                  |
|-----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|----------------|--------------|------------------|
| Anaheim                     | 917          | 677          | 904          | 1,364        | 701          | 854          | 847          | 781          | 860          | 910           | 477          | 331          | 285          | 231          | 10,139         | 2.65         | 1,912.55         |
| Fullerton                   | 40           | 196          | 369          | 289          | 263          | 334          | 330          | 69           | 397          | 270           | 200          | 186          | 181          | 181          | 3,393          | 1.98         | 568.98           |
| Santa Ana                   | 15           | 69           | 188          | 269          | 244          | 236          | 235          | 257          | 87           | 355           | 190          | 163          | 131          | 98           | 2,537          | 0.99         | 486.02           |
| <b>Non-MWDOC Totals</b>     | <b>972</b>   | <b>942</b>   | <b>1,461</b> | <b>1,922</b> | <b>1,208</b> | <b>1,359</b> | <b>1,416</b> | <b>1,368</b> | <b>1,016</b> | <b>1,662</b>  | <b>937</b>   | <b>694</b>   | <b>602</b>   | <b>510</b>   | <b>16,069</b>  | <b>5.61</b>  | <b>2,967.55</b>  |
| <b>Orange County Totals</b> | <b>2,041</b> | <b>5,562</b> | <b>8,738</b> | <b>8,375</b> | <b>7,632</b> | <b>8,765</b> | <b>9,403</b> | <b>9,474</b> | <b>4,247</b> | <b>12,348</b> | <b>8,287</b> | <b>6,059</b> | <b>5,696</b> | <b>5,142</b> | <b>101,869</b> | <b>56.49</b> | <b>17,659.45</b> |

**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     |              |                  | FY 14/15 |          |        | Total Program |  |  |
|---------------------|------------|------------|------------|------------|------------|------------|--------------|------------|--------------|------------|------------|------------|------------|------------|--------------|--------------|--------------|------------------|----------|----------|--------|---------------|--|--|
|                     | Res        | Comm       | Res        | Res        | Comm       | Res        | Res          | Comm       | Res          | Res        | Comm       | Res        | Res        | Comm       | Res          | Comm         | Res          | Comm             | Res      | Comm     | Res    | Comm          | Cumulative Water Savings across all Fiscal Years |  |
| Brea                | 3          | 9          | 0          | 0          | 2          | 0          | 8            | 0          | 9            | 8          | 4          | 0          | 38         | 5          | 75           | 5            | 75           | 71               | 344.93   |          |        |               |  |  |
| Bueno Park          | 3          | 1          | 0          | 0          | 0          | 0          | 4            | 19         | 3            | 0          | 0          | 0          | 4          | 10         | 14           | 30           | 14           | 30               | 64.91    |          |        |               |  |  |
| East Orange CWD RZ  | 0          | 0          | 0          | 1          | 0          | 5          | 0            | 5          | 0            | 2          | 0          | 0          | 2          | 0          | 0            | 13           | 0            | 0                | 0        | 0        | 0      | 2.95          |  |  |
| El Toro WD          | 0          | 25         | 2          | 18         | 5          | 5          | 26           | 2          | 7            | 2          | 11         | 0          | 4          | 5          | 69           | 5            | 69           | 326              | 1,747.48 |          |        |               |  |  |
| Fountain Valley     | 1          | 0          | 0          | 6          | 2          | 2          | 8            | 2          | 3            | 2          | 4          | 0          | 6          | 10         | 44           | 0            | 44           | 27               | 94.60    |          |        |               |  |  |
| Garden Grove        | 2          | 1          | 6          | 0          | 5          | 4          | 7            | 0          | 5            | 2          | 9          | 0          | 8          | 14         | 58           | 14           | 58           | 27               | 83.27    |          |        |               |  |  |
| Golden State WC     | 1          | 2          | 9          | 22         | 7          | 4          | 13           | 3          | 9            | 49         | 9          | 25         | 34         | 11         | 129          | 11           | 129          | 138              | 419.37   |          |        |               |  |  |
| Huntington Beach    | 13         | 1          | 6          | 27         | 6          | 36         | 15           | 4          | 18           | 33         | 20         | 35         | 13         | 1          | 136          | 1            | 136          | 161              | 548.32   |          |        |               |  |  |
| Irvine Ranch WD     | 29         | 56         | 14         | 145        | 28         | 153        | 267          | 71         | 414          | 135        | 71         | 59         | 49         | 209        | 1,168        | 209          | 1,168        | 1,558            | 6,683.10 |          |        |               |  |  |
| La Habra            | 0          | 0          | 0          | 21         | 0          | 0          | 3            | 0          | 4            | 7          | 2          | 0          | 3          | 7          | 7            | 20           | 7            | 20               | 36       | 114.42   |        |               |  |  |
| La Palma            | 0          | 0          | 0          | 0          | 0          | 0          | 1            | 0          | 1            | 0          | 2          | 0          | 0          | 0          | 0            | 0            | 0            | 0                | 0        | 0        | 0      | 0.51          |  |  |
| Laguna Beach CWD    | 2          | 0          | 2          | 14         | 4          | 1          | 109          | 2          | 76           | 2          | 71         | 0          | 85         | 0          | 85           | 0            | 85           | 0                | 85       | 19       | 126.96 |               |  |  |
| Mesa Water          | 6          | 7          | 13         | 7          | 7          | 22         | 21           | 0          | 10           | 2          | 15         | 2          | 15         | 28         | 28           | 131          | 28           | 131              | 101      | 412.23   |        |               |  |  |
| Moulton Niguel WD   | 21         | 23         | 17         | 162        | 36         | 60         | 179          | 31         | 51           | 74         | 40         | 45         | 34         | 83         | 83           | 503          | 83           | 503              | 560      | 1,919.60 |        |               |  |  |
| Newport Beach       | 10         | 27         | 7          | 58         | 6          | 0          | 275          | 12         | 242          | 26         | 168        | 75         | 9          | 9          | 9            | 9            | 9            | 9                | 9        | 978      | 354    | 1,654.95      |  |  |
| Orange              | 5          | 2          | 2          | 13         | 5          | 8          | 25           | 0          | 20           | 24         | 13         | 9          | 13         | 28         | 160          | 13           | 28           | 160              | 139      | 139      | 562.34 |               |  |  |
| San Juan Capistrano | 10         | 0          | 7          | 49         | 13         | 1          | 103          | 2          | 14           | 18         | 6          | 11         | 4          | 11         | 178          | 11           | 178          | 101              | 360.04   |          |        |               |  |  |
| San Clemente        | 81         | 20         | 13         | 209        | 46         | 11         | 212          | 17         | 26           | 7          | 28         | 2          | 22         | 13         | 982          | 13           | 982          | 347              | 1,757.36 |          |        |               |  |  |
| Santa Margarita WD  | 25         | 44         | 10         | 152        | 61         | 53         | 262          | 7          | 53           | 171        | 64         | 93         | 29         | 302        | 615          | 615          | 996          | 996              | 2,837.01 |          |        |               |  |  |
| Santiago CWD        | 0          | 0          | 0          | 0          | 0          | 0          | 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         | 0          | 12         | 2            | 12           | 2            | 12               | 52       | 68.89    |        |               |  |  |
| Serrano WD          | 0          | 0          | 11         | 0          | 4          | 0          | 3            | 0          | 1            | 0          | 0          | 0          | 1          | 0          | 0            | 1            | 0            | 0                | 20       | 0        | 4.71   |               |  |  |
| South Coast WD      | 11         | 6          | 3          | 10         | 13         | 3          | 78           | 10         | 13           | 16         | 8          | 4          | 65         | 18         | 223          | 18           | 223          | 146              | 642.50   |          |        |               |  |  |
| Trabuco Canyon WD   | 1          | 0          | 2          | 0          | 2          | 10         | 12           | 0          | 6            | 0          | 2          | 0          | 3          | 1          | 1            | 71           | 1            | 71               | 104      | 621.43   |        |               |  |  |
| Tustin              | 7          | 9          | 10         | 14         | 10         | 0          | 11           | 0          | 8            | 4          | 9          | 1          | 14         | 14         | 73           | 14           | 73           | 49               | 174.53   |          |        |               |  |  |
| Westminster         | 3          | 0          | 3          | 0          | 1          | 1          | 2            | 0          | 1            | 1          | 2          | 0          | 13         | 16         | 41           | 16           | 41           | 30               | 107.31   |          |        |               |  |  |
| Yorba Linda         | 8          | 5          | 21         | 25         | 0          | 22         | 0            | 20         | 0            | 12         | 5          | 25         | 2          | 198        | 2            | 198          | 2            | 198              | 85       | 460.83   |        |               |  |  |
| <b>MWDOC Totals</b> | <b>242</b> | <b>238</b> | <b>142</b> | <b>949</b> | <b>289</b> | <b>374</b> | <b>1,671</b> | <b>185</b> | <b>1,017</b> | <b>583</b> | <b>571</b> | <b>402</b> | <b>493</b> | <b>809</b> | <b>6,288</b> | <b>5,457</b> | <b>5,457</b> | <b>21,814.57</b> |          |          |        |               |  |  |

|                             |            |            |            |              |            |            |              |            |              |            |            |            |            |            |              |              |              |                 |  |  |  |  |
|-----------------------------|------------|------------|------------|--------------|------------|------------|--------------|------------|--------------|------------|------------|------------|------------|------------|--------------|--------------|--------------|-----------------|--|--|--|--|
| Anaheim                     | 9          | 59         | 5          | 46           | 12         | 11         | 23           | 60         | 19           | 10         | 9          | 26         | 4          | 52         | 124          | 413          | 413          | 1,660.07        |  |  |  |  |
| Fullerton                   | 2          | 2          | 39         | 9            | 33         | 22         | 51           | 9          | 29           | 8          | 0          | 37         | 16         | 111        | 111          | 170          | 170          | 504.43          |  |  |  |  |
| Santa Ana                   | 2          | 4          | 1          | 8            | 8          | 0          | 6            | 5          | 8            | 19         | 7          | 8          | 6          | 27         | 42           | 71           | 71           | 139.36          |  |  |  |  |
| <b>Non-MWDOC Totals</b>     | <b>13</b>  | <b>65</b>  | <b>8</b>   | <b>93</b>    | <b>29</b>  | <b>44</b>  | <b>51</b>    | <b>116</b> | <b>36</b>    | <b>58</b>  | <b>24</b>  | <b>34</b>  | <b>47</b>  | <b>95</b>  | <b>277</b>   | <b>654</b>   | <b>654</b>   | <b>2,303.86</b> |  |  |  |  |
| <b>Orange County Totals</b> | <b>255</b> | <b>303</b> | <b>150</b> | <b>1,042</b> | <b>318</b> | <b>418</b> | <b>1,722</b> | <b>301</b> | <b>1,053</b> | <b>641</b> | <b>595</b> | <b>436</b> | <b>540</b> | <b>904</b> | <b>6,565</b> | <b>6,111</b> | <b>6,111</b> | <b>24,118</b>   |  |  |  |  |

**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       |                |               | FY 14/15       |                |                | Total Program  |                |               | Cumulative Water Savings<br>across all Fiscal Years |
|---------------------|---------------|----------------|---------------|----------------|----------------|---------------|----------------|----------------|---------------|----------------|----------------|---------------|----------------|----------------|---------------|----------------|----------------|----------------|----------------|----------------|---------------|---|
|                     | Small<br>Res. | Large<br>Comm. | Comm.<br>Res. | Small<br>Comm. | Large<br>Comm. | Small<br>Comm. | Large<br>Comm. |                |               |   |
| Brea                | 8             | 100            | 0             | 32             | 0              | 0             | 130            | 0              | 0             | 65             | 120            | 0             | 84             | 0              | 0             | 157            | 15             | 0              | 498            | 235            | 0             | 8,34  |
| Buena Park          | 0             | 0              | 2,535         | 29             | 0              | 0             | 32             | 0              | 0             | 65             | 0              | 0             | 53             | 0              | 0             | 248            | 0              | 0              | 464            | 75             | 2,535         | 449,34  |
| East Orange         | 0             | 0              | 0             | 0              | 0              | 0             | 340            | 0              | 0             | 55             | 0              | 0             | 30             | 0              | 0             | 221            | 0              | 0              | 751            | 0              | 0             | 8,38  |
| El Toro             | 145           | 2,874          | 890           | 174            | 0              | 0             | 357            | 76             | 0             | 23             | 6,281          | 0             | 56             | 3,288          | 0             | 1,741          | 17,549         | 0              | 2,584          | 30,358         | 890           | 412,63  |
| Fountain Valley     | 21            | 0              | 0             | 83             | 0              | 0             | 108            | 0              | 0             | 35             | 0              | 0             | 0              | 0              | 0             | 107            | 0              | 0              | 488            | 0              | 0             | 7,31  |
| Garden Grove        | 151           | 45             | 0             | 38             | 0              | 0             | 119            | 0              | 0             | 95             | 0              | 0             | 80             | 0              | 0             | 62             | 0              | 0              | 742            | 151            | 0             | 15,43   |
| Golden State        | 280           | 29             | 0             | 303            | 943            | 0             | 294            | 0              | 0             | 257            | 2,595          | 0             | 192            | 0              | 0             | 483            | 1,741          | 0              | 2,053          | 5,308          | 0             | 80,77   |
| Huntington Beach    | 39            | 3,420          | 305           | 203            | 625            | 0             | 458            | 0              | 0             | 270            | 0              | 0             | 120            | 0              | 0             | 781            | 850            | 0              | 2,286          | 5,759          | 2,681         | 72,43   |
| Irvine Ranch        | 1,034         | 54,441         | 1,479         | 2,411          | 2,861          | 0             | 1,715          | 4,255          | 0             | 25,018         | 1,014          | 0             | 11,010         | 4,257          | 0             | 1,249          | 55             | 0              | 44,641         | 79,426         | 2,004         | 2,474,92  |
| La Habra            | 0             | 273            | 0             | 0              | 0              | 0             | 33             | 90             | 0             | 0              | 0              | 0             | 15             | 0              | 0             | 109            | 338            | 0              | 181            | 1,236          | 900           | 215,56  |
| La Palma            | 0             | 0              | 0             | 0              | 0              | 0             | 0              | 0              | 0             | 0              | 0              | 0             | 0              | 0              | 0             | 0              | 0              | 0              | 0              | 0              | 0             | 0,24  |
| Laguna Beach        | 191           | 0              | 0             | 156            | 0              | 0             | 763            | 0              | 0             | 3,596          | 0              | 0             | 2,948          | 878            | 0             | 2,879          | 1,971          | 0              | 10,749         | 2,896          | 0             | 115,36  |
| Mesa Water          | 83            | 0              | 118           | 0              | 0              | 297           | 277            | 0              | 270           | 0              | 0              | 361           | 0              | 0              | 197           | 0              | 0              | 1,719          | 385            | 343            | 113,38        |   |
| Moulton Niguel      | 234           | 0              | 959           | 1,578          | 0              | 0             | 1,225          | 0              | 0             | 512            | 1,385          | 0             | 361            | 227            | 0             | 1,396          | 4,098          | 0              | 6,029          | 12,713         | 2,945         | 865,92  |
| Newport Beach       | 92            | 4,781          | 0             | 337            | 1,208          | 0             | 640            | 3,273          | 0             | 25,365         | 50             | 0             | 19,349         | 6,835          | 0             | 253            | 668            | 0              | 46,123         | 17,554         | 0             | 709,16  |
| Orange              | 129           | 0              | 0             | 135            | 30             | 0             | 343            | 0              | 0             | 264            | 0              | 0             | 245            | 120            | 0             | 227            | 668            | 0              | 2,462          | 981            | 0             | 50,38   |
| San Clemente        | 729           | 1,299          | 0             | 6,612          | 881            | 0             | 4,266          | 117            | 1,343         | 631            | 172            | 0             | 415            | 5,074          | 0             | 252            | 0              | 0              | 9,489          | 7,538          | 1,343         | 35,13   |
| San Juan Capistrano | 656           | 5,709          | 0             | 1,452          | 0              | 0             | 949            | 0              | 0             | 684            | 30             | 0             | 370            | 0              | 0             | 357            | 732            | 0              | 4,972          | 8,131          | 0             | 229,92  |
| Santa Margarita     | 1,731         | 937            | 611           | 3,959          | 3,566          | 0             | 4,817          | 0              | 0             | 983            | 0              | 0             | 389            | 0              | 0             | 1,080          | 1,513          | 0              | 14,203         | 6,084          | 611           | 395,79  |
| Seal Beach          | 0             | 291            | 0             | 0              | 0              | 0             | 0              | 0              | 0             | 0              | 0              | 0             | 0              | 0              | 0             | 40             | 3,111          | 0              | 155            | 3,402          | 0             | 21,18   |
| Serrano             | 1,498         | 0              | 0             | 364            | 0              | 0             | 58             | 0              | 0             | 190            | 0              | 0             | 105            | 0              | 0             | 185            | 0              | 0              | 2,518          | 0              | 0             | 43,53   |
| South Coast         | 0             | 0              | 318           | 1,772          | 0              | 688           | 359            | 0              | 435           | 0              | 0              | 70            | 0              | 0              | 2,200         | 1,155          | 0              | 3,900          | 3,419          | 0              | 73,73         |   |
| Trabuco Canyon      | 1,357         | 791            | 0             | 0              | 0              | 379           | 0              | 0              | 34            | 0              | 0              | 0             | 0              | 0              | 0             | 56             | 0              | 0              | 1,956          | 791            | 0             | 51,76   |
| Tustin              | 314           | 0              | 0             | 512            | 0              | 0             | 476            | 1,013          | 0             | 378            | 0              | 0             | 329            | 0              | 0             | 380            | 0              | 0              | 2,961          | 1,013          | 0             | 54,82   |
| Westminster         | 80            | 0              | 0             | 0              | 0              | 0             | 26             | 0              | 0             | 15             | 0              | 0             | 0              | 0              | 0             | 54             | 0              | 0              | 286            | 0              | 0             | 4,97  |
| Yorba Linda         | 371           | 3,256          | 0             | 529            | 0              | 0             | 559            | 0              | 0             | 730            | 0              | 0             | 40             | 990            | 0             | 738            | 0              | 0              | 3,970          | 4,359          | 500           | 241,64  |
| <b>MWDOC Totals</b> | <b>9,255</b>  | <b>78,329</b>  | <b>6,779</b>  | <b>15,343</b>  | <b>11,836</b>  | <b>0</b>      | <b>19,072</b>  | <b>9,460</b>   | <b>1,343</b>  | <b>59,970</b>  | <b>11,647</b>  | <b>0</b>      | <b>36,622</b>  | <b>21,669</b>  | <b>0</b>      | <b>15,452</b>  | <b>34,464</b>  | <b>0</b>       | <b>166,190</b> | <b>191,814</b> | <b>14,752</b> | <b>7,731,01</b>                                     |

|                             |              |               |              |               |               |          |               |               |              |               |               |          |               |               |          |               |               |          |                |                |               |                 |
|-----------------------------|--------------|---------------|--------------|---------------|---------------|----------|---------------|---------------|--------------|---------------|---------------|----------|---------------|---------------|----------|---------------|---------------|----------|----------------|----------------|---------------|-----------------|
| Anaheim                     | 273          | 164           | 105          | 372           | 382           | 0        | 742           | 38,554        | 0            | 459           | 813           | 0        | 338           | 0             | 0        | 498           | 0             | 0        | 3,079          | 39,913         | 105           | 540,27          |
| Fullerton                   | 48           | 0             | 1,484        | 416           | 0             | 0        | 409           | 0             | 0            | 119           | 0             | 0        | 107           | 0             | 0        | 519           | 0             | 0        | 2,159          | 64             | 1,484         | 291,46          |
| Santa Ana                   | 48           | 572           | 0            | 53            | 0             | 0        | 22            | 65            | 0            | 99            | 0             | 0        | 86            | 2,533         | 0        | 310           | 0             | 0        | 859            | 3,226          | 0             | 45,36           |
| <b>Non-MWDOC Totals</b>     | <b>369</b>   | <b>736</b>    | <b>1,589</b> | <b>841</b>    | <b>382</b>    | <b>0</b> | <b>1,173</b>  | <b>38,619</b> | <b>0</b>     | <b>677</b>    | <b>813</b>    | <b>0</b> | <b>531</b>    | <b>2,533</b>  | <b>0</b> | <b>1,327</b>  | <b>0</b>      | <b>0</b> | <b>6,097</b>   | <b>43,203</b>  | <b>1,589</b>  | <b>877,10</b>   |
| <b>Orange County Totals</b> | <b>9,624</b> | <b>79,065</b> | <b>8,368</b> | <b>16,184</b> | <b>12,238</b> | <b>0</b> | <b>20,245</b> | <b>48,079</b> | <b>1,343</b> | <b>60,647</b> | <b>12,460</b> | <b>0</b> | <b>37,153</b> | <b>24,202</b> | <b>0</b> | <b>16,779</b> | <b>34,464</b> | <b>0</b> | <b>172,287</b> | <b>235,017</b> | <b>16,341</b> | <b>8,608,11</b> |

**SOCAL WATER\$MART COMMERCIAL PLUMBING FIXTURES REBATE PROGRAM<sup>[1]</sup>**  
**INSTALLED BY AGENCY**  
through MWDOC and Local Agency Conservation Programs

| Agency                      | 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     | FY 14/15     | Totals        | Cumulative Water Savings across all Fiscal Years |
|-----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|--|
| Brea                        | 51           | 0            | 22           | 52           | 2            | 27           | 113          | 24           | 4            | 1            | 234          | 0            | 2            | 532           | 300  |
| Buena Park                  | 83           | 28           | 55           | 64           | 65           | 153          | 432          | 122          | 379          | 290          | 5            | 23           | 54           | 1,763         | 798  |
| East Orange CWD RZ          | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0             | 0  |
| El Toro WD                  | 23           | 73           | 42           | 5            | 2            | 0            | 92           | 143          | 1            | 137          | 0            | 212          | 6            | 759           | 452  |
| Fountain Valley             | 94           | 2            | 59           | 35           | 63           | 17           | 35           | 0            | 2            | 314          | 0            | 0            | 1            | 623           | 463  |
| Garden Grove                | 199          | 51           | 297          | 34           | 136          | 5            | 298          | 130          | 22           | 0            | 4            | 1            | 76           | 1,274         | 1,174  |
| Golden State WC             | 197          | 34           | 232          | 80           | 531          | 46           | 414          | 55           | 68           | 135          | 0            | 1            | 0            | 1,804         | 1,522  |
| Huntington Beach            | 191          | 73           | 185          | 82           | 209          | 48           | 104          | 126          | 96           | 156          | 104          | 144          | 3            | 1,526         | 1,213  |
| Irvine Ranch WD             | 1,086        | 87           | 325          | 1,044        | 429          | 121          | 789          | 2,708        | 1,002        | 646          | 1,090        | 451          | 118          | 10,201        | 5,156  |
| La Habra                    | 37           | 52           | 45           | 60           | 16           | 191          | 75           | 53           | 4            | 0            | 0            | 0            | 0            | 543           | 429  |
| La Palma                    | 0            | 0            | 0            | 5            | 0            | 0            | 140          | 21           | 0            | 0            | 0            | 0            | 0            | 166           | 65   |
| Laguna Beach CWD            | 30           | 2            | 18           | 9            | 12           | 20           | 137          | 189          | 0            | 0            | 27           | 0            | 0            | 446           | 250  |
| Mesa Water                  | 155          | 22           | 130          | 241          | 141          | 543          | 219          | 669          | 41           | 6            | 0            | 79           | 2,811        | 1,622         |  |
| Moulton Niguel WD           | 74           | 65           | 172          | 3            | 0            | 9            | 69           | 151          | 6            | 0            | 0            | 0            | 0            | 580           | 659  |
| Newport Beach               | 230          | 9            | 77           | 24           | 94           | 98           | 27           | 245          | 425          | 35           | 0            | 0            | 566          | 1,834         | 1,009  |
| Orange                      | 144          | 22           | 553          | 127          | 88           | 18           | 374          | 67           | 1            | 73           | 1            | 271          | 6            | 1,829         | 1,400  |
| San Juan Capistrano         | 34           | 21           | 181          | 0            | 6            | 2            | 1            | 1            | 0            | 0            | 14           | 0            | 0            | 260           | 337  |
| San Clemente                | 36           | 5            | 95           | 40           | 173          | 2            | 18           | 43           | 0            | 19           | 0            | 0            | 1            | 432           | 318  |
| Santa Margarita WD          | 16           | 3            | 56           | 0            | 0            | 6            | 23           | 11           | 0            | 0            | 0            | 0            | 2            | 117           | 166  |
| Santiago CWD                | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0             | 0  |
| Seal Beach                  | 34           | 44           | 40           | 61           | 45           | 1            | 2            | 124          | 0            | 0            | 0            | 0            | 0            | 354           | 346  |
| Serrano WD                  | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0             | 0  |
| South Coast WD              | 31           | 8            | 54           | 8            | 4            | 9            | 114          | 56           | 422          | 84           | 148          | 0            | 4            | 942           | 356  |
| Trabuco Canyon WD           | 1            | 0            | 6            | 0            | 0            | 0            | 4            | 0            | 0            | 0            | 0            | 0            | 0            | 11            | 13   |
| Tustin                      | 114          | 16           | 82           | 14           | 7            | 115          | 145          | 25           | 230          | 0            | 0            | 0            | 75           | 832           | 647  |
| Westminster                 | 109          | 32           | 153          | 57           | 104          | 40           | 161          | 16           | 63           | 35           | 1            | 28           | 0            | 815           | 814  |
| Yorba Linda                 | 36           | 12           | 42           | 4            | 118          | 10           | 24           | 8            | 30           | 0            | 1            | 0            | 0            | 285           | 447  |
| <b>MWDOC Totals</b>         | <b>3,004</b> | <b>661</b>   | <b>2,921</b> | <b>2,049</b> | <b>2,245</b> | <b>1,079</b> | <b>4,134</b> | <b>4,537</b> | <b>3,424</b> | <b>1,966</b> | <b>1,594</b> | <b>1,172</b> | <b>993</b>   | <b>30,739</b> | <b>19,957</b>                                    |
| <b>Orange County Totals</b> | <b>3,598</b> | <b>2,335</b> | <b>3,780</b> | <b>3,877</b> | <b>3,494</b> | <b>2,471</b> | <b>8,826</b> | <b>5,876</b> | <b>3,531</b> | <b>2,026</b> | <b>1,869</b> | <b>1,531</b> | <b>1,504</b> | <b>46,863</b> | <b>30,441</b>                                    |

[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, Flushing Valve Retrofit Kits, Pre-rinse Spray heads, Hospital X-Ray Processor Recirculating Systems, Steam Sterilizers, Food Steamers, Water Pressurized Brooms, Laminar Flow Restrictors, and Ice Making Machines.

**Water Smart Landscape Program**  
**Total Number of Meters**  
**in Program by Agency**

| Agency                   | 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      | FY 14/15      | Overall Water Savings To Date (AF) |
|--------------------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|------------------------------------|
| Brea                     | 0            | 0            | 0            | 0            | 0             | 0             | 0             | 22            | 22            | 22            | 53.38                              |
| Buena Park               | 0            | 0            | 0            | 0            | 17            | 103           | 101           | 101           | 101           | 101           | 412.24                             |
| East Orange CWD RZ       | 0            | 0            | 0            | 0            | 0             | 0             | 0             | 0             | 0             | 0             | 0.00                               |
| El Toro WD               | 109          | 227          | 352          | 384          | 371           | 820           | 810           | 812           | 812           | 812           | 4,451.32                           |
| 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            | 14           | 34           | 32            | 34            | 32            | 32            | 32            | 32            | 184.61                             |
| Huntington Beach         | 0            | 0            | 0            | 0            | 31            | 33            | 31            | 31            | 31            | 31            | 132.94                             |
| Irvine Ranch WD          | 638          | 646          | 708          | 1,008        | 6,297         | 6,347         | 6,368         | 6,795         | 6,797         | 6,761         | 34,922.11                          |
| Laguna Beach CWD         | 0            | 0            | 0            | 57           | 141           | 143           | 141           | 124           | 124           | 124           | 671.13                             |
| La Habra                 | 0            | 0            | 0            | 23           | 22            | 24            | 22            | 22            | 22            | 22            | 125.74                             |
| La Palma                 | 0            | 0            | 0            | 0            | 0             | 0             | 0             | 0             | 0             | 0             | 0.00                               |
| Mesa Water               | 170          | 138          | 165          | 286          | 285           | 288           | 450           | 504           | 511           | 512           | 2,686.68                           |
| Moulton Niguel WD        | 57           | 113          | 180          | 473          | 571           | 595           | 643           | 640           | 675           | 675           | 3,782.83                           |
| Newport Beach            | 27           | 23           | 58           | 142          | 171           | 191           | 226           | 262           | 300           | 300           | 1,351.33                           |
| Orange                   | 0            | 0            | 0            | 0            | 0             | 0             | 0             | 0             | 0             | 0             | 0.00                               |
| San Clemente             | 165          | 204          | 227          | 233          | 247           | 271           | 269           | 269           | 299           | 374           | 2,157.91                           |
| San Juan Capistrano      | 0            | 0            | 0            | 0            | 0             | 0             | 0             | 0             | 0             | 0             | 0.00                               |
| Santa Margarita WD       | 619          | 618          | 945          | 1,571        | 1,666         | 1,746         | 1,962         | 1,956         | 2,274         | 2,279         | 13,001.52                          |
| 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            | 62           | 117          | 108           | 110           | 118           | 118           | 118           | 164           | 747.99                             |
| Trabuco Canyon WD        | 0            | 0            | 12           | 49           | 48            | 62            | 60            | 60            | 60            | 60            | 320.55                             |
| Tustin                   | 0            | 0            | 0            | 0            | 0             | 0             | 0             | 0             | 0             | 0             | 0.00                               |
| Westminster              | 0            | 0            | 10           | 18           | 18            | 20            | 18            | 18            | 18            | 18            | 107.47                             |
| Yorba Linda WD           | 0            | 0            | 0            | 0            | 0             | 0             | 0             | 0             | 0             | 0             | 0.00                               |
| <b>MWDOC Totals</b>      | <b>1,785</b> | <b>1,969</b> | <b>2,733</b> | <b>4,395</b> | <b>10,025</b> | <b>10,787</b> | <b>11,273</b> | <b>11,766</b> | <b>12,196</b> | <b>12,287</b> | <b>65,109.7</b>                    |
| Anaheim                  | 0            | 0            | 0            | 0            | 142           | 146           | 144           | 190           | 190           | 190           | 686.62                             |
| 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                               |
| <b>Non-MWDOC Totals</b>  | <b>0</b>     | <b>0</b>     | <b>0</b>     | <b>0</b>     | <b>142</b>    | <b>146</b>    | <b>144</b>    | <b>190</b>    | <b>190</b>    | <b>190</b>    | <b>686.62</b>                      |
| <b>Orange Co. Totals</b> | <b>1,785</b> | <b>1,969</b> | <b>2,733</b> | <b>4,395</b> | <b>10,167</b> | <b>10,933</b> | <b>11,417</b> | <b>11,956</b> | <b>12,386</b> | <b>12,477</b> | <b>65,796.35</b>                   |

# 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 | FY 14/15 | 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                       | 0   |
| Buena Park          | 0        | 1        | 0        | 0        | 0        | 0        | 0        | 0        | 1                             | 54                      | 338   |
| East Orange         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0                             | 0                       | 0   |
| El Toro             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0                             | 0                       | 0   |
| Fountain Valley     | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0                             | 0                       | 0   |
| Garden Grove        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0                             | 0                       | 0   |
| Golden State        | 1        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1                             | 3                       | 21  |
| Huntington Beach    | 0        | 0        | 0        | 0        | 0        | 2        | 0        | 1        | 3                             | 127                     | 171   |
| Irvine Ranch        | 0        | 0        | 2        | 1        | 1        | 1        | 0        | 0        | 6                             | 98                      | 317   |
| La Habra            | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0                             | 0                       | 0   |
| La Palma            | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0                             | 0                       | 0   |
| Laguna Beach        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0                             | 0                       | 0   |
| Mesa Water          | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0                             | 0                       | 0   |
| Moulton Niguel      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0                             | 0                       | 0   |
| Newport Beach       | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1        | 1                             | 21                      | 7   |
| Orange              | 1        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1                             | 43                      | 309   |
| San Juan Capistrano | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0                             | 0                       | 0   |
| San Clemente        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0                             | 0                       | 0   |
| Santa Margarita     | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0                             | 0                       | 0   |
| Seal Beach          | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0                             | 0                       | 0   |
| Serrano             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0                             | 0                       | 0   |
| South Coast         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0                             | 0                       | 0   |
| Trabuco Canyon      | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0                             | 0                       | 0   |
| Tustin              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0                             | 0                       | 0   |
| Westminster         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0                             | 0                       | 0   |
| Yorba Linda         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0                             | 0                       | 0   |
| <b>MWDOC Totals</b> | <b>2</b> | <b>1</b> | <b>2</b> | <b>1</b> | <b>1</b> | <b>3</b> | <b>1</b> | <b>2</b> | <b>13</b>                     | <b>346</b>              | <b>1162</b>   |

[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<sup>[1]</sup>**  
 through MWDOC and Local Agency Conservation Programs

| Agency              | FY 10/11      |                |                | FY 11/12       |                |                | FY 12/13       |                |                  | FY 13/14         |                  |                  | FY 14/15         |                  |          | Total Program |                 |       | Cumulative Water Savings across all Fiscal Years |
|---------------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|------------------|------------------|------------------|------------------|------------------|----------|---------------|-----------------|-------|--|
|                     | Res           | Comm.          | Res            | Comm.          | Res            | Comm.          | Res            | Comm.          | Res              | Comm.            | Res              | Comm.            | Res              | Comm.            | Res      | Comm.         |                 |       |  |
| Brea                | 0             | 0              | 3,397          | 9,466          | 7,605          | 0              | 5,697          | 0              | 50,371           | 14,210           | 67,070           | 23,676           | 23,676           | 0                | 0        | 0             | 33.74           |       |  |
| Buena Park          | 0             | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0                | 0                | 7,562            | 0                | 0                | 0                | 0        | 0             | 2.12            |       |  |
| East Orange         | 0             | 0              | 0              | 0              | 0              | 0              | 1,964          | 0              | 10,626           | 0                | 12,590           | 0                | 0                | 0                | 0        | 0             | 3.80            |       |  |
| El Toro             | 0             | 0              | 4,723          | 0              | 4,680          | 72,718         | 4,582          | 0              | 13,104           | 201,167          | 27,089           | 273,885          | 273,885          | 0                | 0        | 0             | 108.57          |       |  |
| Fountain Valley     | 0             | 0              | 1,300          | 0              | 682            | 7,524          | 4,252          | 0              | 28,031           | 0                | 34,265           | 7,524            | 34,265           | 0                | 0        | 0             | 15.14           |       |  |
| Garden Grove        | 0             | 46,177         | 14,013         | 0              | 4,534          | 0              | 8,274          | 0              | 48,448           | 15,503           | 75,269           | 61,680           | 61,680           | 0                | 0        | 0             | 72.52           |       |  |
| Golden State        | 0             | 0              | 42,593         | 30,973         | 31,813         | 3,200          | 32,725         | 8,424          | 110,601          | 126,873          | 217,732          | 169,470          | 169,470          | 0                | 0        | 0             | 154.88          |       |  |
| Huntington Beach    | 801           | 3,651          | 27,630         | 48,838         | 9,219          | 12,437         | 20,642         | 0              | 120,585          | 50,161           | 178,877          | 115,087          | 115,087          | 0                | 0        | 0             | 125.87          |       |  |
| Irvine Ranch        | 5,423         | 12,794         | 6,450          | 1,666          | 32,884         | 32,384         | 36,584         | 76,400         | 188,946          | 191,379          | 270,287          | 314,623          | 314,623          | 0                | 0        | 0             | 211.47          |       |  |
| La Habra            | 0             | 7,775          | 0              | 8,262          | 0              | 0              | 0              | 0              | 0                | 11,914           | 0                | 11,914           | 16,037           | 16,037           | 0        | 0             | 0               | 15.65 |  |
| La Palma            | 0             | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0                | 4,199            | 0                | 4,199            | 0                | 0                | 0        | 0             | 1.18            |       |  |
| Laguna Beach        | 978           | 0              | 2,533          | 0              | 2,664          | 1,712          | 4,586          | 226            | 9,756            | 1,189            | 20,517           | 3,127            | 3,127            | 0                | 0        | 0             | 10.13           |       |  |
| Mesa Water          | 0             | 0              | 6,777          | 0              | 10,667         | 0              | 22,246         | 0              | 98,333           | 20,053           | 138,023          | 20,053           | 20,053           | 0                | 0        | 0             | 53.21           |       |  |
| Moulton Niguel      | 956           | 16,139         | 4,483          | 26,927         | 11,538         | 84,123         | 14,739         | 40,741         | 229,590          | 891,107          | 261,306          | 1,059,037        | 1,059,037        | 0                | 0        | 0             | 427.00          |       |  |
| Newport Beach       | 0             | 0              | 3,454          | 0              | 3,548          | 2,346          | 894            | 0              | 20,069           | 4,678            | 27,965           | 7,024            | 7,024            | 0                | 0        | 0             | 13.02           |       |  |
| Orange              | 0             | 0              | 12,971         | 0              | 15,951         | 8,723          | 11,244         | 0              | 77,420           | 228,276          | 117,586          | 236,989          | 236,989          | 0                | 0        | 0             | 113.21          |       |  |
| San Clemente        | 0             | 0              | 21,502         | 0              | 16,062         | 13,165         | 18,471         | 13,908         | 64,299           | 0                | 120,334          | 27,073           | 27,073           | 0                | 0        | 0             | 63.02           |       |  |
| San Juan Capistrano | 0             | 0              | 22,656         | 103,692        | 29,544         | 27,156         | 12,106         | 0              | 70,680           | 9,858            | 134,986          | 140,706          | 140,706          | 0                | 0        | 0             | 147.83          |       |  |
| Santa Margarita     | 4,483         | 5,561          | 1,964          | 11,400         | 10,151         | 11,600         | 17,778         | 48,180         | 155,016          | 355,122          | 189,392          | 431,863          | 431,863          | 0                | 0        | 0             | 200.51          |       |  |
| Seal Beach          | 0             | 0              | 0              | 0              | 3,611          | 0              | 0              | 0              | 9,751            | 504              | 13,362           | 504              | 504              | 0                | 0        | 0             | 4.89            |       |  |
| Serrano             | 0             | 0              | 0              | 0              | 0              | 0              | 2,971          | 0              | 33,575           | 0                | 36,546           | 0                | 0                | 0                | 0        | 0             | 10.65           |       |  |
| South Coast         | 0             | 16,324         | 6,806          | 0              | 9,429          | 4,395          | 15,162         | 116,719        | 57,351           | 35,581           | 88,748           | 173,019          | 173,019          | 0                | 0        | 0             | 107.63          |       |  |
| Trabuco Canyon      | 0             | 0              | 272            | 0              | 1,542          | 22,440         | 2,651          | 0              | 11,552           | 0                | 16,017           | 22,440           | 22,440           | 0                | 0        | 0             | 17.97           |       |  |
| Tustin              | 0             | 0              | 0              | 0              | 9,980          | 0              | 1,410          | 0              | 37,281           | 3,815            | 48,671           | 3,815            | 3,815            | 0                | 0        | 0             | 17.69           |       |  |
| Westminster         | 0             | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 5,909            | 14,364           | 5,909            | 14,364           | 14,364           | 0                | 0        | 0             | 5.68            |       |  |
| Yorba Linda         | 11,349        | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 89,230           | 12,702           | 100,579          | 12,702           | 12,702           | 0                | 0        | 0             | 38.07           |       |  |
| <b>MWDOC Totals</b> | <b>23,990</b> | <b>108,421</b> | <b>183,524</b> | <b>241,224</b> | <b>216,104</b> | <b>303,923</b> | <b>238,978</b> | <b>304,598</b> | <b>1,564,199</b> | <b>2,176,542</b> | <b>2,226,795</b> | <b>3,143,922</b> | <b>3,143,922</b> | <b>3,143,922</b> | <b>0</b> | <b>0</b>      | <b>1,975.43</b> |       |  |

|                             |               |                |                |                |                |                |                |                |                  |                  |                  |                  |                  |                  |          |          |                 |
|-----------------------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|------------------|------------------|------------------|------------------|------------------|----------|----------|-----------------|
| Anaheim                     | 0             | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0                | 0                | 0                | 0                | 0                | 0                | 0        | 0        | -               |
| Fulerton                    | 0             | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0                | 0                | 0                | 0                | 0                | 0                | 0        | 0        | 3.87            |
| Santa Ana                   | 0             | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0                | 0                | 0                | 0                | 0                | 0                | 0        | 0        | -               |
| <b>Non-MWDOC Totals</b>     | <b>0</b>      | <b>0</b>       | <b>0</b>       | <b>0</b>       | <b>0</b>       | <b>0</b>       | <b>0</b>       | <b>0</b>       | <b>0</b>         | <b>0</b>         | <b>0</b>         | <b>0</b>         | <b>0</b>         | <b>0</b>         | <b>0</b> | <b>0</b> | <b>3.87</b>     |
| of                          |               |                |                |                |                |                |                |                |                  |                  |                  |                  |                  |                  |          |          |                 |
| <b>Orange County Totals</b> | <b>23,990</b> | <b>108,421</b> | <b>183,524</b> | <b>241,224</b> | <b>216,104</b> | <b>303,923</b> | <b>238,978</b> | <b>313,812</b> | <b>1,564,199</b> | <b>2,176,542</b> | <b>2,226,795</b> | <b>3,143,922</b> | <b>3,143,922</b> | <b>3,143,922</b> | <b>0</b> | <b>0</b> | <b>1,979.30</b> |

[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     | FY 14-15     | Total         | Cumulative Water Savings across all Fiscal Years |
|---------------------|-----------|--------------|--------------|---------------|--------------|------------|------------|--------------|--------------|--------------|---------------|--|
| Brea                | 0         | 2            | 7            | 43            | 48           | 8          | 0          | 0            | 0            | 38           | 102           | 248  |
| Buena Park          | 0         | 1            | 2            | 124           | 176          | 7          | 0          | 0            | 0            | 96           | 115           | 521  |
| East Orange CWD RZ  | 0         | 0            | 10           | 12            | 1            | 0          | 0          | 0            | 0            | 13           | 22            | 58   |
| El Toro WD          | 0         | 392          | 18           | 75            | 38           | 18         | 0          | 0            | 133          | 218          | 347           | 1,239  |
| Fountain Valley     | 0         | 69           | 21           | 262           | 54           | 17         | 0          | 0            | 0            | 41           | 98            | 562  |
| Garden Grove        | 0         | 14           | 39           | 443           | 181          | 24         | 0          | 0            | 0            | 63           | 241           | 1,005  |
| Golden State WC     | 2         | 16           | 36           | 444           | 716          | 37         | 80         | 2            | 142          | 305          | 1,780         | 381.16   |
| Huntington Beach    | 2         | 13           | 59           | 607           | 159          | 76         | 0          | 0            | 0            | 163          | 1,021         | 2,100  |
| Irvine Ranch WD     | 29        | 1,055        | 826          | 5,088         | 2,114        | 325        | 0          | 1,449        | 810          | 1,289        | 12,985        | 3,131.24   |
| Laguna Beach CWD    | 0         | 2            | 17           | 91            | 28           | 11         | 0          | 0            | 0            | 45           | 92            | 286  |
| La Habra            | 0         | 3            | 18           | 296           | 34           | 20         | 0          | 0            | 0            | 37           | 82            | 490  |
| La Palma            | 0         | 1            | 10           | 36            | 26           | 13         | 0          | 0            | 0            | 21           | 41            | 148  |
| Mesa Water          | 0         | 247          | 19           | 736           | 131          | 7          | 0          | 0            | 0            | 174          | 115           | 1,429  |
| Moulton Niguel WD   | 0         | 20           | 104          | 447           | 188          | 46         | 0          | 0            | 0            | 400          | 1,620         | 2,825  |
| Newport Beach       | 0         | 5            | 19           | 163           | 54           | 13         | 0          | 0            | 0            | 49           | 118           | 421  |
| Orange              | 1         | 20           | 62           | 423           | 79           | 40         | 0          | 1            | 142          | 324          | 1,092         | 209.90   |
| San Juan Capistrano | 0         | 10           | 7            | 76            | 39           | 11         | 0          | 0            | 0            | 35           | 99            | 277  |
| San Clemente        | 0         | 7            | 22           | 202           | 66           | 21         | 0          | 0            | 0            | 72           | 177           | 567  |
| Santa Margarita WD  | 0         | 5            | 14           | 304           | 151          | 44         | 0          | 0            | 0            | 528          | 713           | 1,759  |
| Seal Beach          | 0         | 678          | 8            | 21            | 12           | 1          | 0          | 2            | 17           | 33           | 772           | 275.06   |
| Serrano WD          | 2         | 0            | 1            | 13            | 5            | 0          | 0          | 0            | 0            | 2            | 33            | 56   |
| South Coast WD      | 2         | 2            | 29           | 102           | 41           | 12         | 23         | 64           | 102          | 287          | 664           | 87.88  |
| Trabuco Canyon WD   | 0         | 0            | 4            | 23            | 23           | 0          | 0          | 0            | 0            | 10           | 69            | 129  |
| Tustin              | 0         | 186          | 28           | 387           | 479          | 17         | 0          | 0            | 0            | 64           | 90            | 1,251  |
| Westminster         | 0         | 17           | 25           | 541           | 167          | 23         | 0          | 0            | 0            | 35           | 105           | 913  |
| Yorba Linda WD      | 0         | 14           | 89           | 323           | 96           | 18         | 0          | 0            | 0            | 40           | 179           | 759  |
| <b>MWDOC Totals</b> | <b>38</b> | <b>2,779</b> | <b>1,494</b> | <b>11,282</b> | <b>5,106</b> | <b>809</b> | <b>103</b> | <b>1,651</b> | <b>3,357</b> | <b>7,717</b> | <b>34,336</b> | <b>7,268.83</b>                                  |

|                             |           |              |              |               |              |            |            |              |              |              |               |                 |
|-----------------------------|-----------|--------------|--------------|---------------|--------------|------------|------------|--------------|--------------|--------------|---------------|-----------------|
| Anaheim                     | 0         | 255          | 78           | 2,771         | 619          | 114        | 0          | 0            | 156          | 921          | 4,914         | 1,184.55        |
| Fullerton                   | 0         | 4            | 28           | 286           | 60           | 23         | 0          | 0            | 61           | 168          | 630           | 1,28.83         |
| Santa Ana                   | 0         | 11           | 25           | 925           | 89           | 23         | 0          | 0            | 33           | 245          | 1,351         | 329.15          |
| <b>Non-MWDOC Totals</b>     | <b>0</b>  | <b>270</b>   | <b>131</b>   | <b>3,982</b>  | <b>768</b>   | <b>160</b> | <b>0</b>   | <b>0</b>     | <b>250</b>   | <b>1,334</b> | <b>6,895</b>  | <b>1,642.52</b> |
| <b>Orange County Totals</b> | <b>38</b> | <b>3,049</b> | <b>1,625</b> | <b>15,264</b> | <b>5,874</b> | <b>969</b> | <b>103</b> | <b>1,651</b> | <b>3,607</b> | <b>9,051</b> | <b>41,231</b> | <b>8,911.36</b> |

**HOME WATER SURVEYS PERFORMED BY AGENCY**  
 through MWDOC and Local Agency Conservation Programs

| Agency                      | FY 13/14  |            | FY 14/15   |            | Total Surveys | Cert Homes | Surveys    | Cert Homes | Surveys      | Cert Homes | Total Surveys | Cumulative Water Savings |
|-----------------------------|-----------|------------|------------|------------|---------------|------------|------------|------------|--------------|------------|---------------|--------------------------|
|                             | Surveys   | Cert Homes | Surveys    | Cert Homes |               |            |            |            |              |            |               |                          |
| Brea                        | 1         | 0          | 1          | 0          | 0             | 0          | 0          | 0          | 2            | 0          | 0             | 0.07                     |
| Buena Park                  | 0         | 0          | 0          | 0          | 0             | 0          | 0          | 0          | 0            | 0          | 0             | 0.00                     |
| East Orange                 | 19        | 0          | 1          | 0          | 0             | 0          | 0          | 0          | 20           | 0          | 0             | 0.92                     |
| El Toro                     | 0         | 0          | 3          | 0          | 0             | 0          | 0          | 3          | 0            | 0          | 0             | 0.07                     |
| Fountain Valley             | 3         | 0          | 4          | 0          | 0             | 0          | 0          | 7          | 0            | 0          | 0             | 0.24                     |
| Garden Grove                | 0         | 0          | 6          | 0          | 0             | 0          | 0          | 6          | 0            | 0          | 0             | 0.14                     |
| Golden State                | 0         | 0          | 0          | 0          | 0             | 0          | 0          | 0          | 0            | 0          | 0             | 0.00                     |
| Huntington Beach            | 2         | 0          | 3          | 0          | 0             | 0          | 0          | 5          | 0            | 0          | 0             | 0.16                     |
| Irvine Ranch                | 1         | 0          | 0          | 0          | 0             | 0          | 0          | 1          | 0            | 0          | 0             | 0.05                     |
| La Habra                    | 0         | 0          | 1          | 0          | 0             | 0          | 0          | 1          | 0            | 0          | 0             | 0.02                     |
| La Palma                    | 0         | 0          | 0          | 0          | 0             | 0          | 0          | 0          | 0            | 0          | 0             | 0.00                     |
| Laguna Beach                | 4         | 0          | 6          | 0          | 0             | 0          | 0          | 10         | 0            | 0          | 0             | 0.33                     |
| Mesa Water                  | 0         | 0          | 0          | 0          | 0             | 0          | 0          | 0          | 0            | 0          | 0             | 0.00                     |
| Moulton Niguel              | 4         | 0          | 4          | 0          | 0             | 0          | 0          | 8          | 0            | 0          | 0             | 0.28                     |
| Newport Beach               | 2         | 0          | 7          | 0          | 0             | 0          | 0          | 9          | 0            | 0          | 0             | 0.26                     |
| Orange                      | 2         | 0          | 14         | 0          | 0             | 0          | 0          | 16         | 0            | 0          | 0             | 0.42                     |
| San Clemente                | 15        | 0          | 8          | 0          | 0             | 0          | 0          | 23         | 0            | 0          | 0             | 0.89                     |
| San Juan Capistrano         | 4         | 0          | 12         | 0          | 0             | 0          | 0          | 16         | 0            | 0          | 0             | 0.47                     |
| Santa Margarita             | 15        | 0          | 26         | 1          | 0             | 0          | 1          | 41         | 1            | 0          | 0             | 1.32                     |
| Seal Beach                  | 0         | 0          | 1          | 0          | 0             | 0          | 0          | 1          | 0            | 0          | 0             | 0.02                     |
| Serrano                     | 0         | 0          | 2          | 0          | 0             | 0          | 0          | 2          | 0            | 0          | 0             | 0.05                     |
| South Coast                 | 6         | 0          | 3          | 0          | 0             | 0          | 0          | 9          | 0            | 0          | 0             | 0.35                     |
| Trabuco Canyon              | 0         | 0          | 3          | 0          | 0             | 0          | 0          | 3          | 0            | 0          | 0             | 0.07                     |
| Tustin                      | 0         | 0          | 8          | 0          | 0             | 0          | 0          | 8          | 0            | 0          | 0             | 0.19                     |
| Westminster                 | 0         | 0          | 0          | 0          | 0             | 0          | 0          | 0          | 0            | 0          | 0             | 0.00                     |
| Yorba Linda                 | 0         | 0          | 7          | 0          | 0             | 0          | 0          | 7          | 0            | 0          | 0             | 0.16                     |
| <b>MWDOC Totals</b>         | <b>78</b> | <b>0</b>   | <b>120</b> | <b>1</b>   | <b>198</b>    | <b>1</b>   | <b>198</b> | <b>1</b>   | <b>6.49</b>  | <b>1</b>   | <b>6.49</b>   |                          |
| Anaheim                     | 0         | 0          | 0          | 0          | 0             | 0          | 0          | 0          | 0            | 0          | 0             | 0.00                     |
| Fullerton                   | 0         | 0          | 13         | 0          | 0             | 13         | 0          | 13         | 0            | 0          | 0             | 0.31                     |
| Santa Ana                   | 0         | 0          | 0          | 0          | 0             | 0          | 0          | 0          | 0            | 0          | 0             | 0.00                     |
| <b>Non-MWDOC Totals</b>     | <b>0</b>  | <b>0</b>   | <b>13</b>  | <b>0</b>   | <b>13</b>     | <b>0</b>   | <b>13</b>  | <b>0</b>   | <b>13</b>    | <b>0</b>   | <b>0</b>      | <b>0.31</b>              |
| <b>Orange County Totals</b> | <b>78</b> | <b>0</b>   | <b>133</b> | <b>1</b>   | <b>211</b>    | <b>1</b>   | <b>211</b> | <b>1</b>   | <b>6.798</b> | <b>1</b>   | <b>6.798</b>  |                          |

**SYNTHETIC TURF INSTALLED BY AGENCY<sup>[1]</sup>**  
 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.          | Res           | Comm.  | Res           | Comm. |  |
| Brea                | 0              | 0             | 2,153          | 2,160         | 500           | 0            | 0             | 0        | 0              | 0              | 2,653         | 2,160  | 3,30          |       |  |
| Buena Park          | 0              | 0             | 1,566          | 5,850         | 0             | 0            | 0             | 0        | 0              | 0              | 1,566         | 5,850  | 5.19          |       |  |
| East Orange         | 0              | 0             | 0              | 983           | 0             | 0            | 0             | 0        | 0              | 0              | 983           | 0      | 0.55          |       |  |
| El Toro             | 3,183          | 0             | 2,974          | 0             | 3,308         | 0            | 895           | 0        | 0              | 0              | 10,360        | 0      | 6.98          |       |  |
| Fountain Valley     | 11,674         | 0             | 1,163          | 0             | 2,767         | 0            | 684           | 0        | 0              | 0              | 16,288        | 0      | 12.46         |       |  |
| Garden Grove        | 1,860          | 0             | 0              | 3,197         | 0             | 0            | 274           | 0        | 0              | 0              | 5,331         | 0      | 3.47          |       |  |
| Golden State        | 6,786          | 0             | 13,990         | 0             | 15,215        | 0            | 2,056         | 0        | 0              | 0              | 38,047        | 0      | 24.88         |       |  |
| Huntington Beach    | 15,192         | 591           | 12,512         | 0             | 4,343         | 1,504        | 0             | 0        | 0              | 0              | 32,047        | 2,095  | 25.29         |       |  |
| Irvine Ranch        | 11,009         | 876           | 13,669         | 0             | 2,585         | 0            | 0             | 0        | 0              | 0              | 27,263        | 876    | 21.00         |       |  |
| La Habra            | 0              | 0             | 0              | 0             | 0             | 0            | 0             | 0        | 0              | 0              | 0             | 0      | -             |       |  |
| La Palma            | 429            | 0             | 0              | 0             | 0             | 0            | 0             | 0        | 0              | 0              | 429           | 0      | 0.36          |       |  |
| Laguna Beach        | 3,950          | 0             | 3,026          | 0             | 725           | 0            | 0             | 0        | 0              | 0              | 7,701         | 0      | 5.84          |       |  |
| Mesa Water          | 4,114          | 0             | 3,005          | 78,118        | 4,106         | 0            | 2,198         | 0        | 0              | 0              | 13,423        | 78,118 | 63.46         |       |  |
| Moulton Niguel      | 14,151         | 0             | 25,635         | 2,420         | 7,432         | 0            | 0             | 0        | 0              | 0              | 47,218        | 2,420  | 35.69         |       |  |
| Newport Beach       | 2,530          | 0             | 6,628          | 0             | 270           | 0            | 0             | 0        | 0              | 0              | 9,428         | 0      | 6.92          |       |  |
| Orange              | 4,169          | 0             | 7,191          | 0             | 635           | 0            | 0             | 0        | 0              | 0              | 11,995        | 0      | 8.89          |       |  |
| San Clemente        | 9,328          | 0             | 11,250         | 455           | 2,514         | 1,285        | 500           | 0        | 0              | 0              | 23,592        | 1,740  | 18.37         |       |  |
| San Juan Capistrano | 0              | 0             | 7,297          | 639           | 2,730         | 0            | 4,607         | 0        | 0              | 0              | 14,634        | 639    | 9.02          |       |  |
| Santa Margarita     | 12,922         | 0             | 26,069         | 0             | 21,875        | 0            | 7,926         | 0        | 0              | 0              | 68,792        | 0      | 44.68         |       |  |
| Seal Beach          | 0              | 0             | 817            | 0             | 0             | 0            | 0             | 0        | 0              | 0              | 817           | 0      | 0.57          |       |  |
| Serrano             | 7,347          | 0             | 1,145          | 0             | 0             | 0            | 0             | 0        | 0              | 0              | 8,492         | 0      | 6.97          |       |  |
| South Coast         | 2,311          | 0             | 6,316          | 0             | 17,200        | 0            | 1,044         | 0        | 0              | 0              | 26,871        | 0      | 16.43         |       |  |
| Trabuco Canyon      | 1,202          | 0             | 9,827          | 0             | 0             | 0            | 0             | 0        | 0              | 0              | 11,029        | 0      | 7.89          |       |  |
| Tustin              | 6,123          | 0             | 4,717          | 0             | 2,190         | 0            | 0             | 0        | 0              | 0              | 13,030        | 0      | 9.67          |       |  |
| Westminster         | 2,748          | 16,566        | 8,215          | 0             | 890           | 0            | 0             | 0        | 0              | 0              | 11,853        | 16,566 | 22.47         |       |  |
| Yorba Linda         | 11,792         | 0             | 12,683         | 0             | 4,341         | 5,835        | 0             | 0        | 0              | 0              | 28,816        | 5,835  | 24.48         |       |  |
| <b>MWDOC Totals</b> | <b>132,820</b> | <b>18,033</b> | <b>181,848</b> | <b>89,642</b> | <b>97,806</b> | <b>8,624</b> | <b>20,184</b> | <b>0</b> | <b>432,658</b> | <b>116,299</b> | <b>384,83</b> |        |               |       |  |

|                         |              |            |               |               |               |               |              |          |               |               |              |  |  |  |  |
|-------------------------|--------------|------------|---------------|---------------|---------------|---------------|--------------|----------|---------------|---------------|--------------|--|--|--|--|
| 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         |  |  |  |  |
| <b>Non-MWDOC Totals</b> | <b>9,400</b> | <b>876</b> | <b>16,282</b> | <b>20,093</b> | <b>20,303</b> | <b>65,300</b> | <b>4,227</b> | <b>0</b> | <b>50,212</b> | <b>86,269</b> | <b>83.81</b> |  |  |  |  |

**Orange County Totals**    **142,220**    **18,909**    **198,130**    **109,735**    **118,109**    **73,924**    **24,411**    **0**    **482,870**    **202,568**    **468.63**

[1]Installed device numbers are calculated in square feet

**ULF TOILETS INSTALLED BY AGENCY**  
**through MWDOC 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          | 1,692,64   |
| Buena Park          | 361            | 147           | 331           | 802           | 520           | 469           | 524           | 1,229         | 2,325         | 1,522         | 50           | 40           | 18           | 9          | 0        | 8,347          | 3,498,37   |
| East Orange CWD RZ  | 2              | 0             | 33            | 63            | 15            | 17            | 15            | 50            | 41            | 44            | 19           | 18           | 13           | 2          | 0        | 332            | 138,23   |
| El Toro WD          | 1,169          | 511           | 678           | 889           | 711           | 171           | 310           | 564           | 472           | 324           | 176          | 205          | 61           | 40         | 0        | 6,281          | 3,091,16   |
| Fountain Valley     | 638            | 454           | 635           | 858           | 1,289         | 2,355         | 1,697         | 1,406         | 802           | 176           | 111          | 58           | 32           | 0          | 11,911   | 5,383,10       |  |
| 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         | 12,155,41  |
| 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         | 11,731,47  |
| 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         | 13,854,70  |
| 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         | 11,849,23  |
| Laguna Beach CWD    | 283            | 93            | 118           | 74            | 149           | 306           | 220           | 85            | 271           | 118           | 32           | 26           | 29           | 6          | 0        | 1,810          | 845,69   |
| La Habra            | 594            | 146           | 254           | 775           | 703           | 105           | 582           | 645           | 1,697         | 1,225         | 12           | 31           | 6            | 7          | 0        | 6,782          | 2,957,73   |
| La Palma            | 65             | 180           | 222           | 125           | 44            | 132           | 518           | 173           | 343           | 193           | 31           | 27           | 20           | 17         | 0        | 2,090          | 927,52   |
| Mesa Water          | 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         | 7,654,27   |
| Moulton Niguel WD   | 744            | 309           | 761           | 698           | 523           | 475           | 716           | 891           | 728           | 684           | 410          | 381          | 187          | 100        | 0        | 7,607          | 3,371,14   |
| Newport Beach       | 369            | 293           | 390           | 571           | 912           | 1,223         | 438           | 463           | 396           | 1,883         | 153          | 76           | 36           | 16         | 0        | 7,219          | 3,166,77   |
| Orange              | 683            | 1,252         | 1,155         | 1,355         | 533           | 2,263         | 1,778         | 2,444         | 2,682         | 1,899         | 193          | 218          | 88           | 53         | 4        | 16,800         | 7,347,93   |
| San Juan Capistrano | 1,234          | 284           | 193           | 168           | 323           | 1,319         | 347           | 515           | 201           | 151           | 85           | 125          | 42           | 39         | 0        | 4,663          | 2,324,42   |
| San Clemente        | 225            | 113           | 191           | 65            | 158           | 198           | 667           | 483           | 201           | 547           | 91           | 66           | 37           | 34         | 0        | 3,076          | 1,314,64   |
| Santa Margarita WD  | 577            | 324           | 553           | 843           | 345           | 456           | 1,258         | 790           | 664           | 260           | 179          | 143          | 101          | 29         | 0        | 6,522          | 3,001,01   |
| Seal Beach          | 74             | 66            | 312           | 609           | 47            | 155           | 132           | 81            | 134           | 729           | 29           | 10           | 6            | 12         | 0        | 2,396          | 1,073,80   |
| Serrano WD          | 81             | 56            | 68            | 41            | 19            | 52            | 95            | 73            | 123           | 98            | 20           | 15           | 14           | 2          | 0        | 757            | 338,66   |
| South Coast WD      | 110            | 176           | 177           | 114           | 182           | 133           | 358           | 191           | 469           | 88            | 72           | 32           | 22           | 0          | 2,305    | 990,05         |  |
| Trabuco Canyon WD   | 10             | 78            | 42            | 25            | 21            | 40            | 181           | 102           | 30            | 17            | 12           | 14           | 0            | 634        | 273,02   |                |  |
| Justin              | 968            | 668           | 557           | 824           | 429           | 1,292         | 1,508         | 1,206         | 1,096         | 827           | 69           | 89           | 26           | 12         | 0        | 9,571          | 4,423,38   |
| Westminster         | 747            | 493           | 969           | 1,056         | 2,336         | 2,291         | 2,304         | 1,523         | 2,492         | 1,118         | 145          | 105          | 70           | 24         | 0        | 15,683         | 7,064,28   |
| Yorba Linda WD      | 257            | 309           | 417           | 457           | 404           | 1,400         | 1,759         | 1,690         | 1,155         | 627           | 158          | 136          | 81           | 41         | 0        | 7,891          | 3,409,49   |
| <b>MWDOC Totals</b> | <b>24,256</b>  | <b>12,879</b> | <b>18,778</b> | <b>20,705</b> | <b>21,136</b> | <b>30,242</b> | <b>24,918</b> | <b>27,175</b> | <b>31,827</b> | <b>27,568</b> | <b>3,654</b> | <b>3,242</b> | <b>2,031</b> | <b>861</b> | <b>4</b> | <b>249,336</b> | <b>113,878,61</b>                                |

|                      |        |        |        |        |        |        |        |        |        |        |       |       |       |       |   |         |            |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|---|---------|------------|
| 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 | 162,561,30 |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|---|---------|------------|