

MEETING OF THE BOARD OF DIRECTORS OF THE  
MUNICIPAL WATER DISTRICT OF ORANGE COUNTY

Jointly with the  
**PLANNING & OPERATIONS COMMITTEE**

July 2, 2018, 8:30 a.m.  
MWDOC Conference Room 101

**P&O Committee:**

Director Osborne, Chair  
Director Tamaribuchi  
Director Yoo Schneider

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

Ex Officio Member: Director Barbre

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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>.

**BOARD ACTION ITEM** (The MWDOC Board will convene as a full Board and may take action as a Board on the following item):

1. SELECTION OF A FIRM TO PROVIDE LEGAL AND REGULATORY SERVICES

*Recommendation: Receive report from staff and authorize the General Manager to enter into a contract for Legal and Regulatory services.*

*(Reconvene as Planning & Operations Committee)*

**DISCUSSION ITEM**

2. STATUS OF THE ORANGE COUNTY WATER RELIABILITY STUDY 2018  
UPDATE

**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.)

3. WEROC TRANSLATION SERVICES FOR WATER QUALITY PUBLIC NOTIFICATIONS
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**

July 2, 2018

**TO:** Board of Directors

**FROM:** **Executive Committee**  
(Directors Barbre, Finnegan and Osborne)

Robert J. Hunter, General Manager

Staff Contact: Heather Baez

**SUBJECT: SELECTION OF A FIRM TO PROVIDE LEGAL AND REGULATORY SERVICES**

**STAFF RECOMMENDATION**

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Staff will provide an oral recommendation at the meeting as the resubmittal of the proposals were due after publication of the agenda. It is recommended that the Board receive report from staff and authorize the General Manager to enter into a contract for Legal and Regulatory services.

**COMMITTEE RECOMMENDATION**

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Per Board action on June 20, 2018, the Board of Directors convened during the Executive Committee meeting on June 21, 2018 and determined that both proposals received were not fully responsive to the Request for Proposals (RFP) to provide legal and regulatory services. At that meeting, the Board agreed to allow both respondents to correct their proposals and resubmit. The resubmitted proposals will be evaluated with a recommendation to be made at a Board convened meeting during the Planning and Operations Committee on July 2, 2018.

Both respondents were notified of the resubmittal date of no later than 5:00 p.m. on Wednesday, June 27, 2018.

**REPORT**

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In June 2015, the MWDOC Board approved updates to the Administrative Code. Pursuant to section 8000 of the Administrative Code, "It is MWDOC's policy that purchasing and contracting shall be conducted in a fair, open, and transparent manner so as to maximize

<b>Budgeted (Y/N): Y</b>	Budgeted amount: \$36,000	Core X	Choice __
<b>Action item amount: TBD</b>	Line item: 31-7040		
<b>Fiscal Impact (explain if unbudgeted):</b>			

benefits to MWDOC. All contracts should be reviewed and re-bid at least every five (5) years, except in situations with documented significant benefits to MWDOC.” The legal and regulatory services contract has not been re-bid within the past five years, therefore a competitive Request for Proposal (RFP) process was implemented.

The RFP was sent to eight firms and was posted to the MWDOC website on April 24, 2018 with a due date of May 24, 2018.

MWDOC received two proposals by the closing date of May 24, 2018:

- Ackerman Consulting
- Aleshire & Wynder LLP

At the June 20, 2018 Board of Directors meeting, the Board voted to delay the award of the contract and send the item to a Board of Directors meeting to be convened during the Executive Committee on June 21, 2018. At that meeting, the Board determined that both proposals received were not fully responsive to the RFP and that each respondent should be notified and allowed to resubmit their proposals.

Staff contacted each respondent on Friday, June 22, 2018 to notify them of the Board’s action. On Monday, June 25, a follow-up email was sent to each respondent notifying them that they will be allowed until the close of business on Wednesday, June 27, 2018 to resubmit their proposal to ensure it is compliant and meets all of the proposal elements.

Staff will review and score both proposals on Thursday, June 28, 2018 and will be prepared to make a recommendation to the Board of Directors on Monday, July 2, 2018.



**DISCUSSION ITEM**

July 2, 2018

**TO: Planning & Operations Committee**  
(Directors Osborne, Tamaribuchi, Yoo Schneider)

**FROM: Robert Hunter, General Manager**

Staff Contact: Karl Seckel

**SUBJECT: Status of the Orange County Water Reliability Study 2018 Update**

**STAFF RECOMMENDATION**

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

**COMMITTEE RECOMMENDATION**

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Committee recommends (To be determined at Committee Meeting)

**SUMMARY**

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Staff and CDM Smith are continuing work on the Orange County Water Reliability Study 2018 Update. MWDOC staff has most recently been working with MET staff to obtain the updated modeling of SWP supplies with the WaterFix in place assuming MET only participates in the yield from one of the tunnels (this assumes that the yield from the second tunnel goes to other entities). This information was recently provided to MWDOC and its consultant to allow the GAP reliability analyses to be completed (GAP meaning GAP in supplies assuming no new investments other than the WaterFix).

In addition, staff also worked with MET staff to obtain information on MET's updated rate forecasts assuming MET financially participates in funding the first and second tunnels. One of the sensitivity analyses to be considered is the repayment by other water agencies of MET's participation in the 2<sup>nd</sup> tunnel. MWDOC recently received this information from MET out to the year 2028 and then had to derive future rates out to 2050. This work has been completed and provided to our consultant.

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

MWDOC staff and our consultant worked out the Final Planning Scenarios to be tested as outlined on the following page. In addition to the supplies provided in the table, the following additional local supplies will be evaluated:

- Carson IPR
- Poseidon Huntington Beach
- Doheny Ocean Desalination
- San Juan Watershed Project
- Cadiz Water Bank
- Strand Ranch Water Bank
- SOC Interconnection Project expansion (pending completion of study with IRWD)
- Emergency Pump-in to the EOCF#2

Cost information on the above projects is coming in slowly. MWDOC will be using the most recently published information for the Poseidon Project at the Plant fence line as outlined in the June OCWD Board meeting and will provide an estimated cost of the integration costs for the project.

Our current schedule anticipates the following schedule for completing the OC Water Reliability Study:

- July – Host a workshop with our consultant, member agencies, and the Three Cities; receive initial reactions, input and responses from the agencies
- August – Brief MWDOC's P&O Committee on the various analyses including the initial responses from our agencies. Finish any remaining updates or analyses.
- September – Complete the study documentation and planned presentation to WACO

## Final OC Study 2018 Update Planning Scenarios<sup>7</sup>

Planning Scenario	Climate Impact	SAR Baseflows to OC Basin	BOR Colorado River Allocations to Lower Basin States	MET WaterFix 2nd Tunnel Cost Recovery	MET WaterFix Average Supply <sup>1</sup> (AFY)	New MET CRA Transfers <sup>2</sup> (AFY)	New MET SWP Transfers <sup>3</sup> (AFY)	New MET-Region Local Supply (AFY)	Total New MET-Region Supply (AFY)
1. Good Conditions	Slight <sup>4</sup>	Med	Draft DCP <sup>6</sup>	No	440,000	100,000	0	88,000	628,000
2. Stressed Conditions	Significant <sup>5</sup>	Med	Draft DCP <sup>6</sup>	No	440,000	180,000	150,000	162,000	932,000

Notes:

1. Estimated average from model runs with 1-tunnel solution (MET gets approximately 32% of 6,000 cfs project).

2. Baseloaded supply.

3. Dry year supply.

4. Some climate change impacts on SWP, imbedded in DWR's CALSIM runs.

5. Moderate impact to SWP supplies and significant impact to Colorado River supplies (CSIRO GCM)

6. California and MET take shortages as early as Lake Mead elevation level of 1,045 feet.

7. Remaining shortages under both Planning Scenarios will be tested for sensitivity by adding either/or MET Regional Recycled Water Program (Carson) and New MET surface reservoir (400,000 AFY capacity)



**INFORMATION ITEM**

July 2, 2018

**TO: Planning & Operations Committee**  
**(Directors Osborne, Tamaribuchi, Yoo Schneider)**

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

Staff Contact: Francisco Soto, WEROC Programs Coordinator

**SUBJECT: WEROC Translation Services for Water Quality Public Notifications**

**STAFF RECOMMENDATION**

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It is recommended that the Planning & Operations Committee receive and file the staff report.

**COMMITTEE RECOMMENDATION**

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(To be determined at the Committee Meeting)

**DETAILED REPORT**

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One of the lessons learned from the Unknown Contamination Training and Exercise program was the number of languages our member agencies would potentially be required to provide water quality notifications to meet the Division of Drinking Water's regulations for notification. The variety of languages and technical nature of the notices prompted staff to seek the necessary translations prior to an event. The Water Emergency Response Organization of Orange County (WEROC) is leading the effort to translate the notifications. In April of 2018, the Municipal Water District of Orange County distributed a Request for Proposals (RFP) to translate various water quality public notification templates which can be used by any member agency during emergency situations that might require notices to non-English speaking residents in Orange County. The documents are intended to be templates

<b>Budgeted (Y/N): Yes</b>	Budgeted amount: \$30,000	Core ✓	Choice __
<b>Action item amount: \$3,523</b>	Line item:		
Fiscal Impact (explain if unbudgeted):			



that member agencies can fill in with necessary information specific to the event or their agency. Translated languages will include: Korean, Chinese, Tagalog, Vietnamese, Persian, Arabic, Japanese, and Hindi. These languages were identified by applying the requirements for notification by the Division of Drinking Water and languages spoken in Orange County. Spanish translation services were not sought in this RFP because the Division of Drinking Water provided the translation of the documents at no charge. The notifications to be translated into the identified eight languages are attached. The language used for the notifications was approved by the Division of Drinking Water and our Member Agencies.

After evaluating each proposal, staff recommends that American Language Services be selected to assist WEROC in completing the translation of each document. The consultant demonstrated a strong proposal which detailed a methodology to accomplish the deliverables in the scope of work. Additionally, the consultant demonstrated an extensive history in successfully providing services to various other government organizations, including Orange County Water District. The cost of this service was much lower than expected and can be contracted under the General Manager's authority. No action is necessary by the P&O Committee.

**Attachment: Water Quality Public Notifications**

# Water Quality Public Notifications

## BOIL ORDER NOTICE

[STATE TEMPLATE REVISION: 12/08/14]

Date/Time:

## BOIL WATER NOTICE

### BOIL YOUR WATER BEFORE USING

**Failure to follow this advisory could result in stomach or intestinal illness.**

Due to the recent event [see key word translations in spreadsheet – select one], the State Water Resources Control Board, Division of Drinking Water in conjunction with the Orange County Health Care Agency, and [Water Utility name] are advising residents of [City, Town, Utility] to use boiled tap water or bottled water for drinking and cooking purposes as a safety precaution.

**DO NOT DRINK THE WATER WITHOUT BOILING IT FIRST.** Bring all water to a boil, **let it boil for one (1) minute**, and let it cool before using, or use bottled water. Boiled or bottled water should be used for drinking and food preparation **until further notice**. This is the preferred method to assure that the water is safe to drink.

If you cannot boil your water, one of the following can be done instead:

- An alternative method of disinfection for residents that are not able to boil their water is to use fresh, unscented, liquid household bleach. To do so, add 8 drops (or 1/8 teaspoon) of bleach per gallon of clear water or 16 drops (or 1/4 teaspoon) per gallon of cloudy water, mix thoroughly, and allow it to stand for 30 minutes before using. A chlorine-like taste and odor will result from this disinfection procedure and is an indication that adequate disinfection has taken place.
- Water disinfection tablets may also be used by following the manufacturer's instructions.

(Optional Add In)

Potable water is available at the following locations: [List locations]

Please bring a clean water container (add Water Container Language as needed).

We will inform you when tests show that water is safe to drink and you no longer need to boil your water. We anticipate resolving the problem within [estimated time frame] hours.

**For more information call:**

Water Utility contact: [Name, title, phone & address of responsible utility representative].

State Water Resources Control Board – Drinking Water Field Operations Branch- District Office at [(XXX) XXX-XXXX].

Orange County Health Care Agency: [(XXX) XXX-XXXX].

*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.*

# Water Quality Public Notifications

## CANCELLATION OF BOIL ORDER NOTICE

NAME OF UTILITY \_\_\_\_\_ DATE/TIME \_\_\_\_\_

### CANCELLATION OF BOIL WATER NOTICE

On (date) you were notified of the need to boil/disinfect all tap water used for drinking and cooking purposes.

The (Water Utility Name) in conjunction with the State Water Resources Control Board, and/or Orange County Health Care Agency, has determined that, through removal of the health hazard and comprehensive testing of the water, your water is safe to drink. **It is no longer necessary to boil your tap water or for you to consume bottled water.**

For more information you can call:

(Utility Name) contact: \_\_\_\_\_  
(Name, title and phone number of utility representative)

State Water Resources Control Board: \_\_\_\_\_

Orange County Health Care Agency: \_\_\_\_\_

# Water Quality Public Notifications

## DO NOT DRINK YOUR WATER

Date/Time:

### UNSAFE WATER ALERT

**[Utility Name] water is possibly contaminated  
with [insert either (name of substance) or (an unknown substance- translation)]**

## DO NOT DRINK YOUR WATER

**Failure to follow this advisory could result in illness.**

(Insert name of substance or translation of “An unknown substance”) has been identified in the drinking water supplied by the [Water Utility Name] due to a recent [see key word translations in spreadsheet- select one] at [see key word translations in spreadsheet- select one]. The State Water Resources Control Board, Orange County Health Care Agency, and [Water Utility name] are advising residents of [City, Town, Utility] to NOT USE THE TAP WATER FOR DRINKING AND COOKING UNTIL FURTHER NOTICE.

### What should I do?

- **DO NOT DRINK YOUR TAP WATER---USE ONLY BOTTLED WATER.** Bottled water should be used for all drinking (including baby formula and juice), brushing teeth, washing dishes, making ice and food preparation **until further notice.**
- **DO NOT TRY AND TREAT THE WATER YOURSELF.** Boiling, freezing, filtering, adding chlorine or other disinfectants, or letting water stand will not make the water safe.

(Optional Add In)

- Potable water is available at the following locations: [List locations]  
Please bring a clean water container (add Water Container Language as needed).

**We will inform you when tests show that the water is safe again. We expect to resolve the problem within [estimated time frame].**

### For more information call:

Water Utility contact: [Name, title, phone & address of responsible utility representative].  
State Water Resources Control Board at: [insert local district office, DE and phone number].  
Local County Health Department: [insert phone number of local health department].

This notice is being sent to you by [insert water Utility name]. California Public Water System ID # [XXXXXXX]. Date Distributed: [date/time].

*Please share this information with all other people who receive this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand.*

# Water Quality Public Notifications

## DO NOT USE YOUR WATER

Date:

### UNSAFE WATER ALERT

**[Utility Name] water is possibly contaminated  
with [insert either (name of substance) or (an unknown substance- translation)]**

## DO NOT USE YOUR WATER

**Failure to follow this advisory could result in illness.**

(Insert name of substance or translation of “An unknown substance”) has been identified in the drinking water supplied by the [Water Utility Name] due to a recent [see key word translations in spreadsheet- select one] at [see key word translations in spreadsheet- select one]. The State Water Resources Control Board, Orange County Health Care Agency, and [Water Utility name] are advising residents of [City, Town, Utility] to NOT USE THE TAP WATER FOR DRINKING, COOKING, HAND WASHING, OR BATHING UNTIL FURTHER NOTICE.

### What should I do?

- **DO NOT USE YOUR TAP WATER---USE ONLY BOTTLED WATER.** Bottled water should be used for all drinking (including baby formula and juice), brushing teeth, washing dishes, making ice, food preparation and bathing **until further notice.**
- **DO NOT TRY AND TREAT THE WATER YOURSELF.** Boiling, freezing, filtering, adding chlorine or other disinfectants, or letting water stand will not make the water safe.

(Optional Add In)

- Potable water is available at the following locations: [List locations]  
Please bring a clean water container (add Water Container Language as needed).

**We will inform you when tests show that the water is safe again. We expect to resolve the problem within [estimated time frame].**

### For more information call:

Water Utility contact: [Name, title, phone & address of responsible utility representative].  
State Water Resources Control Board at: [insert local district office, DE and phone number].  
Local County Health Department: [insert phone number of local health department].

This notice is being sent to you by [insert water Utility name]. California Public Water System ID # [XXXXXXX]. Date Distributed: [date].

*Please share this information with all other people who receive this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand.*

## SHORT NOTIFICATIONS/STATEMENTS

**Do NOT Translate Type of Notice Column, Headers or items in parenthesis.**

Type of Notice	Language
<b>Water Trailer with Spigot Distribution</b>	<p>Due to the impact of this disaster on our ability to deliver water through our distribution system, the (Agency Name) will be providing clean drinking water at the following locations on the noted dates and times:</p> <ul style="list-style-type: none"> <li>• (Location)</li> <li>• (Dates)</li> <li>• (Times)</li> </ul> <p>Residents who cannot get to a water distribution location or cannot carry a water container once full, should (fill in appropriate answer for your agency – a list of translation service providers has been provided)</p> <p>Residents should bring clean food grade containers with tight fitting screw-on caps to fill with water. For examples of containers that can be used and should NOT be used please visit (mobile friendly website or social media link). (Consider attaching info or including in body of email.)</p> <p>For more information, concerns, and updates to the Drinking Water Points of Distribution, you can find info here: (website, phone number, social media site, etc.)</p>
<b>Bottled Water and/or Commodity Distribution</b>	<p>Due to the impact of this disaster on Community Infrastructure, the (Agency Name) will be providing (which commodities) at the following locations on the noted dates and times:</p> <ul style="list-style-type: none"> <li>• Location</li> <li>• Dates</li> <li>• Times</li> </ul> <p>Residents will receive (describe what they will receive – 1 case of bottled water, 3 – 1 gallon jugs, etc.) Residents should be able to load and unload the goods themselves.</p> <p>Residents who cannot get to a water distribution location or cannot carry the water containers being distributed, should... (fill in appropriate answer for your agency.)</p>

	<p>For more information, concerns, and updates to the Bottled Water Points of Distribution, ... <i>website, phone number, social media site, etc.</i></p>
<b>Guidelines on Containers</b>	<p>Residents should bring clean food grade containers with tight fitting screw-on caps to fill with water. Examples of containers that can be used:</p> <ul style="list-style-type: none"> <li>• Containers from houseware or camping supply stores</li> <li>• Water vending machine containers</li> <li>• Empty beverage containers such as 2-liter soda bottles and other water, juice or punch containers</li> </ul> <p>Do not use:</p> <ul style="list-style-type: none"> <li>• Plastic jugs or cardboard containers that held milk. Milk protein cannot be adequately removed from these containers and provide an environment for bacterial growth when water is stored in them.</li> <li>• NEVER use a container that has held toxic substances, because tiny amounts may remain in the container's pores.</li> <li>• Containers not labeled for food or beverage storage could release harmful chemicals into the water.</li> <li>• Containers too large for resident to carry themselves once full (one gallon of water weighs about 8 pounds).</li> </ul>
<b>Additional Info for POD Sites: Safe to Drink</b>	<p>As long as the container provided is an appropriate container and has been sanitized as described below, the water is safe to drink without other additional actions. If you are unsure of your container's cleanliness, then please follow the guidelines for boiling your water. This process will only be helpful if the container is an appropriate container in the first place.</p>
<b>Additional Info for POD Sites: Residents Unsure of their Water Container's Cleanliness</b>	<p>If you are unsure of your container's cleanliness, then please follow the guidelines for boiling your water. This process will only be helpful if the container is an appropriate container in the first place. <b><u>Do not drink the water without boiling it first.</u></b> Bring all water to a rolling boil, <b>let it boil for one (1) minute</b>, and let it cool before using. Water from these containers should be boiled if it is being used for drinking (including baby formula and juice), brushing teeth, washing dishes, making ice and food preparation.</p>

<b>Additional Info for POD Sites: Super Chlorinated</b>	As a precaution, we have added extra chlorine to the water, you may detect a slight odor or taste. The water is safe to drink.
<b>Additional Info for POD Sites: Boil Order Notice</b>	<b><u>Do not drink the water without boiling it first.</u></b> Bring all water to a rolling boil, <b>let it boil for one (1) minute</b> , and let it cool before using, or use bottled water. Boiled or bottled water should be used for drinking (including baby formula and juice), brushing teeth, washing dishes, making ice and food preparation <b>until further notice</b> . A copy of the complete Boil Water Notice is available on our website or at (utility's public notice location).
<b>Boil – AlertOC Email Language</b>	This is an urgent message from (Utility Name) on (date) at (time). The (Utility Name) has issued a water emergency in the form of a Boil Water Notice for the following areas: (list specific areas impacted). <b><u>Do not drink the water without boiling it first.</u></b> Bring all water to a rolling boil, <b>let it boil for one (1) minute</b> , and let it cool before using, or use bottled water. Boiled or bottled water should be used for drinking (including baby formula and juice), brushing teeth, washing dishes, making ice and food preparation <b>until further notice</b> . A copy of the complete Boil Water Notice is available on our website or at (utility's public notice location). For more information and updates please call (Utility Name) at (phone #) or visit our website at (Insert Agency Website). This Boil Water Notice is in effect until further notice.
<b>Do Not Drink - AlertOC Email Language</b>	This is an urgent message from (Utility Name) on (date) at (time). The (Utility Name) has issued a water emergency in the form of a Do Not Drink Tap Water Notice for the following areas: (list specific areas impacted). <b><u>Do Not Drink your tap water. Use ONLY bottled water. Do NOT try and treat the water yourself.</u></b> Bottled water should be used for all drinking (including baby formula and juice), brushing teeth, washing dishes, making ice and food preparation <b>until further notice</b> . A copy of the complete Do Not Drink Tap Water Notice is available on our website or at (utility's public notice location). For more information and updates please call (Utility Name) at (phone #) or visit our website at (Insert Agency Website). This Do Not Drink Tap Water Notice is in effect until further notice.
<b>Do Not Use - AlertOC Email Language</b>	This is an urgent message from (Utility Name) on (date) at (time). The (Utility Name) has issued a water emergency in the form of a Do Not Use Tap Water Notice for the following areas: (list specific areas impacted). <b><u>Do Not Use your tap water. Use ONLY bottled water. Do NOT try and treat the water yourself.</u></b> Bottled water should be used for all drinking (including baby formula and juice), brushing teeth, washing dishes, making ice, food preparation, hand washing, and bathing <b>until further notice</b> . A copy of the complete Do Not Use Tap Water Notice is available on our website or at (utility's public notice location). For more information and updates please



	call (Utility Name) at (phone #) or visit our website at (Insert Agency Website). This Do Not Use Tap Water Notice is in effect until further notice.
<b>Lifted – Water Quality Notice</b> <b>*Includes Boil Water, Do Not Drink, &amp; Do Not Use</b>	This is a message from (Utility Name) on (date) at (time). The State Board Division of Drinking Water has informed the (Utility Name) that the (type of water notice) has been canceled for all customers within the following locations: (list specific areas*). All water restrictions have been lifted for these areas. The water is safe to drink and use. For more information please call (Utility Name) at (phone #) or visit our website at (Insert Agency Website). The (type of water notice) is no longer in effect.
<b>Lifted – Water Quality Notice, But Follow-Up Actions Needed</b> <b>*Includes Boil Water, Do Not Drink, &amp; Do Not Use</b>	This is a message from (Utility Name) on (date) at (time). The State Board Division of Drinking Water has informed the (Utility Name) that the (type of water notice) has been canceled for all customers within the following locations: (list specific areas*). All water restrictions have been lifted for these areas. The water is safe to drink and use, however Customers should follow some precautionary measures to ensure their water is safe. These actions can be found at (provide location where this information is) and will need to be translated for you. For more information please call (Utility Name) at (phone #) or visit our website at (Insert Agency Website). The (type of water notice) is no longer in effect.
<b>If a notice is still in effect for other areas of service, add the following at the end of your message</b>	The (water notice) is still in effect for the following areas: (areas still affected).
<b>Continuation of Notice</b>	A water quality notification is still in effect. Please continue to follow safety precautions until otherwise notified. A copy of the complete notice and precautions are available on our website or at (utility's public notice location). For more information and updates please call (Utility Name) at (phone #) or visit our website at (Insert Agency Website).
<b>Translated Info Drinking Water- 1</b>	This report contains important information about your drinking water. Translate it, or speak with someone who understands it.
<b>Translated Info Drinking Water- 2</b>	This report contains important information about your drinking water. A translated copy of this entire report is available at (Insert Website or Other Location).

<b>Translated Info Wastewater- 1</b>	This report contains important information about your wastewater. Translate it, or speak with someone who understands it.
<b>Translated Info Wastewater- 2</b>	This report contains important information about your wastewater. A translated copy of this entire report is available at (Insert Website or Other Location).
<b>Key words for Incidents</b>	break-in accident flood earthquake water outage power outage fire emergency situation
<b>Key Words for Locations of Incidents</b>	one of the wells our treatment plant storage tank one of our facilities

<b>ENGINEERING &amp; PLANNING</b>	
<b>Orange County Reliability Study</b>	<p>MWDOC staff has been working to obtain the updated modeling of SWP supplies with the WaterFix in place assuming MET only participates in the yield from one of the tunnels (this assumes that the yield from the second tunnel goes to other entities). In addition, staff has been working to prepare updated MET water rate forecasts for the same scenario. MWDOC was recently able to obtain the requested information from MET and is continuing with the collection of data on the cost of local projects. The information has been slow to arrive. Our current schedule anticipates the following schedule for completing the OC Water Reliability Study:</p> <p>July – Host a workshop with our consultant, member agencies, and the Three Cities; receive initial reactions, input and responses from the agencies</p> <p>August – Brief MWDOC’s P&amp;O Committee on the various analyses including the initial responses from our agencies. Finish any remaining updates or analyses.</p> <p>September – Complete the study documentation and planned presentation to WACO</p>
<b>South Orange County Emergency Service Program</b>	<p>A kick-off meeting was held on May 14, 2018 with consultant Dudek, IRWD staff, and MWDOC staff to study IRWD’s ability to convey groundwater via an interconnection with South Orange County water agencies under emergency supply conditions. Several additional meetings have been held to review hydraulics and model settings. A draft report on the findings is anticipated in September 2018.</p>
<b>Workshop with B&amp;V Engineers and Hazen &amp; Sawyer Consultants</b>	<p>MWDOC staff is working with Ed Means to host a workshop in the next few months on integrating potential local water supply projects into the OC water system such as Poseidon, Doheny or the groundwater pump-in project.</p> <p>The concern is that these local projects may be implemented by others, without fully accounting for the water quality considerations and other issues, could result in unintended consequences. MWDOC’s goal is to try to fully understand the associated issues prior to any of these projects going on-line. The intended outcome of the workshop is to develop scopes of work for follow-up.</p>
<b>Strand Ranch Project</b>	<p>The Ad Hoc Committees of MWDOC and IRWD met to discuss the potential for MWDOC to provide assistance in advancing the Strand Ranch Project to open it up to others in Orange County. The Committees directed their respective staff to continue working on the terms and conditions for such an effort. An update is expected soon and will be utilized in the evaluation of Projects for the OC Water Reliability Study.</p>

<p><b>Upcoming Issues with MET</b></p>	<p>MWDOC staff and MET senior staff held a follow-up meeting on June 18, 2018 to continue working on a number of items together, including:</p> <ul style="list-style-type: none"> <li>• Resolution of Service Connection CM-1 flow issues to Laguna Beach CWD.</li> </ul> <p>MET would like to leave the facility ‘as-is’, allowing water to become stagnant at the end of the pipeline between CM-8 and CM-1. Under current procedures MET needs about a week to drain, refill, and confirm bacteria tests before they can serve water through CM-1.</p> <ul style="list-style-type: none"> <li>• Conduct of a flow test at the EOCWD OC-70 to test the meter accuracy</li> </ul> <p>MWDOC shared meter comparison data between MET and East Orange County WD meters, which appear to show some discrepancies with the OC-70 meter. This data is not conclusive but points to a possible issue. MWDOC will work with EOCWD to determine next steps, including possibly installing a mag meter, calibrated at Utah State Lab, as a reference standard to compare the OC-70 meter against.</p> <ul style="list-style-type: none"> <li>• Access, water quality sampling, and the responsibility for an emergency generator at the OC-70 Service Connection</li> </ul> <p>MET continues to limit non-MET access to the facility as well as deny storage of any non-MET emergency generator on the property. MWDOC has once again requested MET to reconsider its position.</p> <ul style="list-style-type: none"> <li>• Use of East Orange County Feeder No. 2 for Conveyance of Groundwater or Poseidon Water</li> </ul> <p>MET has assigned a senior staff member (Mickey Chaudhuri) to lead this effort. MWDOC will facilitate meetings between MWDOC and MET’s legal counsels as necessary.</p> <ul style="list-style-type: none"> <li>• Replacement of Service Connection OC-13A to monitor low flows into Irvine Lake</li> </ul> <p>MET is working to replace an old metering system with an improved metering system. All costs will be paid by MET.</p> <ul style="list-style-type: none"> <li>• Ownership/maintenance responsibilities between SMWD and MET regarding the South County Pipeline</li> </ul> <p>MWDOC continues to work with MET to resolve the issue of MET ownership/responsibility in the South County Pipeline. MWDOC is also working to facilitate meetings between Santa Margarita WD and MET so MET can share their expertise in pipeline maintenance regardless of the ultimate determination of ownership.</p> <ul style="list-style-type: none"> <li>• Installation of NEW Mag Meters at Service Connection CM-12</li> </ul>
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	MWDOC staff is working with member agencies to fund the required \$52,000 deposit to move this effort forward.
<b>Poseidon Resources</b>	<p>On June 6, 2018 OCWD's Board considered approval of a new 2018 Term Sheet with Poseidon Resources. The consideration was delayed to July 18, 2018 to allow more time to review the new Term Sheet. The major proposed changes in the new 2018 Term Sheet include:</p> <ol style="list-style-type: none"> <li>1. The rate OCWD pays Poseidon Resources for water would no longer be indexed to the MWD water supply rate. OCWD would pay Poseidon's documented cost of service along with an agreed to return on equity. This approach is modeled after the San Diego County Water Authority and Poseidon Resources agreement for the Carlsbad Ocean Desalination Facility.</li> <li>2. The new Term Sheet calls for a 30 to 35-year contractual partnership with Poseidon rather than the 2015 Term Sheet 50 year partnership. The exact length of the contract would be negotiated with the final Water Purchase Contract. A longer contract duration allows for the project capital cost to be amortized over a longer time period resulting in a lower project unit cost; however, the total payments made to Poseidon are greater.</li> <li>3. OCWD would assume the risk for electricity rate increases. Under the 2015 Term Sheet, Poseidon was taking on this risk. This represents a philosophical change in how to deal with future electricity rate increases for the following reasons: <ol style="list-style-type: none"> <li>a. Allocating this risk onto Poseidon was not free. Poseidon would have had to charge OCWD a higher rate due to this cost exposure.</li> <li>b. With OCWD agreeing to pay the actual cost of electricity, OCWD should be able to negotiate a slightly lower overall rate for the water.</li> <li>c. If future electricity prices do increase excessively, it will impact the entire water industry and many water supply sources.</li> <li>d. Power cost have remained flat or even decreased in recent years. Under the 2015 Term Sheet, this scenario would have resulted in additional profit for Poseidon. This is consistent with the 2018 Term Sheet approach of paying for Poseidon's actual cost.</li> </ol> <p>Average Southern California Edison electricity cost is currently estimated at \$.086/kwh and is assumed to escalate at 2.5% annually for modeling purposes.</p> </li> <li>4. OCWD would retain the lead role in developing all aspects of the distribution plan. However, there is now an option to have Poseidon Resources take responsibility for financing and constructing facilities</li> </ol>

distributing potable water to OCWD, Producers and other retail water agencies.

With this option, Poseidon would coordinate the timing of constructing the treatment plant with constructing the distribution facilities to serve potable water to customers.

	2015 Term Sheet	2018 Term Sheet
<b>Treatment Plant</b>	Poseidon responsible to develop	Poseidon responsible to develop
<b>Distribution System</b>	OCWD responsible to develop	OCWD to oversee development of distribution system. Includes option to have Poseidon responsible to construct/finance distribution system that serves potable water to participating retail agencies. OCWD can purchase distribution system constructed by Poseidon in future.
<b>Contract Duration</b>	50 years	30 or 35 Years
<b>Price OCWD Pays for Water</b>	Initially negotiate a rate of up to 20% above MWD rate for first 1 years. Up to 15% above the MWD rate for the second ten year period, and so forth. Negotiate a minimum annually rate increase. Compare rate against Poseidon's actual cost in future years and adjust the rate if necessary.	Pay Poseidon's actual cost plus a negotiated return on equity
<b>SCE Electricity Rate Increases</b>	Poseidon responsibility	OCWD responsibility
<b>End of Contract</b>	Project becomes property of OCWD	Project becomes property of OCWD
<b>Water Quality</b>	Must meet all legal standards and be	Must meet all legal standards and be

		mutually agreeable to all parties	mutually agreeable to all parties
	Delivery of Water	OCWD initially responsible to take 56,000 acre-feet per year	OCWD initially responsible to take 56,000 acre-feet per year
	Updated Estimated Project Unit Cost		
	Item	Unit Cost (30 Year Option)	Unit Cost (35 Year Option)
	Estimated Year 2022 Treatment Plant Unit Cost	\$1,916/AF	\$1,854/AF
	Estimate (Placeholder) for Distribution System Cost	\$350/ AF	\$350/ AF
	MWD LRP subsidy	(\$475/AF)	(\$475/AF)
	Total Project Unit Cost	\$1,791/ AF	\$1,729/AF
Estimated 2022 MWD Rate (assuming 4.1% annual increase – includes \$80/AF for RTS & Capacity Charge)	\$1,255/AF	\$1,255/AF	
Difference	\$536/AF	\$481/AF	
Work is still proceeding by the Santa Ana Regional Water Quality Control Board (“RWQCB”) to consider the NPDES permit and Ocean Plan Amendment compliance for the Poseidon Project. It is anticipated that the Project will be considered sometime later this summer.			
SMWD Rubber Dams Project	The Draft Program Environmental Impact Report (PEIR) was circulated for a 65-day public review period, which ended February 23, 2017. The EIR was originally scheduled for adoption in March 2018. Due to the complexity of some of the issues associated with the steelhead trout, SMWD Board adoption of the EIR has been postponed until additional study work is completed.		
Doheny Ocean Desalination Project	On May 17, 2018 South Coast WD released the Doheny Ocean Desalination Project Draft Environmental Impact Report (EIR) for public comments.  A Draft EIR Public Meeting was held on June 26, 2018. Comments on the Draft EIR are due by July 23, 2018.  GHD developed a Scope of Work for a 3rd party legal firm to assist with Design-Build-Operate (DBO) contract development. A Request For Qualifications (RFQ) for 3rd party legal firms was released and proposals are due by the end of June 2018.		
Meetings			
	Karl Seckel and Charles Busslinger met with EOCWD staff on May 24, 2018 to discuss integration issues of a possible reconstruction of Peters Canyon water treatment facility.		

	MWDOC staff hosted a meeting on May 24, 2018 between Engie Services and South Coast WD staff to discuss alternative energy solutions for the Doheny Desalination Project.
	Charles Busslinger attended the monthly San Juan Basin Authority (SJBA) Board Meeting on June 12, 2018. The SJBA Board adopted the 2018 Adaptive Pumping Management Plan (APM) which now looks to operate the basin as two separate basin zones, each looking at a different trigger for its pumping strategy. The upper zone (Inland Management Zone) will look to groundwater-level elevations, while the lower (Stonehill Management Zone) will look to chloride concentration and Total Dissolved Solids (TDS) at the beach and near Stonehill Drive.
	Karl Seckel, Charles Busslinger, Rob Hunter and Directors Sat Tamaribuchi and Megan Yoo Schneider attended the Draft EIR Public Meeting for the Doheny Desalination Project on June 26, 2018
	Staff from MWDOC's engineering, planning, water use efficiency and WEROC met with ESRI to examine options for greater utilization of GIS systems in-house at MWDOC. Additional meetings will be required to fully outline the costs and benefits.
	Karl Seckel and Charles Busslinger met with Bob Ohlund with Dudek to discuss some aspects of the work for supplying emergency water to SOC.
	Karl Seckel and MWDOC Director Larry Dick participated in the North meets South meetings to provide the Mountain Counties Water Agencies briefings on water supply development and Water Use Efficiency Investments in Southern California. The purpose of the meetings are to look for opportunities to partner on issues of common concerns. The meetings and discussions went very well.
	Karl Seckel met with Sridhar Ganesan, P.E, Business Development Manager, Water Group, Flatiron Construction out of Benicia, CA. Sridhar has been following the progress on the Doheny Project for several years and is interested in bidding on the project once plans are released.
	Karl Seckel and Director Sat Tamaribuchi participated in the celebration of the 40-year career in water of Doctor Betty Olson, sponsored by the UCI Civil and Environmental Engineering Department. The event included a series of presentations from 1:30 to 5:00 with a reception following. Karl provided an overview of the 2016 OC Water Reliability Study and outlined the update being worked on at this time.



**Status of Ongoing WEROC Projects**  
**June 2018**

Description	Comments
<b>Coordination with WEROC Member Agencies</b>	<p><i>Ongoing: WEROC, with Michal Baker as the lead consultant, is facilitating 19 agencies through the process of updating the Orange County Water and Wastewater Multi-Jurisdictional Hazard Mitigation Plan. Update: Francisco Soto continues to work with agencies to complete their internal review of the first draft. Next steps include: required public outreach meetings (tentatively in August 2018); submitting a Final Draft to CalOES around July; once approved by CalOES, it will then be submitted to FEMA; and once approved by CalOES and FEMA, each participating agency will submit the plans to their elected boards for adoption. The process is expected to be completed by December 2018.</i></p> <p><i>WEROC Radio Replacement Update: Francisco Soto continues to work with member agencies, Motorola, and the Sheriff's Communications staff to implement the OC 800 MHz radio system for WEROC. Francisco has been contacting city agencies to determine the current status of their radios. Most cities have either re-banded their existing radios or have upgraded to new equipment which is ready to be programmed. The County has instructed WEROC to notify agencies to contact the Sheriff's Communication Division's customer service department to request the programming of the WEROC channel. The radios have been installed at MWDOC Administration Building in the WEROC Office, as well as at the South EOC. The South EOC is not operational at this time due to a misplaced antenna, but after several conversations with Motorola, they have agreed to provide a new antenna and complete the installation at their cost. Francisco is working with the County to schedule trainings on the new system.</i></p>
<b>Training and Programs</b>	<p>One of the lessons learned from the Unknown Contamination Training and Exercise program was the number of languages our member agencies would potentially be required to translate their water quality notifications into to meet the Division of Drinking Water guidelines for notification. WEROC decided to lead an effort to translate the notices in order to have consistent verbiage in all the required languages. The translations are intended to be templates that member agencies can easily fill in with necessary information specific to their agency and the specific incident. Translated languages include: Korean, Chinese, Tagalog, Vietnamese, Persian, Arabic, Japanese, and Hindi. These languages were identified as the 8 languages that could be required in addition to English and Spanish depending on the agency and area</p>

	<p>served. DDW has already provided the Spanish translation and so this was not included in the RFP. WEROC received 9 proposals to a Request for Proposals for translation services of multiple emergency response documents. Kelly Hubbard, Francisco and Damon Micalizzi met to review and rate the nine proposals. Staff agreed that American Language Services has the most comprehensive proposal, low cost and responsive staff to questions. The contract is \$3,523 and within the General Manager's authority to approve.</p>
<p><b>Coordination with the County of Orange</b></p>	<p>Kelly attended the June Orange County Emergency Management Organization (OCOMO) and OCOMO Exercise Design meetings that took place in Laguna Niguel. Sarah Limones from the City of Aliso Viejo and Jordan Villwock from the City of Laguna Beach presented an overview of the June 2, 2018 Aliso Fire. Vicki Osborn and Bruce Lyle from the Orange County Sheriff's Department presented on the Family Assistance Center Annex. This Annex is being created in conjunction with the Coroner, Social Services Agency, Health Care Agency, Orange County Fire Authority, OCSD, and OA Agencies.</p> <p><i>County and FEMA Recovery Exercise Update: WEROC staff is working with the County and FEMA on a Recovery Exercise on October 18, 2018 that involves responding to a 7.8 earthquake on the San Andreas Fault, the exercise scenario will begin 3 weeks after the earthquake and focus on recovery operations. The exercise is unique in that it is testing long term recovery concepts by focusing in on housing and infrastructure repair.</i></p> <ul style="list-style-type: none"> <li>• Kelly participated in the Mid-Term Exercise Planning Conference call and provided input on impacts to water utilities and WEROC's participation in the exercise.</li> <li>• WEROC staff met with MWDOC Engineering staff to estimate the damage to water infrastructure, response concerns, and where in the response and recovery timeline would OC water and wastewater utilities be at 48 hours and 3 weeks post event. This discussion will help to develop the overall exercise scenario and role play for WEROC staff at the exercise in October.</li> <li>• Francisco attended the Orange County Recovery Functional Exercise Scenario Working Group meeting at the OA to discuss the overall scenario and begin the creation of injects for each agency.</li> </ul> <p><i>Ongoing: WEROC staff participation in the OA Agreement Revision Working Group. Update: Kelly participated via conference call and provided input on the last comments received during the comment period. Kelly also met with OA EOC staff to discuss WEROC's direct</i></p>

	<p>representation to the OA Executive Board. The agreement will go to County Counsel next for review.</p> <p>Francisco attended the WebEOC/Communications meeting at the OA EOC. The meeting focused on the latest changes made to WebEOC and current/future modifications to the system.</p>
<b>EOC Readiness</b>	<p>Staff successfully participated in the MET MARS radio test and the OA Radio Test.</p> <p>Janine facilitated the repair of a phone lines at the North EOC, the addition of another line at the South EOC for the MWDOC Finance Department and cleanings of both facilities.</p>
<b>Coordination with Outside Agencies</b>	<p>Kelly attended the South Chapter of the California Emergency Services Association Board Meeting as past president.</p> <p>Kelly spoke to the Southern Chapter of the California Society of Municipal Finance Officers (CSMFO) on disaster preparedness from a finance perspective. The Chapter Programs Chair saw an article she published in the CSMFO Statewide Magazine and requested her to speak.</p>

## Status of Water Use Efficiency Projects

July 2018

Description	Lead Agency	Status % Complete	Scheduled Completion or Renewal Date	Comments
<b>Smart Timer Rebate Program</b>	MWDSC	Ongoing	Ongoing	<p>In May 2018, 249 residential and 16 commercial smart timers were installed in Orange County.</p> <p>For program water savings and implementation information, see MWDOC Water Use Efficiency Program Savings and Implementation Report.</p>
<b>Rotating Nozzles Rebate Program</b>	MWDSC	Ongoing	Ongoing	<p>In May 2018, no rotating nozzles were installed in Orange County.</p> <p>For program savings and implementation information, please see MWDOC Water Use Efficiency Program Savings and Implementation Report.</p>
<b>SoCal Water\$mart Residential Indoor Rebate Program</b>	MWDSC	Ongoing	Ongoing	<p>In May 2018, 446 high efficiency clothes washers and 44 premium high efficiency toilets were installed through this program.</p> <p>For program savings and implementation information, please see MWDOC Water Use Efficiency Program Savings and Implementation Report.</p>
<b>SoCal Water\$mart Commercial Rebate Program</b>	MWDSC	Ongoing	Ongoing	<p>In May 2018, 1,347 premium high efficiency toilets, 2,339 plumbing control valves, and 5 zero water urinals were installed through this program.</p> <p>For program savings and implementation information, please see MWDOC Water Use Efficiency Program Savings and Implementation Report.</p>

Description	Lead Agency	Status % Complete	Scheduled Completion or Renewal Date	Comments
<b>Industrial Process/ Water Savings Incentive Program (WSIP)</b>	MWDSC	50%	June 2020	<p>This program is designed for non-residential customers to improve their water efficiency through upgraded equipment or services that do not qualify for standard rebates. Incentives are based on the amount of water customers save and allows for customers to implement custom water-saving projects. This fiscal year, two projects have been completed, saving over 57 AFY.</p> <p>Total water savings to date for the entire program is 640 AFY and 2,828 AF cumulatively.</p>
<b>Turf Removal Program</b>	MWDOC	Ongoing	Ongoing	<p>In June 2018, 39 rebates were paid, representing \$94,899.14 in rebates paid this month in Orange County. To date, the Turf Removal Program has removed approximately 21.5 million square feet of turf.</p> <p>For program savings and implementation information, please see MWDOC Water Use Efficiency Program Savings and Implementation Report.</p>
<b>Spray to Drip Conversion Program</b>	MWDOC	Ongoing	Ongoing	<p>This is a rebate program designed to encourage residential and commercial sites to convert their existing conventional spray heads to low-volume, low-precipitation drip technology.</p> <p>To date, 228 residential sites and 58 commercial sites have completed spray to drip conversion projects.</p>
<b>Landscape Design Assistance Program (LDAP)</b>	MWDOC	100%	April 2018	<p>This is a pilot program designed to offer free front yard landscape design assistance to customers who are participating in MWDOC's Turf Removal Rebate Program.</p>

Description	Lead Agency	Status % Complete	Scheduled Completion or Renewal Date	Comments
<b>Landscape Design Assistance Program (LDAP) (cont.)</b>				To date, MWDOC has received and approved 105 questionnaires, and 98 site consultations have been performed. Of the 98 sites, 98 have received their custom designs and have been sent their Letters To Proceed to begin their projects. The final report and performance evaluation is being completed, with a due date of September 28 <sup>th</sup> .
<b>Recycled Water Retrofit Program</b>	MWDSC	50%	September 2018	This program provides incentives for commercial sites to convert dedicated irrigation meters to recycled water. To date, Metropolitan has provided a total of \$145,596.85 in funding to 21 sites irrigating over 60 acres of landscape, and MWDOC has paid a total of \$41,483.00 in grant funding to 15 of those sites. The total potable water savings achieved by these projects is over 149 AFY.

# Orange County

## Water Use Efficiency Programs Savings and Implementation Report

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

Program	Program Start Date	Retrofits Installed in	Month Indicated		Current Fiscal Year		Overall Program		
			Interventions	Water Savings	Interventions	Water Savings	Interventions	Annual Water Savings[4]	Cumulative Water Savings[4]
High Efficiency Clothes Washer Program	2001	May-18	446	1.28	3,413	63.20	116,325	4,013	26,986
Smart Timer Program - Irrigation Timers	2004	May-18	265	2.00	1,977	221.33	22,462	8,032	46,482
Rotating Nozzles Rebate Program	2007	May-18	0	0.00	902	3.61	563,720	2,761	18,323
Commercial Plumbing Fixture Rebate Program	2002	May-18	3,691	5.84	7,873	105.70	93,152	4,903	44,353
Industrial Process/Water Savings Incentive Program (WSIP)	2006	May-18	0	4.80	2	4.80	30	640	2,955
Turf Removal Program <sup>[3]</sup>	2010	June-18	58,169	0.68	689,477	49.82	21,595,078	3,024	10,282
High Efficiency Toilet (HET) Program	2005	May-18	44	0.16	431	16.96	60,078	2,221	16,730
Water Smart Landscape Program <sup>[1]</sup>	1997						12,677	10,621	72,668
Home Water Certification Program	2013						312	7,339	15,266
Synthetic Turf Rebate Program	2007						685,438	96	469
Ultra-Low-Flush-Toilet Programs <sup>[2]</sup>	1992						363,926	13,452	162,561
Home Water Surveys <sup>[2]</sup>	1995						11,867	160	1,708
Showerhead Replacements <sup>[2]</sup>	1991						270,604	1,667	19,083
Total Water Savings All Programs			15	465	704,075	23,795,669	51,597	422,615	

<sup>[1]</sup> Water Smart Landscape Program participation is based on the number of water meters receiving monthly Irrigation Performance Reports.

<sup>[2]</sup> Cumulative Water Savings Program To Date totals are from a previous Water Use Efficiency Program Effort.

<sup>[3]</sup> Turf Removal Interventions are listed as square feet.

<sup>[4]</sup> 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 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	Total	Current FY Water Savings Ac/Ft (Cumulative)	Cumulative Water Savings across all Fiscal Years	15 yr. Lifecycle Savings Ac/Ft
Brea	144	93	115	114	76	57	54	1,921	0.81	450.39	994
Buena Park	145	105	106	91	76	54	49	1,567	0.91	352.22	811
East Orange CWD RZ	10	10	8	8	8	3	1	193	0.01	48.58	100
El Toro WD	112	134	121	111	65	47	49	1,570	0.81	354.60	812
Fountain Valley	158	115	102	110	76	65	43	2,443	0.82	598.42	1,264
Garden Grove	236	190	162	165	251	127	75	3,638	1.39	846.40	1,882
Golden State WC	485	265	283	359	260	138	149	5,164	2.73	1,197.91	2,672
Huntington Beach	582	334	295	319	225	180	129	8,375	2.38	2,089.58	4,333
Invine Ranch WD	2,170	1,763	1,664	1,882	1,521	1,373	1,127	25,793	21.61	5,649.23	13,346
La Habra	128	82	114	87	66	53	44	1,371	0.90	308.09	709
La Palma	46	34	25	34	29	10	12	470	0.25	106.48	243
Laguna Beach CWD	57	38	37	39	32	19	19	951	0.37	229.14	492
Mesa Water	176	114	86	89	113	80	50	2,568	0.88	638.21	1,329
Moulton Niguel WD	679	442	421	790	688	575	491	10,412	8.77	2,260.88	5,387
Newport Beach	142	116	92	95	66	61	51	2,675	0.92	679.70	1,384
Orange	262	218	163	160	124	80	69	3,967	1.27	994.13	2,053
Orange Park Acres	-	-	-	-	-	-	-	12	0.00	3.76	6
San Juan Capistrano	110	76	73	92	63	33	30	1,489	0.58	351.53	770
San Clemente	206	140	94	141	75	70	78	2,698	1.52	637.15	1,396
Santa Margarita WD	679	553	662	792	466	367	263	9,779	4.84	2,201.87	5,060
Seal Beach	51	31	29	38	23	9	16	618	0.34	146.23	320
Serrano WD	20	13	10	26	8	11	8	365	0.12	90.61	189
South Coast WD	112	89	79	68	43	44	36	1,620	0.72	381.23	838
Trabuco Canyon WD	62	30	45	47	34	28	20	818	0.38	189.96	423
Tustin	97	78	59	80	66	44	44	1,656	0.78	402.89	857
Westminster	208	121	82	109	149	84	59	2,645	1.08	624.51	1,369
Yorba Linda	273	181	167	156	123	56	62	3,814	0.97	953.46	1,973
<b>MWDOC Totals</b>	<b>7,350</b>	<b>5,365</b>	<b>5,094</b>	<b>6,002</b>	<b>4,726</b>	<b>3,668</b>	<b>3,028</b>	<b>98,592</b>	<b>56.16</b>	<b>22,787.14</b>	<b>19,048</b>

Anaheim	477	331	285	295	266	213	171	10,853	3.21	2,607.82	5,616
Fullerton	270	200	186	211	165	107	94	3,789	1.69	811.06	1,961
Santa Ana	190	163	131	132	259	141	120	3,091	2.14	779.91	1,599
<b>Non-MWDOC Totals</b>	<b>937</b>	<b>694</b>	<b>602</b>	<b>638</b>	<b>690</b>	<b>461</b>	<b>385</b>	<b>17,733</b>	<b>7.04</b>	<b>4,198.79</b>	<b>3,426</b>

<b>Orange County Totals</b>	<b>8,287</b>	<b>6,059</b>	<b>5,696</b>	<b>6,640</b>	<b>5,416</b>	<b>4,129</b>	<b>3,413</b>	<b>116,325</b>	<b>63.20</b>	<b>26,985.93</b>	<b>22,473</b>
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# SMART TIMERS INSTALLED BY AGENCY

through MWDOC and Local Agency Conservation Programs

Agency	FY 11/12		FY 12/13		FY 13/14		FY 14/15		FY 15/16		FY 16/17		FY 17/18		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	8	0	9	8	4	0	43	6	20	4	31	4	30	0	161	80	521.72
Buena Park	4	19	3	0	0	0	4	10	7	4	10	7	13	3	44	44	147.67
East Orange CWD RZ	5	0	2	0	0	0	2	0	1	0	11	1	6	0	31	1	18.80
El Toro WD	26	2	7	2	11	0	8	9	9	17	33	8	21	4	136	359	2,476.50
Fountain Valley	8	2	3	2	4	0	7	10	13	1	33	12	22	12	113	52	178.65
Garden Grove	7	0	5	2	9	0	10	14	13	11	28	0	22	0	123	38	173.20
Golden State WC	13	3	9	49	9	25	39	12	35	16	56	37	72	6	297	198	812.43
Huntington Beach	15	4	18	33	20	35	19	2	42	12	88	94	44	30	316	298	1,061.60
Irvine Ranch WD	267	71	414	135	71	59	67	310	239	207	344	420	371	76	2,140	2,362	11,330.93
La Habra	3	0	4	7	2	0	4	7	3	1	12	7	6	0	42	44	203.18
La Palma	1	0	1	0	2	0	2	0	3	2	1	0	4	0	14	2	5.98
Laguna Beach CWD	109	2	76	2	71	0	86	0	86	1	27	0	9	0	506	20	235.04
Mesa Water	21	0	10	2	15	2	17	28	36	12	149	41	41	0	359	154	733.07
Moulton Niguel WD	179	31	51	74	40	45	46	95	163	100	236	129	250	33	1,164	834	3,577.28
Newport Beach	275	12	242	26	168	75	11	9	28	43	30	12	22	0	1,060	409	2,615.40
Orange	25	0	20	24	13	9	18	31	51	13	69	10	50	13	335	178	936.09
San Juan Capistrano	103	2	14	18	6	11	6	19	20	8	22	8	22	5	244	130	642.45
San Clemente	212	17	26	7	28	2	28	24	26	3	37	13	30	41	1,081	415	2,655.49
Santa Margarita WD	262	7	53	171	64	93	53	321	189	136	326	221	249	218	1,403	1,590	5,671.10
Santiago CWD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
Seal Beach	0	3	1	0	1	36	1	12	2	2,446	2	4	5	0	12	2,502	5,119.58
Serrano WD	3	0	1	0	0	0	4	0	11	2	4	0	6	0	44	2	13.96
South Coast WD	78	10	13	16	8	4	104	73	9	11	7	0	13	2	291	214	1,147.62
Trabuco Canyon WD	12	0	6	0	2	0	6	1	16	50	13	3	17	0	120	157	950.38
Tustin	11	0	8	4	9	1	18	14	33	8	33	23	23	1	166	81	339.47
Westminster	2	0	1	1	2	0	13	17	7	1	17	12	17	0	82	44	197.20
Yorba Linda	22	0	20	0	12	5	32	2	61	27	72	71	57	10	395	193	827.01
<b>MWDOC Totals</b>	<b>1,671</b>	<b>185</b>	<b>1,017</b>	<b>583</b>	<b>571</b>	<b>402</b>	<b>648</b>	<b>1,026</b>	<b>1,123</b>	<b>3,136</b>	<b>1,691</b>	<b>1,137</b>	<b>1,422</b>	<b>454</b>	<b>10,679</b>	<b>10,401</b>	<b>42,591.78</b>

Anaheim	23	60	19	10	9	26	7	52	30	34	87	10	47	0	291	457	2,606.44
Fullerton	22	51	9	29	8	0	40	26	32	12	53	7	43	0	242	199	933.90
Santa Ana	6	5	8	19	7	8	9	27	22	26	15	3	11	0	93	100	350.07
<b>Non-MWDOC Totals</b>	<b>51</b>	<b>116</b>	<b>36</b>	<b>58</b>	<b>24</b>	<b>34</b>	<b>56</b>	<b>105</b>	<b>84</b>	<b>72</b>	<b>155</b>	<b>20</b>	<b>101</b>	<b>0</b>	<b>626</b>	<b>756</b>	<b>3,890.41</b>
<b>Orange County Totals</b>	<b>1,722</b>	<b>301</b>	<b>1,053</b>	<b>641</b>	<b>595</b>	<b>436</b>	<b>704</b>	<b>1,131</b>	<b>1,207</b>	<b>3,208</b>	<b>1,846</b>	<b>1,157</b>	<b>1,523</b>	<b>454</b>	<b>11,305</b>	<b>11,157</b>	<b>46,482</b>

**ROTATING NOZZLES INSTALLED BY AGENCY  
through MWDOC and Local Agency Conservation Programs**

Agency	FY 13/14			FY 14/15			FY 15/16			FY 16/17			FY 17/18			Total Program			Cumulative Water Savings across all Fiscal Years
	Small		Large	Small		Large	Small		Large	Small		Large	Small		Large	Comm.	Comm.		
	Res	Comm.		Res	Comm.		Res	Comm.		Res	Comm.		Res	Comm.				Res	
Brea	84	0	0	157	45	0	74	2,484	0	0	0	0	0	0	0	572	2,749	0	49.46
Buena Park	53	0	0	248	0	0	45	98	0	0	0	0	0	0	0	509	173	2,535	813.11
East Orange	30	0	0	221	0	0	0	0	0	0	0	0	0	0	30	781	0	0	19.29
El Toro	56	3,288	0	1,741	28,714	0	730	4,457	0	55	242	0	36	0	0	3,405	46,222	890	1,191.68
Fountain Valley	0	0	0	107	0	0	222	0	0	0	0	0	35	0	0	745	0	0	17.35
Garden Grove	80	0	0	88	50	0	110	0	0	55	98	0	0	0	0	933	299	0	32.52
Golden State	192	0	0	583	1,741	0	1,088	0	0	207	6,008	0	161	-495	0	3,609	10,821	0	240.44
Huntington Beach	120	0	0	798	1,419	0	1,345	2,836	0	149	3,362	0	-37	0	0	3,760	12,526	2,681	1,310.80
Irvine Ranch	11,010	4,257	0	1,421	632	0	1,989	5,047	0	335	9,511	0	286	-215	0	47,423	94,346	2,004	4,744.76
La Habra	15	0	0	109	338	0	300	0	0	0	0	0	0	0	0	481	1,236	900	365.97
La Palma	0	0	0	0	0	0	46	505	0	0	2,385	0	0	0	0	56	2,890	0	26.08
Laguna Beach	2,948	878	0	2,879	1,971	0	1,390	0	0	0	0	0	0	0	0	12,139	2,896	0	301.19
Mesa Water	361	0	0	229	0	0	166	0	0	113	0	0	36	0	0	2,066	385	343	195.29
Moulton Niguel	361	227	0	1,596	4,587	0	5,492	1,441	0	153	5,872	0	511	0	0	12,385	20,515	2,945	1,690.45
Newport Beach	19,349	6,835	0	460	3,857	0	348	670	0	0	0	0	45	0	0	46,723	21,413	0	1,584.28
Orange	245	120	0	304	668	0	631	91	0	0	0	0	0	0	0	3,170	1,072	0	109.25
San Juan Capistrano	370	0	0	495	737	0	310	593	0	75	123	0	59	0	0	5,554	8,852	0	445.73
San Clemente	415	5,074	0	326	0	0	426	0	0	0	0	0	146	0	0	10,135	7,538	1,343	800.17
Santa Margarita	389	0	0	1,207	1,513	0	1,820	837	0	15	0	0	224	0	0	16,389	6,921	611	824.85
Seal Beach	0	0	0	40	5,261	0	0	2,300	0	0	0	0	0	0	0	155	7,852	0	127.44
Serrano	105	0	0	377	0	0	695	0	0	0	0	0	0	0	0	3,405	0	0	93.29
South Coast	70	0	0	4,993	13,717	0	1,421	2,889	0	16	0	0	0	0	0	8,130	18,870	0	472.75
Trabuco Canyon	0	0	0	56	0	0	130	0	0	0	4,339	0	0	0	0	2,086	5,130	0	131.59
Tustin	329	0	0	408	0	0	317	386	0	65	-341	0	30	0	0	3,401	1,058	0	120.83
Westminster	0	0	0	54	0	0	73	0	0	105	0	0	50	0	0	514	0	0	11.18
Yorba Linda	40	990	0	921	0	0	1,715	0	0	213	0	0	0	0	0	6,081	4,359	500	460.06
MWDOC Totals	36,622	21,669	0	19,818	65,250	0	20,883	24,634	0	1,556	31,599	0	1,612	-710	0	194,607	278,123	14,752	16,179.80
Alhambra	338	0	0	498	712	0	794	5,221	0	147	3,953	0	0	0	0	4,020	49,799	105	1,350.45
Florton	107	0	0	684	1,196	0	521	7,015	0	65	3,034	0	0	0	0	2,910	11,309	1,484	668.74
Santa Ana	86	2,533	0	310	0	0	0	1,420	0	0	1,106	0	0	0	0	859	5,752	0	124.46
Non-MWDOC Totals	531	2,533	0	1,492	1,908	0	1,315	13,656	0	212	8,093	0	0	0	0	7,789	66,860	1,589	2,143.65
Orange County Totals	37,153	24,202	0	21,310	67,158	0	22,198	38,290	0	1,768	39,692	0	1,612	-710	0	202,396	344,983	16,341	18,323.45

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

Agency	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	Totals	Cumulative Water Savings across all Fiscal Years
Brea	1	234	0	10	91	734	242	1,607	503
Buena Park	290	5	23	56	591	133	49	2,538	1,219
East Orange CWD RZ	0	0	0	0	0	0	0	0	0
El Toro WD	137	0	212	6	268	35	737	1,799	666
Fountain Valley	314	0	0	1	249	0	895	1,767	671
Garden Grove	0	4	1	167	676	410	0	2,451	1,644
Golden State WC	135	0	1	0	1,008	53	93	2,958	2,087
Huntington Beach	156	104	144	7	783	641	10	2,964	1,753
Irvine Ranch WD	646	1,090	451	725	11,100	5,958	1,599	29,465	8,559
La Habra	0	0	0	0	340	42	0	925	605
La Palma	0	0	0	0	0	509	0	675	131
Laguna Beach CWD	0	0	27	0	0	0	0	446	342
Mesa Water	41	6	0	79	661	782	0	4,254	2,307
Moulton Niguel WD	0	0	0	3	413	281	506	1,783	926
Newport Beach	35	0	0	566	0	0	0	1,834	1,414
Orange	73	1	271	81	275	2,851	458	5,488	2,042
San Juan Capistrano	0	0	14	0	0	0	0	260	427
San Clemente	19	0	0	1	0	0	0	432	412
Santa Margarita WD	0	0	0	2	90	743	598	1,548	301
Santiago CWD	0	0	0	0	0	0	0	0	0
Seal Beach	0	0	0	0	0	184	0	538	471
Serrano WD	0	0	0	0	0	0	0	0	0
South Coast WD	84	148	0	382	0	0	0	1,320	577
Trabuco Canyon WD	0	0	0	0	0	0	0	11	16
Tustin	0	0	0	75	358	212	2	1,404	913
Westminster	35	1	28	0	146	177	25	1,163	1,094
Yorba Linda	0	1	0	0	226	84	250	845	620
<b>MWDOC Totals</b>	<b>1,966</b>	<b>1,594</b>	<b>1,172</b>	<b>2,161</b>	<b>17,275</b>	<b>13,829</b>	<b>5,464</b>	<b>68,475</b>	<b>29,704</b>
Anaheim	48	165	342	463	3,072	309	1,553	15,306	7,676
Fullerton	0	94	0	178	476	621	274	3,052	1,821
Santa Ana	12	16	17	5	1,293	238	582	6,319	5,153
<b>Non-MWDOC Totals</b>	<b>60</b>	<b>275</b>	<b>359</b>	<b>646</b>	<b>4,841</b>	<b>1,168</b>	<b>2,409</b>	<b>24,677</b>	<b>14,650</b>
<b>Orange County Totals</b>	<b>2,026</b>	<b>1,869</b>	<b>1,531</b>	<b>2,807</b>	<b>22,116</b>	<b>14,997</b>	<b>7,873</b>	<b>93,152</b>	<b>44,353</b>

[1] Retrofit devices include ULF Toilets and Urinals, High Efficiency Toilets and Urinals, Multi-Family and Multi-Family 4-Liter HETs, Zero Water Urinals, High Efficiency Clothes Washers, Cooling Tower Conductivity Controllers, Ph Cooling Tower Conductivity Controllers, Flush Valve Retrofit Kits, Pre-rinse Spray heads, Hospital X-Ray Processor Recirculating Systems, Steam Sterilizers, Food Steamers, Water Pressurized Brooms, Laminar Flow Restrictors, and Ice Making Machines.

# INDUSTRIAL PROCESS/WATER SAVINGS INCENTIVE PROGRAM

Number of Projects by Agency

Agency	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	Overall Program Interventions	Annual Water Savings[1]
Brea	0	0	0	0	0	0	0	0	0
Buena Park	0	0	0	0	1	0	0	2	54
East Orange	0	0	0	0	0	0	0	0	0
El Toro	0	0	0	0	0	0	0	0	0
Fountain Valley	0	0	0	0	0	1	0	1	23
Garden Grove	0	0	0	0	1	0	0	1	0
Golden State	0	0	0	0	0	0	0	1	3
Huntington Beach	0	2	0	1	2	0	1	6	180
Irvine Ranch	1	1	1	0	2	1	0	9	115
La Habra	0	0	0	0	1	0	0	1	0
La Palma	0	0	0	0	0	0	0	0	0
Laguna Beach	0	0	0	0	0	0	0	0	0
Mesa Water	0	0	0	0	0	0	0	0	0
Moulton Niguel	0	0	0	0	0	0	0	0	0
Newport Beach	0	0	0	1	0	0	0	1	21
Orange	0	0	0	0	1	2	1	5	97
San Juan Capistrano	0	0	0	0	0	0	0	0	0
San Clemente	0	0	0	0	0	0	0	0	0
Santa Margarita	0	0	0	0	0	0	0	0	0
Seal Beach	0	0	0	0	0	0	0	0	0
Serrano	0	0	0	0	0	0	0	0	0
South Coast	0	0	0	0	1	1	0	2	134
Trabuco Canyon	0	0	0	0	0	0	0	0	0
Tustin	0	0	0	0	0	0	0	0	0
Westminster	0	0	0	0	0	0	0	0	0
Yorba Linda	0	0	0	0	0	0	0	0	0
<b>MWDOC Totals</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>9</b>	<b>5</b>	<b>2</b>	<b>29</b>	<b>628</b>
Anaheim	0	0	0	0	0	0	0	0	0
Fullerton	0	0	0	0	0	0	0	0	0
Santa Ana	0	0	0	0	1	0	0	1	11
<b>OC Totals</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>10</b>	<b>5</b>	<b>2</b>	<b>30</b>	<b>640</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 13/14		FY 14/15		FY 15/16		FY 16/17		FY 17/18		Total Program		Cumulative Water Savings across all Fiscal Years
	Res	Comm.	Res	Comm.	Res	Comm.	Res	Comm.	Res	Comm.	Res	Comm.	
Brea	5,997	0	71,981	30,617	118,930	404,411	8,354	479	9,853	27,234	225,817	472,207	307.90
Buena Park	0	0	11,670	1,626	77,127	16,490	3,741	0	4,586	0	97,124	18,116	48.45
East Orange	1,964	0	18,312	0	27,844	0	0	0	0	0	48,120	0	23.32
El Toro	4,582	0	27,046	221,612	63,546	162,548	13,139	48,019	7,273	42,510	124,989	547,407	331.14
Fountain Valley	4,252	0	45,583	5,279	65,232	0	3,679	0	8,631	0	129,359	12,803	69.26
Garden Grove	8,274	0	67,701	22,000	177,408	49,226	11,504	0	4,487	0	287,921	117,403	224.31
Golden State	32,725	8,424	164,507	190,738	310,264	112,937	0	0	0	0	581,902	346,272	506.98
Huntington Beach	20,642	0	165,600	58,942	305,420	270,303	9,560	21,534	14,236	6,032	553,108	421,737	491.65
Invine Ranch	36,584	76,400	234,905	317,999	782,844	2,675,629	231,483	46,725	86,893	61,037	1,417,466	3,224,634	2,023.02
La Habra	0	0	14,014	1,818	49,691	72,164	0	0	3,003	0	66,708	90,019	77.27
La Palma	0	0	4,884	0	10,257	59,760	0	0	0	0	15,141	59,760	32.14
Laguna Beach	4,586	226	13,647	46,850	47,614	0	3,059	0	589	0	75,670	48,788	65.44
Mesa Water	22,246	0	131,675	33,620	220,815	106,896	4,173	77,033	17,373	77,785	413,726	295,334	297.43
Moulton Niguel	14,739	40,741	314,250	1,612,845	889,748	1,059,279	220,749	0	98,271	0	1,554,734	2,840,054	2,142.40
Newport Beach	894	0	33,995	65,277	76,675	375,404	2,924	0	5,938	6,499	127,428	449,526	256.98
Orange	11,244	0	120,093	281,402	289,990	106,487	12,847	2,366	11,956	0	475,052	398,978	438.59
San Clemente	18,471	13,908	90,349	1,137	215,249	438,963	4,267	0	33,083	7,098	398,983	474,271	401.10
San Juan Capistrano	12,106	0	101,195	32,366	197,290	143,315	2,624	40,748	0	0	365,415	347,277	409.91
Santa Margarita	17,778	48,180	211,198	514,198	534,048	550,420	17,010	28,094	62,706	25,000	859,338	1,194,453	975.37
Santiago	0	0	0	0	0	0	0	0	0	0	0	0	-
Seal Beach	0	0	15,178	504	17,349	15,911	1,234	0	752	0	38,124	16,415	26.23
Serrano	2,971	0	41,247	0	127,877	4,403	5,450	0	555	0	178,100	4,403	82.34
South Coast	15,162	116,719	84,282	191,853	181,102	128,290	14,967	0	13,319	7,806	325,067	465,387	420.60
Trabuco Canyon	2,651	0	14,771	0	42,510	88,272	1,465	0	4,788	0	67,999	110,712	86.55
Tustin	1,410	0	71,285	14,137	232,697	33,362	11,173	0	16,926	0	343,471	47,499	174.45
Westminster	0	0	14,040	34,631	71,833	23,902	11,112	0	10,033	0	107,018	58,533	71.98
Yorba Linda	0	0	112,136	12,702	360,279	116,985	19,420	0	9,529	3,696	512,713	133,383	290.35
<b>MWDOC Totals</b>	<b>238,978</b>	<b>304,598</b>	<b>2,195,544</b>	<b>3,692,153</b>	<b>5,493,639</b>	<b>7,015,357</b>	<b>613,934</b>	<b>264,998</b>	<b>424,780</b>	<b>264,697</b>	<b>9,390,493</b>	<b>12,195,371</b>	<b>10,275.17</b>

Anaheim	0	0	0	0	0	0	0	0	0	0	0	0	-
Fullerton	0	9,214	0	0	0	0	0	0	0	0	0	9,214	6.45
San Ana	0	0	0	0	0	0	0	0	0	0	0	0	-
<b>Non-MWDOC Totals</b>	<b>0</b>	<b>9,214</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>9,214</b>	<b>6.45</b>

<b>Orange County Totals</b>	<b>238,978</b>	<b>313,812</b>	<b>2,195,544</b>	<b>3,692,153</b>	<b>5,493,639</b>	<b>7,015,357</b>	<b>613,934</b>	<b>264,998</b>	<b>424,780</b>	<b>264,697</b>	<b>9,390,493</b>	<b>12,204,585</b>	<b>10,282</b>
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<sup>(1)</sup> Installed device numbers are listed as square feet

# **HIGH EFFICIENCY TOILETS (HETs) INSTALLED BY AGENCY**

through MWDOC and Local Agency Conservation Programs

Agency	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	Total	Cumulative Water Savings across all Fiscal Years
Brea	0	0	38	146	154	4	6	456	97.16
Buena Park	0	0	96	153	112	13	3	687	186.15
East Orange CWD RZ	0	0	13	26	24	0	0	86	20.43
El Toro WD	0	133	218	869	264	12	5	2,042	524.67
Fountain Valley	0	0	41	132	220	7	9	832	243.69
Garden Grove	0	0	63	350	363	7	4	1,488	411.72
Golden State WC	80	2	142	794	512	9	11	2,801	758.74
Huntington Beach	0	0	163	1,190	628	4	3	2,904	698.52
Irvine Ranch WD	0	1,449	810	1,777	2,798	638	230	17,139	5,303.33
Laguna Beach CWD	0	0	45	112	81	1	4	392	101.59
La Habra	0	0	37	94	83	5	1	591	190.75
La Palma	0	0	21	59	52	4	2	224	56.56
Mesa Water	0	0	147	162	162	7	3	1,621	581.23
Moulton Niguel WD	0	0	400	2,497	1,939	49	38	5,728	1,101.98
Newport Beach	0	0	49	168	243	11	5	730	177.34
Orange	0	1	142	978	416	17	6	2,185	515.73
San Juan Capistrano	0	0	35	140	202	3	5	528	117.17
San Clemente	0	0	72	225	246	11	6	878	218.75
Santa Margarita WD	0	0	528	997	1,152	114	32	3,341	652.90
Seal Beach	0	2	17	50	69	-1	0	857	385.24
Serrano WD	0	0	2	40	55	3	0	121	23.54
South Coast WD	23	64	102	398	235	11	7	1,028	223.09
Trabuco Canyon WD	0	0	10	108	169	2	3	342	62.99
Tustin	0	0	64	132	201	12	10	1,516	525.69
Westminster	0	0	35	161	359	3	4	1,335	403.72
Yorba Linda WD	0	0	40	280	379	12	6	1,257	335.28
<b>MWDOC Totals</b>	<b>103</b>	<b>1,651</b>	<b>3,330</b>	<b>12,038</b>	<b>11,118</b>	<b>958</b>	<b>403</b>	<b>51,109</b>	<b>13,917.96</b>

Anaheim	0	0	156	1,188	614	70	19	5,884	1,941.76
Fullerton	0	0	61	293	286	14	9	1,064	268.25
Santa Ana	0	0	33	602	293	20	0	2,021	601.53
<b>Non-MWDOC Totals</b>	<b>0</b>	<b>0</b>	<b>250</b>	<b>2,083</b>	<b>1,193</b>	<b>104</b>	<b>28</b>	<b>8,969</b>	<b>2,811.54</b>

<b>Orange County Totals</b>	<b>103</b>	<b>1,651</b>	<b>3,580</b>	<b>14,121</b>	<b>12,311</b>	<b>1,062</b>	<b>431</b>	<b>60,078</b>	<b>16,729.50</b>
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