MEETING OF THE
BOARD OF DIRECTORS OF THE
MUNICIPAL WATER DISTRICT OF ORANGE COUNTY
Jointly with the
PLANNING & OPERATIONS COMMITTEE
April 6, 2015, 8:30 a.m.
MWDOC Conference Room 101

P&O Committee:
Director Osborne, Chair
Director Barbre
Director Hinman

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

Ex Officio Member: L. Dick

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

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

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

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

BOARD ACTION ITEM

(The MWDOC Board will convene as a full Board and may take action as a Board on the following item)

1. SB 355 (LARA) – SAN GABRIEL AND LOWER LOS ANGELES RIVERS AND MOUNTAINS CONSERVANCY

   Recommendation: Staff recommends the Board of Directors vote to oppose SB 355 (Lara) unless amended and send a letter to the author and the Senate Natural Resources and Water Committee indicating our opposition.

Adjourn full Board; reconvene as Committee

ACTION ITEMS

2. DECLARE A REGIONAL WATER SHORTAGE IN THE MWDOC SERVICE AREA AND ADOPT A RESOLUTION IMPLEMENTING MWDOC'S WATER SUPPLY ALLOCATION PLAN

DISCUSSION ITEMS

3. TURF REBATE PROGRAM PROCESS AND QUALITY CONTROL EVALUATION

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.)

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.

MUNICIPAL WATER DISTRICT OF ORANGE COUNTY

BOARD ACTION ITEM
April 6, 2015

TO: Board of Directors

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

Robert Hunter
General Manager

Staff Contact: Heather Baez

SUBJECT: **SB 355 (Lara) – San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy**

STAFF RECOMMENDATION

Staff recommends the Board of Directors vote to oppose SB 355 (Lara) unless amended and send a letter to the author and the Senate Natural Resources and Water Committee indicating our opposition.

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

SUMMARY

Senate Bill 355 (Lara-D, Bell Gardens) would change the membership of the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy (RMC) Board by changing the selection criteria for one of the existing voting members and adding two non-voting members. Portions of the Orange County tributary to the Los Angeles Watershed account for approximately 20% of the watershed area, yet this legislation proposes to reduce Orange County's representation on the Board from roughly 15% to less than 10%.

Specifically, this bill would: increase the *non-voting* number of members from 7 to 9, and retain the existing number of 13 *voting* members. The two additional non-voting members would be a member of the Senate and a member of the Assembly, appointed by the Senate Committee on Rules and the Speaker, respectively. It would remove one of the two voting

Budgeted (Y/N): n/a	Budgeted amount:	Core x	Choice __
Fiscal Impact (explain if unbudgeted):			

members selected from the Orange County Division of the League of California Cities (the one selected by a majority of the membership of the city selection committee of Orange County) and replace him/her with a resident of a city bordering the Lower Los Angeles River appointed by the Senate Committee on Rules.

ARGUMENTS IN SUPPORT

According to the author's office:
"The recently approved state water bond provides millions of dollars in funding opportunities for the revitalization of the Lower Los Angeles River watershed, including parks and open space along the river. Many of those funds, including a $30m direct allocation for watershed improvements, and a share of $100m for urban creek restoration, will be allocated through the RMC. Opportunities for improvements to the Lower LA River directly impact the communities that border the river. It is vital that the conservancy board include representation from the cities that border the river, to provide a local perspective on plans and developments."

"Adding state elected officials as non-voting board members in an advisory capacity has proven successful at other state conservancies. The Sacramento-San Joaquin Delta Conservancy includes two non-voting members - a Senator and an Assembly Member representing districts that include a portion of the Delta. The Santa Monica Mountains Conservancy includes three Senators and three Assembly Members, appointed by the Senate Rules Committee and the Speaker of the Assembly."

The author makes no mention of how removing a voting member from Orange County is a benefit to the RMC or why this is needed/necessary.

ARGUMENTS IN OPPOSITION

There is no benefit to eliminating an Orange County representative of the RMC, and replacing them with a resident of a city bordering the Lower Los Angeles River, other than a blatant power grab of this conservancy board by those looking to steer Proposition 1 bond funds toward Los Angeles and other specified projects in that region.

There are $30 million in Prop 1 funds for watershed improvement allocated to the RMC, presumably for the benefit of the *entire* conservancy and both the LA River and San Gabriel River watersheds. A portion of $100 million for creek restoration has also been allocated to the conservancy to split with the Santa Monica Mountains Conservancy. By removing a voting member from Orange County, the author and the conservancy intend to ensure that ALL of the available funds go to the Los Angeles region which surely was not the intent of the ballot measure. Prop 1 was crafted specifically without earmarks and conservancy funds were allocated in a fair manner. This legislation attempts to alter the bi-partisan efforts that were made when negotiating the elements of Prop 1 after the fact.

Further reducing Orange County's relevance on the RMC, the author has also increased the non-voting membership of the board, by installing one member of the Senate, appointed by the Senate Rules Committee, and one member of the Assembly, appointed by the Speaker of the Assembly. While these are non-voting memberships, the only explanation of the

intent of this bill is to make sure that all future bond funds flow to the Los Angeles portion of the RMC's territory, and not Orange County.

If the RMC feels that they need more representation from the Lower Los Angeles River cities, it should not be at the expense of Orange County. Adding an additional member to the RMC would not affect Orange County's relevance on the Board nearly as much as removing a member. For this reason, staff recommends an oppose unless amended position – requesting the author delete the section that would remove one of the voting members selected from the Orange County Division of the League of California Cities.

DETAILED REPORT

The (current) composition of the board of the RMC is specified by California Public Resources Code, Section 32605. The following list contains pertinent portions of the appointment criteria from Section 32605, the board members, and their designees. Board members who are unable to attend a meeting can designate substitutes (designees) who may attend and vote in their place.

The board shall consist of 13 voting members and seven nonvoting members, as follows:

a) The 13 voting members of the board shall consist of all of the following:

One member of the Board of Supervisors of the County of Los Angeles
Hilda Solis
Designee: Teresa Villegas

Two members of the board of directors of the San Gabriel Valley Council of Governments
Margaret Clark
Denis Bertone

Two members of the board of directors of the Gateway Cities Council of Governments
Patrick O'Donnell
Edward Wilson

Two members of the Orange County Division of the League of California Cities
Troy Edgar
Vacant

One member shall be a representative of the San Gabriel Valley Water Association
Claudine Meeker

One member shall be a representative of the Central Basin Water Association
Daniel Arrighi, Elected Vice-Chair

One member shall be a resident of Los Angeles County appointed by the governor from a list of potential members submitted by local, state, and national environmental organizations....
Frank Colonna, Elected Chair

The Secretary of the Resources Agency
John Laird
Designee: Bryan Cash

The Secretary for Environmental Protection
Matthew Rodriguez
Designee: Jonathan Bishop

The Director of Finance
Michael Cohen
Designee: Eraina Ortega
Designee: Karen Finn

(b) The seven ex officio, nonvoting members shall consist of the following officers or an employee of each agency designated annually by that officer to represent the office or agency:

The District Engineer of the United States Army Corps of Engineers.
Colonel Kimberly M. Colloton, District Engineer, Los Angeles Region
Designee: Daniel Sulzer, Assistant Chief
Designee: Alexander Watt

The Regional Forester for the Pacific Southwest Region of the United States Forest Service
Randy Moore, Regional Forester for the Pacific Southwest Region
Designee: Tom Contreras, Forest Supervisor

The Director of the Los Angeles County Department of Public Works
Gail Farber, Director
Designee: Terri Grant
Designee: Armond Ghazarian

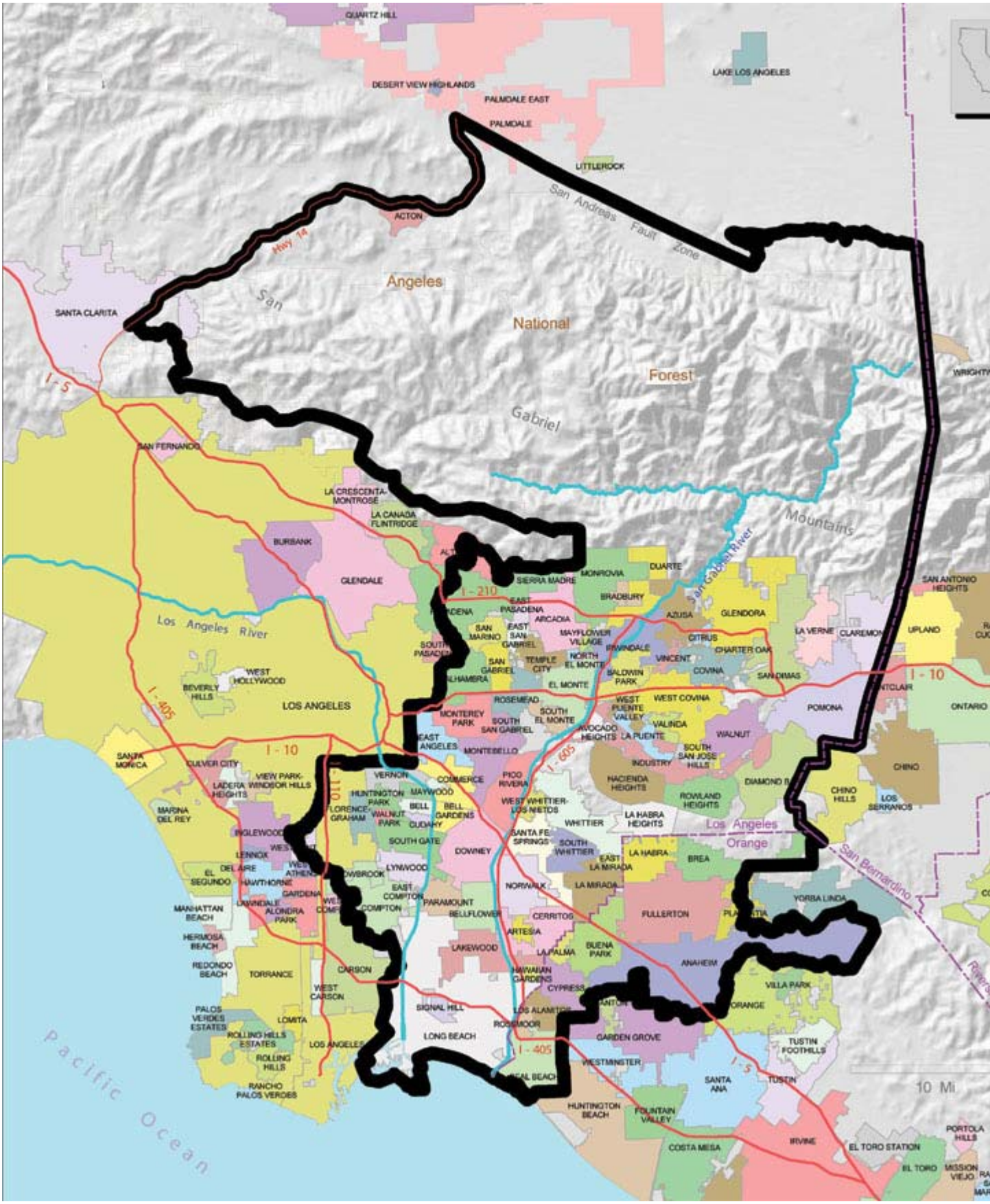
The Director of the Orange County Public Works Department
Shane Silsby, Director
Designee: Mary Ann Skorpanich
Designee: Marilyn Thoms
Designee: Rick LeFeuvre

A member of the San Gabriel River Watermaster
Stephen Johnson
Designee: Stan Chen

The Director of Parks and Recreation
Lisa Mangat, Acting Director
Designee Sean Woods

The Executive Director of the Wildlife Conservation Board
John Donnelly
Designee: Dave Means

The map shows the political geography of the greater Los Angeles area: Los Angeles and Orange counties, the cities, and the RMC's territory -- indicated by the black border. There are sixty eight cities (including slivers of the cities of Los Angeles and South Pasadena) in the RMC.


QUARTZ HILL
DESERT VIEW HIGHLANDS
LAKE LOS ANGELES
PALMDALE EAST
PALMDALE
LITTLEROCK
ACTON
San Andreas Fault Zone
Hwy 14
Angeles
San
National
Forest
Gabriel
Mountains
SANTA CLARITA
I-5
SAN FERNANDO
LA CRESCENTA-MONTROSE
LA CANADA FLINTRIDGE
BURBANK
GLENDALE
Los Angeles River
I-210
SIERRA MADRE
MONROVIA
DUARTE
BRADBURY
AZUSA
GLENDORA
San Gabriel River
SAN ANTONIO HEIGHTS
UPLAND
LA VERNE
CLAREMONT
CITRUS
CHARTER OAK
VINCENT
COVINA
SAN DIMAS
I-10
WEST HOLLYWOOD
BEVERLY HILLS
I-405
LOS ANGELES
ROSEMEAD
WEST COVINA
POMONA
ONTARIO
MONTEREY PARK
SOUTH EL MONTE
SOUTH SAN GABRIEL
WEST PUENTE VALLEY
VALINDA
WALNUT
AVOCADO HEIGHTS
LA PUENTE
EAST ANGELES
MONTEBELLO
SOUTH SAN JOSE HILLS
INDUSTRY
CHINO
SANTA MONICA
CULVER CITY
VIEW PARK-WINDSOR HILLS
LADERA HEIGHTS
VERNON
COMMERCE
PICO RIVERA
HACIENDA HEIGHTS
DIAMOND BAR
CHINO HILLS
LOS SERRANOS
MARINA DEL REY
HUNTINGTON PARK
MAYWOOD
BELL
BELL GARDENS
LORENCE-GRAHAM
WALNUT PARK
CUDAHY
WEST WHITTIER-LOS NIETOS
WHITTIER
LA HABRA HEIGHTS
ROWLAND HEIGHTS
Los Angeles
Orange
INGLEWOOD
SOUTH GATE
SANTA FE SPRINGS
SOUTH WHITTIER
LA HABRA
BREA
LENNOX
DEL AIRE
EL SEGUNDO
LYNWOOD
DOWNEY
EAST LA MIRADA
HAWTHORNE
NORWALK
LA MIRADA
YORBA LINDA
GARDENA
EAST COMPTON
PARAMOUNT
MANHATTAN BEACH
ALONDRA PARK
COMPTON
BELLFLOWER
CERRITOS
FULLERTON
HERMOSA BEACH
ARTESIA
LAKEWOOD
LA PALMA
BUENA PARK
ANAHEIM
REDONDO BEACH
TORRANCE
CARSON
HAWAIIAN GARDENS
CYPRESS
VILLA PARK
WEST CARSON
PALOS VERDES ESTATES
SIGNAL HILL
LOS ALAMITOS
ORANGE
LOMITA
ROSSMOOR
ROLLING HILLS ESTATES
LONG BEACH
GARDEN GROVE
TUSTIN FOOTHILLS
LOS ANGELES
I-405
ROLLING HILLS
WESTMINSTER
SEAL BEACH
I-5
SANTA ANA
TUSTIN
RANCHO PALOS VERDES
HUNTINGTON BEACH
FOUNTAIN VALLEY
10 Mi
Pacific Ocean
IRVINE
PORTOLA HILLS
COSTA MESA
EL TORO STATION
EL TORO
MISSION VIEJO
San Bernardino

SB 355 (Rivers and Mountains Conservancy Board)

Summary:
SB 355 makes changes to the composition of the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy Board to ensure that a local perspective is included in the decision-making process. This bill requires one voting member of the board to be a resident from a city that borders the Lower Los Angeles River. Additionally the bill will include representatives from both the California State Senate and California State Assembly on the board.

Background:
The San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy (RMC) was created through Statute in 1999. The mission of the RMC is to preserve open space and habitat in order to provide for low-impact recreation and educational uses, wildlife habitat restoration and protection, and watershed improvements within the boundaries of the Conservancy. The territory of the RMC includes the watersheds for the San Gabriel River and the lower Los Angeles River, along with portions of the Santa Clara River and the lower Santa Ana River.

The Board of the RMC is established in statute and includes 13 voting members and 7 non-voting members. The 13 voting members are:
A member of the LA County Board of Supervisors,
Two representatives from the San Gabriel Valley Council Of Governments,
Two representatives from the Gateway Cities Council Of Governments,
Two members of the Orange County Division of the League of California Cities,
A representative of the San Gabriel Valley Water Association,
A representative of the Central Basin Water Association,
A resident of Los Angeles County,
The Secretary of the Resources Agency,
The Secretary for Environmental Protection,
The Director of Finance.

The non-voting members are representatives from:
United States Army Corps of Engineers,
United States Forest Service,
Los Angeles County Department of Public Works,
Orange County Public Works Department,
San Gabriel River Watermaster,
Department of Parks and Recreation,
Wildlife Conservation Board.

Issue:
The recently approved state water bond provides millions of dollars in funding opportunities for the revitalization of the Lower Los Angeles River watershed, including parks and open space along the river. Many of those funds, including a $30m direct allocation for watershed improvements, and a share of $100m for urban creek restoration, will be allocated through the RMC. Opportunities for improvements to the Lower LA River directly impact the communities that border the river. It is vital that the conservancy board include representation from the cities that border the river, to provide a local perspective on plans and developments.

Adding state elected officials as non-voting board members in an advisory capacity has proven successful at other state conservancies. The Sacramento-San Joaquin Delta Conservancy includes two non-voting members - a Senator and an Assembly Member representing districts that include a portion of the Delta. The Santa Monica Mountains Conservancy includes three Senators and three Assembly Members, appointed by the Senate Rules Committee and the Speaker of the Assembly.

Solution:
SB 355 increases the number of non-voting members on the RMC board to 9, adding a Senator appointed by the Senate Rules Committee and an Assembly Member appointed by the Speaker of the Assembly. The bill also replaces one member of the Orange County Division of the League of California Cities with a resident from a city that borders the Lower Los Angeles River.

Staff Contact:
Lawrence Cooper, 651- 4033

1400 K Street, Suite 400 • Sacramento, California 95814
Phone: 916.658.8200 Fax: 916.658.8240
www.cacities.org

4/1/15

Senator Ricardo Lara
State Capitol, Room 5050
Sacramento, CA 95814

RE: SB 355 (Lara) – San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy
Notice of OPPOSE UNLESS AMENDED

Honorable Senator Lara:

The Orange County Division of the League of California Cities has adopted an *Oppose Unless Amended* position on Senate Bill 355, your legislation regarding the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy.

Since the creation of the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy (the Conservancy) in 1999 (*Senate Bill 216 and Assembly Bill 1355*), the County of Orange has been represented on the Conservancy Board of Directors by two seats.

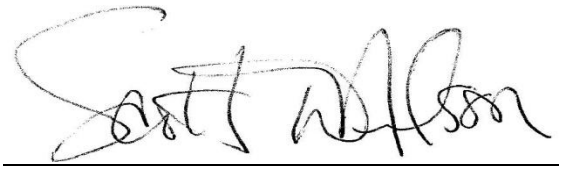
One of the provisions of your bill seeks to remove one of Orange County's seats, thereby eradicating 50% of our representation, and bestow it on the City of Los Angles. The seat proposed for elimination is one that is directly appointed by the City Selection Committee of the County of Orange, which essentially removes a directly appointed local elected official from our membership to the Conservancy Board.

The passage of the Proposition 1 Water Bond was a bipartisan effort and enjoyed strong support from Orange County cities, legislators and voters. Therefore, we are also very concerned about how this proposal would reduce our voice in the allocation of the $80 million in bond funding to be distributed by the Conservancy.

The Orange County Division is not opposed to the expansion of the Conservancy Board of Directors; receiving more local representation and additional input from the local level would be positive. However, we stand in strong opposition to achieving this objective at the expense of 50% of our County's representation on the Conservancy's Board of Directors.

We therefore adopted an *Oppose Unless Amended* position, and respectfully request that you remove the language eliminating one of Orange County's seats on the Conservancy's Board of Directors.

Sincerely,



Scot Nelson
Councilmember, City of Placentia
President, Orange County Division, League of California Cities

CC: Orange County Senators, Senate Natural Resources and Water Committee Members

Item No. 2

ACTION ITEM
April 15, 2015

TO: Board of Directors

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

Robert Hunter
General Manager

Staff Contact: Harvey De La Torre

SUBJECT: **DECLARE A REGIONAL WATER SHORTAGE IN THE MWDOC SERVICE AREA AND ADOPT A RESOLUTION IMPLEMENTING MWDOC'S WATER SUPPLY ALLOCATION PLAN**

STAFF RECOMMENDATION

Staff recommends the MWDOC Board of Directors take the following actions, *once Metropolitan declares a regional water shortage and set a regional shortage level at their April 14, 2015 Board meeting*:

1. Declare that there is a regional water shortage in the Municipal Water District of Orange County service area
2. Adopt a resolution implementing Municipal Water District of Orange County's Water Supply Allocation Plan, effective July 1, 2015 and ending June 30, 2016 *(The Resolution will be available at the MWDOC Board meeting on April 15, 2015)*
3. Authorize the General Manager to implement the Municipal Water District of Orange County's Water Supply Allocation Plan at the Regional Shortage level *X* (*set by the Metropolitan Board on April 14, 2015)*

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

REPORT

As of March 31, 2015, the state's precipitation and snowpack remain below normal for the year. The precipitation in northern California for the month of March provided only 0.8

Budgeted (Y/N): N	Budgeted amount: **None**	Core _X_	Choice __
Action item amount: n/a	Line item:		
Fiscal Impact (explain if unbudgeted):			

inches (six inches lower compared to normal) and the snowpack in the northern Sierra reported only 7 percent of normal. Based on these conditions, DWR is forced to keep the SWP "Table A" Allocation at 20 percent.

Based upon Metropolitan (MET) staff analysis, the final SWP "Table A" Allocation, which is usually announced in early summer, could slightly increase but unfortunately there is a low probability that such an increase would be enough to fully offset water demands and halt further draws on MET's storage. As of today, MET has close to 1.2 million acre-feet of dry-year storage; however, only half is available to be used this fiscal year.

As a result of these conditions, MET staff will be recommending to its Board the implementation of its Water Supply Allocation Plan in April, in order to reduce imported demands and stretch dry-year storage supplies for the coming year. What is not yet determined is what regional shortage level MET staff plans to recommend. Discussion for the past month has ranged from a Regional Shortage Level 2 to 4. At these shortage levels, imported water deliveries can be reduced by as much as 10% to 20% subject to an agency's dependence on MET water.

In preparation for MET declaring and implementing its Water Supply Allocation Plan in fiscal year 2015-16, MWDOC, in collaboration with our member agencies and Board, reviewed and updated its own Water Supply Allocation Plan earlier this year.

MWDOC staff held a number of workshops with the member agency managers and have kept them up to date on the likelihood of allocations being implemented this year. Therefore, if the MET Board implements its allocation plan for fiscal year 2015-16, it is MWDOC staff's recommendation that the MWDOC Board, at its April 15, 2015 Board meeting: (1) Declare a regional water shortage in its service area; (2) Adopt a resolution calling for the implementation of MWDOC's Water Supply Allocation Plan; and (3) Authorize the General Manager to implement to its 28 client agencies in Orange County the Plan at the Regional Shortage Level declared by the MET Board.

Item No. 3

DISCUSSION ITEM
April 6, 2015

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

FROM: **Robert Hunter, General Manager**

Staff Contact: J. Berg, Water Use Efficiency Programs Manager

SUBJECT: **TURF REBATE PROGRAM PROCESS AND QUALITY CONTROL EVALUATION**

STAFF RECOMMENDATION

Staff recommends the Planning & Operations Committee review and discuss the Turf Removal Rebate Program Quality Control and Process Evaluation.

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

SUMMARY

In 2010 the Board authorized staff to begin implementation of a Turf Removal Rebate Program (TRRP) on behalf of our member agencies utilizing funding provided by the Metropolitan Water District of Southern California. This program has been administered using MWDOC and member agency staff; MWDOC staff processes rebate applications and member agency staff conduct mandatory pre- and post-retrofit area measurements and eligibility inspections.

From 2010 through 2013 MWDOC received between 10 and 50 TRRP applications per month. Beginning in January 2014, the TRRP experienced unprecedented growth due to the Governor's Drought Declaration, the State Water Resources Control Board Emergency Regulation and an increase in our rebate to $2 per square foot. By October, we received over 500 applications per month, a more than an 18 fold increase in monthly applications.

To address this program growth, staff gained Board authorization in November to hire a part-time temporary staff person to assist with TRRP and began a process to conduct an independent Turf Removal Rebate Program Quality Control and Process Evaluation. The purpose of this discussion item is to share the results of the independent evaluation with the

Budgeted (Y/N): N/A	Budgeted amount: N/A	Core __	Choice _X_
Action item amount: N?A	Line item: N/A		
Fiscal Impact (explain if unbudgeted): This item is only for discussion.			

Board and to inform the Board of staff's intentions to implement recommendations contained in the independent evaluation.

DETAILED REPORT

To address the unprecedented growth in the Turf Removal Rebate Program (TRRP), staff began a process to conduct an independent Turf Removal Rebate Program Quality Control and Process Evaluation (Evaluation). The Evaluation was designed to 1) evaluate program quality control measures to protect against fraud and ensure public funds are spent appropriately, and 2) to identify opportunities to process the increased volume of rebates in a more timely manner.

Staff released a Request for Proposals in October 2014 to conduct a Turf Removal Rebate Program Quality Control and Process Evaluation. The RFP was distributed to five consultants known to have experience with rebate programs. Responses were received from two consultants. Maureen Erbeznik & Associates was selected due to her superior experience developing, implementing and evaluating rebate programs for water and energy utilities in the private and public sectors. Additionally, this consultant's understanding of MWDOC's needs and cost proposal were more competitive than the other proposal. In November 2014, the General Manager executed a contract not to exceed $5,000 with Maureen Erbeznik & Associates to perform the Evaluation.

The evaluation was conducted between December 2014 and March 2015. While the Evaluation took longer than anticipated, it was completed on budget. A copy of the Evaluation report is provided as Attachment A. The Evaluation concluded the following:

Conclusion

MWDOC's Turf Removal Rebate Program has realized high achievement on many fronts. Management has created a program with unparalleled quality standards and staff has stepped up to the task of providing meticulous oversight.

With the recent surge in program response, however, the processes and software systems are now taxed to the limit of their capabilities. While there are steps to be taken in the short run to alleviate some process burdens, the optimal solution for the longer term is to buy or build a rebate management system with the modules and capabilities that best meet today's Program volume and customer service demands.

Existing available software systems can be modified to meet the needs of the Program; an analysis of the various available packages can identify the ones that best match the functionality and quality required for MWDOC. Another option is for MWDOC to build a custom software system for the Program or, possibly, for all of MWDOC's rebate programs. There are several quality software programming firms that have specific industry rebate experience.

By implementation of the report recommendations, MWDOC would see significant procedural improvements in consistency, efficiency, customer satisfaction, and application turn-around time. A single data basing and processing system would eliminate a great number of manual and redundant procedures that currently take place. This would potentially allow MWDOC to reduce the personnel required to manage the Program, freeing staff up to provide even higher levels of customer service and to further support department

programs. Member agencies will also benefit from the efficiencies of online processing, automatic notifications, and reporting available through the portal.

A state-of-the art software system would also allow for the following:

- *A heightened level of customer interaction and satisfaction*. Through a customer portal design, customers can have the resources to track their application status and view any number of educational videos. This should result in a higher level of customer satisfaction.
- *A sophisticated financial tracking system*. This would allow MWDOC's program management staff to accurately know at any of the rebate steps along the way where any financial constraints exist.
- *Participant tracking*. The system would have the ability to know where a participant is within the various steps. It would be able to provide aging reports to MWDOC staff and emails to participants to encourage their continued progression with their individual projects.
- *Reporting*. Multiple reports/data tables from any point in the application/rebate process could be generated for review by MWDOC or its participating member agencies.
- *Program integration*. MWDOC's additional in-house rebate programs could be integrated into the rebate processing system.
- *Member agency efficiencies*. Member agencies would benefit from efficiencies in the pre- and post-inspection process including: automatic notifications, portal data entry, portal documentation upload, and in-field data entry capability.

Next Steps:

With a clear independent evaluation of the TRRP staff is in the process of doing the following:

- Composing a Request for Proposals to procure a web-based rebate processing platform to replace our existing process
- Budgeting funds in FY 2015-16 in anticipation of the new rebate processing platform
- Return to the board to request authorization to purchase the selected platform by the June Board meeting

INDEPENDENT PROCESS AND QUALITY CONTROL EVALUATION of MWDOC's TURF REMOVAL REBATE PROGRAM

February 19, 2015

Maureen Erbeznik and Associates
4246 Michael Avenue
Los Angeles, California
90066

Table of Contents

Executive Summary **3**
Section 1: Background **7**
Section 2: Turf Removal Rebate Process **11**
Section 3: Findings and Recommendations **20**
Conclusion **33**

Executive Summary

The Municipal Water District of Orange County (MWDOC) Turf Removal Rebate Program ("TRRP" or the "Program") has operated since 2010 with the highest levels of controls and accountability. The Program was created as a result of the Metropolitan Water District's Member Agency Program Advisory Committee's evaluation on the efficacy of such a program in Southern California. Operating first as a pilot, the Program aimed at increasing water use efficiency by incentivizing MWDOC customers to replace water-intensive turfgrass with California native/friendly plants.

Up until mid- 2014, program volumes were relatively low and the heavy dependence on manual systems and multiple software packages to process rebate applications was manageable and productive. In 2014, the Governor declared a drought, the State Water Resources Control Board adopted an Emergency Drought Regulation, and program funding increased. This spurred greater participation as the customer rebate per square foot of turfgrass removed increased from $1.00 to $2.00.

Since the early years, program volume has grown by almost 4000%, with over 500 applications received in October 2014. In addition, further increases in customer demand and agency interest are anticipated as the program continues to gain popularity throughout the region.

The dramatic increase in response has exposed process inefficiencies and pushed the limits of program staff, software management, and reporting. Under the stress of high volume and the limitations of multiple software systems, the process has become increasingly labor-intensive and the turnaround times protracted.

It is important to recognize that there have been a few automation advancements implemented recently, yielding some improvement to turnaround times. This is a step in the right direction, and it is recommended that a number of additional steps be taken by MWDOC to upgrade program procedures and services under the TRRP.

Existing Program Process

The current Program process involves input from several parties in order to reach completion. Customers initiate the process by submitting a TRRP on-line or paper application, which triggers procedural steps involving various MWDOC departments, including Water Use Efficiency (WUE) staff, the mailing department, accounting staff, the finance department, MWDOC member agency staff, field inspection vendors, and the MWDOC Administration and Finance Committee.

Administration of the TRPP is carried out by in-house staff, which processes and evaluates rebate applications, distributes pre- and post-inspection work orders, maintains website and other program materials, databases participation data, fields both phone and email inquiries, reviews submitted project receipts to determine overall project costs, and processes rebate checks. A combination of

staff from member agencies and the regional inspection vendor assists by performing on-site pre- and post-retrofit inspections and turf area measurements.

The current system, which has been in place since the inception of the pilot phase of the Program, includes both paper and online rebate application options for the customer and a rebate-processing system consisting of three separate non-interacting (disconnected) Access databases: Canceled, Open, and Completed.

With the rapid program growth, managing input from several MWDOC departments, member agencies, and customers increases the difficulty in maintaining the Program's rebate processing efficiency. Several opportunities exist for procedural improvements in consistency, efficiency, and application turn-around time.

Operational and Fiscal Oversight

Despite extreme program growth and limitations due to "disconnected" software and database systems, it is important to note that the quality of rebate administration and fiscal oversight is exceptionally high.

Financial practices are very thorough, with high levels of quality control and rebate process monitoring.

Practices such as 100 percent pre- and post-installation inspections nearly eliminate any possibility of customer fraud. In addition, an application has multiple "eyes" on it along the way, with MWDOC staff scrutinizing the application at several steps throughout the rebate program process. These levels of review go far beyond the average water utility rebate program.

Issues

The Program's success and the increased customer participation have highlighted weaknesses in the application processes. This resulted in an application backlog, reflected in the elapsed time between receipt of an application and the pre-inspection of the property involved (refer to Table 3). Key inefficiencies include the lack of automation, the lack of a central database, and instances where duplicative efforts are required.

A lack of automation translates to repetitive tasks that must be manually completed by program staff members. Improving this aspect of the process would improve efficiency by increasing speed and reallocating staff time to other tasks. The lack of a central database creates barriers to quickly verifying information, analytics, and report generation. In addition, separate non-interacting databases are prone to errors, as changes must be tracked manually. Duplicative efforts are the result of both a lack of automation, as well as a lack of a centralized portal containing the complete set of data.

Recommendations

There remain several opportunities for procedural improvements in efficiency, customer service, and application turn-around time. This evaluation proposes both short- and long-term recommendations as follows:

Short Term Upgrades to Existing Process

In the near future, it is recommended that some basic changes be made to the current system. The following recommended upgrades would reduce some instances of double data entry activities:

1. Create a query from the Program database in order to generate the Approval Report and accounting summaries.
2. Change current purchase order (PO) format and consolidate each funding line item into one. Currently each application is an individual line item. *Note: since the writing of this report, the upgrade has been implemented.*

Long Term Upgrades

It is recommended that MWDOC purchase or custom-develop a rebate management software system. The overall goal is to increase automation and create a centralized database that encompasses all elements of the process. Customizable software systems and technologies that match MWDOC's needs are commonly available in the market today.

The new system would streamline all processes, decrease processing time, and reduce staff labor time and costs. Both customer and staff-side processes would be improved through clearer messaging of the application progress and a reduction of manual input. Today's state-of-the-art systems also provide dramatically increased customer usability, as well as easy report and data access for member agencies and program administrators.

The desired outcome is a Program process that: (1) addresses the key inefficiencies in the existing process, and (2) will be capable of handling continued Program expansion.

In adopting or developing such a process, MWDOC should consider incorporation of other rebate programs, such as drip irrigation and landscape irrigation retrofits, into the new software system. This would create efficiencies beyond just the TRRP and could encompass all of MWDOC's conservation programs and initiatives.

Results of Implementing a Rebate Processing Software Upgrade

- Single portal design with easy access by all users
- Automated processes with built-in reliable accuracy
- Staff resource savings
- Member agency and field vendor resource savings

- Customer timeline reductions
- Customer ease of use
- Enhanced financial and customer tracking

Report Outline

This report is structured as follows:

Section 1 presents a brief history and background of MWDOC's TRRP, as well as summary level data for the Program.

Section 2 documents the processes and procedures utilized for Program implementation.

Section 3 discusses the findings and provides recommendations to maintain and/or improve the performance of the Program.

Section 1: Background

Turfgrass requires more water than any other ornamental plant in urban landscaping, a minimum of four feet of irrigation per year in Orange County. By contrast, California native/friendly plants require less than half of turfgrass irrigation requirements. Thus, voluntary replacement of non-functional turf with other types of landscape is viewed as a viable means of significantly reducing urban water use.

In late 2008, Metropolitan Water District's Member Agency Program Advisory Committee (PAC) evaluated the efficacy of a turf removal program for Southern California, including Orange County. This evaluation included a review of similar programs in other areas, including those of Southern Nevada Water Authority and North Marin Water District. The evaluation concluded that savings of 44 gallons per square foot per year of turf removed are possible.

Based upon the findings of the PAC, MWDOC staff conceived and implemented a pilot version of the Program in 2010. This incentive-based program complemented MWDOC's existing Smart Timer and Sprinkler Nozzle Rebate Programs. In late 2010, staff estimated the pilot TRRP would result in 10 rebate checks per month for about six months. The volume estimate was based upon an anticipated customer response to a $1.00 per square foot incentive. Administration of the pilot TRRP was performed entirely in-house; MWDOC staff received and processed applications, performed site inspections, and generated rebate checks. Both residential and commercial properties were eligible and participated. Some member agencies augmented the rebates with their own funds ranging from an additional $0.50 to $1.00 per square foot.

By 2012, additional TRRP funding, coupled with increased participation by member agencies, yielded increased customer interest. As a result, applications jumped to an average of 22 per month. The program continued to be administered by MWDOC staff, with the aid of member agencies and a regional vendor performing site inspections.

In early 2014, applications increased to 40 per month. By the end of 2014, with the increase of Metropolitan's funding for turf removal to $2.00 per square foot and the statewide drought's unprecedented publicity, the application rate for turf removal projects increased dramatically to approximately 400 per month. This significant increase of applications burdened staff, increased response time to customers, and created an extensive backlog of pre- and post-inspections. Figure 1 on the following pages displays the number of applications received per month and the respective rebate level from the inception of the MWDOC TRRP.

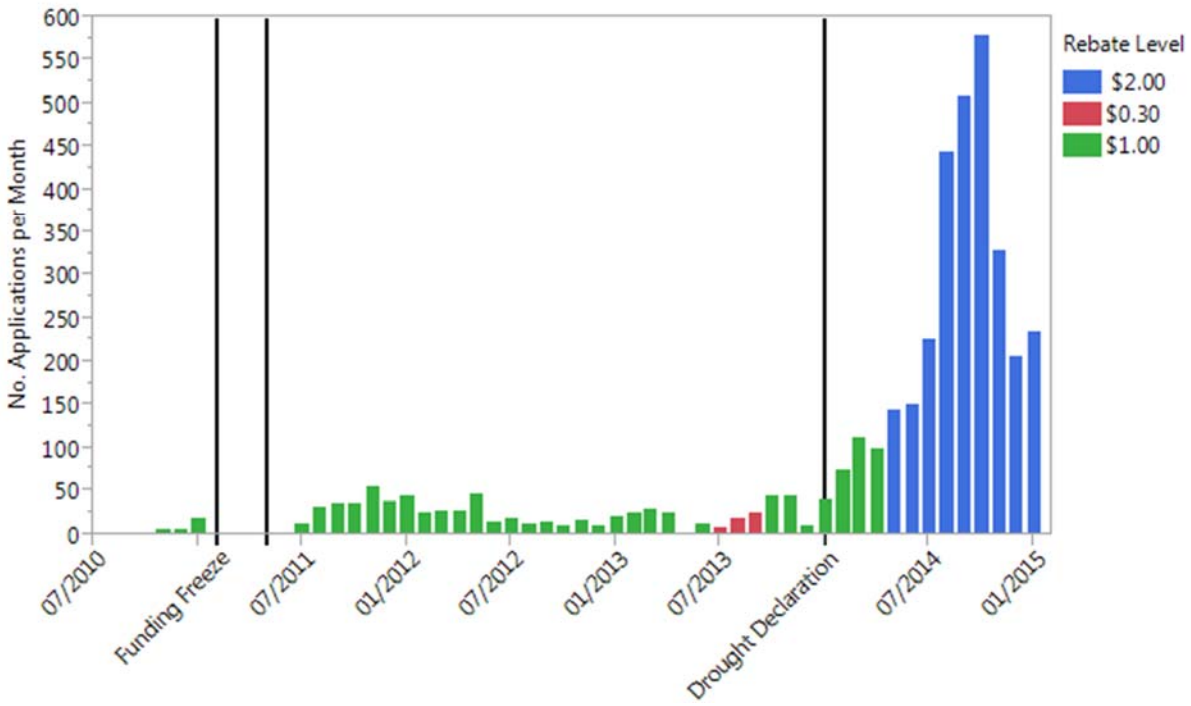


Figure 1. Number of applications received per month from the inception of the MWDOC TRRP. The rebate level is identified by color.

At the inception of this evaluation in November 2014, MWDOC provided three Excel databases of Program activity, comprising: (1) Open (in-progress) application work orders, (2) Completed turf removal projects for which rebates had been provided, and (3) Cancelled applications. These three databases covered the period from November 2010 through November 2014.

The database of open work orders contained 1,881 project applications in various stages of the TRRP process. The 1,881 line items were distributed as follows:

Table 1. Open TRRP work orders (projects at the pre and post inspection stage)

	Total open work orders	***Open work orders completed through pre-improvement evaluation***	***Completed through post-improvement work order sent***	***Completed through post-improvement inspection***
Residential	1,717	1,348	568	54
Commercial	164	117	13	1
Total	1,881	1,465	581	55

Table 2 summarizes the contents of all three databases. A total of 3,352 applications have been submitted with 1,063 completed, 1,881 open, and 408 canceled. Cancelled project applications represented 12.2 percent of all applications received over the life of the Program.

Table 2. TRRP Project Status (as of December 1, 2014)

	Open work orders	*Completed projects*	*Cancelled project applications*	*TOTAL*
Residential	1,717	933	357	3,007
Commercial	164	130	51	345
Total	1,881	1,063	408	3,352

Figure 2 shows the number of applications received per month from January 2014 to January 2015 by application current status. Again, we can see that sharp rise in the number of applications. This figure illustrates the progression of the project. It can be observed that the site status must be overseen during a substantial period of time.

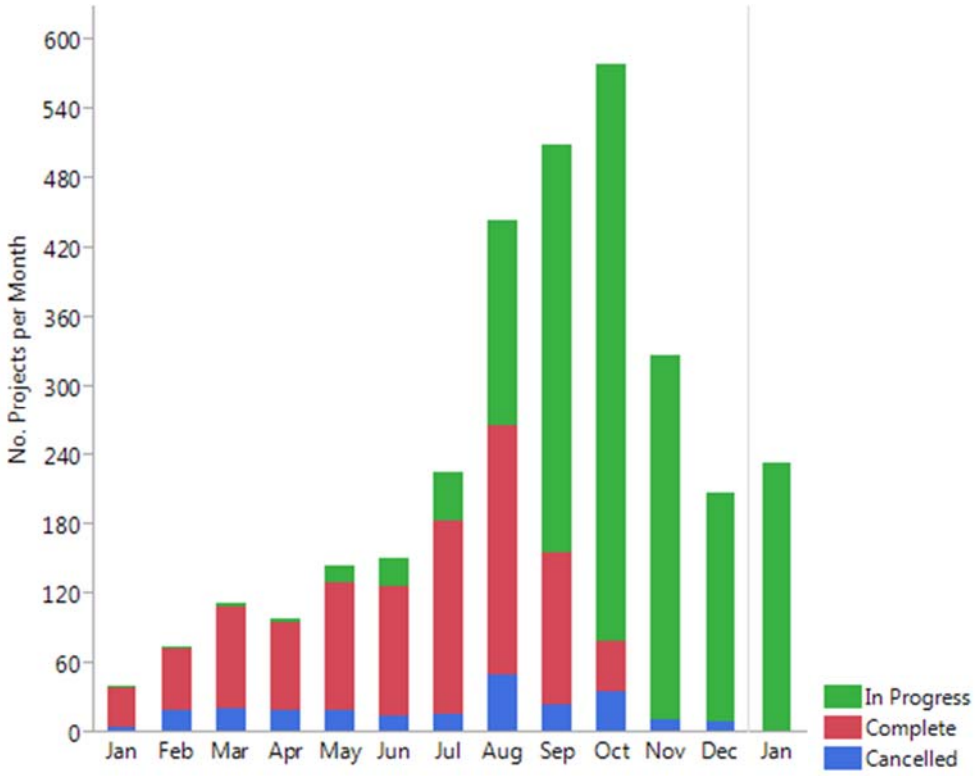


Figure 2. Number of projects per month from January 2014 – January 2015. The project's current status is identified by color.

The duration of the various steps in the TRRP process can be determined from the milestones in the three databases identified above. Table 3 illustrates the average elapsed time (in calendar days) necessary to complete and transition the key steps. For the average completed project, the total elapsed time fromapplication receipt to issuance of a rebate check was 125.6 days for residential projects and 179.8 days for commercial projects.

Table 3. Process Time (average elapsed calendar days to complete process steps)

	Open Projects		***Completed Projects***		***Cancelled Projects***	
	Resid (days)	*Comm'l (days)*	*Resid (days)*	*Comm'l (days)*	*Resid (days)*	*Comm'l (days)*
Customer application to pre-improvement evaluation/work-order	16.7	22.8	16.5	27.2	19.7	70.8
Pre-improvement evaluation/work order to pre-improvement inspection	0.4		68.4	112.2	Not Applicable	
Customer completion of project and notification of MWDOC	55.0	Insufficient data				
Post improvement inspection to rebate check	Not Applicable		40.7	40.4		
Total elapsed calendar days	Not Applicable		125.6	179.8		

Section 2: Turf Removal Rebate Process

The MWDOC Turf Removal Rebate Process, as it currently exists, is depicted in the following charts. The process flow is broken down into 12 distinct steps starting with the Customer Application Submittal and ending with MWD and Member Agency Invoicing. The twelve steps are as follows:

Step 1: The On-line or Paper Application Submittal Process

Step 2: The Application Review Process

Step 3: The Pre-Installation Inspection Work Order Generation and Distribution Process

Step 4: The Pre-Installation Inspection Process

Step 5: The Notice to Proceed to Customer Process

Step 6: The Participant Turf Removal Process

Step 7: The Post-Work Order Generation and Distribution Process

Step 8: The Post-Installation Inspection Process

Step 9: Application Approval Process

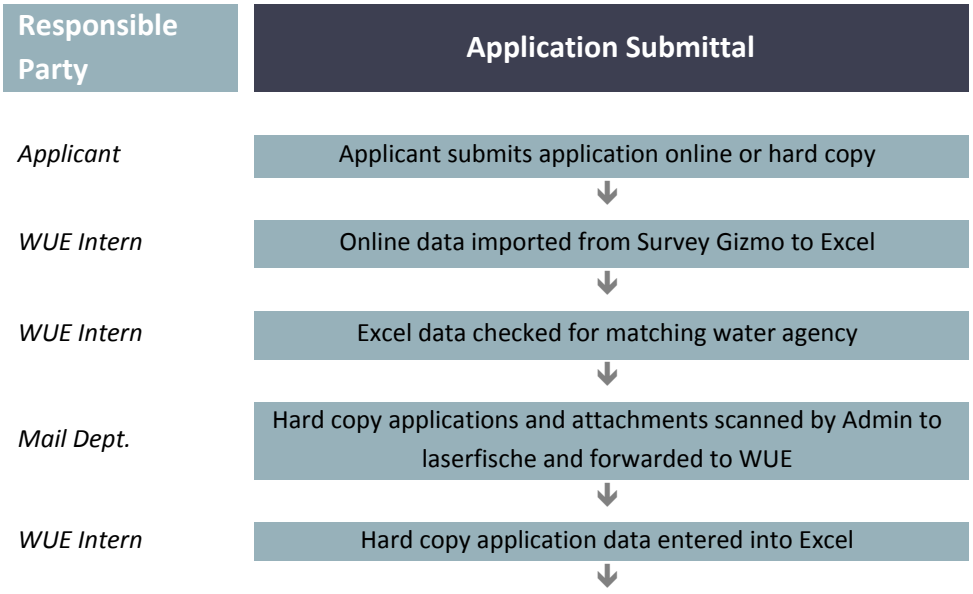
Step 10: Board Approval Process

Step 11: The Rebate Check Run Process

Step 12: Metropolitan Water District and Member Agency Invoicing Process

Recommendations for improvements and/or automation advancements follow each individual section of the process.

Step 1: The On-line/Paper Application Submittal Process:



WUE Intern / WUE Analyst	Excel spreadsheet reformatted for import
WUE Intern / WUE Analyst	Excel data imported into Access database
WUE Intern	Batch report printed listing received applications
Auto / WUE Analyst	Customer sent email notification receipt of application has with application number (only online)

Application Submittal Recommendations

Due to software limitations, staff is currently performing a number of manual procedures and data transfers in order to advance the customer application. The Application Submittal Process needs to be restructured and fully automated. Specific recommendations are detailed in Section 3 of the document.

Step 2: The On-Line Application Review Process:

Responsible Party	Application Review
Auto	Email of application and attachment received into Turf Removal program email
WUE Intern	Each application PDF is separated and saved into appropriate file. PDF includes water bill, photos, and site plans
WUE Intern / WUE Analyst	Application fields reviewed, water bill checked for eligible agency, photos & site plan viewed to verify condition of turf & other eligibility
WUE Intern / WUE Analyst	Application processed or canceled
WUE Analyst	If canceled application and email/letter sent with reason for cancelation

Application Review Recommendations

All application data and documents should be stored and viewable within a single online system. The new system should allow staff to process applications and generate emails and letters automatically as a standard function of the system. Specific recommendations are detailed in Section 3 of the document.

Step 3: The Pre-Installation Inspection Work Order Generation Process:

Responsible Party	Pre-Installation Inspection Work Order Generation and Distribution
Auto	Pre-work orders created in Access database
WUE Intern / WUE Analyst	Pre-work order email with attachments sent to MRCD or appropriate water agency for onsite inspection

Pre-Installation Work Order Generation and Distribution Recommendations

It is recommended that the Pre-installation Work Order and Distribution process be redesigned to include increased automation as well as allow regional inspection vendor, member agency, and accounting staff to have system access via portals, as deemed appropriate. Specific recommendations are detailed in Section 3 of the document.

Step 4: The Pre-Installation Inspection Process:

Responsible Party	Pre-Installation Inspection
Inspection Vendor or Water Agency	Regional inspection vendor or member agency conducts pre-inspection including: measuring square footage, taking pictures of turf areas to be removed and completing pre-work order
Inspection Vendor or Water Agency	Regional vendor or water agency sends email to MWDOC with completed inspection pre-work orders and pictures
WUE Analyst	Pre-work order and pictures saved to appropriate file
WUE Intern / WUE Analyst	Pre-work order results entered into Program database using form
WUE Intern	If not pass, customer information provided to WUE Analyst for customer notification

Pre-Installation Inspection Recommendations

This step in the process should be automated to allow the member agency or field inspector the ability to upload all required inspection information, with automatic notification to the program administrator. Specific recommendations are detailed in Section 3 of the document.

Step 5: The Notice to Proceed to Customer Process:

Responsible Party	Notice to Proceed to Customer
Auto	After results of Step 4 are entered into database, if **PASS**, auto *Notice to Proceed* email sent to customer with total potential rebate amount, Terms and Conditions, and FAQs
WUE Analyst	If **NOT PASS**, customer line item moved from Open database to Canceled and customer sent disqualify email/letter performed manually – letter format is contingent on inspection results

Notice to Proceed Recommendations

A number of system automations are recommended to streamline the Notice to Proceed Process and communications to the customer. Specific recommendations are detailed in Section 3 of the document.

Step 6: The Turf Removal Installation Process:

Responsible Party	Turf Removal Installation and Completion Notification
Customer	Customer removes turf, installs new landscaping and irrigation
Customer	Customer sends notification to MWDOC via email or phone Notifying MWDOC their project is complete

Turf Removal Installation and Completion Notification Recommendations

It is recommended that the Turf Removal Installation documentation and communication process be redesigned to allow for increased functionality and customer convenience. Specific recommendations are detailed in Section 3 of the document.

Step 7: The Post-Work Order Generation and Distribution Process:

Responsible Party	Post-Work Order Generation and Distribution
WUE Intern	Database updated with customer's notification as project completeness
Auto	Post-work order created in Program database
Auto	Post-installation inspection work order sent to inspection vendor or appropriate water agency
Auto	Customer sent email notifying them they will be contacted to schedule post-inspection

Post-Installation Work Order Generation and Distribution Recommendations

This process should be redesigned with automated customer communication and post-work order generation. Specific recommendations are detailed in Section 3 of the document.

Step 8: The Post-Installation Inspection Process:

Responsible Party	Post-Installation Inspection
Inspection Vendor or Water Agency	Inspection vendor or water agency conducts post-inspection including: measuring square footage, taking pictures of turf areas removed, obtaining customer project receipts, and completing post-work order
Inspection Vendor or Water Agency	Inspection vendor or water agency scans receipts

Inspection Vendor or Water Agency	Inspection vendor or water agency sends email with completed post-work orders, pictures and project receipts to MWDOC
WUE Analyst	Post-installation inspection work order results, pictures and project receipts saved to appropriate file
WUE Intern / WUE Analyst	Post-work order and attachments reviewed to validate the final square footage, ensure documents are complete and signed by the inspector, verify the project receipts show eligible project cost to determine the maximum allowable rebate (rebates paid cannot exceed the overall project cost), and confirm the photos show project areas that comply with program guidelines.
WUE Intern / WUE Analyst	Post-work order results entered into Program database using form
WUE Analyst	If missing documentation, request submitted to customer or water agency
WUE Analyst	Batch created and prepared for Accounting

Post-installation Inspection Process Recommendations

It is recommended that this process be upgraded to allow automated email communications and centralized electronic record storage. Specific recommendations are detailed in Section 3 of the document.

Step 9: Application Approval Process

Responsible Party	Application Approval
WUE Analyst	Project costs reviewed for eligibility and total costs tabulated
WUE Analyst	Rebate amount tabulated, verified in database and updated as necessary
WUE Analyst	Purchase requisition created for each funding agency

WUE Intern / WUE Analyst	Print application, post-work order form, and copies of receipts
WUE Analyst	Assemble batch for management and accounting review/approval - batch includes master summary page, summary pages for each water agency with attached application backup
WUE Analyst	Batch sent to management for approval
WUE Manager	Management reviews each application and summary pages, checks receipts and rebate amount and signs off on each application

Application Approval Process Recommendations

It is recommended that MWDOC change the current purchase order format and consolidate each funding line item into one. Currently each application is an individual line item. *Note: since the writing of this document, this upgrade has been implemented.* It is also recommended that the system be designed with the capability to generate a report spreadsheet utilizing all necessary information stored within the system. Specific recommendations are detailed in Section 3 of the document.

Step 10: Board Approval Process:

Responsible Party	Board Approval
WUE Analyst	Approval Report spreadsheet generated with each application, total rebate amount, MWD amount, and water agency amount (regional costs)
WUE Analyst	Approval Report spreadsheet submitted to accounting
Accountant	Approval Report sent to Administration and Finance Committee for approval
Admin and Finance Committee	Rebates approved

Board Approval Process Recommendations

It is recommended that the system be designed with the capability to generate a report spreadsheet utilizing all necessary information stored within the system. Specific recommendations are detailed in Section 3 of the document.

Step 11: The Rebate Check Run Process:

Responsible Party	Rebate Check Run Process
Accounting Manager	Each application and summary page reviewed, receipts spot-Checked, and rebate amount verified
Accountant	Total dollar amounts on requisition acknowledged
Accountant	Accounts payable invoice created for each application - enter name, address, invoice number (app no.), change posting description and enter amount to receive
Accountant	W-9s for commercial applications scanned and attached to PO
Accountant/ Acctg Intern *Accountant*	Photo copy agency summary page, application and post-workorder form Approval List pulled and checks printed
Accountant	Required signatures obtained (2-steps: WUE Program Manager Approval, then MWDOC General Manager Approval
Accountant	Checks mailed
Accountant	Check stub added to application files and paperwork filed
Accountant	Original paperwork sent back to WUE
Accountant	List of checks mailed with check date sent to WUE
WUE Intern / WUE Analyst	WUE enters check date in Program database

Rebate Check Run Process Recommendations

It is recommended that batch reports be automated and accounting staff possess the ability to manage applications and generate summary level reports online. Specific recommendations are detailed in Section 3 of the document.

Step 12: Metropolitan Water District and Member Agency Invoicing Process:

Responsible Party	MWD and Agency Invoicing
WUE Intern / WUE Analyst	Compile rebates paid and invoice MWD and funding water agencies
WUE Analyst	Tabulate pre- and post-inspection costs from Regional inspection Vendor and bill appropriate member agency

MWD and Member Agency Invoicing Recommendations

The system should be automated to handle invoicing and fund tracking requirements. Specific recommendations are detailed in Section 3 of the document.

Section 3: Findings and Recommendations

Consultants Maureen Erbeznik and John Koeller spent a number of hours examining program documents, reviewing procedures, and interviewing program staff. It became clear, early on, that the TRRP operates with the highest level of operational and financial oversight.

Examples of the robust quality measures are bulleted below:

Current Program Process Checks and Balances

- Each customer's water bill is checked for eligibility and a matching customer entry.
- Pre-work order photos (provided by customer) are checked to verify site has existing irrigated turf (customers are allowed to have dead grass due to the drought situation – turf must show signs that it was irrigated in the recent past) and other requirements.
- 100 percent of sites receive a pre-inspection. At the site visit, the inspection vendor or the member agency measures the square footage, takes photos, and documents that information in a report for MWDOC.
- 100 percent of sites receive a post-inspection. The regional inspection vendor or the member water agency measures the square footage, takes photos, obtains customer receipts, and reports on the completed project.
- Following completion of the project by the customer, the regional inspection vendor or member agency measurement of square footage is used to calculate and pay the qualified rebate. (The customer self-reported square footage is not used for rebate calculations).
- Program staff reviews all applications pre- and post- photos, inspection results, and customer receipts. Customer receipt amounts are totaled to determine eligible cost and, ultimately, the overall project cost. Rebates paid to the participant cannot exceed actual project costs.
- Three MWDOC staff (program analyst, the Water Use Efficiency Manager, and an accounting staff member) review the application, the water bill, and the project invoices. Each individual signs off on every rebate customer packet

It is important to emphasize that the program follows a higher-than-standard level of financial and program controls and the program operates with a high level of program integrity, as a result of the above.

Efficiency has also increased recently due to automation of some TRRP processes. Similar opportunities for improvement exist in the further automation and cohesiveness of all program processes.

Opportunities for Improvement

Despite comprehensive program oversight, there are several opportunities for improvement:

1. Though automation of several processes exists, management of the Program is still largely manual and requires duplicative data entry efforts. For example, self-reported customer data must be moved manually from the Gizmo program to an Excel spreadsheet and then from the Excel to an Access database.

2. The Program is managed using three separate Access databases: Canceled, Open, and Completed. The three independent databases make it challenging to produce reports and account for changes across all databases. Applications must be manually transferred from one database to another, depending upon the actions taken. Limited participant and financial tracking and notifications of this process exist.

3. Duplicate data entry exists from the customer into database and by the Program Analyst into the Excel spreadsheets. Manual data transfers have the potential for producing errors if an application is incorrectly entered.

    - Duplicate data entry may result in data inconsistency, which ultimately requires additional staff resources and processing time.

    - Lack of automatic notifications to customers, inspection personnel, and others may cause an application to be lost and/or delayed in the process.

GENERAL RECOMMENDATIONS

Although there are a number of specific system and/or process recommendations, there are five general categories of process improvement recommendations.

It is recommended that:

1. **Automatic triggers** are incorporated at key milestones to send notifications to customers, the inspection vendor, member agencies, and MWDOC staff and management.

2. There is a **single database** to track the entire process of the application, from customer submittal through rebate payment. The single database should include all customer documentation including, but not limited to, water bills, site photos, site plans, and project invoices.

3. **Program portals** are created for program management, member agencies, the inspection vendor, accounting staff, and customers. MWDOC and its member agency staff should have easy access to a customer file. Customers should be able to securely access selected personal

elements of the process, and MWDOC staff should be able to readily view all pertinent program data.

4. **Member agencies and the inspection vendors be equipped to perform their own data entry** after pre- and post-inspections and that both parties assume responsibility for uploading photos and project receipts into the database. All such files, pre- and post-installation photos, water bills, site plans, and receipts would then be uploaded and accessible through the program portal in real-time.

5. **Automatic emails** be generated for each status report and milestone including, but not limited to, missing information alerts, inspection notifications, and customer documentation submittals. Such emails would be sent to member agencies, the inspection vendor, customers, and MWDOC staff as appropriate.

DETAILED RECOMMENDATIONS

Although most of the above recommendations require a longer timeline in which to implement, there are two short-term recommendations that will provide more immediate benefits:

Short Term Recommendations

1. Create query from database to generate Approval Report and Accounting Summaries.
2. Change current purchase order to consolidate each funding line item into one line item, as opposed to having a line item for each application. This would reduce manual entry of each application by analyst. *Note: since the writing of this document, the upgrade has been implemented.*

Long Term Recommendations

In order to streamline various processes, decrease processing time, increase customer satisfaction, and reduce labor costs, it is recommended that MWDOC strongly consider purchasing or developing custom software to process turf removal rebates.

The software could potentially incorporate other rebate programs, such as drip irrigation and landscape irrigation retrofits, as well as other elements of MWDOC's menu of conservation programs. This would create efficiencies not only in the TRRP, but also in all of MWDOC's conservation programs and efforts.

The following is the summary of the features of the recommended software program:

Application Submittal

The entire application process would be online for the customers from the point of application submittal to the final paperwork submittal and rebate check status. All application data would be automatically stored in the single Program system, eliminating the need for multiple databases, duplicate data entry, and manual report generation. Customers would be given secure access to their personal portal where they can upload needed documents, access information, track the progress of their application, and communicate with program administrators when necessary. This would streamline processes and keep workflows in a single system. Upon application submittal, customers would automatically receive a personalized email stating that their application has been received, their application number, and their personal password. The system would have the capability to eliminate all manual data importing, data entry by MWDOC staff, report generation, customer contact, and reformatting that is currently necessary in today's application submittal process.

If feasible, the portal would contain educational videos that describe the Program process and provide direction through each step of the turf removal and new landscape installation.

Application Review

All application data would be stored within the single online system. Program staff would view and process all information within the confines of the online system (no external paperwork or processes would be necessary). Access to data and processing ability would be defined by MWDOC. All data for a given application and project would be attached to the record, including scanned copies of bills, pre- and post- photos submitted by the customer and/or the inspector, site plans, and customer receipts.

Received applications would be evaluated; those that are eligible would be processed, others would be withdrawn (due to ineligibility), or put on hold all with a single click of the reviewer. Regardless of the action taken, all data stored in the system would be accessible for review or reporting at any time. Depending upon the action that is taken, a personalized email would automatically be sent to the customer informing them of the action taken or due to be taken. Staff could add content to the email to explain why an application was approved, withdrawn, or put on hold. Staff could also add internal notes that would attach to the customer record. Upon accessing the portal, the customer would be prompted to proceed to the next step in the process.

Pre-Installation Workorder Generation and Distribution

Once an application is approved for processing, the system would automatically generate an email to the inspection vendor or designated member agency representative. The inspection vendor or member agency would have their own login to the portal where they can view their assigned customers (as defined by MWDOC). The automatically generated email could have an attached work order if necessary for accounting. However, the software could eliminate the need for this step

completely. MWDOC Accounting and management would have access to the portal to view inspection results, receipts, other required documents, and Program progress.

Pre-Installation Inspection

The inspector (vendor or member agency representative) would log into the portal and upload the required inspection information, including square footage, photos, and any other pertinent site information received from the customer. This could be done on a tablet device while at the site or from any computer. Inspection information would immediately be available on the customer's record without any further steps. Once new information from the inspector is uploaded, the Program administrator would automatically be notified within the portal and via email if desired. This would eliminate the need for the inspector to manually generate emails or separate documentation.

Notice to Proceed

Once the inspection information is uploaded into the system, the customer's application would be approved, denied, withdrawn, or put on hold with a single click by MWDOC staff. If a customer is denied, withdrawn, or put on hold, all information would be archived within the system for later viewing and analysis. Once staff takes the appropriate action, the customer would automatically receive a personalized email notifying them of the action taken and what next steps will be taken. Customers could also be informed of next steps within the portal. The Program administrator could add content to the email explaining why the customer was approved, denied, withdrawn, or put on hold.

Turf Removal Project Installation and Completion Notification

Upon completion of the project, the customer would upload "after" photos, project receipts, and/or other required information directly to their personal portal. This action would automatically notify Program staff to conduct further review of the customer's progress.

Post-Installation Workorder Generation and Distribution

Once customer status is moved to complete and documentation uploaded, if required, an automatic email would inform the customer they would be contacted to schedule a post project inspection. An email would also automatically be sent to the inspector. Again, a post-workorder could automatically be generated and included in the email. The inspector would login to the system and view customer information. This step could be completely automated within the system.

Post-installation Inspection

Inspection staff could upload all information directly into the portal from a tablet device in the field or from a computer. All information including photos, project receipts, and all other miscellaneous information would be uploaded to the customer record. The Program administrator would be

notified within the portal once the inspection is completed and, if necessary, by an automatically generated email. This would eliminate the need for the inspector to manually generate emails or separate documentation. If documentation were incomplete, the appropriate person or agency would be notified by email directly from the system by Program staff.

Application Approval

All project costs and available budgets from all funding sources would automatically be tracked by the system through the process. The program administrator would review rebate amounts and modify them, if necessary, within the system. Once the application is approved for issuance of a rebate, the system would automatically generate a purchase requisition. Batch reports would be created for management and Accounting at automatic intervals or upon demand. The information in these reports would be predefined and not require any manual processes. Batch reports and purchase requisitions would be emailed to appropriate departments or management. Accounting staff would have the ability to view and approve reports, applications, and forms directly within the system. This would eliminate the need for paper documentation, streamline workflow, and eliminate some external processes.

MWDOC Board Approval

The system would be capable of generating multiple report spreadsheets with all necessary information that is stored within the system. These reports would include funding amounts and sources, and would be submitted to the Board.

Rebate Check Run

Batch reports could be created for accounting staff at automatic intervals or upon request from within the system. In addition, the Accounting department could check applications and project receipts, as well as verify and approve rebate amounts, all within the system. A report could be generated and sent to Accounts Payable (in Excel or CSV format) with information in the prescribed Accounting format to generate checks. For commercial applications, the customer's W-9 would be uploaded directly into the system by the customer and attached to the customer's record if necessary. Although the system will not impact the check mailing process, the system would allow staff to enter check dates to be stored with the customer's record.

MWD and Member Agency Invoicing

The system would be capable of generating multiple invoicing reports and the associated spreadsheet back-ups necessary to invoice MWD and member agencies. The system would also track funds and send emails when funds are nearing depletion. The system would also be able to provide aging reports on those participants who have exceeded their time at any of the steps along the way.

Side-by-Side Comparison of Existing Systems/Processes and Recommendations

The charts below provide a clear visual of the recommendations being made as they apply to each existing step in the process.

System/Process Comparison Tables:

Application Submittal Process	
Current Process	***Recommended Process with Automation***
Customer submits application online or hard copy	Customers would select their agency and create a portal account. Each customer's portal account would be secured by their email address and a self-selected password. Within the portal they would complete the application and upload any needed documentation. (If the customer is unable to create electronic versions of documentation, the customer would mail hard copies to MWDOC.) Hard copy applications could be uploaded to the system by WUE staff. Customers could be required to watch an educational video and complete an assessment through the program website to ensure that they are familiar with the program requirements prior to submitting an application.
Online data imported from Survey Gizmo to Excel	The customer would enter initial data directly into the proposed software system. The system would allow role-based access to data and would eliminate the need for other databases. The system would provide a single source of record, which is useful for long-term program tracking, analytics, and streamlining workflow processes.
Excel data checked for matching water agency	Customers would select their agency when submitting their application. If an agency makes their customer data available, the validation could be automated. If customer data is not available, customers could upload a copy of their bill, which would be attached to the customer record. Program staff would verify the bill to their selected agency online.
Hard copy applications and attachments scanned by Admin to laserfische and forwarded to WUE	The hard copy application submittal process would more than likely stay the same. All such information would be added to the Program database through a standard data entry process.

Hard Copy application data entered into Excel	Hard copy applications would be entered into the system by Program staff. Once entered into the system the application would move through the system the same as customer entered applications.
Excel spreadsheet reformatted for Import	The reformatting process would be eliminated because the system would serve as a single source of record for the program.
Excel data imported into Access database	The importing data process would be eliminated. The system would store all data securely. Data would be searchable, and system could generate needed reports, eliminating the need for a separate Access database.
Batch report printed listing received applications	The batch report process could be eliminated. Based upon roles given to specific program staff, computer screens listing all applications needing review would be presented to the staff person as part of their tasks.

Application Review Process	
Current Process	***Recommended Process with Automation***
Email of application and attachment received into Turf Removal program email	This process would be eliminated. All application information would be entered directly into the system by the customer and available for review.
Each application PDF is separated and saved into the appropriate file. PDF includes water bill, photos and site plans	The process of separating and saving applications and their associated documentation would be eliminated. All application information would be entered directly into the system by the customer and validated by staff.
Application fields reviewed, water bill checked for eligible agency, photos & site plan viewed to verify condition of turf & other eligibility	Application information could be reviewed on a single screen in the system. All other documentation could be viewed through links available on the screen.
Process or cancel application	Applications could be approved, denied, put on hold, or withdrawn with a click in the system.
If canceled application, line item deleted from database and email/letter sent with reason for cancelation	All application data could be saved and archived within the system for reporting. Personalized emails could be automatically generated and sent to the customer.

Pre-Workorder Generation and Distribution	
Pre-workorders created in Access database	The process of creating pre-workorders would be eliminated.
Pre-workorder email with attachments sent to inspection vendor or appropriate water agency	The system could automatically generate an email with pre-inspection workorder information to be sent to the inspection vendor or the member agency representative.

Pre-Installation Inspection	
Current Process	***Recommended Process with Automation***
Inspection vendor or member agency conducts pre-inspection including: measuring square footage, taking pictures of turf areas to be removed and completing pre-installation workorder	Inspector portal would allow information to be entered directly into the system. In addition, any documentation could be uploaded directly into the system. This could be done onsite via a tablet device or through any computer.
Inspection vendor or member agency sends email with completed pre-workorders and pictures	Information would be uploaded directly into the system, eliminating the need for this step.
Pre-workorder and pictures saved to appropriate file	Information would be uploaded directly into the system, eliminating the need for this step.
Pre-workorder results entered into database using form	Information would be uploaded directly into the system by the inspector and MWDOC would be automatically notified when completed, eliminating the need for this step.
If results do not pass, customer information provided to WUE Analyst for notification	Information will be uploaded directly into the system, eliminating the need for this step.

Notice to Proceed	
Current Process	***Recommended Process with Automation***
After results entered into database, if pass auto *Letter-to-Proceed* email sent to customer with FAQs	The system would automatically generate a Letter-to -Proceed email and send to the customer.
If not pass, customer line item moved from Open database to Canceled and customer sent disqualify email/letter	The system would automatically generate an email stating why the project did not pass the inspection. The application would automatically be archived.

Turf Removal Project Installation and Completion Notification	
Current Process	***Recommended Process with Automation***
Customer removes turf, installs new landscaping and irrigation	The system could have additional support materials and videos accessible by customer to support them through the process of removing their existing turf, installing new irrigation system and new plants. The system could also automatically send reminder emails to the customer to maintain engagement.
Customer sends notification email or phone call that the project is complete	The customer would report that the project is complete through the portal and attach any needed documentation directly through the portal. Program staff would be notified automatically through the portal or email.

Post-Workorder Generation and Distribution	
Current Process	***Recommended Process with Automation***
Database updated with customer notification project complete	This step would be eliminated because the customer would log their project as complete through the portal.
Post-workorder created in Access database	The system would automatically generate post-workorders, therefore this step would be eliminated.
Post-workorder sent to inspection vendor or appropriate water agency	The system would automatically generate an email with post-inspection work order information to be sent to the inspection vendor or the member agency representative.
Customer sent email notifying them they will be contacted to schedule post-inspection	Customer would automatically be sent a personalized email notification. This message would also be displayed in the portal.

Post installation Inspection	
Current Process	***Recommended Process with Automation***
Inspection vendor or member agency conducts post-inspection including: measuring square footage, taking pictures of turf areas removed, obtaining customer project receipts, and completing post-workorder.	Inspector portal would allow information to be entered directly into the system. In addition, any documentation could be uploaded directly to the system. This would be done onsite via a tablet device or through any computer.
Inspection vendor or water agency scans project receipts.	Project receipts could be either uploaded by the customer or by the evaluator depending upon decided workflow and the customer's capability to create an electronic version of receipts. This can be done by taking a picture

	of the receipt and uploading it directly into the system and could be done onsite during the site inspection.
Inspection vendor or water agency sends email with completed post-workorders, pictures, and project receipts.	Information would be uploaded directly into the system, eliminating the need for this step.
Post-workorder, pictures, and project receipts saved to appropriate file.	Information would be uploaded directly into the system, eliminating the need for this step.
Post-workorder and attachments reviewed to validate the final square footage, ensure documents are complete and signed by the inspector, verify the project receipts are eligible, confirm the photos show project areas that comply with program guidelines.	Application information could be reviewed on a single screen in the system. All other documentation could be viewed through links available on the screen.
Post-workorder results entered into database using form.	Information would be uploaded directly into the system, eliminating the need for this step.
If missing documentation, request submitted to customer or water agency.	If documentation were incomplete, the appropriate person or agency would be notified by email directly from the system by Program staff.

Application Approval	
Current Process	***Recommended Process with Automation***
Project receipts reviewed for eligibility and total costs tabulated	The project receipts would be attached to the customer record and accessed through the system. The system would allow for entry of each cost/receipt, automatically tabulating the total costs.
Rebate amount tabulated, verified in database, and updated as necessary.	The system would automatically tabulate the total costs and compare the total against the requested rebate. If different, the customer would be notified automatically via email of the discrepancies. The customer could be given the option to provide additional project receipts or would give permission to MWDOC to process the amount as tabulated. This could be done directly in the system
Purchase requisition created for each application.	A report of all rebates at a specific status such as “inspected” or “approved” would be generated by the system on a routine basis.
Print application, post-workorder form, and copies of project receipts.	This step will no longer be necessary, but if required by Accounting or management, the system could print the required information in desired format as well as any attachments.

Assemble batch for management and accounting review/approval - batch includes master summary page, summary pages for each water agency with attached application backup.	The summary report could be generated by the system or applications can be viewed directly by management and Accounting within the system.
Batch sent to management for approval.	Management could view and approve reports and applications directly within the system.
Management reviews each application and summary pages, checks receipts and rebate amount and signs off on each application.	Management could view and approve reports and applications directly within the system.

Board Approval	
Current Process	***Recommended Process with Automation***
Approval Report spreadsheet generated with each application, total rebate amount, MWD amount and water agency amount (regional costs).	The system would generate the Approval Report. Accounting would produce the report directly from the system.
Approval Report spreadsheet submitted to accounting.	Accounting would produce the report directly from the system.
Approval Report sent to Administration and Finance Committee for approval	Accounting would provide the system-generated report.

Rebate Check Run	
Current Process	***Recommended Process with Automation***
Batch sent to accounting	The report would be generated by the system. Applications could be viewed directly by Accounting within the system. The batch can also be exported and manually sent to Accounting if deemed necessary.
Each application and summary page reviewed, receipts spot-checked and rebate amount verified	Random applications could be selected by the system and presented on computer screens for Accounting review and approval.
Each line on requisition (application) acknowledged	This is done in MWDOC accounting system, Navision, and would still need to occur.
Accounts payable invoice created for each application - enter name, address, invoice number (app no.), change posting description, and enter amount to receive	A report could be generated by the system that includes this information in the required accounting format.
W-9s for commercial applications scanned and attached to PO	W-9s would be uploaded directly into the system and attached to the customer record if necessary. Accounting would generate a report of all customers with W-9s. The report

	would list the required information for generating W-9s.
Photo copy agency summary page, application, and post-workorder form	This step may no longer be necessary. Accounting would access this information on summary reports directly within the system. However, the system could generate summary reports, application pages, and work order forms if required.

MWD and Member Agency Invoicing	
Current Process	***Recommended Process with Automation***
Compile rebates paid and invoice MWD and funding member agencies	The system would generate an invoice report and the associated spreadsheet backup necessary to invoice MWD and member agencies. The system would also track funds per funding agency and send notifications when funds are nearing depletion.
Tabulate pre- and post-inspection costs from the inspection vendor and invoice appropriate member agencies accordingly	The system would tabulate the number and type of inspections and produce an invoice report and associated backup necessary to invoice member agencies.

Conclusion

MWDOC's Turf Removal Rebate Program has realized high achievement on many fronts. Management has created a program with unparalleled quality standards and staff has stepped up to the task of providing meticulous oversight.

With the recent surge in program response, however, the processes and software systems are now taxed to the limit of their capabilities. While there are steps to be taken in the short run to alleviate some process burdens, the optimal solution for the longer term is to buy or build a rebate management system with the modules and capabilities that best meet today's Program volume and customer service demands.

Existing available software systems can be modified to meet the needs of the Program; an analysis of the various available packages can identify the ones that best match the functionality and quality required for MWDOC. Another option is for MWDOC to build a custom software system for the Program or, possibly, for all of MWDOC's rebate programs. There are several quality software programming firms that have specific industry rebate experience.

By implementation of the report recommendations, MWDOC would see significant procedural improvements in consistency, efficiency, customer satisfaction, and application turn-around time. A single data basing and processing system would eliminate a great number of manual and redundant procedures that currently take place. This would potentially allow MWDOC to reduce the personnel required to manage the Program, freeing staff up to provide even higher levels of customer service and to further support department programs. Member agencies will also benefit from the efficiencies of online processing, automatic notifications, and reporting available through the portal.

A state-of-the art software system would also allow for the following:

- *A heightened level of customer interaction and satisfaction*. Through a customer portal design, customers can have the resources to track their application status and view any number of educational videos. This should result in a higher level of customer satisfaction.
- *A sophisticated financial tracking system*. This would allow MWDOC's program management staff to accurately know at any of the rebate steps along the way where any financial constraints exist.
- *Participant tracking*. The system would have the ability to know where a participant is within the various steps. It would be able to provide aging reports to MWDOC staff and emails to participants to encourage their continued progression with their individual projects.
- *Reporting*. Multiple reports/data tables from any point in the application/rebate process could be generated for review by MWDOC or its participating member agencies.
- *Program integration*. MWDOC's additional in-house rebate programs could be integrated into the rebate processing system.
- *Member agency efficiencies*. Member agencies would benefit from efficiencies in the pre- and post-inspection process including: automatic notifications, portal data entry, portal documentation upload, and in-field data entry capability.

Status of Ongoing MWDOC Reliability and Engineering and Planning Projects

March 31, 2015

Description	Lead Agency	Status % Complete	Scheduled Completion Date	Comments
Baker Treatment Plant or Expansion of Baker Water Treatment Plant	IRWD, MNWD, SMWD, ETWD Trabuco CWD		On line date is early 2016	Karl Seckel and Kevin Hostert participated in a shutdown meeting to plan for the March 2015 connection of the Baker Treatment Plant Pipeline to the South County Pipeline. Unfortunately, the 30" high performance butterfly valve provided by the contractor had an incorrect bolting pattern for both flanges. The initial thought was that a new valve would take 16 weeks to provide and so the shutdown would have to be delayed until the November timeframe. Subsequently, the contractor was able to secure a replacement valve and the shutdown is in the process of being rescheduled at this time for the first or second week in April.
Doheny Desalination Project	MWDOC			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.
Poseidon Resources Ocean Desalination Project in Huntington Beach				The OCWD staff has circulated a revised term sheet for the Poseidon Project that includes: • 50-year deal • Sliding scale for the cost of the Poseidon water at the Plant fenceline that begins at 20% above the cost of MET water and declines by 5% above the cost of MET water each year such that the last 10 years of the deal, the water is at the cost of MET water. • Over the 50-year deal, the water averages 10% over the

Description	Lead Agency	Status % Complete	Scheduled Completion Date	Comments
				cost of MET water. • The delivery of the water and the costs of system integration still needs to be itemized and added into the equation. MWDOC and OCWD are working together, especially on the use of the EOCF#2 for delivery of a portion of the water and for securing the LRP contract from MET for the project. OCWD has initiated meetings with its Citizen's Advisory Committee on the Project.
Orange County Water Reliability Study				Karl Seckel and Richard Bell hosted the March Workgroup meeting for the OC Water Reliability Study following the Manager's meeting. The bulk of discussions were held regarding CDM's (study consultant) regression analysis of total OC water consumption between 1989-90 and 2014. The regression analysis was also used to analyze the three sub-area - the Brea/La Habra area, the OCWD basin and the remaining South portion of the County outside of OCWD. CDM also used information from the member agencies to derive unit use factors for Single Family, Multifamily, Commercial, Industrial and non-revenue water. A good discussion occurred with respect to recycled water demands and how it might influence derivation of the unit use factors. Based on the discussions and input, CDM agreed to further examine a methodology to break out the recycled water use by various methods and bring back the results to the workgroup. IRWD offered information relative to demands and unit use factors in the IRWD service area that might be applicable to SOC. Because of the length of the discussions on how best to handle

Description	Lead Agency	Status % Complete	Scheduled Completion Date	Comments
				this issue, the Workgroup did not get to discuss what level of demands to plan for in emergency situations. This was pushed over to next month. CDM also noted that they are still awaiting the DWR report for the 2015 Reliability of the SWP supplies Report to be released; this report is needed as input for the modeling work on supplies. A meeting was held between MWDOC, CDM, IRWD and IRWD's consultant working on a reliability model for IRWD. The idea is to coordinate the efforts and to share information between the two efforts. The meeting went well.
Other Meetings/Work				
				Joe Berg and Director Susan Hinman participated in the South Orange County IRWMP Executive Management Group discussions. There have been many changes of representatives participating in the Executive Management Group and so time was spent on reviewing the purpose of the group and the proposed two-year budget. Discussions occurred on future discussions between a Steering Committee of members from the Executive Group (mostly elected) and the Management Group (mostly staff) to work on the vision and focus for water supply reliability in SOC. Director Susan Hinman volunteered to participate on a nominating committee to help fill an open City Member position.

Description	Lead Agency	Status % Complete	Scheduled Completion Date	Comments
				Richard Bell attended the San Juan Basin Authority meeting in March where discussions continued on basin monitoring and management. Cathrene Glick reported on the status of the basin activities related to the Groundwater Management Plan.
				Karl Seckel, Rob Hunter and Legal Counsel Russ Behrens met with Dan Ferons and SMWD Legal Counsel Scott Smith to discuss both the Cucamonga Valley Water District water exchange with SMWD and the letter received from MET regarding the South County Pipeline. Further discussions will follow.
				Keith Lyon and Kevin Hostert participated in a shutdown planning meeting to test the ability of the City of Newport Beach to provide emergency water to Laguna Beach CWD. MET staff were involved. The test simulated an outage of the MET system and tested the ability of NB to control and deliver flows to Laguna Beach out of Big Canyon Reservoir via the CM-1A meter. The test was successful in better understanding future emergency operations options.
				Keith Lyon and Kevin Hostert participated in a field meeting with MET and the City of La Habra to test the shutoff valve at OC-45; La Habra is preparing to rebuild the flow control facility and needs to know that the MET valve will hold tight during the 6 month construction process. The field meeting and test confirmed the valve held without significant leakage.
				Heather Baez attended and presented MWDOC's letter of support

Description	Lead Agency	Status % Complete	Scheduled Completion Date	Comments
				for the SDG&E $475 million South Orange County Reliability Enhancement Project. Only about 40 people attended the meeting, most in support of the project.
				Richard Bell is in the process of reviewing about 800 pages of revisions and responses drafted by 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 documents were released last week, comments are due in April and the SWRCB will conduct hearings on May 5. Richard is part of the CalDesal Regulatory Workgroup that has been working on this issue for the past 3 years. Quite a few of the MWDOC and CalDesal comments have been incorporated, however, there are a number of suggestions and input still to be made to the document.
				Karl Seckel along with MWDOC and MWDOC MET Directors Larry Dick and Brett Barbre attended the City of Anaheim retirement function honoring Don Calkins. Even though Don will be honored at a future MWDOC event, Karl dug deep in his wine reserves to come up with a special "Da Don Wine" Handcrafted in the Hills of Anaheim Far Away from the Coastal Influence, Nurtured by the Pristine waters of Anaheim's Well #47. . . . . and thanked Don for all of the good work together over the past 19 years!
				Karl Seckel, along with Rob Hunter and MWDOC Director Sat

Description	Lead Agency	Status % Complete	Scheduled Completion Date	Comments
				Tamaribuchi presented an overview of the OC Water Reliability Study to the ETWD Board of Directors. The presentation was well received.
				Karl Seckel and Cathy Harris met with Mike Markus, John Kennedy, Eleanor Torres, Bonnie Howard and the design consultants to discuss and prepare for an upcoming Joint Building Committee to review concepts, designs, building materials and furnishings for the Board room, Board lobby, entrance lobby and conference room C-3 to prepare for the Ad Hoc Building Committee to seek concurrence from the two agencies to move forward. Karl and Cathy also met with the design consultants to look at MWDOC's entry lobby and bathrooms. The Ad Hoc Committee will be scheduled in the next several weeks.
				Karl Seckel attended the CalDesal Board meeting in Sacramento where discussions included: • Mission, direction, finances and goals for 2015-16, including an emphasis on salt management and brackish desalting as well as ocean desalting • SWRCB Ocean Plan Amendment process and the recently released documents • Legislation that involves desalination or regulations • Prop 1 Bond Funding and removing the $5 M limit on desalination projects • CalDesal Whitepaper on Ocean Desalination in the State • Plans for the Annual Conference in October

Status of Ongoing WEROC Projects
March 2015

Description	Comments
General Activities	Kelly Hubbard met with the general managers or designated staff of the WEROC funding partners over the course of a couple meetings to present the draft WEROC budget. WEROC funding partners include the three MET cities, South Orange County Wastewater Authority, Orange County Sanitation District, Orange County Water District and MWDOC. The meetings are often used to discuss the program's activities and any projects of interest for the coming year. Brandon Stock, WEROC Coordinator, attended a MET inspection trip to Diamond Valley Lake and the Lake Skinner Treatment Plant. Brandon also attended Alert OC and WebEOC training, as well as multiple coordination meetings with various MWDOC departments and agencies to enhance his knowledge of water systems and current WEROC programs.
Coordination with Member Agencies	UPDATE: Kelly continues to lead MWDOC Public Affairs staff, cities, water utilities, and the County Emergency Management staff for the planning of the Alert OC live drill scheduled for April 7th. WEROC has hosted five (5) trainings on how to use the administrative component of Alert OC called Blackboard Connect, as well as three (3) regional coordination meetings, and many smaller meetings to coordinate the logistics of this exercise. WEROC staff, in coordination with MWDOC Public Affairs staff, have developed the AlertOC Regional Test Exercise Plan for the drill that includes information on the participating agencies (noted below), test exercise procedures, standardized message scripts, and a media packet for public outreach. Participating agencies are being asked to utilize a standard script for consistency of messaging. This is the first time the water utilities have been provided the opportunity to use AlertOC for a test exercise. An After-Action Report is expected to be available for the May Planning & Operations Committee. Participating Cities: Anaheim, Brea, Buena Park, Costa Mesa, Cypress, Fullerton, Garden Grove, Huntington Beach, La Habra, La Palma, Laguna Beach, Newport Beach, Placentia, San Clemente, San Juan Capistrano, Santa Ana, Seal Beach, Stanton, Tustin, and Westminster. Participating Special Districts: East Orange County Water District, El Toro Water District,

Description	Comments
	Laguna Beach County Water District (via City of Laguna Beach), Moulton Niguel Water District, Santa Margarita Water District, Serrano Water District, South Coast Water District, Trabuco Canyon Water District, and Yorba Linda Water District. Kelly provided a second session of a 2 hour training called "Bare Bones of Response" for member agency staff. The training covered what is the bare minimum information that is needed from member agencies during emergencies and the various communication methods that can be utilized. Overall the message to the agencies was to keep their response concepts simple, as long as WEROC receives critical pieces of information. The training was well received. WEROC hosted a planning meeting 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. Kelly provided a WebEOC (online emergency information tool) Training on March 12 to both WEROC EOC staff and to member agency staff. WebEOC is used as the primary tool for collecting and displaying emergency response related information to first responders and agencies. Kelly met with staff from the City of San Juan Capistrano's Public Works Department, Water Division, and Emergency Management on March 16 to discuss the City's preparedness and desire to become more involved in emergency planning and specifically WEROC. Kelly was able to provide staff with overviews on services that WEROC provides and ways to become more involved at both the County level and with WEROC. The City staff were excited to learn about some opportunities and have already increased their communications and participation. At the request of a WEROC Member Agency, Kelly worked with the Orange County Intelligence Assessment Center (OCIAC) to find out more information about a terrorist threat against a water utility on the East Coast. The OCIAC determined that the threat did not have potential implications for Orange County utilities, but it was a good reminder for our agencies to stay vigilant. Related to this incident, it was determined that the OCIAC would try to receive

Description	Comments
	Water Information Sharing and Analysis Center (WaterISAC) membership for WEROC staff as OCIAC representatives for water in OC. The Water Information Sharing and Analysis Center (WaterISAC) was authorized by Congress in 2002 and created and managed by the water sector. Its mission is to keep drinking water and wastewater utility managers informed about potential risks to the nation's water infrastructure from contamination, terrorism and cyber threats. Additionally, WaterISAC membership is very costly, however the OCIAC as a FBI coordination agency should be able to receive membership for free. Lastly, WEROC staff will be exploring the idea of a water contamination scenario for a future disaster exercise.
Coordination with the County of Orange	Brandon Stock and Kelly attended the March Orange County Emergency Management Organization (OCEMO) meeting in Buena Park. The primary presentation was on Cybersecurity by OCIAC staff. Additionally, Brandon and Kelly attended the county-wide Exercise Planning meeting on the same day. The County would like to make water procurement and distribution a primary logistical component to the May 21st exercise. Kelly attended the Orange County Drought Task Force meeting in Santa Ana. This group is meeting quarterly to monitor how the drought is impacting the county from an emergency management perspective and to develop an emergency response plan to concepts as needed. At this time the group is making sure all county departments are aware of various efforts and monitoring impacts, such as on agriculture within the county. Kelly is working with the County Emergency Management staff to arrange for a Summary Outlook Workshop next month to discuss various response concepts related to a hot summer, such as extreme heat warnings, power outage response, a high fire season and drought concepts.
Coordination with Outside Agencies	Kelly participated in the California Office of Emergency Services (Cal OES) Southern Region Drought Conference Call. These conference calls are back to being hosted bi-weekly with the expectation that drought response concerns will start to increase due to the higher temperatures already seen this season. For example, the County of Santa Barbara is working with their County Board of Supervisors to renew their Drought Disaster Declaration, as they expect to turn potable

Description	Comments
	water pumps back on in Lake Cachuma in April. Additionally, during the call there was a discussion on methods for fire agencies to assess water reservoir levels and each reservoir's viability as air support water dip points for wildland fires. Brandon completed a major update to the California Operational Area Water Sector EOC Specific Position Template. Several years ago, Kelly led the initial development of this plan with the California Water/Wastewater Agency Response Network (CalWARN) State Steering Committee as a guidance document for other utilities trying to establish a water position within their county similar to how WEROC coordinates here in OC. The document was due for an update and provided a great learning opportunity for Brandon on water mutual aid systems. Kelly will be using this updated template for her presentation at a conference in Tacoma in April, as well as at AWWA ACE in June.
WEROC Emergency Operations Center (EOC) Readiness	WEROC successfully participated in the MARS radio test for March. Staff were not available for the Operational Area radio test due to a last minute conflict in schedule, however the radio was tested and is in working order. Kelly provided Brandon a tour of the WEROC emergency operation centers (EOC) and pest control was coordinated at the WEROC North EOC. Kelly provided two sessions of a new trainings for WEROC EOC staff called Position Specific Training. The 1.5 hour training reviewed all the positions within the EOC, what their responsibilities are and how each relates to other staff within the EOC, as well as to outside agencies. Brandon drafted a Request for Quotes for the WEROC Radio Assessment. This assessment is to understand: • How all the member agency radios are programmed; • What type of equipment is being used;

Description	Comments
	• How and where their radios are installed; • And to provide each agency with a short radio training while the contractor is on site. Currently, the RFQ is being reviewed by a radio technician from MET to provide input on the RFQ before it is released. Brandon has audited previous exercise after-action reports for recommended updates in EOC equipment and materials. He has started to receive pricing, ordering and replacing needed items for the next exercise on May 21st. UPDATE - Both EOC's still have significant construction onsite. 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, the South EOC will continue as the primary EOC at this time.

Status of Water Use Efficiency Projects

April 2015

Description	Lead Agency	Status % Complete	Scheduled Completion or Renewal Date	Comments
Smart Timer Rebate Program	MWDSC	Ongoing	September 2015	For February 2015, 0 smart timers were installed in the residential and commercial sectors. For program water savings and implementation information, see MWDOC Water Use Efficiency Program Savings and Implementation Report.
Rotating Nozzles Rebate Program	MWDSC	Ongoing	Ongoing	For February 2015, 0 residential and 1,455 commercial rotating nozzles were installed in Orange County. For program savings and implementation information, please see MWDOC Water Use Efficiency Program Savings and Implementation Report.
Water Smart Landscape Program	MWDOC	On-going	November 2015	In February 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. For program savings and implementation information, please see MWDOC Water Use Efficiency Program Savings and Implementation Report.
SoCal Water$mart Residential Indoor Rebate Program	MWDSC	On-going	On-going	In February 2015, 548 high efficiency clothes washers and 2,047 high efficiency toilets were installed through this program. For program savings and implementation information, please see MWDOC Water Use Efficiency Program Savings and Implementation Report.

SoCal Water$mart Commercial Rebate Program	MWDSC	On-going	On-going	In February 2015, 109 high efficiency toilets, 6 zero water urinals, and 1 cooling tower conductivity controller were installed through this program. For program savings and implementation information, please see MWDOC Water Use Efficiency Program Savings and Implementation Report.
Industrial Process Water Use Reduction Program	MWDOC	90%	December 2015	A total of 41 Focused Surveys and 19 Comprehensive Surveys have been completed or are in progress. To date, 12 companies have signed Incentive Agreements. Updated discharger lists have been obtained, and outreach is continuing to sites with feasible water savings potential. As a result of this program, 346 AFY of water savings is being achieved.
MWDOC Conservation Meeting	MWDOC	On-going	Monthly	This month's meeting was held on March 5, 2015 and was hosted by the City of Orange. The next meeting will be on April 2, 2015 at Mesa Water District.
Metropolitan Conservation Meeting	MWDSC	On-going	Monthly	This month's meeting was held on March 19, 2015. The next meeting will be April 16, 2015 at Metropolitan.
Water Smart Hotel Program	MWDOC	85%	June 2015	MWDOC was awarded a Bureau of Reclamation grant, to be matched with Metropolitan funds, to conduct up to 30 commercial and landscape audits of hotels. Enhanced financial incentives will be provided to augment the current SoCal Water$mart rebates. 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.

Turf Removal Program	MWDOC	On-going	Ongoing	In February 2015, 316 rebates were paid, representing 758,400 square feet of turf removed in Orange County. To date, the Turf Removal Program has removed approximately 4,281,563 square feet of turf. For program savings and implementation information, please see MWDOC Water Use Efficiency Program Savings and Implementation Report.
California Sprinkler Adjustment Notification System – Base Irrigation Schedule Calculator	MWDOC	5%	December 2015	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. Staff is now in the process of preparing a Request for Proposals for the development of the Base Irrigation Schedule Calculator. The RFP should be complete by the end of March. Proposals will be due by the end of April, and staff anticipates a Board action in April.
Public Spaces Program	MWDOC	20%	December 2015	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. 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.

Home Certification Program	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. In February 2015, MWDOC received twelve (12) applications for the Home Certification Program. Seven (7) surveys were conducted, and survey results are pending.
Landscape Irrigation Survey Program	MWDSC	Ongoing	June 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. To date, 127 sites in the MWDOC service area have contacted Metropolitan to request surveys.
Spray to Drip Conversion Pilot Program	MWDOC	28%	April 2016	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, 89 residential applications and 26 commercial applications have received a Notice to Proceed. Of these, 60 residential sites and 16 commercial sites have been completed.
CII Performance-Based Water Use Efficiency Program	MWDOC	2%	December 2017	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.
Landscape Training and Outreach	MWDOC & County Stormwater	Ongoing	Ongoing	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

Landscape Training and Outreach (cont.)				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. The OCGF program held three events during Spring 2015 at the Home Depots in Cypress, Lake Forest, and Irvine. Three more events are scheduled to be held on April 11th, April 25th, and May 2nd.

Orange County

Water Use Efficiency Programs Savings and Implementation Report

Item 4d

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	February-15	548	1.26	4,163	44.66	100,890	2,787	17,633
Smart Timer Program - Irrigation Timers	2004	February-15	0	0.00	1,197	274.52	12,429	4,349	24,051
Rotating Nozzles Rebate Program	2007	February-15	1,455	0.48	34,174	720.52	406,576	2,132	8,540
SoCal Water$mart Commercial Plumbing Fixture Rebate Program	2002	February-15	116	0.50	1,502	16.20	46,861	3,461	30,441
Water Smart Landscape Program [1]	1997	February-15	12,477	890.35	12,477	7,079.91	12,477	10,454	64,906
Industrial Process Water Use Reduction Program	2006	February-15	0	7.75	2	7.75	13.00	346	1,104
Turf Removal Program[3]	2010	February-15	758,400	8.84	2,651,587	742	4,281,563	600	1,674
High Efficiency Toilet (HET) Program	2005	February-15	2,047	7.26	7,843	222.41	40,023	1,479	8,860
Home Water Certification Program	2013	February-15	7	0.014	125	1.111	203	4.775	6.610
Synthetic Turf Rebate Program	2007		0	0	0	0	685,438	96	469
Ultra-Low-Flush-Toilet Programs [2]	1992		0	0	0	0	363,926	13,452	162,561
Home Water Surveys [2]	1995		0	0	0	0	11,867	160	1,708
Showerhead Replacements [2]	1991		0	0	0	0	270,604	1,667	19,083
Total Water Savings All Programs				**916**	**2,713,070**	**9,110**	**6,232,870**	**40,987**	**341,036**

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

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

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

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

HIGH EFFICIENCY CLOTHES WASHERS INSTALLED BY AGENCY

through MWDOC and Local Agency Conservation Programs

Agency	FY 01/02	FY 02/03	FY03/04	FY 04/05	FY 05/06	FY 06/07	FY 07/08	FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY13/14	FY14/15	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	69	1,689	0.78	294.24
Buena Park	9	45	88	81	84	85	114	146	59	230	145	105	106	63	1,360	0.72	218.96
East Orange CWD RZ	3	8	20	20	11	18	22	17	3	23	10	10	8	6	179	0.07	32.92
El Toro WD	21	88	108	103	83	91	113	130	32	162	112	134	121	72	1,370	0.79	221.97
Fountain Valley	36	127	209	196	178	205	219	243	72	289	158	115	102	72	2,221	0.73	401.53
Garden Grove	39	173	278	243	243	238	304	332	101	481	236	190	162	95	3,115	0.99	546.96
Golden State WC	37	195	339	374	342	339	401	447	168	583	485	265	283	223	4,481	2.36	764.75
Huntington Beach	114	486	857	738	680	761	750	751	211	963	582	334	295	183	7,705	2.01	1,427.73
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	1,216	21,106	13.40	3,436.94
La Habra	8	40	86	81	66	96	136	83	22	179	128	82	114	59	1,180	0.62	191.45
La Palma	3	5	13	21	18	33	35	51	25	76	46	34	25	22	407	0.19	65.06
Laguna Beach CWD	17	88	119	84	68	57	77	77	27	96	57	38	37	20	862	0.20	156.33
Mesa Water	24	117	228	240	212	239	249	246	73	232	176	114	86	48	2,284	0.50	431.70
Moulton Niguel WD	158	630	841	640	570	652	716	742	250	1,127	679	442	421	456	8,324	4.17	1,424.08
Newport Beach	17	144	343	277	243	245	270	259	57	197	142	116	92	62	2,464	0.67	470.83
Orange	58	247	304	358	330	366	365	403	111	349	262	218	163	95	3,629	1.06	673.46
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	59	1,330	0.68	229.90
San Clemente	32	182	235	170	136	204	261	278	63	333	206	140	94	84	2,418	0.91	422.19
Santa Margarita WD	140	510	743	573	592	654	683	740	257	1,105	679	553	662	521	8,412	5.74	1,386.56
Seal Beach	13	28	57	39	46	47	46	57	7	81	51	31	29	19	551	0.20	95.94
Serrano WD	9	16	54	39	39	30	31	23	7	21	20	13	10	20	332	0.19	62.47
South Coast WD	35	138	165	97	103	107	130	148	43	183	112	89	79	45	1,474	0.50	254.52
Trabuco Canyon WD	10	63	76	58	44	69	60	62	28	82	62	30	45	32	721	0.37	124.93
Tustin	21	89	152	138	127	152	146	144	45	174	97	78	59	47	1,469	0.44	270.28
Westminster	37	159	235	196	186	213	171	233	74	329	208	121	82	71	2,315	0.78	413.49
Yorba Linda	36	214	342	355	333	288	350	367	117	394	273	181	167	99	3,516	1.14	645.79
MWDOC Totals	1,069	4,620	7,277	6,453	6,424	7,406	7,987	8,106	3,331	10,686	7,350	5,365	5,094	3,758	84,926	40.23	14,667.76
Anaheim	917	677	904	1,364	701	854	847	781	860	910	477	331	285	188	10,096	2.11	1,912.04
Fullerton	40	196	369	289	263	269	334	330	69	397	270	200	186	141	3,353	1.56	568.70
Santa Ana	15	69	188	269	244	236	235	257	87	355	190	163	131	76	2,515	0.76	484.67
Non-MWDOC Totals	972	942	1,461	1,922	1,208	1,359	1,416	1,368	1,016	1,662	937	694	602	405	15,964	4.44	2,965.40
Orange County Totals	2,041	5,562	8,738	8,375	7,632	8,765	9,403	9,474	4,347	12,348	8,287	6,059	5,696	4,163	100,890	44.66	17,633.16

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		Cumulative Water Savings across all Fiscal Years
	Res	Comm	Res	Comm	Res	Comm	Res	Comm	Res	Comm	Res	Comm	Res	Comm	Res	Comm.	
Brea	3	9	0	0	2	0	8	0	9	8	4	0	35	5	72	71	344.80
Buena Park	3	1	0	0	0	0	4	19	3	0	0	0	3	10	13	30	64.86
East Orange CWD RZ	0	0	0	0	1	0	5	0	2	0	0	0	2	0	13	0	2.95
El Toro WD	0	25	2	18	5	5	26	2	7	2	11	0	4	5	69	326	1,747.48
Fountain Valley	1	0	0	6	2	2	8	2	3	2	4	0	5	6	43	23	91.87
Garden Grove	2	1	6	0	5	4	7	0	5	2	9	0	8	13	58	26	82.59
Golden State WC	1	2	9	22	7	4	13	3	9	49	9	25	30	5	125	132	415.15
Huntington Beach	13	1	6	27	6	36	15	4	18	33	20	35	13	0	136	160	547.65
Irvine Ranch WD	29	56	14	145	28	153	267	71	414	135	71	59	42	169	1,161	1,518	6,655.85
La Habra	0	0	0	21	0	0	3	0	4	7	2	0	3	7	20	36	114.42
La Palma	0	0	0	0	0	0	1	0	1	0	2	0	0	0	4	0	0.51
Laguna Beach CWD	2	0	2	14	4	1	109	2	76	2	71	0	3	0	301	19	123.18
Mesa Water	6	7	13	7	7	22	21	0	10	2	15	2	12	14	128	87	402.67
Moulton Niguel WD	21	23	17	162	36	60	179	31	51	74	40	45	30	77	499	554	1,915.38
Newport Beach	10	27	7	58	6	0	275	12	242	26	168	75	9	7	978	352	1,653.61
Orange	5	2	2	13	5	8	25	0	20	24	13	9	12	28	159	139	562.30
San Juan Capistrano	10	0	7	49	13	1	103	2	14	18	6	11	2	10	176	100	359.28
San Clemente	81	20	13	209	46	11	212	17	26	7	28	2	22	12	982	346	1,756.69
Santa Margarita WD	25	44	10	152	61	53	262	7	53	171	64	93	28	302	614	996	2,836.97
Santiago CWD	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	11	2	51	68.21
Serrano WD	0	0	11	0	4	0	3	0	1	0	0	0	0	0	19	0	4.66
South Coast WD	11	6	3	10	13	3	78	10	13	16	8	4	25	18	183	146	640.65
Trabuco Canyon WD	1	0	2	0	2	10	12	0	6	0	2	0	3	1	71	104	621.43
Tustin	7	9	10	14	10	0	11	0	8	4	9	1	11	14	70	49	174.39
Westminster	3	0	3	0	1	1	2	0	1	1	2	0	13	16	41	30	107.31
Yorba Linda	8	5	5	21	25	0	22	0	20	0	12	5	24	2	197	85	460.78
MWDOC Totals	242	238	142	949	289	374	1,671	185	1,017	583	571	402	339	732	6,134	5,380	21,755.63
Anaheim	9	59	5	46	12	11	23	60	19	10	9	26	4	52	124	413	1,660.07
Fullerton	2	2	2	39	9	33	22	51	9	29	8	0	34	3	108	157	495.54
Santa Ana	2	4	1	8	8	0	6	5	8	19	7	8	6	27	42	71	139.36
Non-MWDOC Totals	13	65	8	93	29	44	51	116	36	58	24	34	44	82	274	641	2,294.97
Orange County Totals	255	303	150	1,042	318	418	1,722	301	1,053	641	595	436	383	814	6,408	6,021	24,051

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 across all Fiscal Years
	Small		Large	Small		Large	Small		Large	Small		Large	Small		Large	Small		Large	Small		Large	
	Res	Comm.	Comm.	Res	Comm.	Comm.	Res	Comm.	Comm.	Res	Comm.	Comm.	Res	Comm.	Comm.	Res	Comm.	Comm.	Res	Comm.	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	188	0	0	404	75	2,535	449.10
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	8,684	0	2,584	21,493	890	377.19
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	426	1,741	0	1,996	5,308	0	80.54
Huntington Beach	39	3,420	305	203	625	0	458	0	0	270	0	0	120	0	0	745	850	0	2,250	5,759	2,681	727.29
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	1,208	55	0	44,600	79,426	2,004	2,474.76
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	10	0	0	0.24
Laguna Beach	191	0	0	156	0	0	763	0	0	3,596	0	0	2,948	878	0	35	1,971	0	7,905	2,896	0	103.98
Mesa Water	195	83	0	118	0	0	297	277	0	270	0	0	361	0	0	143	0	0	1,665	385	343	113.16
Moulton Niguel	234	0	959	1,578	0	0	1,225	0	0	512	1,385	0	361	227	0	1,364	4,098	0	5,997	12,713	2,945	865.79
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	2,612	851	0	4,266	117	1,343	631	172	0	415	5,074	0	252	0	0	9,489	7,538	1,343	359.13
San Juan Capistrano	656	5,709	0	1,452	0	0	949	0	0	684	30	0	370	0	0	290	732	0	4,905	8,131	0	229.66
Santa Margarita	1,731	937	611	3,959	3,566	0	4,817	0	0	983	0	0	389	0	0	1,053	1,513	0	14,176	6,084	611	395.68
Seal Beach	0	291	0	0	0	0	0	0	0	0	0	0	0	0	0	40	0	0	155	291	0	8.74
Serrano	1,498	0	0	364	0	0	58	0	0	190	0	0	105	0	0	41	0	0	2,374	0	0	42.95
South Coast	0	0	0	318	1,772	0	688	359	0	435	0	0	70	0	0	706	1,155	0	2,406	3,419	0	67.76
Trabuco Canyon	1,357	791	0	0	0	0	379	0	0	34	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	278	0	0	2,859	1,013	0	54.42
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	638	0	0	3,870	4,359	500	241.24
MWDOC Totals	9,255	78,329	6,779	15,343	11,856	0	19,072	9,460	1,343	59,970	11,647	0	36,622	21,669	0	10,394	22,488	0	161,132	179,838	14,752	7,662.90
Anaheim	273	164	105	372	382	0	742	38,554	0	459	813	0	338	0	0	463	0	0	3,044	39,913	105	540.13
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
Non-MWDOC Totals	369	736	1,589	841	382	0	1,173	38,619	0	677	813	0	531	2,533	0	1,292	0	0	6,062	43,203	1,589	876.96
Orange County Totals	9,624	79,065	8,368	16,184	12,238	0	20,245	48,079	1,343	60,647	12,460	0	37,153	24,202	0	11,686	22,488	0	167,194	223,041	16,341	8,539.86

SOCAL WATER$MART COMMERCIAL PLUMBING FIXTURES REBATE PROGRAM[1]
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	1,085	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	0	27	0	**446**	**250**
Mesa Water	155	22	130	241	141	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	0	14	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**
MWDOC Totals	**3,004**	**661**	**2,921**	**2,049**	**2,245**	**1,079**	**4,134**	**4,537**	**3,424**	**1,966**	**1,594**	**1,172**	**993**	**30,739**	**19,957**
Anaheim	400	947	362	1,113	780	766	3,298	582	64	48	165	342	454	**10,363**	**5,456**
Fullerton	41	138	270	91	96	133	579	29	4	0	94	0	53	**1,556**	**1,277**
Santa Ana	153	589	227	624	373	493	815	728	39	12	16	17	2	**4,203**	**3,750**
Non-MWDOC Totals	**594**	**1,674**	**859**	**1,828**	**1,249**	**1,392**	**4,692**	**1,339**	**107**	**60**	**275**	**359**	**509**	**16,122**	**10,484**
Orange County Totals	**3,598**	**2,335**	**3,780**	**3,877**	**3,494**	**2,471**	**8,826**	**5,876**	**3,531**	**2,026**	**1,869**	**1,531**	**1,502**	**46,861**	**30,441**

[1] Retrofit devices include ULF Toilets and Urinals, High Efficiency Toilets and Urinals, Zero Water Urinals, High Efficiency Clothes Washers, Cooling Tower Conductivity Controllers, Ph Cooling Tower Conductivity Controllers, Flush Valve Retrofit Kits, Pre-rinse Spray heads, Hospital X-Ray Processor Recirculating Systems, Steam Sterilizers, Food Steamers, 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	22	22	22	22	51.81
Buena Park	0	0	0	0	17	103	101	101	101	101	405.04
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	4,393.38
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	182.32
Huntington Beach	0	0	0	0	31	33	31	31	31	31	130.73
Irvine Ranch WD	638	646	708	1,008	6,297	6,347	6,368	6,795	6,797	6,761	34,439.65
Laguna Beach CWD	0	0	0	57	141	143	141	124	124	124	662.29
La Habra	0	0	0	23	22	24	22	22	22	22	124.17
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	2,650.14
Moulton Niguel WD	57	113	180	473	571	595	643	640	675	675	3,734.66
Newport Beach	27	23	58	142	171	191	226	262	300	300	1,329.92
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	2,131.22
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	12,838.90
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	736.29
Trabuco Canyon WD	0	0	12	49	48	62	60	60	60	60	316.26
Tustin	0	0	0	0	0	0	0	0	0	0	0.00
Westminster	0	0	10	18	18	20	18	18	18	18	106.18
Yorba Linda WD	0	0	0	0	0	0	0	0	0	0	0.00
MWDOC Totals	**1,785**	**1,969**	**2,733**	**4,395**	**10,025**	**10,787**	**11,273**	**11,766**	**12,196**	**12,287**	**64,232.9**
Anaheim	0	0	0	0	142	146	144	190	190	190	673.06
Fullerton	0	0	0	0	0	0	0	0	0	0	0.00
Santa Ana	0	0	0	0	0	0	0	0	0	0	0.00
Non-MWDOC Totals	**0**	**0**	**0**	**0**	**142**	**146**	**144**	**190**	**190**	**190**	**673.06**
Orange Co. Totals	**1,785**	**1,969**	**2,733**	**4,395**	**10,167**	**10,933**	**11,417**	**11,956**	**12,386**	**12,477**	**64,906.00**

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	329
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	20
Huntington Beach	0	0	0	0	0	2	0	1	3	127	150
Irvine Ranch	0	0	2	1	1	1	1	0	6	98	301
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	4
Orange	1	0	0	0	0	0	0	0	1	43	301
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
MWDOC Totals	2	1	2	1	1	3	1	2	13	346	1104

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

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

TURF REMOVAL BY AGENCY[1]

through MWDOC and Local Agency Conservation Programs

Agency	FY 10/11		FY 11/12		FY 12/13		FY 13/14		FY 14/15		Total Program		Cumulative Water Savings across all Fiscal Years
	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	31,303	10,010	48,002	19,476	27.22
Buena Park	0	0	0	0	0	0	0	0	1,592	0	1,592	0	0.45
East Orange	0	0	0	0	0	0	1,964	0	9,207	0	11,171	0	3.40
El Toro	0	0	4,723	0	4,680	72,718	4,582	0	12,108	56,385	26,093	129,103	67.75
Fountain Valley	0	0	1,300	0	682	7,524	4,252	0	22,151	0	28,385	7,524	13.49
Garden Grove	0	46,177	14,013	0	4,534	0	8,274	0	19,230	15,503	46,051	61,680	64.34
Golden State	0	0	42,593	30,973	31,813	3,200	32,725	8,424	68,022	34,109	175,153	76,706	116.98
Huntington Beach	801	3,651	27,630	48,838	9,219	12,437	20,642	0	88,120	37,650	146,412	102,576	113.28
Irvine Ranch	5,423	12,794	6,450	1,666	32,884	32,384	36,584	76,400	153,259	122,641	234,600	245,885	182.23
La Habra	0	7,775	0	8,262	0	0	0	0	6,320	0	6,320	16,037	14.08
La Palma	0	0	0	0	0	0	0	0	1,981	0	1,981	0	0.55
Laguna Beach	978	0	2,533	0	2,664	1,712	4,586	226	7,657	1,189	18,418	3,127	9.54
Mesa Water	0	0	6,777	0	10,667	0	22,246	0	62,834	7,763	102,524	7,763	39.83
Moulton Niguel	956	16,139	4,483	26,927	11,538	84,123	14,739	40,741	140,082	868,305	171,798	1,036,235	395.56
Newport Beach	0	0	3,454	0	3,548	2,346	894	0	11,256	4,678	19,152	7,024	10.56
Orange	0	0	12,971	0	15,951	8,723	11,244	0	46,682	215,124	86,848	223,847	100.92
San Clemente	0	0	21,502	0	16,062	13,165	18,471	13,908	40,881	0	96,916	27,073	56.46
San Juan Capistrano	0	0	22,656	103,692	29,544	27,156	12,106	0	47,525	832	111,831	131,680	138.82
Santa Margarita	4,483	5,561	1,964	11,400	10,151	11,600	17,778	48,180	120,303	182,867	154,679	259,608	142.56
Seal Beach	0	0	0	0	3,611	0	0	0	4,791	189	8,402	189	3.42
Serrano	0	0	0	0	0	0	2,971	0	26,116	0	29,087	0	8.56
South Coast	0	16,324	6,806	0	9,429	4,395	15,162	116,719	43,246	10,772	74,643	148,210	96.73
Trabuco Canyon	0	0	272	0	1,542	22,440	2,651	0	6,803	0	11,268	22,440	16.64
Tustin	0	0	0	0	9,980	0	1,410	0	20,140	0	31,530	0	11.82
Westminster	0	0	0	0	0	0	0	0	3,423	14,364	3,423	14,364	4.98
Yorba Linda	11,349	0	0	0	0	0	0	0	61,472	12,702	72,821	12,702	30.30
MWDOC Totals	23,990	108,421	183,524	241,224	216,104	303,923	238,978	304,598	1,056,504	1,595,083	1,719,100	2,553,249	1,670.47
Anaheim	0	0	0	0	0	0	0	0	0	0	0	0	-
Fullerton	0	0	0	0	0	0	0	9,214	0	0	0	9,214	3.87
Santa Ana	0	0	0	0	0	0	0	0	0	0	0	0	-
Non-MWDOC Totals	0	0	0	0	0	0	0	9,214	0	0	0	9,214	3.87
Orange County Totals	23,990	108,421	183,524	241,224	216,104	303,923	238,978	313,812	1,056,504	1,595,083	1,719,100	2,562,463	1,674.34

[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	38	86	232	**36.81**
Buena Park	0	1	2	124	176	7	0	0	96	99	505	**96.82**
East Orange CWD RZ	0	0	10	12	1	0	0	0	13	19	55	**9.15**
El Toro WD	0	392	18	75	38	18	0	133	218	322	1,214	**241.40**
Fountain Valley	0	69	21	262	54	17	0	0	41	75	539	**135.72**
Garden Grove	0	14	39	443	181	24	0	0	63	208	972	**216.16**
Golden State WC	2	16	36	444	716	37	80	2	142	259	1,734	**379.20**
Huntington Beach	2	13	59	607	159	76	0	0	163	978	2,057	**319.02**
Irvine Ranch WD	29	1,055	826	5,088	2,114	325	0	1,449	810	1,078	12,774	**3,122.26**
Laguna Beach CWD	0	2	17	91	28	11	0	0	45	80	274	**50.39**
La Habra	0	3	18	296	34	20	0	0	37	76	484	**114.78**
La Palma	0	1	10	36	26	13	0	0	21	38	145	**27.32**
Mesa Water	0	247	19	736	131	7	0	0	174	101	1,415	**374.39**
Moulton Niguel WD	0	20	104	447	188	46	0	0	400	1,298	2,503	**323.32**
Newport Beach	0	5	19	163	54	13	0	0	49	106	409	**82.18**
Orange	1	20	62	423	79	40	0	1	142	277	1,045	**207.90**
San Juan Capistrano	0	10	7	76	39	11	0	0	35	84	262	**47.71**
San Clemente	0	7	22	202	66	21	0	0	72	150	540	**104.18**
Santa Margarita WD	0	5	14	304	151	44	0	0	528	629	1,675	**216.88**
Seal Beach	0	678	8	21	12	1	0	2	17	30	769	**274.93**
Serrano WD	2	0	1	13	5	0	0	0	2	31	54	**7.83**
South Coast WD	2	2	29	102	41	12	23	64	102	266	643	**86.99**
Trabuco Canyon WD	0	0	4	23	23	0	0	0	10	59	119	**17.45**
Tustin	0	186	28	387	479	17	0	0	64	69	1,230	**330.39**
Westminster	0	17	25	541	167	23	0	0	35	84	892	**230.29**
Yorba Linda WD	0	14	89	323	96	18	0	0	40	139	719	**169.56**
MWDOC Totals	38	2,779	1,494	11,282	5,106	809	103	1,651	3,357	6,641	33,260	**7,223.04**
Anaheim	0	255	78	2,771	619	114	0	0	156	839	4,832	**1,181.06**
Fullerton	0	4	28	286	60	23	0	0	61	145	607	**127.85**
Santa Ana	0	11	25	925	89	23	0	0	33	218	1,324	**328.00**
Non-MWDOC Totals	0	270	131	3,982	768	160	0	0	250	1,202	6,763	**1,636.91**
Orange County Totals	**38**	**3,049**	**1,625**	**15,264**	**5,874**	**969**	**103**	**1,651**	**3,607**	**7,843**	**40,023**	**8,859.95**

HOME WATER SURVEYS PERFORMED BY AGENCY

through MWDOC and Local Agency Conservation Programs

Agency	FY 13/14		FY 14/15		Total		Cumulative
	Surveys	Cert Homes	Surveys	Cert Homes	Surveys	Cert Homes	Water Savings
Brea	1	0	1	0	2	0	0.07
Buena Park	0	0	0	0	0	0	0.00
East Orange	19	0	1	0	20	0	0.92
El Toro	0	0	3	0	3	0	0.07
Fountain Valley	3	0	4	0	7	0	0.24
Garden Grove	0	0	6	0	6	0	0.14
Golden State	0	0	0	0	0	0	0.00
Huntington Beach	2	0	3	0	5	0	0.16
Irvine Ranch	1	0	0	0	1	0	0.05
La Habra	0	0	1	0	1	0	0.02
La Palma	0	0	0	0	0	0	0.00
Laguna Beach	4	0	6	0	10	0	0.33
Mesa Water	0	0	0	0	0	0	0.00
Moulton Niguel	4	0	4	0	8	0	0.28
Newport Beach	2	0	7	0	9	0	0.26
Orange	2	0	14	0	16	0	0.42
San Clemente	15	0	8	0	23	0	0.89
San Juan Capistrano	4	0	12	0	16	0	0.47
Santa Margarita	15	0	18	1	33	1	1.13
Seal Beach	0	0	1	0	1	0	0.02
Serrano	0	0	2	0	2	0	0.05
South Coast	6	0	3	0	9	0	0.35
Trabuco Canyon	0	0	3	0	3	0	0.07
Tustin	0	0	8	0	8	0	0.19
Westminster	0	0	0	0	0	0	0.00
Yorba Linda	0	0	7	0	7	0	0.16
MWDOC Totals	78	0	112	1	190	1	6.30
Anaheim	0	0	0	0	0	0	0.00
Fullerton	0	0	0	0	0	0	0.00
Santa Ana	0	0	13	0	13	0	0.31
Non-MWDOC Totals	0	0	13	0	13	0	0.31
Orange County Totals	78	0	125	1	203	1	6.610

SYNTHETIC TURF INSTALLED BY AGENCY[1]

through MWDOC and Local Agency Conservation Programs

Agency	FY 07/08		FY 08/09		FY 09/10		FY 10/11		Total Program		Cumulative Water Savings across all Fiscal Years
	Res	Comm.	Res	Comm.	Res	Comm.	Res	Comm.	Res	Comm.	
Brea	0	0	2,153	2,160	500	0	0	0	2,653	2,160	3.30
Buena Park	0	0	1,566	5,850	0	0	0	0	1,566	5,850	5.19
East Orange	0	0	0	0	983	0	0	0	983	0	0.55
El Toro	3,183	0	2,974	0	3,308	0	895	0	10,360	0	6.98
Fountain Valley	11,674	0	1,163	0	2,767	0	684	0	16,288	0	12.46
Garden Grove	1,860	0	0	0	3,197	0	274	0	5,331	0	3.47
Golden State	6,786	0	13,990	0	15,215	0	2,056	0	38,047	0	24.88
Huntington Beach	15,192	591	12,512	0	4,343	1,504	0	0	32,047	2,095	25.29
Irvine Ranch	11,009	876	13,669	0	2,585	0	0	0	27,263	876	21.00
La Habra	0	0	0	0	0	0	0	0	0	0	-
La Palma	429	0	0	0	0	0	0	0	429	0	0.36
Laguna Beach	3,950	0	3,026	0	725	0	0	0	7,701	0	5.84
Mesa Water	4,114	0	3,005	78,118	4,106	0	2,198	0	13,423	78,118	63.46
Moulton Niguel	14,151	0	25,635	2,420	7,432	0	0	0	47,218	2,420	35.69
Newport Beach	2,530	0	6,628	0	270	0	0	0	9,428	0	6.92
Orange	4,169	0	7,191	0	635	0	0	0	11,995	0	8.89
San Clemente	9,328	0	11,250	455	2,514	1,285	500	0	23,592	1,740	18.37
San Juan Capistrano	0	0	7,297	639	2,730	0	4,607	0	14,634	639	9.02
Santa Margarita	12,922	0	26,069	0	21,875	0	7,926	0	68,792	0	44.68
Seal Beach	0	0	817	0	0	0	0	0	817	0	0.57
Serrano	7,347	0	1,145	0	0	0	0	0	8,492	0	6.97
South Coast	2,311	0	6,316	0	17,200	0	1,044	0	26,871	0	16.43
Trabuco Canyon	1,202	0	9,827	0	0	0	0	0	11,029	0	7.89
Tustin	6,123	0	4,717	0	2,190	0	0	0	13,030	0	9.67
Westminster	2,748	16,566	8,215	0	890	0	0	0	11,853	16,566	22.47
Yorba Linda	11,792	0	12,683	0	4,341	5,835	0	0	28,816	5,835	24.48
MWDOC Totals	132,820	18,033	181,848	89,642	97,806	8,624	20,184	0	432,658	116,299	384.83
Anaheim	4,535	0	7,735	20,093	13,555	65,300	4,122	0	29,947	85,393	69.18
Fullerton	4,865	876	5,727	0	6,223	0	105	0	16,920	876	12.36
Santa Ana	0	0	2,820	0	525	0	0	0	3,345	0	2.27
Non-MWDOC Totals	9,400	876	16,282	20,093	20,303	65,300	4,227	0	50,212	86,269	83.81
Orange County Totals	142,220	18,909	198,130	109,735	118,109	73,924	24,411	0	482,870	202,568	468.63

[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	1,400	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	**16,600**	**7,347.93**
San Juan Capistrano	1,234	284	193	168	323	1,319	347	152	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	181	133	358	191	469	88	72	32	22	0	**2,305**	**990.05**
Trabuco Canyon WD	10	78	42	42	25	21	40	181	102	30	17	20	12	14	0	**634**	**273.02**
Tustin	968	668	557	824	429	1,292	1,508	1,206	1,096	827	69	89	26	12	0	**9,571**	**4,423.88**
Westminster	747	493	969	1,066	2,336	2,291	2,304	1,523	2,492	1,118	145	105	70	24	0	**15,683**	**7,064.28**
Yorba Linda WD	257	309	417	457	404	1,400	759	1,690	1,155	627	158	136	81	41	0	**7,891**	**3,409.49**
MWDOC Totals	24,256	12,879	18,778	20,765	21,136	30,242	24,918	27,175	31,827	27,568	3,654	3,242	2,031	861	4	**249,336**	**113,878.61**
Anaheim	447	1,054	1,788	3,661	1,755	7,551	4,593	6,346	9,707	5,075	473	371	462	341	1	**43,625**	**18,359.52**
Fullerton	1,453	1,143	694	1,193	1,364	2,138	1,926	2,130	2,213	1,749	172	77	44	23	2	**16,321**	**7,435.23**
Santa Ana	1,111	1,964	1,205	2,729	2,088	8,788	5,614	10,822	10,716	9,164	279	134	25	5	0	**54,644**	**22,887.95**
Non-MWDOC Totals	3,011	4,161	3,687	7,583	5,207	18,477	12,133	19,298	22,636	15,988	924	582	531	369	3	**114,590**	**48,682.70**
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**