

**ADJOURNED MEETING OF THE
BOARD OF DIRECTORS OF THE
MUNICIPAL WATER DISTRICT OF ORANGE COUNTY**
Jointly with the
PLANNING & OPERATIONS COMMITTEE
July 7, 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>.

ACTION ITEMS

1. CALIFORNIA SPRINKLER ADJUSTMENT NOTIFICATION SYSTEM IRRIGATION SCHEDULE CALCULATOR
2. PROPOSITION 84 DROUGHT RESPONSE AND US BUREAU OF RECLAMATION WATER SMART GRANT FUNDING AGREEMENTS
3. SELECTION OF A CONSULTING TEAM TO ASSIST IN THE DEVELOPMENT OF MWDOC'S AND PARTICIPATING AGENCIES' 2015 URBAN WATER MANAGEMENT PLANS

DISCUSSION ITEMS

4. RELIABILITY BENEFITS IN OC FROM THE POSEIDON PROJECT

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.)

5. UPDATE ON OC RELIABILITY STUDY

6. STATE WATER PROJECT UPDATE – BAY DELTA CALIFORNIA WATER FIX AND DELTA SALINITY CONTROL AND EMERGENCY RESPONSE PLANS

7. WEROC EXERCISE “SURFQUAKE” 2015 AFTER ACTION/CORRECTIVE ACTION REPORT

8. METROPOLITAN'S TURF REMOVAL REBATE PROGRAM UPDATE

9. 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

10. REVIEW OF ISSUES RELATED TO CONSTRUCTION PROGRAMS, WATER USE EFFICIENCY, FACILITY AND EQUIPMENT MAINTENANCE, WATER STORAGE, WATER QUALITY, CONJUNCTIVE USE PROGRAMS, EDUCATION, DISTRICT FACILITIES, and MEMBER-AGENCY RELATIONS

ADJOURNMENT

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

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



ACTION ITEM

July 15, 2015

TO: Board of Directors

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

Robert Hunter
General Manager

Staff Contact: J. Berg
WUE Programs Manager

SUBJECT: California Sprinkler Adjustment Notification System Irrigation Schedule Calculator

STAFF RECOMMENDATION

Staff recommends the Board of Directors:

1. Authorize the General Manager to enter into a professional services agreement with EcoLandscape California for development of the Irrigation Schedule Calculator, and
2. Authorize expenditure of budgeted WUE Choice funds in the amount of \$32,000 as MWDOC's share of project costs.

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

SUMMARY

In 2014, with funding support from the US Bureau of Reclamation, Metropolitan, the California Urban Water Conservation Council, the Irvine Ranch Water District, the Los Angeles Department of Water and Power, and MWDOC created the California Sprinkler Adjustment Notification System (CSANS). This system provides weekly or monthly irrigation scheduling notices to users via e-mail to better manage their irrigation. These notices also contain a variety of broader educational information or marketing messages for our incentive programs. A copy of an e-mail notice is provide as attachment A.

Budgeted (Y/N): Yes	Budgeted amount: \$35,000	Core __	Choice _X_
Action item amount: \$64,000		Line item: 62-7040	
Fiscal Impact (explain if unbudgeted): The cost to develop the Irrigation Schedule Calculator is \$64,000; MWDOC and USBR will each contribute \$32,000.			

The irrigation schedule modification notice provided by CSANS is based on a percent of an irrigation schedule to meet the peak summer irrigation need, also known as a peak summer schedule. To assist CSANS users, staff is proposing the development of a new Irrigation Schedule Calculator that provides for a more complete irrigation management system rather than just a percent adjustment. CSANS and the Irrigation Schedule Calculator can be used by residential or commercial landscape managers.

DETAILED REPORT

CSANS is currently being implemented throughout Orange County with 240 users. Users can sign-up for notifications at www.csans.net. Through a Department of Water Resources grant to the California Urban Water Conservation Council, CSANS will be expanded to the East Bay Municipal Utilities District and Bay Area Water Supply and Conservation Agency before the end of summer. Ultimately, it is staff's goal to have the Department of Water Resources administer CSANS throughout California.

The Irrigation Schedule Calculator will be designed to develop weekly or monthly irrigation schedules customized to the characteristics of each irrigation valve at a property. Users will input the type of plants, soil, sprinkler, and sun exposure for each irrigation valve. The calculator will then provide the number of minutes per day the irrigation system should run to irrigate the landscape. This schedule can be saved on the computer and can be printed and placed in the irrigation controller housing for easy reference to the landscaper. The calculator will be designed for use on desktop PCs, tablets, and mobile phones, and it can be used in conjunction with CSANS or independently, providing the maximum flexibility for its use.

The Irrigation Schedule Calculator will also give users the ability to develop a Landscape Site Map identifying the various hydrozones or irrigation valves in the landscape. This map can also be printed and placed in the irrigation controller housing for easy reference.

In addition to the Irrigation Schedule Calculator, the services requested include two videos. A promotional video, 30 seconds in length, will highlight the benefits of CSANS and encourage homeowners to sign up for CSANS. The promotional video will be available for distribution to partner water agencies for use on their websites, at water use efficiency conferences, in local broadcast media outlets, for online ads, etc. An instructional video, 3-5 minutes in length, will walk residents through the CSANS enrollment process and use of the Irrigation Schedule Calculator. The main objectives of the instructional video are to both promote the CSANS enrollment process and to help simplify the development and use of the Irrigation Schedule.

Staff conducted a Request for Proposals process to select a contractor to develop the Irrigation Schedule Calculator. Two proposals were received; one from Enterprise Information Systems, Inc. which developed CSANS, and one from EcoLandscape California. Through an evaluation of the proposals by MWDOC and member agency staff, EcoLandscape California had the best combination of experience, team, and cost to develop the Irrigation Schedule Calculator. EcoLandscape California came highly recommended by the Regional Water Authority and Sacramento Water Forum. The EcoLandscape California cost proposal was not to exceed \$64,000. This cost is proposed to be shared equally through a grant awarded to MWDOC from the Bureau of Reclamation and through budgeted funds from MWDOC's Choice Water Use Efficiency Program.

Staff recommends the Board of Directors:

1. Authorize the General Manager to enter into a professional services agreement with EcoLandscape California for development of the Irrigation Schedule Calculator, and
2. Authorize expenditure of budgeted WUE Choice funds in the amount of \$32,000 as MWDOC's share of project costs.

Joe Berg

Subject:

FW: CSANS Weekly Sprinkler Adjustment



Here's your Sprinkler Adjustment Percentage

Thank you for using water wisely

Santa Margarita Water District
26111 Antonio Parkway
Rancho Santa Margarita, CA 92688



Please adjust your controller to 70%

Effective for the week of 6/26/2015
for property located in Rancho Santa Margarita, CA 92688



It's Time for a Sprinkler Spruce Up

When it comes to a home's irrigation system, a little maintenance goes a long way. Before you ramp up your watering efforts, spruce up your irrigation system by remembering four simple steps—inspect, connect, direct, and select. Homes with automatically timed irrigation systems use about 50 percent more water outdoors than those without. Your system can waste even more if it's programmed incorrectly, a sprinkler head is pointed in the wrong direction, or you have a leak. [Read More](#)



Drought Fact

On average, about half of California's statewide precipitation occurs in December, January and February. Only a handful of large winter storms account for the difference between a wet year and a dry one in California. Don't forget, if a rain event does occur, irrigating turf or ornamental landscapes during and 48 hours following measurable precipitation is prohibited. [Read More](#)



Setup Controller for Percent Adjust

New to CSANS? This irrigation calculation tool will help you setup your controller/timer to begin using the percent adjust feature. [Read More](#)

Want less frequent adjustments? Switch to [monthly](#) delivery. You may also [unsubscribe](#) or [email](#) the CSANS Program Administrator.





ACTION ITEM

July 15, 2015

TO: Board of Directors

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

Robert Hunter
General Manager

Staff Contact: J. Berg
WUE Programs Manager

SUBJECT: Proposition 84 Drought Response and US Bureau of Reclamation Water Smart Grant Funding Agreements

STAFF RECOMMENDATION

Staff recommends the Board of Directors authorize the General Manager to sign:

1. The US Bureau of Reclamation Agreement for implementation of the Comprehensive Landscape Water Use Efficiency Program, and
2. An Assignment Agreement between MWDOC and OCWD to access the Proposition 84 Integrated Regional Water Management 2014 Drought Grant for implementation of a Turf Removal Rebate Program targeting Public Agencies and Homeowner Associations.

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

SUMMARY

MWDOC has been awarded two new grants for continuation of landscape water saving and technical assistance programs. The first award is \$299,956 from the Bureau of Reclamation through the Water and Energy Efficiency Grant Program for implementation of the Comprehensive Landscape Water Use Efficiency Program. The second award is \$880,894 through an Assignment Agreement from Orange County Water District. This funding comes from the Department of Water Resources through the Proposition 84 Drought Response grant awarded to the Santa Ana River Watershed Project Authority.

Budgeted (Y/N): N/A	Budgeted amount: N/A	Core __	Choice <u>X</u>
Action item amount: \$1,180,850		Line item: N/A	
Fiscal Impact (explain if unbudgeted): These grant funds totaling \$1,180,850 will be applied to MWDOC’s existing rebate programs.			

DETAILED REPORT

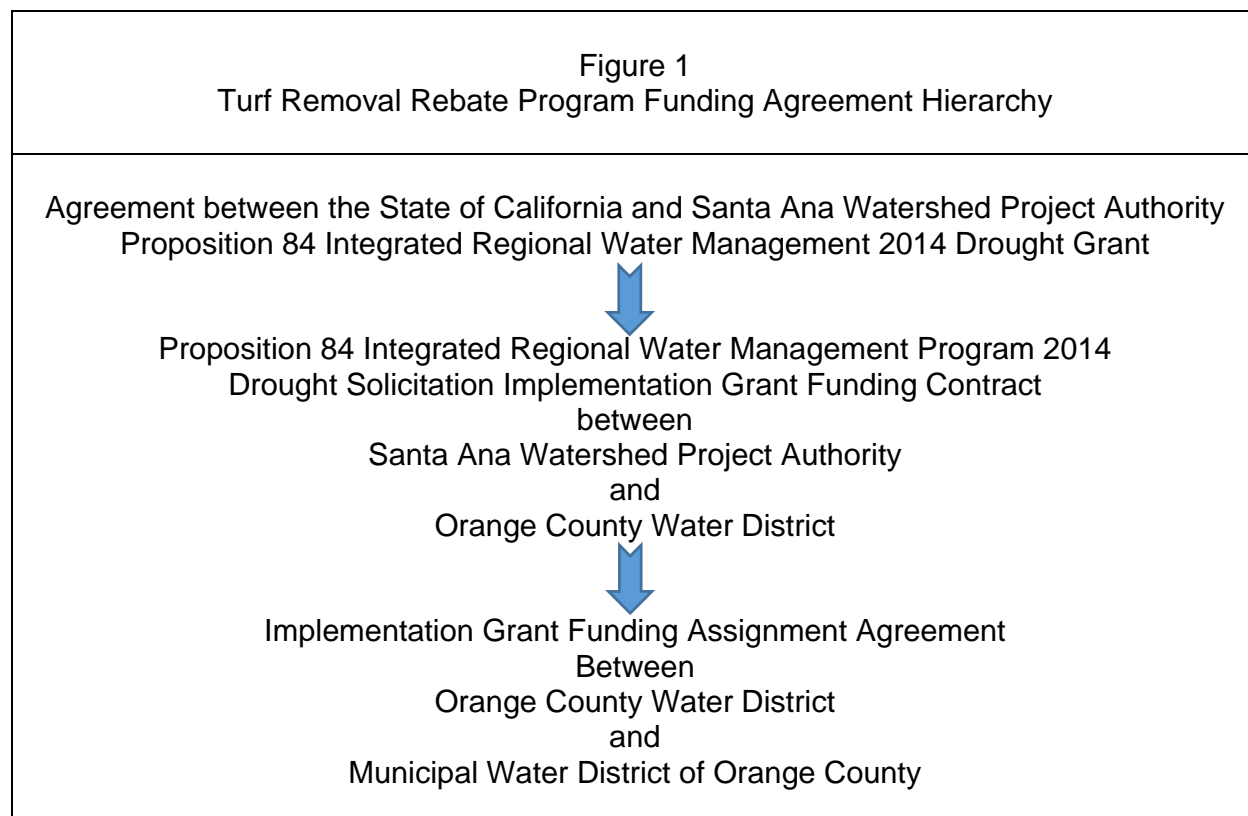
MWDOC has been awarded two grants for continuation of landscape water saving and technical assistance programs. Both grants will help to foster the transformation of turf intensive landscapes to a California Friendly landscapes throughout Orange County.

Comprehensive Landscape Water Use Efficiency Program

The first award is \$299,956 from the Bureau of Reclamation through the Water and Energy Efficiency Grant Program for implementation of the Comprehensive Landscape Water Use Efficiency Program. A copy of this agreement is provided as Attachment A. Over the two-year term, MWDOC will target residential and commercial properties throughout Orange County. This Program will focus on turf removal, installation of smart irrigation timers, low-precipitation-rate irrigation equipment, and conversion of potable irrigation meters to non-potable sources of water (stormwater and recycled water).

Turf Removal Rebate Program

The second award is \$880,894 originating from Proposition 84 from the Department of Water Resources through a series of agreements as shown in Figure 1 below. Copies of these agreements are provided as Attachment B. This funding comes from the Department of Water Resources through the Santa Ana Watershed Project Authority, then to Orange County Water District and, finally, to MWDOC. These funds will be applied to MWDOC's Turf Removal Rebate Program and will be focused on highly visible public agency and homeowner association projects within the SAWPA watershed.



Staff will apply both these grants to existing rebate programs, thereby streamlining grant administration and minimizing staff time to implement the programs. Additionally, staff is in the process of completing the Grants Compliance Check List for each of these grants to ensure compliance with granting agencies.

**DRAFT GRANT AGREEMENT BETWEEN THE STATE OF CALIFORNIA (DEPARTMENT OF WATER RESOURCES) AND
SANTA ANA WATERSHED PROJECT AUTHORITY
4600010903
PROPOSITION 84 INTEGRATED REGIONAL WATER MANAGEMENT (IRWM) 2014 DROUGHT GRANT
CALIFORNIA PUBLIC RESOURCES CODE §75026 ET SEQ.**

THIS GRANT AGREEMENT is entered into by and between the Department of Water Resources of the State of California, herein referred to as the "State" or "DWR" and the Santa Ana Watershed Project Authority, a public agency in the Counties of Los Angeles, Orange, Riverside, San Bernardino and in the State of California, duly organized, existing, and acting pursuant to the laws thereof, herein referred to as the "Grantee", which parties do hereby agree as follows:

1. PURPOSE. State shall provide funding from the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 to Grantee to assist in financing projects associated with the Santa Ana Integrated Regional Water Management (IRWM) Plan (the One Water One Watershed 2.0 Plan) pursuant to Chapter 8 (commencing with Section 79560) of Division 26.5 of the California Water Code (CWC), hereinafter collectively referred to as "IRWM Program."
2. TERM OF GRANT AGREEMENT. The term of this Grant Agreement begins on the date this Grant Agreement is executed by State, and terminates on June 30, 2018, or when all of the Parties' obligations under this Grant Agreement are fully satisfied, whichever occurs earlier. Execution date is the date the State signs this Grant Agreement indicated on page 9.
3. TOTAL PROJECT COST. The reasonable Total Cost of the Project is estimated to be \$23,505,110.
4. GRANT AMOUNT. The maximum amount payable by the State under this Agreement shall not exceed \$12,860,110.
5. GRANTEE COST SHARE. Grantee agrees to fund the difference between the Total Project Cost, and the Grant Amount (amount specified in Paragraph 4). Cost Share consists of Funding Match and Additional Cost Share, as documented in Exhibit B (Budget). Additional Cost Share is the amount necessary to fund the project above the Grant Amount and the Funding Match. Additional Cost Share will not be reviewed by the State for invoicing purposes; however, the Grantee is required to maintain all financial records associated with the project in accordance with Exhibit I (State Audit Document Requirements).
6. FUNDING MATCH. Funding Match is defined as the minimum amount of Grantee Cost Share required, and cannot include other State funds. Grantee is required to provide a Funding Match of at least 25% of the Total Project Cost (unless a Disadvantaged Community project waiver is granted). The Grantee's Funding Match is estimated to be \$7,051,533. Grantee's Funding Match may include in-kind services that are part of Exhibit A (Work Plan) and performed after January 1, 2010.
7. GRANTEE'S RESPONSIBILITY. Grantee and its representatives shall:
 - a) Faithfully and expeditiously perform or cause to be performed all project work as described in Exhibit A (Work Plan) and in accordance with Exhibit B (Budget) and Exhibit C (Schedule).
 - b) Accept and agree to comply with all terms, provisions, conditions, and written commitments of this Grant Agreement, including all incorporated documents, and to fulfill all assurances, declarations, representations, and statements made by Grantee in the application, documents, amendments, and communications filed in support of its request for Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 financing.
 - c) Comply with all applicable California laws and regulations.
 - d) Implement the Project in accordance with applicable provisions of the law.
 - e) Fulfill its obligations under the Grant Agreement, and be responsible for the performance of the project.
8. LOCAL PROJECT SPONSOR'S RESPONSIBILITY. Grantee shall assign Local Project Sponsors to act on behalf of Grantee for the purposes of individual project management, oversight, compliance, and operations and maintenance. Local Project Sponsors shall be assigned in accordance with the participating agencies identified in the Interregional Landscape Water Demand Reduction Program grant application. Exhibit F

identifies Local Project Sponsors. Local Project Sponsors shall also act on behalf of Grantee in the fulfillment of Grantee responsibilities where specifically specified in this Grant Agreement.

9. BASIC CONDITIONS. State shall have no obligation to disburse money for projects under this Grant Agreement until Grantee has satisfied the following conditions (if applicable):
- a) Grantee demonstrates the availability of sufficient funds to complete each project by submitting the most recent 3 years of audited financial statements.
 - b) Grantee must demonstrate compliance with the groundwater compliance options set forth on pages 13 and 14 of the IRWM Program Guidelines, dated June 2014.
 - c) For the term of this Grant Agreement, Grantee submits timely Quarterly Progress Reports as required by Paragraph 19, "Submission of Reports."
 - d) Grantee submits deliverables as specified in Paragraph 19 of this Grant Agreement and in Exhibit A.
 - e) Prior to the commencement of construction or implementation activities, Grantee shall submit the following to the State for each project:
 - 1) Final plans and specifications certified by a California Registered Professional (Civil Engineer or Geologist, as appropriate) for each approved projects as listed in Exhibit A of this Grant Agreement.
 - 2) Environmental Documentation:
 - i) Grantee submits to the State all applicable environmental permits,
 - ii) Documents that satisfy the CEQA process are received by the State,
 - iii) State has completed its CEQA compliance review as a Responsible Agency, and
 - iv) Grantee receives written concurrence from the State of Lead Agency's CEQA documents and State notice of verification of environmental permit submittal.

State's concurrence of Lead Agency's CEQA documents is fully discretionary and shall constitute a condition precedent to any work (i.e., construction or implementation activities) for which it is required. Once CEQA documentation has been completed, State will consider the environmental documents and decide whether to continue to fund the projects or to require changes, alterations or other mitigation. Grantee must also demonstrate that it has complied with all applicable requirements of the National Environmental Policy Act by submitting copies of any environmental documents, including environmental impact statements, Finding of No Significant Impact, and mitigation monitoring programs as may be required prior to beginning construction/implementation.
 - 3) A monitoring plan as required by Paragraph 21, "Project Monitoring Plan Requirements."
10. DISBURSEMENT OF FUNDS. State will disburse to Grantee the amount approved, subject to the availability of funds through normal State processes. Notwithstanding any other provision of this Grant Agreement, no disbursement shall be required at any time or in any manner which is in violation of, or in conflict with, federal or state laws, rules, or regulations, or which may require any rebates to the federal government, or any loss of tax-free status on state bonds, pursuant to any federal statute or regulation. Any and all money disbursed to Grantee under this Grant Agreement and any and all interest earned by Grantee on such money shall be used solely to pay Eligible Project Costs, as defined in Paragraph 11.
11. ELIGIBLE PROJECT COST. Grantee shall apply State funds received only to Eligible Project Costs in accordance with applicable provisions of the law and Exhibit B. Eligible project costs include the reasonable costs of studies, engineering, design, land and easement acquisition, legal fees, preparation of environmental documentation, environmental mitigations, monitoring, and project construction. Reasonable administrative expenses may be included as Total Project Costs and will depend on the complexity of the project preparation, planning, coordination, construction, acquisitions, and implementation. Reimbursable administrative expenses are the necessary costs incidentally but directly related to the projects including the portion of overhead and administrative expenses that are directly related to the projects included in this Agreement in accordance with the standard accounting practices of the Grantee. Work performed on the projects after January 17, 2014 shall be eligible for reimbursement.

Costs that are not eligible for reimbursement with State funds cannot be counted as Funding Match. Costs that are not eligible for reimbursement include, but are not limited to the following items:

- a) Costs, other than those noted above, incurred prior to the award date of the Grant.
- b) Operation and maintenance costs, including post construction performance and monitoring costs.
- c) Purchase of equipment not an integral part of a project.
- d) Establishing a reserve fund.
- e) Purchase of water supply.
- f) Monitoring and assessment costs for efforts required after project construction is complete.
- g) Replacement of existing funding sources for ongoing programs.
- h) Travel and per diem costs (per diem includes subsistence and other related costs).
- i) Support of existing agency requirements and mandates (e.g., punitive regulatory agency requirement).
- j) Purchase of land in excess of the minimum required acreage necessary to operate as an integral part of a project, as set forth and detailed by engineering and feasibility studies.
- k) Payment of principal or interest of existing indebtedness or any interest payments unless the debt is incurred after execution of this Grant Agreement, the State agrees in writing to the eligibility of the costs for reimbursement before the debt is incurred, and the purposes for which the debt is incurred are otherwise eligible costs. However, this will only be allowed as Grantee cost share (i.e., Funding Match).
- l) Overhead not directly related to project costs.

12. METHOD OF PAYMENT. Submit a copy of invoice for costs incurred and supporting documentation to the DWR Project Manager via Grant Review and Tracking Systems (GRanTS). Additionally, the original invoice form with signature and date (in ink) of Grantee's Project Representative, as indicated on page 9 of this Agreement, must be sent to the DWR Project Manager for approval. Invoices submitted via GRanTS shall include the following information:

- a) Costs incurred for work performed in implementing the projects during the period identified in the particular invoice.
- b) Costs incurred for any interests in real property (land or easements) that have been necessarily acquired for the projects during the period identified in the particular invoice for the implementation of a project.
- c) Invoices shall be submitted on forms provided by State and shall meet the following format requirements:
 - 1) Invoices must contain the date of the invoice, the time period covered by the invoice, and the total amount due.
 - 2) Invoices must be itemized based on the categories (i.e., tasks) specified in Exhibit B. The amount claimed for salaries/wages/consultant fees must include a calculation formula (i.e., hours or days worked times the hourly or daily rate = the total amount claimed).
 - 3) Sufficient evidence (e.g. receipts, copies of checks, time sheets) as determined by the State must be provided for all costs included in the invoice. Additional Cost Share shall be accounted for separately in the progress reports.
 - 4) Each invoice shall clearly delineate those costs claimed for reimbursement from the State's Grant Amount, as depicted in Paragraph 4, and those costs that represent Grantee's Funding Match, as applicable, in Paragraph 6.
 - 5) DWR Project Manager will notify Grantee, in a timely manner, when, upon review of an Invoice, the State determines that any portion or portions of the costs claimed are not eligible costs or are not supported by documentation or receipts acceptable to State. Grantee may, within thirty (30) calendar days of the date of receipt of such notice, submit additional documentation to State to cure such deficiency(ies). If Grantee fails to submit adequate documentation curing the deficiency(ies), State will adjust the pending invoice by the amount of ineligible or unapproved costs. After the disbursement requirements in Paragraph 9 "Basic Conditions" are met, State will disburse the whole or portions of State funding to Grantee, following receipt from Grantee via US mail or Express mail delivery of a "wet signature" invoice for costs incurred, including Cost Share,

and timely Quarterly Progress Reports as required by Paragraph 19, Submission of Reports. Payment will be made no more frequently than monthly, in arrears, upon receipt of an invoice bearing the Grant Agreement number.

13. WITHHOLDING OF DISBURSEMENTS BY STATE. If State determines that a project is not being implemented in accordance with the provisions of this Grant Agreement, or that Grantee has failed in any other respect to comply with the provisions of this Grant Agreement, and if Grantee does not remedy any such failure to State's satisfaction, State may withhold from Grantee all or any portion of the State funding and take any other action that it deems necessary to protect its interests. Where a portion of the State funding has been disbursed to the Grantee and State notifies Grantee of its decision not to release funds that have been withheld pursuant to Paragraph 14, the portion that has been disbursed shall thereafter be repaid immediately with interest at the California general obligation bond interest rate at the time the State notifies the Grantee, as directed by State. State may consider Grantee's refusal to repay the requested disbursed amount a contract breach subject to the default provisions in Paragraph 14, "Default Provisions." If State notifies Grantee of its decision to withhold the entire funding amount from Grantee pursuant to this paragraph, this Grant Agreement shall terminate upon receipt of such notice by Grantee and the State shall no longer be required to provide funds under this Grant Agreement and the Grant Agreement shall no longer be binding on either party.
14. DEFAULT PROVISIONS. Grantee (and a Local Project Sponsor receiving grant funding through this Grant Agreement) will be in default under this Grant Agreement if any of the following occur:
- a) Substantial breaches of this Grant Agreement, or any supplement or amendment to it, or any other agreement between Grantee and State evidencing or securing Grantee's obligations.
 - b) Making any false warranty, representation, or statement with respect to this Grant Agreement or the application filed to obtain this Grant Agreement.
 - c) Failure to maintain an adopted IRWM Plan that meets the requirements contained in Part 2.2 of Division 6 of the CWC, commencing with Section 10530.
 - d) Failure to operate or maintain project(s) in accordance with this Grant Agreement.
 - e) Failure to make any remittance required by this Grant Agreement.
 - f) Failure to comply with Labor Compliance Program requirements (Paragraph 18).
 - g) Failure to submit timely progress reports.
 - h) Failure to routinely invoice State.
 - i) Failure to meet any of the requirements set forth in Paragraph 15, "Continuing Eligibility."

Should an event of default occur, State shall provide a notice of default to the Grantee and shall give Grantee at least ten (10) calendar days to cure the default from the date the notice is sent via first-class mail to the Grantee. If the Grantee fails to cure the default within the time prescribed by the State, State may do any of the following:

- i. Declare the funding be immediately repaid, with interest, which shall be equal to State of California general obligation bond interest rate in effect at the time of the default.
- ii. Terminate any obligation to make future payments to Grantee.
- iii. Terminate the Grant Agreement.
- iv. Take any other action that it deems necessary to protect its interests.

In the event State finds it necessary to enforce this provision of this Grant Agreement in the manner provided by law, Grantee agrees to pay all costs incurred by State including, but not limited to, reasonable attorneys' fees, legal expenses, and costs.

15. CONTINUING ELIGIBILITY. Grantee must meet the following ongoing requirement(s) to remain eligible to receive State funds:
- a) An urban water supplier that receives grant funds governed by this Grant Agreement shall:
 - 1) Maintain compliance with the Urban Water Management Planning Act (CWC§10610 et. seq.) and Sustainable Water Use and Demand Reduction, Part 2.55. of Division 6 (CWC§10608 et. Seq.). Urban

water suppliers that submitted 1420 compliance Table 2 in the 2014 Drought Application, must submit, until June 30, 2016:

- i) The progress toward the 2015 interim gallon per capita per day (GPCD) target. If not meeting the interim target also include a schedule, financing plan, and budget for achieving the GPCD, as required pursuant to CWC § 10608.24.

By July 1, 2016 all urban water suppliers must submit documentation that demonstrates they are meeting the 2015 interim GPCD target. If not meeting the interim target, also include a schedule, financing plan, and budget for achieving the GPCD, as required pursuant to CWC § 10608.24.

- 2) Have their 2010 UWMP deemed consistent by DWR. The 2015 UWMP update will be required to be submitted to DWR in 2016. For more information visit the following website:

<http://www.water.ca.gov/urbanwatermanagement>

- b) An agricultural water supplier receiving grant funding must:

- 1) Comply with Sustainable Water Use and Demand Reduction requirements outlined in Part 2.55 (commencing with § 10608) of Division 6 of the CWC. Before July 1, 2016:

- i) Submit a schedule, financing plan, and budget for implementation of the efficient water management practices, required pursuant to CWC § 10608.48, for inclusion in the grant agreement as an Exhibit.

- 2) Have their AWMP deemed consistent by DWR. The next AWMP update will be required in 2016. For more information visit the following website:

<http://www.water.ca.gov/wateruseefficiency/agricultural/agmgmt.cfm>

- c) Grantee's diverting surface water must maintain compliance with diversion reporting requirements as outlined in Part 5.1 of Division 2 of the CWC.
- d) Projects with potential groundwater impacts must demonstrate compliance with the groundwater compliance options set forth on pages 13 and 14 of the IRWM Program Guidelines, dated June 2014.
- e) Project Proponents that have been designated as monitoring entities under the California Statewide Groundwater Elevation Monitoring (CASGEM) Program must maintain reporting compliance, as required by CWC § 10932 and the CASGEM Program.

16. PERMITS, LICENSES, APPROVALS, AND LEGAL OBLIGATIONS. Grantee shall be responsible for obtaining any and all permits, licenses, and approvals required for performing any work under this Grant Agreement, including those necessary to perform design, construction, or operation and maintenance of the Projects. Grantee shall be responsible for observing and complying with any applicable federal, state, and local laws, rules or regulations affecting any such work, specifically those including, but not limited to, environmental, procurement, and safety laws, rules, regulations, and ordinances. Grantee shall provide copies of permits and approvals to State.

17. RELATIONSHIP OF PARTIES. Grantee is solely responsible for design, construction, and operation and maintenance of projects within the work plan. Review or approval of plans, specifications, bid documents, or other construction documents by State is solely for the purpose of proper administration of funds by State and shall not be deemed to relieve or restrict responsibilities of Grantee under this Grant Agreement.

18. LABOR COMPLIANCE. Grantee agrees to comply with all applicable California Labor Code requirements and Standard Condition D.28 in Exhibit D. Grantee must, independently or through a third party, adopt and enforce a Department of Industrial Relations-certified Labor Compliance Program (LCP) meeting the requirements of Labor Code section 1771.5 for projects funded by:

- a) Proposition 84 (Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006; PRC sections 75075 et seq.) or
- b) Any other funding source requiring an LCP.

At the State's request, Grantee must promptly submit written evidence of Grantee's compliance with the LCP requirements.

19. SUBMISSION OF REPORTS. The submittal and approval of all reports is a requirement for the successful completion of this Grant Agreement. Reports shall meet generally accepted professional standards for technical reporting and shall be proofread for content, numerical accuracy, spelling, and grammar prior to submittal to State. All reports shall be submitted to the State's Project Manager, and shall be submitted via DWR's "Grant Review and Tracking System" (GRanTS). If requested, Grantee shall promptly provide any additional information deemed necessary by State for the approval of reports. Reports shall be presented in the formats described in the applicable portion of Exhibit G. The timely submittal of reports is a requirement for initial and continued disbursement of State funds. Submittal and subsequent approval by the State, of a Project Completion Report is a requirement for the release of any funds retained for such projects.
- Progress Reports: Grantee shall submit progress reports on a regular and consistent basis to meet the State's requirement for disbursement of funds. The reporting period shall not exceed one quarter in length. The progress reports shall be sent via e-mail to the State's Project Manager and shall be uploaded into GRanTS at the frequency specified in Exhibit C, Project Schedule. The progress reports shall provide a brief description of the work performed during the reporting period including: Grantee's activities, milestones achieved, any accomplishments, and any problems encountered in the performance of the work under this Agreement.
 - Water Management Status Report: Until June 30, 2016, Grantee shall submit a status report (s) on implementation of SBx7-7 water conservation status> for the urban water suppliers that submitted 1420 compliance Table 2 in the 2014 Drought Application. Status reports shall be uploaded via GRanTS annually no later than June 30 of every year." By July 1, 2016 all urban water suppliers must submit an UWMP that demonstrates they are meeting the 2015 interim SBx7-7 GPCD target. If not meeting the interim target, the urban water suppliers must also submit, with the UWMP, a schedule, financing plan, and budget for achieving the GPCD, as required pursuant to CWC § 10608.24. These urban water suppliers (that are not meeting their 2015 GPCD target) will subsequently have to submit annual reports that include a schedule, financing plan, and budget for achieving the GPCD, as required pursuant to CWC § 10608.24 every year by June 30, starting June 30, 2017. Failure to progress on implementation may result in continuing grant eligibility actions under paragraph 15.
 - Project Completion Report: Grantee shall prepare and submit to State a separate Project Completion Report for the project included in Exhibit A. Grantee shall submit a Project Completion Report within ninety (90) calendar days of project completion. Project Completion Report(s) shall include, in part, a description of actual work done, any changes or amendments to the project, and a final schedule showing actual progress versus planned progress, copies of any final documents or reports generated or utilized during a project. The Project Completion Report shall also include, if applicable, certification of final project by a California Registered Professional (Civil Engineer or Geologist, as appropriate), consistent with Standard Condition D.19 in Exhibit D. A DWR "Certification of Project Completion" form will be provided by the State.
 - Grant Completion Report: Upon completion of all projects included in Exhibit A, Grantee shall submit to State a Grant Completion Report. The Grant Completion Report shall be submitted within ninety (90) calendar days of submitting the Project Completion Report for the final project to be completed under the Grant Agreement. The Grant Completion Report shall include reimbursement status, a brief description of each project completed, and how those projects will further the goals of the IRWM Plan and identify any changes to the IRWM Plan, as a result of project implementation. Retention for the last project to be completed as part of this Grant Agreement will not be disbursed until the Grant Completion Report is submitted to and approved by the State.
 - Post-Performance Reports: Grantee shall submit Post-Performance Reports. Post-Performance Reports shall be submitted to State within ninety (90) calendar days after the first operational year of a project has elapsed. This record keeping and reporting process shall be repeated annually for a total of 10 years after the completed projects begins operation.

20. OPERATION AND MAINTENANCE OF PROJECT. For the useful life of construction and implementation projects and in consideration of the funding made by State, Grantee agrees to ensure or cause to be performed the commencement and continued operation of each project, and shall ensure or cause each project to be operated in an efficient and economical manner; shall ensure all repairs, renewals, and replacements necessary to the efficient operation of the same are provided; and shall ensure or cause the same to be maintained in as good and efficient condition as upon its construction, ordinary and reasonable wear and depreciation excepted. The State shall not be liable for any cost of such maintenance, management, or operation. Grantee or their successors may, with the written approval of State, transfer this responsibility to use, manage, and maintain the property. For purposes of this Grant Agreement, "useful life" means period during which an asset, property, or activity is expected to be usable for the purpose it was acquired or implemented; "operation costs" include direct costs incurred for material and labor needed for operations, utilities, insurance, and similar expenses, and "maintenance costs" include ordinary repairs and replacements of a recurring nature necessary for capital assets and basic structures and the expenditure of funds necessary to replace or reconstruct capital assets or basic structures. Refusal of Grantee to ensure operation and maintenance of the projects in accordance with this provision may, at the option of State, be considered a breach of this Grant Agreement and may be treated as default under Paragraph 14, "Default Provisions."

21. PROJECT MONITORING PLAN REQUIREMENTS. Grantee shall develop and submit to State a Project Monitoring Plan that incorporates: (1) the Project Performance Monitoring Table requirements outlined in the Proposition 84 2014 IRWM Drought Grant Proposal Solicitation Package (in Exhibit A), and (2) the guidance provided in Exhibit J, "Project Monitoring Plan Guidance."

A Project Monitoring Plan shall be submitted to the State prior to disbursement of State funds for construction or monitoring activities. See Exhibit H, "Requirements for Statewide Monitoring and Data Submittal", for web links and information regarding other State monitoring and data reporting requirements.

22. STATEWIDE MONITORING REQUIREMENTS. Grantee shall ensure that all groundwater projects and projects that include groundwater monitoring requirements are consistent with the Groundwater Quality Monitoring Act of 2001 (Part 2.76 (commencing with Section 10780) of Division 6 of California Water Code) and, where applicable, that projects that affect water quality shall include a monitoring component that allows the integration of data into statewide monitoring efforts, including where applicable, the Surface Water Ambient Monitoring Program carried out by the State Water Resources Control Board.

23. NOTIFICATION OF STATE. Grantee shall promptly notify State, in writing, of the following items:

- a) Events or proposed changes that could affect the scope, budget, or work performed under this Grant Agreement. Grantee agrees that no substantial change in the scope of a projects will be undertaken until written notice of the proposed change has been provided to State and State has given written approval for such change. Substantial changes generally include changes to the work plan, schedule or term, and budget.
- b) Any public or media event publicizing the accomplishments and/or results of this Grant Agreement and provide the opportunity for attendance and participation by State's representatives. Grantee shall make such notification at least 14 calendar days prior to the event.
- c) Final inspection of the completed work on a project by a California Registered Professional (Civil Engineer or Geologist, as appropriate), in accordance with Standard Condition D.19 in Exhibit D. Grantee shall notify the State's Project Manager of the inspection date at least 14 calendar days prior to the inspection in order to provide State the opportunity to participate in the inspection.

24. NOTICES. Any notice, demand, request, consent, or approval that either party desires or is required to give to the other party under this Grant Agreement shall be in writing. Notices may be transmitted by any of the following means:

- a) By delivery in person.
- b) By certified U.S. mail, return receipt requested, postage prepaid.
- c) By "overnight" delivery service; provided that next-business-day delivery is requested by the sender.

d) By electronic means.

Notices delivered in person will be deemed effective immediately on receipt (or refusal of delivery or receipt). Notices sent by certified mail will be deemed effective given ten (10) calendar days after the date deposited with the U. S. Postal Service. Notices sent by overnight delivery service will be deemed effective one business day after the date deposited with the delivery service. Notices sent electronically will be effective on the date of transmission, which is documented in writing. Notices shall be sent to the addresses set forth in Paragraph 26. Either party may, by written notice to the other, designate a different address that shall be substituted for the one below.

25. PERFORMANCE EVALUATION. Upon completion of this Grant Agreement, Grantee's performance will be evaluated by the State and a copy of the evaluation will be placed in the State file and a copy sent to the Grantee.
26. PROJECT REPRESENTATIVES. The Project Representatives during the term of this Grant Agreement are as follows:

Department of Water Resources
Paula Landis
Chief, Division of IRWM
P.O. Box 942836
Sacramento CA 94236-0001
Phone: (916) 651-9220
e-mail: plandis@water.ca.gov

Santa Ana Watershed Project Authority
Celeste Cantu
General Manager
11615 Sterling Avenue
Riverside, CA 92503
Phone: (951) 354-4220
e-mail: ccantu@sawpa.org

Direct all inquiries to the Project Manager:

Department of Water Resources
Teji Sandhu
Division of Integrated Regional Water Management
901 P Street
Sacramento, CA. 94236-0001
Phone: (916) 651-9254
e-mail: Teji.K.Sandhu@water.ca.gov

Santa Ana Watershed Project Authority
Rich Haller
Executive Manager of Engineering & Operations
11615 Sterling Avenue
Riverside, CA 92503
Phone: (951) 354-4220
e-mail: rhaller@sawpa.org

Either party may change its Project Representative or Project Manager upon written notice to the other party.

27. STANDARD PROVISIONS. The following Exhibits are attached and made a part of this Grant Agreement by this reference:

Exhibit A – Work Plan
Exhibit B – Budget
Exhibit C – Schedule
Exhibit D – Standard Conditions
Exhibit E – Authorizing Resolution
Exhibit F – Local Project Sponsors
Exhibit G – Report Formats and Requirements
Exhibit H – Requirements for Statewide Monitoring and Data Submittal
Exhibit I – State Audit Document Requirements and Funding Match Guidelines for Grantees
Exhibit J – Project Monitoring Plan Components

IN WITNESS WHEREOF, the parties hereto have executed this Grant Agreement.

STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES

Santa Ana Watershed Project Authority

Paula J. Landis, P.E., Chief
Division of Integrated Regional Water Management

Celeste Cantu
General Manager

Date _____

Date _____

Approved as to Legal Form and Sufficiency

Spencer Kenner, Assistant Chief Counsel
Office of Chief Counsel

Date _____

DRAFT

EXHIBIT A WORK PLAN

This Proposition 84 Drought Round 2014 agreement implements 2 projects located in the Santa Ana River and Upper Santa Margarita IRWM Regions.

PROJECT 1: Conservation Based Reporting Tools and Rate Structure Implementation

GRANTEE: Santa Ana Watershed Project Authority (SAWPA)

PROJECT DESCRIPTION: The Conservation Based Reporting Tools and Rate Structure Implementation will implement a suite of measures across the Santa Ana River and the Upper Santa Margarita Watersheds to promote sustainable water-use conservation. The Program will achieve immediate and sustainable water conservation by assisting local retail agencies in developing conservation-based rate structures and providing customers personalized reports on water use through a web-based Water Consumption Reporting and Customer Engagement tool. Additionally, aerial mapping will be developed for the two watersheds to assist in the implementation of these conservation measures.

TASK 1 Direct Project Administration: Budget Category (a)

Task 1.1: Grant and Project Administration

SAWPA staff, in coordination with its five regional member agencies: Eastern Municipal Water District (EMWD), Inland Empire Utilities Agency (IEUA), Orange County Water District (OCWD), San Bernardino Valley Municipal Water District (SBVMWD), and Western Municipal Water District (WMWD), and the lead agency of the Upper Santa Margarita Watershed IRWM Region, Rancho California Water District, will manage the grant agreement by implementing the necessary contract, preparing report and plans, ensuring compliance with grant requirements, and coordinating with local agency staff.

Deliverables:

- ☐ Executed funding agreement with DWR
- ☐ Financial Statements
- ☐ Other Applicable Project Deliverables

Task 1.2: Progress Reporting and Invoicing

SAWPA staff will prepare and submit progress reports, invoices, and appropriate backup documentation for submittal to DWR. Progress reports will be prepared as outlined in Exhibit G. Submittals will include appropriate project deliverables.

Deliverables:

- ☐ Progress Reports
- ☐ Hardcopy and electronic invoices
- ☐ Backup documentation
- Project Deliverables

Task 1.3: Draft and Final Project Reports and Grant Completion Report

SAWPA will prepare a Draft and Final Project Completion Report and submit to DWR for comment and review no later than 90 days after project completion. As well, SAWPA will prepare a Grant Completion Report upon completion of the agreement. All reports shall be prepared and presented in accordance with the provision of Exhibit G.

Deliverables:

- ☐ Draft and Final Project Completion Report

- ☐ Grant Completion Report

TASK 2 Land Purchase/Easement: Budget Category (b)

There are no easements or land purchases required for the Program.

Task 3 Planning/Design/Engineering/Environmental Documentation: Budget Category (c)

There is no Assessment and Evaluation, Final Design, Environmental Documentation, or Permitting required for this Program.

Task 3.1: Project Monitoring Plan

SAWPA will develop a detailed Project Monitoring Plan to evaluate the effectiveness of each of the components of the Interregional Landscape Water Demand Reduction Program. This will include:

- Tracking the acre feet (AF) of water saved through the implementation of Conservation Based Rate Structures.
- Tracking the acre feet (AF) of water saved through using web-based the Water Consumption Reporting and Customer Engagement tool

Deliverables:

- ☐ Project Monitoring Plan

Task 4 Construction/Implementation: Budget Category (d)

Implementation for this Conservation Program is broken down into the three components of work:

1. Develop and Implement Conservation-Based Rate Structures for customers
2. Application of a web-based Water Consumption Reporting and Customer Engagement Tool
3. Aerial Mapping

Task 4.1: Implementation Contracting

SAWPA will prepare a request for proposals, advertise, evaluate and recommend consultant and contract awards to the SAWPA Project Agreement (PA) 22 Committee for approval. SAWPA will work with selected consultants to implement the components of the Program as listed above.

Agency documentation of contracting activities conducted will be provided to SAWPA for reporting to DWR.

Deliverables:

- ☐ Summary of bid process
- ☐ Copy of awarded contracts
- ☐ Notice to Proceed

Subtask 4.2 Component 1 – Implementation of Conservation Based Rate Structures

Component 1 will be used to educate policy makers and local water retail agency staff on conservation-based water rate structures, develop new tools to utilize State water efficiency standards for indoor and outdoor water use, evaluate potential water savings and costs to implement conservation rate structures and outreach to over 70 water retail agencies located in the region with more direct assistance to no fewer than five and as many as 10 water retail agencies with implementing conservation-based rate structures within the region.

Subtask 4.2.1 – Conduct Solicitation Workshops & Outreach:

Facilitate approximately two initial workshops in the Santa Ana River Watershed (one in the lower basin and one in the upper basin) targeting water purveyors' elected officials and staff of the more than 70 water retail agencies located in the region. Follow-up workshops will be held for interested retail agencies and a video explaining water rate structures will be produced in order to reach a wide audience of staff and elected officials. Workshops will educate policy makers and staff on conservation-based rate structures, factors used in determining water efficiency standards for outdoor water use, water budget development, billing system requirements and other general issues related to conservation-based rates structure.

Outreach materials will be prepared to promote the program and target potential water purveyors. Outreach materials may include but are not limited to brochures, fact sheets, web blogs, webpages, power point presentations and informational videos (including video production).

Subtask 4.2.2 – Develop Tools that Utilize State Water Efficiency Standards for Indoor and Outdoor Water Use:

Develop tools to meet the State water efficiency standards for indoor and outdoor water use within the region. Assist local agencies to identify the amount of water a parcel needs to meet State water efficiency standards for indoor and outdoor water use as defined under SBX7 and AB1881. The tools may include daily evapotranspiration rate data gathering and reporting and water efficiency calculators and may incorporate the aerial mapping described as Subtask 4.4 Component 3. A consultant or public agency may assist water retail agencies in evaluating the potential water savings and costs to implement conservation rate structures within their service areas. Benefits examined will include the avoided cost of purchased water, lower Capital Improvement Program expenditures, and increased watershed quality from lower urban runoff, and will include billing system assessment, potential increase in staff, and public outreach.

Subtask 4.2.3 – Reimburse Costs of Retail Water Agencies for Adopting Conservation-Based Rate Structures:

In addition to the regional tools developed to help local agencies adopt conservation-based rate structures and conserve water, funding will be provided on a reimbursement basis to no fewer than five and as many as 10 water retail agencies.

Subtask 4.2.4 – Implement Conservation-Based Water Rate Structures:

From the work described in Task 4.2.3; consultant or public agency will assist no fewer than five and as many as 10 water retail agencies in implementing conservation-based rate structures within the region. This work includes sufficient support to lead these water retail agencies to adopt a conservation based rate structure.

Deliverables:

- ☐ Documentation of participating agencies in workshops, including sign-in sheets
- ☐ Outreach materials
- ☐ Participating agency evaluations of residential water budget with actual use.
- ☐ Documentation of implemented support tools such as mapping, billing, and accounting models and systems
- ☐ Resolutions of adoption of conservation-based rate structures

Subtask 4.3 Component 2 – Web-Based Water Consumption Reporting, Analytics and Customer Engagement Tool

This task includes the development and implementation of a web-based Water Consumption Reporting, Analytics and Customer Engagement tool for water retailers in the Santa Ana River Watershed and the EMWD and WMWD service areas within the Upper Santa Margarita Watersheds. This tool will utilize specialized software to integrate into the agencies' active water use efficiency program, and communication technology services to engage retail water agency customers showing current water use and delivering customized messaging and recommendations for taking water conservation actions.

Subtask 4.3.1 Customer Engagement Tool Implementation

The engagement tool will be made available, for approximately one year, to the water retailers. After this period of time, the tool will then be evaluated for value and effectiveness. Effectiveness will be determined by calculating the amount of water saved as a result of the tool's implementation.

Subtask 4.3.2 Outreach and Training

Outreach and training to educate water purveyors about the tool will be conducted through workshops, with approximately three being conducted throughout the three counties of the Santa Ana River Watershed and

approximately two workshops in the USMW (approximate total of eight workshops). Outreach materials may include examples of personalized water consumption reports used with other California water retailers.

Deliverables:

- ☐ Water Consumption Reporting, Analytics and Customer Engagement Web-portal with access and login capabilities for SAWPA.
- ☐ Documentation of participating agencies in workshops, including sign-in sheets.
- ☐ Outreach materials

Subtask 4.4 Component 3 – Aerial Mapping

SAWPA will contract for services to develop high resolution orthorectified imagery including infrared photogrammetry and possibly slope measurements for the of the Santa Ana River Watershed and the Rancho California Water District, EMWD and WMWD service areas within the Upper Santa Margarita Watersheds. This data will be processed to assist in the development of map products that will support the development of water conservation tools such as conservation based water rates and water efficiency calculators that can provide water demand data up to the retail customer level.

Subtask 4.4.1 – Review and Report on Results of SAWPA/BOR Demonstration Project

SAWPA will review the results of the Santa Ana River Watershed Infrared Imagery Landscape Mapping Demonstration Project. This pilot project was conducted by SAWPA with funding from both the US Bureau of Reclamation and SAWPA and will be used to share key findings and recommendations to the PA 22 Committee for the aerial mapping component of the project.

Deliverables:

- ☐ Technical Memorandum detailing key findings from the Demonstration Project

Subtask 4.4.2 – Conduct Aerial Flights of Urban areas in Watershed

SAWPA will contract with a qualified firm to fly the study area and process the raw aerial data.

Deliverables:

- ☐ Raw data set(s)

Subtask 4.4.3 – Data Verification

SAWPA will review the data by using GIS to verify data location accuracy.

Deliverables:

- ☐ Statistical Report summarizing the data collected

Subtask 4.4.4 – Data Analysis and Development Landscape Percent Output

SAWPA will contract for and provide consultant oversight during analysis of the data by using GIS imagery tools to classify land use type and estimate the area irrigated for each parcel. This data will then be used to create map products that support the development of water conservation tools.

Deliverables:

- ☐ Statistical Summary of Watershed Data
- ☐ Map Products

Subtask 4.4.5 – Stakeholder Outreach and Workshop(s)

SAWPA will conduct outreach meetings with stakeholders to share aerial data and receive input on map products. SAWPA will provide approximately two workshops for stakeholders to review the aerial data and map products. The two workshops will include 1) workshop for PA 22 Committee to detail key findings of the Demonstration Project and 2) workshop for Stakeholders to Present Aerial Mapping Data and Draft Mapping Products.

Deliverables:

- Outreach Materials

Subtask 4.4.6 – Reporting

SAWPA will prepare a draft and final report to present the findings and recommendations of the Aerial mapping.

Deliverables:

- Draft Report
- Final Report

PROJECT 2: High Visibility Turf Removal and Retrofit**GRANTEE: SAWPA**

PROJECT DESCRIPTION: This task will provide incentive rebates to customers for turf removal and installation of drought tolerant landscaping and associated irrigation to augment existing turf removal programs available within the Santa Ana River Watershed and the Rancho California Water District, EMWD and WMWD service areas within the Upper Santa Margarita Watershed. This turf removal program will target “highly visible” publicly owned, institutional, and homeowner’s association (HOA) areas for turf replacement. Incentive rebates are anticipated to be up to \$1 per square foot (SF) from the grant and up to \$2 per SF from the Metropolitan Water District (MWD) rebate program referred to as SoCal Water\$mart or similar local rebate program. A minimum of 4,000,000 square feet of turf will be removed from the Santa Ana River Watershed, and a minimum of 950,000 square feet of turf will be removed from the Upper Santa Margarita Watershed.

TASK 1 Direct Project Administration: Budget Category (a)**Task 1.1: Project Administration**

SAWPA staff, in coordination with its five regional member agencies: Eastern Municipal Water District (EMWD), Inland Empire Utilities Agency (IEUA), Orange County Water District (OCWD), San Bernardino Valley Municipal Water District (SBVMWD), and Western Municipal Water District (WMWD), and the lead agency of the Upper Santa Margarita Watershed IRWM, Rancho California Water District, will manage the grant agreement by implementing the necessary contract, preparing report and plans, ensuring compliance with grant requirements, and coordinating with local agency staff.

Deliverables:

- Financial Statements
- Other Applicable Project Deliverables

Task 1.2: Progress Reporting and Invoicing

SAWPA staff will prepare and submit progress reports, invoices, and appropriate backup documentation for submittal to DWR. Progress reports will be prepared as outlined in Exhibit G. Submittals will include appropriate project deliverables.

Deliverables:

- Progress Reports
- Hardcopy and electronic invoices
- Backup documentation
- Project Deliverables

Task 1.3: Draft and Final Project Reports and Grant Completion Report

SAWPA will prepare a Draft and Final Project Completion Report and submit to DWR for comment and review no later than 90 days after project completion. All reports shall be prepared and presented in accordance with the provision of Exhibit G

Deliverables:

- ☐ Draft and Final Project Completion Report

TASK 2 Land Purchase/Easement: Budget Category (b)

There are no easements or land purchases required for the Program.

Task 3 Planning/Design/Engineering/Environmental Documentation: Budget Category (c)

There is no Assessment and Evaluation, Final Design, Environmental Documentation, or Permitting required for this Program.

Task 3.1: Project Monitoring Plan

SAWPA will develop a detailed Project Monitoring Plan to evaluate the effectiveness of the Institutional, Publicly Owned and HOA Turf Removal Rebate Program by tracking the square feet (SF) of highly visible , Institutional, Publicly Owned and HOA Turf Removed.

Deliverables:

- ☐ Project Monitoring Plan

Task 4 Construction/Implementation: Budget Category (d)

Each of the SAWPA member agencies will enter into a separate contract with SAWPA in order to receive and allow oversight of grant fund use in each SAWPA member agency area.

For San Bernardino Valley Municipal Water District (SBVMWD), SAWPA will enter into an agreement to implement a turf rebate program within its service area. The other member agencies already have existing turf removal rebate programs that they coordinate with the Metropolitan Water District of Southern California (MWD) SoCal Water\$mart program.

In order to ensure efficient implementation, each of the member agencies may also contract with a landscape contractor to perform the turf removal and replacement within their service area. In selecting a landscape contractor, each of the agencies will conduct their RFP process in accordance with their procurement policy or use their conservation program's existing landscape contractor. Applications can be developed by each agency to define whether the water agency or the applicant hires their own landscape contractor, and how the rebate funding will be administered.

Task 4.1 Implementation

Each of the SAWPA member agencies and rebate partners, working with SAWPA, will implement a turf removal program with an up to \$3/SF rebate. The member agencies will contact the publicly owned, HOAs, and institutional sites within their service areas and conduct the necessary outreach to explain the rebate available and how turf removal can reduce their monthly water bills. The turf removal program will be advertised on the member agencies websites, which will include links to the rebate application for their areas.

Work under this task may include agencies creating their own application that may mirror the MWD SoCal Water\$mart application but also includes the high visibility criteria component. Each rebate applicant in a member agency area may submit the rebate application to the member agency/partnering agency to reserve a rebate in the amount of up to \$2/SF . The member agency or their partnering agency could then offer that rebate application to MWD in order to begin the process to reserve the MWD rebate or similar rebate program.

Subtask 4.1.1 Outreach and Website:

Development of a new interregional website is proposed to provide climate-zone specific landscape guidance and landscaping support to the member agencies. The website may include the majority of the following information, but is not limited to:

- descriptions of climates by region within the watershed
- maps showing average evapotranspiration rates
- information on plant soils including texture, drainage, fertility, compost, mulch, and amendments;
- irrigation design and layout including equipment, scheduling, non-point source pollution;
- information and tips on plant care, pruning, pests and a guide to designing landscapes.

Due to its watershed scope, the web based information could be located on SAWPA's website and linked to the member agencies and the IEfficient.com website.

Deliverables:

- Turf Removal Rebate applications from each member agency or partnering agency
- Link to new interregional website
- Outreach activities

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**EXHIBIT B
BUDGET**

		(a)	(b)	(c)	(d)	(e)
Individual Project Title		Implementing Agency	Requested Grant Amount	Required Funding Match aka Cost Share: Non-State Fund Source* (Funding Match)	Additional Cost Share	Total Project Cost
1	Conservation Based Reporting Tools and Rate Structure Implementation	SAWPA	\$ 7,587,610	\$ -	\$ -	\$ 7,587,610
2	High Visibility Turf Removal and Retrofit	SAWPA	\$ 5,272,500	\$ 7,051,533	\$ 3,593,467	\$ 15,917,500
Proposal Total (Sum rows 1 through 2 for each column)			\$ 12,860,110	\$ 7,051,533	\$ 3,593,467	\$ 23,505,110
The overall funding match for this project is 30%						

Individual Budgets

Project 1 - Conservation Based Reporting Tools and Rate Structure Implementation					
GRANTEE: SAWPA					
		(a)	(b)	(c)	(d)
Category		Requested Grant Amount	Required Funding Match aka Cost Share: Non-State Fund Source* (Funding Match)	Additional Cost Share	Total Project Cost
(a)	Project Administration	\$ 875,000	\$ -	\$ -	\$ 875,000
(b)	Land Purchase/Easement	\$ -	\$ -	\$ -	\$ -
(c)	Planning/Design/Engineering/ Environmental Documentation	\$ 50,000	\$ -	\$ -	\$ 50,000
(d)	Construction/Implementation	\$ 6,662,610	\$ -	\$ -	\$ 6,662,610
(e)	Grand Total (Sum rows (a) through (d) for each column)	\$ 7,587,610	\$ -	\$ -	\$ 7,587,610
*List sources of funding: Contributions from member agencies, their sub-agencies, and others.					

Project 2 – High Visibility Turf Removal and Retrofit					
GRANTEE: SAWPA					
		(a)	(b)	(c)	(d)
Category		Requested Grant Amount	Required Funding Match aka Cost Share: Non-State Fund Source* (Funding Match)	Additional Cost Share	Total Project Cost
(a)	Project Administration	\$ -	\$ -	\$ 100,000	\$ 100,000
(b)	Land Purchase/Easement	\$ -	\$ -	\$ -	\$ -
(c)	Planning/Design/Engineering/ Environmental Documentation	\$ -	\$ -	\$ -	\$ -
(d)	Construction/Implementation	\$ 5,272,500	\$ 7,051,533	\$ 3,493,467	\$ 15,817,500
(e)	Grand Total (Sum rows (a) through (d) for each column)	\$ 5,272,500	\$ 7,051,533	\$ 3,593,467	\$ 15,917,500

***List sources of funding:** Contributions from member agencies, their sub-agencies, and others (EMWD, IEUA, OCWD, SBVMWD, WMWD, RCWD, and MWDSC rebate program). The overall funding match for this project is 30%

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**EXHIBIT C
SCHEDULE**

Project 1: Conservation Based Reporting Tools and Rate Structure Implementation (SAWPA)	Start Date	End Date	Duration (months)
Task 1 Project Administration: Budget Category (a)	1/17/14	6/30/18	53
Task 1.1 Grant and Project Administration	1/17/14	6/30/18	42
Task 1.2 Quarterly Reporting and Invoicing	1/17/14	3/31/18	50
Task 1.3 Draft and Final Project Reports and Grant Completion Report	4/1/18	6/30/18	3
Task 2 Land Purchase/Easement: Budget Category (b)			
Task 2 Land Acquisition	N/A	N/A	N/A
Task 3 Planning/Design/Engineering/Environmental Documentation: Budget Category (c)	1/17/14	9/30/15	20
Task 3.1 Project Monitoring Plan	1/17/14	9/30/15	20
Task 4 Construction/Implementation: Budget Category (d)	1/17/14	12/31/17	48
Task 4.1 Implementation Contracting	1/17/14	9/30/15	20
Task 4.2 Implementation	1/17/14	12/31/17	48

Project 2: High Visibility Turf Removal and Retrofit (SAWPA)	Start Date	End Date	Duration (months)
Task 1 Project Administration: Budget Category (a)	1/17/14	6/30/18	53
Task 1.1 Project Administration	1/17/14	6/30/18	42
Task 1.2 Quarterly Reporting and Invoicing	1/17/14	3/31/18	50
Task 1.3 Draft and Final Project Reports and Grant Completion Report	4/1/18	6/30/18	3
Task 2 Land Purchase/Easement: Budget Category (b)			
Task 2 Land Acquisition	N/A	N/A	N/A
Task 3 Planning/Design/Engineering/Environmental Documentation: Budget Category (c)	1/17/14	9/30/15	20
Task 3.1 Project Monitoring Plan	1/17/14	9/30/15	20
Task 4 Construction/Implementation: Budget Category (d)	1/17/14	12/31/17	48
Task 4.1 Implementation	1/17/14	12/31/17	48

EXHIBIT D
STANDARD CONDITIONS

D.1) ACCOUNTING AND DEPOSIT OF FUNDING DISBURSEMENT:

- a) **Separate Accounting of Funding Disbursements and Interest Records:** Grantee shall account for the money disbursed pursuant to this Grant Agreement separately from all other Grantee funds. Grantee shall maintain audit and accounting procedures that are in accordance with generally accepted accounting principles and practices, consistently applied. Grantee shall keep complete and accurate records of all receipts, disbursements, and interest earned on expenditures of such funds. Grantee shall require its contractors or subcontractors to maintain books, records, and other documents pertinent to their work in accordance with generally accepted accounting principles and practices. Records are subject to inspection by State at any and all reasonable times.
- b) **Fiscal Management Systems and Accounting Standards:** The Grantee agrees that, at a minimum, its fiscal control and accounting procedures will be sufficient to permit tracing of grant funds to a level of expenditure adequate to establish that such funds have not been used in violation of state law or this Grant Agreement.
- c) **Disposition of Money Disbursed:** All money disbursed pursuant to this Grant Agreement shall be deposited, administered, and accounted for pursuant to the provisions of applicable law.
- d) **Remittance of Unexpended Funds:** Grantee shall remit to State any unexpended funds that were disbursed to Grantee under this Grant Agreement and were not used to pay Eligible Project Costs within a period of sixty (60) calendar days from the final disbursement from State to Grantee of funds or, within thirty (30) calendar days of the expiration of the Grant Agreement, whichever comes first.

D.2) ACKNOWLEDGEMENT OF CREDIT: Grantee shall include appropriate acknowledgement of credit to the State and to all cost-sharing partners for their support when promoting the Project(s) or using any data and/or information developed under this Grant Agreement. During construction of each project, Grantee shall install a sign at a prominent location, which shall include a statement that the project is financed under the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006, administered by State of California, Department of Water Resources. Grantee shall notify State that the sign has been erected by providing them with a site map with the sign location noted and a photograph of the sign.

D.3) AIR OR WATER POLLUTION VIOLATION: Under State laws, the Grantee shall not be: (1) in violation of any order or resolution not subject to review promulgated by the State Air Resources Board or an air pollution control district; (2) subject to cease and desist order not subject to review issued pursuant to Section 13301 of the Water Code for violation of waste discharge requirements or discharge prohibitions; or (3) finally determined to be in violation of provisions of federal law relating to air or water pollution.

D.4) AMENDMENT: This Grant Agreement may be amended at any time by mutual agreement of the Parties, except insofar as any proposed amendments are in any way contrary to applicable law. Requests by the Grantee for amendments must be in writing stating the amendment request and the reason for the request. State shall have no obligation to agree to an amendment.

D.5) AMERICANS WITH DISABILITIES ACT: By signing this Grant Agreement, Grantee assures State that it complies with the Americans with Disabilities Act (ADA) of 1990, (42 U.S.C., 12101 et seq.), which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA.

D.6) APPROVAL: This Agreement is of no force or effect until signed by all parties to the agreement. Grantee may not submit invoices or receive payment until all required signatures have been obtained.

D.7) AUDITS: State reserves the right to conduct an audit at any time between the execution of this Grant Agreement and the completion of Projects, with the costs of such audit borne by State. After completion of the Projects, State may require Grantee to conduct a final audit to State's specifications, at Grantee's expense, such audit to be conducted by and a report prepared by an independent Certified Public Accountant. Failure or refusal by Grantee to comply with this provision shall be

considered a breach of this Grant Agreement, and State may elect to pursue any remedies provided in Paragraph 14 or take any other action it deems necessary to protect its interests.

Pursuant to Government Code Section 8546.7, the Grantee shall be subject to the examination and audit by the State for a period of three years after final payment under this Grant Agreement with respect to all matters connected with this Grant Agreement, including but not limited to, the cost of administering this Grant Agreement. All records of Grantee or its contractor or subcontractors shall be preserved for this purpose for at least three (3) years after project completion or final billing, whichever comes later.

- D.8) BUDGET CONTINGENCY:** If the Budget Act of the current year covered under this Grant Agreement does not appropriate sufficient funds for the Proposition 84 Implementation Grant Program, this Grant Agreement shall be of no force and effect. This provision shall be construed as a condition precedent to the obligation of State to make any payments under this Grant Agreement. In this event, State shall have no liability to pay any funds whatsoever to Grantee or to furnish any other considerations under this Grant Agreement and Grantee shall not be obligated to perform any provisions of this Grant Agreement. Nothing in this Grant Agreement shall be construed to provide Grantee with a right of priority for payment over any other Grantee. If funding for any fiscal year after the current year covered by this Grant Agreement is reduced or deleted by the Budget Act for purposes of this program, State shall have the option to either cancel this Grant Agreement with no liability occurring to State, or offer a Grant Agreement amendment to Grantee to reflect the reduced amount.
- D.9) CALIFORNIA CONSERVATION CORPS:** As required in Water Code section 79038(b), Grantee shall examine the feasibility of using the California Conservation Corps or community conservation corps to accomplish the habitat restoration, enhancement and protection activities listed in the Exhibit A, Work Plan, and shall use the services of one of these organizations whenever feasible.
- D.10) CEQA:** Activities funded under this Grant Agreement, regardless of funding source, must be in compliance with the California Environmental Quality Act (CEQA) (Public Resources Code §21000 et seq.). Information on CEQA may be found at the following links:
Environmental Information: <http://ceres.ca.gov/ceqa/>
California State Clearinghouse Handbook: <http://ceres.ca.gov/planning/sch/>
- D.11) CHILD SUPPORT COMPLIANCE ACT:** For any Grant Agreement in excess of \$100,000, the Grantee acknowledges in accordance with Public Contract Code 7110, that:
- a) The Grantee recognizes the importance of child and family support obligations and shall fully comply with all applicable state and federal laws relating to child and family support enforcement, including, but not limited to, disclosure of information and compliance with earnings assignment orders, as provided in Chapter 8 (commencing with section 5200) of Part 5 of Division 9 of the Family Code; and
 - b) The Grantee, to the best of its knowledge is fully complying with the earnings assignment orders of all employees and is providing the names of all new employees to the New Hire Registry maintained by the California Employment Development Department.
- D.12) CLAIMS DISPUTE:** Any claim that the Grantee may have regarding performance of this agreement including, but not limited to, claims for additional compensation or extension of time, shall be submitted to the State's Project Manager, within thirty (30) days of the Grantee's knowledge of the claim. State and Grantee shall then attempt to negotiate a resolution of such claim and process an amendment to this Agreement to implement the terms of any such resolution.
- D.13) COMPETITIVE BIDDING AND PROCUREMENTS:** Grantee shall comply with all applicable laws and regulations regarding securing competitive bids and undertaking competitive negotiations in Grantee's contracts with other entities for acquisition of goods and services and construction of public works with funds provided by State under this Grant Agreement.
- D.14) COMPUTER SOFTWARE:** Grantee certifies that it has appropriate systems and controls in place to ensure that state funds will not be used in the performance of this Grant Agreement for the acquisition, operation, or maintenance of computer software in violation of copyright laws.

- D.15) CONFLICT OF INTEREST:** All participants are subject to State and Federal conflict of interest laws. Failure to comply with these laws, including business and financial disclosure provisions, will result in the application being rejected and any subsequent contract being declared void. Other legal action may also be taken. Applicable statutes include, but are not limited to, Government Code, Section 1090 and Public Contract Code, Sections 10410 and 10411, for State conflict of interest requirements.
- a) **Current State Employees:** No State officer or employee shall engage in any employment, activity, or enterprise from which the officer or employee receives compensation or has a financial interest and which is sponsored or funded by any State agency, unless the employment, activity, or enterprise is required as a condition of regular State employment. No State officer or employee shall contract on his or her own behalf as an independent contractor with any State agency to provide goods or services.
 - b) **Former State Employees:** For the two-year period from the date he or she left State employment, no former State officer or employee may enter into a contract in which he or she engaged in any of the negotiations, transactions, planning, arrangements, or any part of the decision-making process relevant to the contract while employed in any capacity by any State agency. For the twelve-month period from the date he or she left State employment, no former State officer or employee may enter into a contract with any State agency if he or she was employed by that State agency in a policy-making position in the same general subject area as the proposed contract within the twelve-month period prior to his or her leaving State service.
 - c) **Employees of the Grantee:** Employees of the Grantee shall comply with all applicable provisions of law pertaining to conflicts of interest, including but not limited to any applicable conflict of interest provisions of the California Political Reform Act, Cal. Gov't Code § 87100 et seq.
 - d) **Employees and Consultants to the Grantee:** Individuals working on behalf of a Grantee may be required by the Department to file a Statement of Economic Interests (Fair Political Practices Commission Form 700) if it is determined that an individual is a consultant for Political Reform Act purposes.
- D.16) DELIVERY OF INFORMATION, REPORTS, AND DATA:** Grantee agrees to expeditiously provide throughout the term of this Grant Agreement, such reports, data, information, and certifications as may be reasonably required by State.
- D.17) DISPOSITION OF EQUIPMENT:** Grantee shall provide to State, not less than 30 calendar days prior to submission of the final invoice, an itemized inventory of equipment purchased with funds provided by State. The inventory shall include all items with a current estimated fair market value of more than \$5,000.00 per item. Within 60 calendar days of receipt of such inventory State shall provide Grantee with a list of the items on the inventory that State will take title to. All other items shall become the property of Grantee. State shall arrange for delivery from Grantee of items that it takes title to. Cost of transportation, if any, shall be borne by State.
- D.18) DRUG-FREE WORKPLACE CERTIFICATION:** Certification of Compliance: By signing this Grant Agreement, Grantee, its contractors or subcontractors hereby certify, under penalty of perjury under the laws of State of California, compliance with the requirements of the Drug-Free Workplace Act of 1990 (Government Code 8350 et seq.) and have or will provide a drug-free workplace by taking the following actions:
- a) Publish a statement notifying employees, contractors, and subcontractors that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees, contractors, or subcontractors for violations, as required by Government Code Section 8355(a)(1).
 - b) Establish a Drug-Free Awareness Program, as required by Government Code Section 8355(a)(2) to inform employees, contractors, or subcontractors about all of the following:
 - i) The dangers of drug abuse in the workplace,
 - ii) Grantee's policy of maintaining a drug-free workplace,
 - iii) Any available counseling, rehabilitation, and employee assistance programs, and
 - iv) Penalties that may be imposed upon employees, contractors, and subcontractors for drug abuse violations.

- c) Provide, as required by Government Code Sections 8355(a)(3), that every employee, contractor, and/or subcontractor who works under this Grant Agreement:
 - i) Will receive a copy of Grantee's drug-free policy statement, and
 - ii) Will agree to abide by terms of Grantee's condition of employment, contract or subcontract.

- D.19) **FINAL INSPECTIONS AND CERTIFICATION OF REGISTERED PROFESSIONAL:** Upon completion of the Project, Grantee shall provide for a final inspection and certification by the appropriate registered professional (California Registered Civil Engineer or Geologist) that the Project has been completed in accordance with submitted final plans and specifications and any modifications thereto and in accordance with this Grant Agreement. Grantee shall notify the State's Project Manager of the inspection date at least 14 calendar days prior to the inspection in order to provide State the opportunity to participate in the inspection.
- D.20) **GRANTEE COMMITMENTS:** Grantee accepts and agrees to comply with all terms, provisions, conditions and commitments of this Grant Agreement, including all incorporated documents, and to fulfill all assurances, declarations, representations, and statements made by the Grantee in the application, documents, amendments, and communications filed in support of its request for funding.
- D.21) **GRANTEE NAME CHANGE:** Approval of the State's Program Manager is required to change the Grantee's name as listed on this Grant Agreement. Upon receipt of legal documentation of the name change the State will process an amendment. Payment of invoices presented with a new name cannot be paid prior to approval of said amendment.
- D.22) **GOVERNING LAW:** This Grant Agreement is governed by and shall be interpreted in accordance with the laws of the State of California.
- D.23) **INDEMNIFICATION:** Grantee shall indemnify and hold and save the State, its officers, agents, and employees, free and harmless from any and all liabilities for any claims and damages (including inverse condemnation) that may arise out of the Projects and this Agreement, including, but not limited to any claims or damages arising from planning, design, construction, maintenance and/or operation of levee rehabilitation measures for this Project and any breach of this Agreement. Grantee shall require its contractors or subcontractors to name the State, its officers, agents and employees as additional insured on their liability insurance for activities undertaken pursuant to this Agreement.
- D.24) **INDEPENDENT CAPACITY:** Grantee, and the agents and employees of Grantees, in the performance of the Grant Agreement, shall act in an independent capacity and not as officers, employees, or agents of the State.
- D.25) **INSPECTION OF BOOKS, RECORDS, AND REPORTS:** During regular office hours, each of the parties hereto and their duly authorized representatives shall have the right to inspect and to make copies of any books, records, or reports of either party pertaining to this Grant Agreement or matters related hereto. Each of the parties hereto shall maintain and shall make available at all times for such inspection accurate records of all its costs, disbursements, and receipts with respect to its activities under this Grant Agreement. Failure or refusal by Grantee to comply with this provision shall be considered a breach of this Grant Agreement, and State may withhold disbursements to Grantee or take any other action it deems necessary to protect its interests.
- D.26) **INSPECTIONS OF PROJECT BY STATE:** State shall have the right to inspect the work being performed at any and all reasonable times during the term of the Grant Agreement. This right shall extend to any subcontracts, and Grantee shall include provisions ensuring such access in all its contracts or subcontracts entered into pursuant to its Grant Agreement with State.
- D.27) **INVOICE DISPUTES:** In the event of an invoice dispute, payment will not be made until the dispute is resolved and a corrected invoice submitted. Failure to use the address exactly as provided may result in return of the invoice to the Grantee. Payment shall be deemed complete upon deposit of the payment, properly addressed, postage prepaid, in the United States mail. Any claim that Grantee may have regarding the performance of this Grant Agreement including, but not limited to claims for additional compensation or extension of time, shall be submitted to the DWR Project Manager within thirty (30) calendar days of Grantee's knowledge of the claim. State and Grantee shall then attempt to negotiate a resolution of such claim and process an amendment to the Grant Agreement to implement the terms of any such resolution.

- D.28) LABOR CODE COMPLIANCE:** The Grantee will be required to keep informed of and take all measures necessary to ensure compliance with applicable California Labor Code requirements, including, but not limited to, Section 1720 *et seq.* of the California Labor Code regarding public works, limitations on use of volunteer labor (California Labor Code Section 1720.4), labor compliance programs (California Labor Code Section 1771.5) and payment of prevailing wages for work done and funded pursuant to these Guidelines, including any payments to the Department of Industrial Relations under Labor Code Section 1771.3.
- D.29) MODIFICATION OF OVERALL WORK PLAN:** At the request of the Grantee, the State may at its sole discretion approve non-material changes to the portions of Exhibit A which concern the budget and schedule without formally amending this Grant Agreement. Non-material changes with respect to the budget are changes that only result in reallocation of the budget and will not result in an increase in the amount of the State Grant Agreement. Non-material changes with respect to each Project schedule are changes that will not extend the term of this Grant Agreement. Requests for non-material changes to the budget and schedule must be submitted by the Grantee to the State in writing and are not effective unless and until specifically approved by the State's Project Manager in writing.
- D.30) NONDISCRIMINATION:** During the performance of this Grant Agreement, Grantee and its contractors or subcontractors shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex (gender), sexual orientation, race, color, ancestry, religion, creed, national origin (including language use restriction), pregnancy, physical disability (including HIV and AIDS), mental disability, medical condition (cancer/genetic characteristics), age (over 40), marital status, and denial of medial and family care leave or pregnancy disability leave. Grantee and its contractors or subcontractors shall ensure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment. Grantee and its contractors or subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code § 12990 (a-f) *et seq.*) and the applicable regulations promulgated there under (California Code of Regulations, Title 2, Section 7285 *et seq.*). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code Section 12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations, are incorporated into this Agreement by reference and made a part hereof as if set forth in full. Grantee and its contractors or subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement.
- Grantee shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the Grant Agreement.
- D.31) NO DISCRIMINATION AGAINST DOMESTIC PARTNERS:** For contracts over \$100,000 executed or amended after January 1, 2007, the Grantee certifies by signing this Grant Agreement, under penalty of perjury under the laws of State of California that Grantee is in compliance with Public Contract Code section 10295.3.
- D.32) OPINIONS AND DETERMINATIONS:** Where the terms of this Grant Agreement provide for action to be based upon, judgment, approval, review, or determination of either party hereto, such terms are not intended to be and shall never be construed as permitting such opinion, judgment, approval, review, or determination to be arbitrary, capricious, or unreasonable.
- D.33) PERFORMANCE AND ASSURANCES:** Grantee agrees to faithfully and expeditiously perform or cause to be performed all Project work as described in Exhibit A, "Work Plan" and to apply State funds received only to Eligible Project Costs in accordance with applicable provisions of the law.
- D.34) PRIORITY HIRING CONSIDERATIONS:** If this Grant Agreement includes services in excess of \$200,000, the Grantee shall give priority consideration in filling vacancies in positions funded by the Grant Agreement to qualified recipients of aid under Welfare and Institutions Code Section 11200 in accordance with Pub. Contract Code § 10353.
- D.35) PROHIBITION AGAINST DISPOSAL OF PROJECT WITHOUT STATE PERMISSION:** The Grantee shall not sell, abandon, lease, transfer, exchange, mortgage, hypothecate, or encumber in any manner whatsoever all or any portion of any real or other property necessarily connected or used in conjunction with the Projects, or with Grantee's service of water, without prior permission of State. Grantee shall not take any

action, including but not limited to actions relating to user fees, charges, and assessments that could adversely affect the ability of Grantee to meet its obligations under this Grant Agreement, without prior written permission of State. State may require that the proceeds from the disposition of any real or personal property be remitted to State.

- D.36) REMEDIES NOT EXCLUSIVE:** The use by either party of any remedy specified herein for the enforcement of this Grant Agreement is not exclusive and shall not deprive the party using such remedy of, or limit the application of, any other remedy provided by law.
- D.37) RETENTION:** Notwithstanding any other provision of this Grant Agreement, State shall, for each project, withhold five percent (5.0%) until January 1, 2018 and ten percent (10.0%), thereafter, of the funds requested by Grantee for reimbursement of Eligible Costs. Each project in this Grant Agreement will be eligible to release its respective retention when that project is completed and Grantee has met requirements of Paragraph 19, "Submissions of Reports" as follows: At such time as the "Project Completion Report" required under Paragraph 19 is submitted to and approved by State, State shall disburse the retained funds as to that project to Grantee, except in the case of the last project to be completed under this Grant Agreement, in which case retention for such project will not be disbursed until the "Grant Completion Report" is submitted to and approved by State.
- D.38) RIGHTS IN DATA:** Grantee agrees that all data, plans, drawings, specifications, reports, computer programs, operating manuals, notes and other written or graphic work produced in the performance of this Grant Agreement shall be made available to the State and shall be in the public domain to the extent to which release of such materials is required under the California Public Records Act., Cal. Gov't Code §6250 *et seq.* Grantee may disclose, disseminate and use in whole or in part, any final form data and information received, collected and developed under this Grant Agreement, subject to appropriate acknowledgement of credit to State for financial support. Grantee shall not utilize the materials for any profit-making venture or sell or grant rights to a third party who intends to do so. The State shall have the right to use any data described in this paragraph for any public purpose.
- D.39) SEVERABILITY:** Should any portion of this Grant Agreement be determined to be void or unenforceable, such shall be severed from the whole and the Grant Agreement shall continue as modified.
- D.40) STATE REVIEWS:** The parties agree that review or approval of projects applications, documents, permits, plans, and specifications or other project information by the State is for administrative purposes only and does not relieve the Grantee of their responsibility to properly plan, design, construct, operate, maintain, implement, or otherwise carry out the projects.
- D.41) SUSPENSION OF PAYMENTS:** This Grant Agreement may be subject to suspension of payments or termination, or both, and Grantee may be subject to debarment if the State determines that:
- a) Grantee, its contractors, or subcontractors have made a false certification, or
 - b) Grantee, its contractors, or subcontractors violates the certification by failing to carry out the requirements noted in this Grant Agreement.
- D.42) SUCCESSORS AND ASSIGNS:** This Grant Agreement and all of its provisions shall apply to and bind the successors and assigns of the parties. No assignment or transfer of this Grant Agreement or any part thereof, rights hereunder, or interest herein by the Grantee shall be valid unless and until it is approved by State and made subject to such reasonable terms and conditions as State may impose.
- D.43) TERMINATION BY GRANTEE:** Subject to State approval which may be reasonably withheld, Grantee may terminate this Agreement and be relieved of contractual obligations. In doing so, Grantee must provide a reason(s) for termination. Grantee must submit all progress reports summarizing accomplishments up until termination date.
- D.44) TERMINATION FOR CAUSE:** Subject to the right to cure under Paragraph 14, the State may terminate this Grant Agreement and be relieved of any payments should Grantee fail to perform the requirements of this Grant Agreement at the time and in the manner herein, provided including but not limited to reasons of default under Paragraph 14.
- D.45) TERMINATION WITHOUT CAUSE:** The State may terminate this Agreement without cause on 30 days advance written notice. The Grantee shall be reimbursed for all reasonable expenses incurred up to the date of termination.

- D.46) THIRD PARTY BENEFICIARIES:** The parties to this Agreement do not intend to create rights in, or grant remedies to, any third party as a beneficiary of this Agreement, or any duty, covenant, obligation or understanding established herein.
- D.47) TIMELINESS:** Time is of the essence in this Grant Agreement.
- D.48) TRAVEL:** Grantee agrees that travel and per diem costs shall NOT be eligible for reimbursement with State funds, and shall NOT be eligible for computing Grantee cost match. Travel includes the costs of transportation, subsistence, and other associated costs incurred by personnel during the term of this Grant Agreement.
- D.49) WAIVER OF RIGHTS:** None of the provisions of this Grant Agreement shall be deemed waived unless expressly waived in writing. It is the intention of the parties here to that from time to time either party may waive any of its rights under this Grant Agreement unless contrary to law. Any waiver by either party of rights arising in connection with the Grant Agreement shall not be deemed to be a waiver with respect to any other rights or matters, and such provisions shall continue in full force and effect.
- D.50) WORKERS' COMPENSATION:** Grantee affirms that it is aware of the provisions of Section 3700 of the California Labor Code, which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and Grantee affirms that it will comply with such provisions before commencing the performance of the work under this Grant Agreement and will make its contractors and subcontractors aware of this provision.

EXHIBIT E
AUTHORIZING RESOLUTION

RESOLUTION NO. 2014-08

**A RESOLUTION OF THE BOARD OF COMMISSIONERS OF
THE SANTA ANA WATERSHED PROJECT AUTHORITY
AUTHORIZING PREPARATION AND SUBMITTAL OF AN APPLICATION
TO THE CALIFORNIA DEPARTMENT OF WATER RESOURCES
TO OBTAIN AN INTEGRATED REGIONAL WATER MANAGEMENT
IMPLEMENTATION GRANT**

WHEREAS, the Santa Ana Watershed Project Authority is recognized by the State of California as the regional planning agency to coordinate, prepare, and implement Integrated Regional Water

WHEREAS, the agency recently conducted a process as part of its One Water One Watershed planning process where the Interregional Landscape Water Demand Reduction Program was identified and would provide immediate and sustainable water conservation as well as multiple benefits to the region;

WHEREAS, the Santa Ana Watershed Project Authority has demonstrated that the Interregional Landscape Water Demand Reduction Program has been vetted through the Regional Water Management Group;

NOW, THEREFORE, BE IT RESOLVED that the Board of Commissioners of the Santa Ana Watershed Project Authority (SAWPA) hereby authorizes that an application be prepared and submitted to the California Department of Water Resources to obtain an Integrated Regional Water Management Implementation Grant pursuant to the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Public Resource Code Section 75001 *et seq.*), and to enter into an agreement to receive grant funding for the Interregional Landscape Water Demand Reduction Program.

BE IT FURTHER RESOLVED, that the General Manager is hereby authorized and directed to prepare the necessary data, conduct investigations, file such application, and execute a grant agreement with the California Department of Water Resources.

ADOPTED this 15th day of July, 2014.

SANTA ANA WATERSHED PROJECT AUTHORITY

By: _____

Phil Anthony, Chair

EXHIBIT F
LOCAL PROJECT SPONSORS

Grantee has assigned, for each project, a Local Project Sponsor according to the roles of the participating agencies identified in the IRWM Plan. Local Project Sponsors may act on behalf of Grantee for the purposes of individual project management, oversight, compliance, and operations and maintenance. Local Project Sponsors are identified for each Sponsored Project below:

Local Sponsor Agency Designations		
Sponsored Project	Sponsor Agency	Agency Address
Project 1 – Conservation Based Reporting Tools and Rate Structure Implementation	SAWPA	11615 Sterling Avenue Riverside, CA 92503
Project 2 – High Visibility Turf Removal and Retrofit	SAWPA	11615 Sterling Avenue Riverside, CA 92503

EXHIBIT G
REPORT FORMATS AND REQUIREMENTS

The following reporting formats should be utilized. Please obtain State approval prior to submitting a report in an alternative format.

PROGRESS REPORTS

Progress reports shall generally use the following format. This format may be modified as necessary to effectively communicate information. For each project, discuss the following at the task level, as organized in Exhibit A Work Plan:

- Percent complete estimate.
- Discussion of work accomplished during the reporting period.
- Milestones or deliverables completed/submitted during the reporting period.
- Scheduling concerns and issues encountered that may delay completion of the task.

For each project, discuss the following at the project level, as organized in Exhibit A Work Plan:

- Work anticipated for the next reporting period.
- Photo documentation, as appropriate.
- Any schedule or budget modifications approved by DWR during the reporting period.

PROJECT COMPLETION REPORT

Project Completion Reports shall generally use the following format.

Executive Summary

Should include a brief summary of project information and include the following items:

- Brief description of work proposed to be done in the original Grant application.
- Description of actual work completed and any deviations from Exhibit A. List any official amendments to this Grant Agreement, with a short description of the amendment.

Reports and/or Products

The following items should be provided:

- Final Evaluation report
- Electronic copies of any data collected, not previously submitted
- As-built drawings
- Final geodetic survey information
- Self-Certification that the Project meets the stated goal of the Grant Agreement (e.g. 100-year level of flood protection, HMP standard, PI-84-99, etc.)
- Project photos
- Discussion of problems that occurred during the work and how those problems were resolved
- A final project schedule showing actual progress versus planned progress

Costs and Dispositions of Funds

A list of showing:

- The date each invoice was submitted to State
- The amount of the invoice
- The date the check was received
- The amount of the check (If a check has not been received for the final invoice, then state this in this section.)
- A summary of the payments made by the Grantee for meeting its cost sharing obligations under this Grant Agreement.
- A summary of final funds disbursement including:

- Labor cost of personnel of agency/ major consultant /sub-consultants. Indicate personnel, hours, rates, type of profession and reason for consultant, i.e., design, CEQA work, etc.
- Project cost information, shown by material, equipment, labor costs, and any change orders
- Any other incurred cost detail
- A statement verifying separate accounting of funding disbursements
- Summary of project cost including the following items:
 - Accounting of the cost of project expenditure;
 - Include all internal and external costs not previously disclosed; and
 - A discussion of factors that positively or negatively affected the project cost and any deviation from the original project cost estimate.

Additional Information

- Benefits derived from the project, with quantification of such benefits provided, if applicable.
- A final project schedule showing actual progress versus planned progress as shown in Exhibit B.
- Certification from a California Registered Professional (Civil Engineer or Geologist, as appropriate) that the project was conducted in accordance with the approved work plan and any approved modifications thereto.
- Submittal schedule for the Post Performance Report and an outline of the proposed reporting format.

GRANT COMPLETION REPORT

The Grant Completion Report shall generally use the following format. This format may be modified as necessary to effectively communicate information on the various projects in the IRWM Program funded by this Grant Agreement, and includes the following:

Executive Summary

The Executive Summary consists of a maximum of twenty (20) pages summarizing information for the grant as well as the individual projects.

Reports and/or products

- Summary of the regional priorities, objectives, and water management strategies of the IRWM Plan.
- Brief comparison of work proposed in the original Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 IRWM Implementation Grant application and actual work done.
- Brief description of the projects completed and how they will further the goals identified in the Agency's final approved IRWM Plan.
- Describe how the implemented projects will meet the regional priorities identified in the final approved IRWM Plan and how the projects contribute to regional integration.
- Identify remaining work and mechanism for their implementation.
- Identify any changes to the IRWM Plan as result of project implementation.
- If applicable, a short discussion on how the IRWM Plan will assist in reducing dependence on Delta water supplies.
- If applicable, a discussion of the critical water supply or water quality benefits to DAC as part of this Grant Agreement

Cost & Disposition of Funds Information

- A summary of final funds disbursement for each project.

Additional Information

- A final schedule showing individual project's actual progress duration versus planned progress.
- Certification from a California Registered Professional (Civil Engineer or Geologist, as appropriate) that the Program was conducted in accordance with the approved work plan and any approved modifications thereto. Discussion of the synergies of the completed projects, including the integration of project benefits and a comparison of actual benefits versus those discussed in the original proposal.

- Submittal schedule for the Post Performance Reports for each of the projects in this Grant Agreement.

POST-PERFORMANCE REPORT

Report should be concise, and focus on how (each/the) project is actually performing compared to its expected performance; whether the project is being operated and maintained, and providing intended benefits as proposed.

Reports and/or products

- Time period of the annual report (i.e., Oct 2014 through September 2015)
- Short project description
- Discussion of the project benefits
- An assessment of any explanations for any differences between the expected versus actual project benefits in meeting IRWM priorities as stated in the original IRWM Implementation Grant application. Where applicable, the reporting should include quantitative metrics, i.e., new acre-feet of water produced that year, acres of wildlife habitat added, etc.
- Summary of any additional costs and/or benefits deriving from the project since its completion, if applicable
- Continued reporting on meeting the Output Indicators and Targets discussed in the Project Monitoring Plan discussed in Paragraph 21 of this Grant Agreement
- Any additional information relevant to or generated by the continued operation of the project

EXHIBIT H
REQUIREMENTS FOR STATEWIDE MONITORING AND DATA SUBMITTAL

Surface and Groundwater Quality Data

Groundwater quality and ambient surface water quality monitoring data that include chemical, physical, or biological data shall be submitted to the State as described below, with a narrative description of data submittal activities included in project reports, as described in Exhibit G.

Surface water quality monitoring data shall be prepared for submission to the California Environmental Data Exchange Network (CEDEN). The CEDEN data templates are available on the CEDEN website. Inclusion of additional data elements described on the data templates is desirable. Data ready for submission should be uploaded to your CEDEN Regional Data Center via the CEDEN website. CEDEN website: <http://www.ceden.org>.

If a project's Work Plan contains a groundwater ambient monitoring element, groundwater quality monitoring data shall be submitted to the State for inclusion in the State Water Resources Control Board's Groundwater Ambient Monitoring and Assessment (GAMA) Program. Information on the GAMA Program can be obtained at: http://www.waterboards.ca.gov/water_issues/programs/gama/. If further information is required, the Grantee can contact the State Water Resources Control Board (SWRCB) GAMA Program. A listing of SWRCB staff involved in the GAMA program can be found at: http://www.swrcb.ca.gov/water_issues/programs/gama/contact.shtml

Groundwater Level Data

Grantee shall submit to DWR groundwater level data collected as part of this grant. Water level data must be submitted using the California Statewide Groundwater Elevation Monitoring (CASGEM) online data submission system. Grantee should use their official CASGEM Monitoring Entity or Cooperating Agency status to gain access to the online submittal tool and submit data. If the data is from wells that are not part of the monitoring network, the water level measurements should be classified as voluntary measurements in the CASGEM system. If the grantee is not a Monitoring Entity or Cooperating Agency, please contact your DWR grant project manager for further assistance with data submittal. The activity of data submittal should be documented in appropriate progress or final project reports, as described in Exhibit G. Information regarding the CASGEM program can be found at <http://www.water.ca.gov/groundwater/casgem/>.

EXHIBIT I
STATE AUDIT DOCUMENT REQUIREMENTS AND FUNDING MATCH GUIDELINES
FOR GRANTEES

State Audit Document Requirements

The list below details the documents/records that State Auditors typically reviewed in the event of a Grant Agreement being audited. Grantees should ensure that such records are maintained for each State funded Program/Project. Where applicable, this list of documents also includes documents relating to the Grantee's funding match which will be required for audit purposes.

Internal Controls:

1. Organization chart (e.g., Agency's overall organization chart and organization chart for this Grant Agreement's funded project).
2. Written internal procedures and flowcharts for the following:
 - a) Receipts and deposits
 - b) Disbursements
 - c) State reimbursement requests
 - d) State funding expenditure tracking
 - e) Guidelines, policy(ies), and procedures on State funded Program/Project
3. Audit reports of the Grantee's internal control structure and/or financial statements within the last two years.
4. Prior audit reports on State funded Program/Project.

State Funding:

1. Original Grant Agreement, any amendment(s) and budget modification documents.
2. A list of all bond-funded grants, loans or subventions received from the State.
3. A list of all other funding sources for each Program/Project.

Contracts:

1. All subcontractor and consultant contracts and related, if applicable.
2. Contracts between the Grantee, member agencies, and project partners as related to the State funded Program/Project.

Invoices:

1. Invoices from vendors and subcontractors for expenditures submitted to the State for payments under the Grant Agreement.
2. Documentation linking subcontractor invoices to State reimbursement requests and related Grant Agreement budget line items.
3. Reimbursement requests submitted to the State for the Grant Agreement.

Cash Documents:

1. Receipts (copies of warrants) showing payments received from the State.
2. Deposit slips or bank statements showing deposit of the payments received from the State.
3. Cancelled checks or disbursement documents showing payments made to vendors, subcontractors, consultants, and/or agents under the Grant Agreement.

Accounting Records:

1. Ledgers showing receipts and cash disbursement entries for State funding.
2. Ledgers showing receipts and cash disbursement entries of other funding sources.
3. Bridging documents that tie the general ledger to reimbursement requests submitted to the State for the Grant Agreement

Administration Costs:

1. Supporting documents showing the calculation of administration costs.

Personnel:

1. List of all contractors and Grantee staff that worked on the State funded Program/Project.
2. Payroll records including timesheets for contractor staff and the Grantee's

Project Files:

1. All supporting documentation maintained in the Program/Project files.
2. All Grant Agreement related correspondence.

Funding Match Guidelines

Funding Match consists of non-State funds including in-kind services. In-kind services are defined as work performed or items contributed (i.e., dollar value of non-cash contributions) by the Grantee (and potentially other parties involved) directly related to the execution of Exhibit A "Work Plan" (examples: volunteer services, equipment use, and facilities). The cost of in-kind service can be counted as funding match in-lieu of actual funds (or revenue) provided by the Grantee. Other funding match and in-kind service eligibility conditions may apply. Provided below is guidance for documenting funding match with and without in-kind services.

1. Although tracked separately, in-kind services shall be documented and, to the extent feasible, supported by the same methods used by the Grantee for its own employees. Such documentation should include the following:
 - a. Detailed description of the contributed item(s) or service(s)
 - b. Purpose for which the contribution was made (tied to Grant Agreement Exhibit A "Work Plan")
 - c. Name of contributing organization and date of contribution
 - d. Real or approximate value of contribution. Who valued the contribution and how the value was determined? (e.g., actual, appraisal, fair market value, etc.). Justification of rate. (See item #2, below)
 - e. For contributed labor, the person's name, the work performed, the number of hours contributed, and the pay rate applied
 - f. If multiple sources exist, these should be summarized on a table with summed charges
 - g. Source of contribution and whether it was provided by, obtained with, or supported by government funds
2. Rates for volunteer or in-kind services shall be consistent with those paid for similar work in the Grantee's organization. For example, volunteer service of clearing vegetation performed by an attorney shall be valued at a fair market value for this service, not the rate for professional legal services. In those instances in which the required skills are not found in the recipient organization, rates shall be consistent with those paid for similar work in the labor market. Paid fringe benefits that are reasonable, allowable and allocable may be included in the valuation.
3. Funding match contribution (including in kind services) shall be for costs and services directly attributed to activities included in the Grant Agreement Work Plan. These services, furnished by professional and technical personnel, consultants, and other skilled and unskilled labor may be counted as in-kind if the activities are an integral and necessary part of the State funded Program/Project under the Grant Agreement.
4. Cash contributions made to a Program/Project shall be documented as revenue and in-kind services as expenditure. These costs should be tracked separately in the Grantee's accounting systems.

EXHIBIT J
PROJECT MONITORING PLAN GUIDANCE

Introduction

Please include a brief description of the project (maximum ~150 words) including project location, implementation elements, and need for project (what problem will the project address).

Project Monitoring Plan Components

The Project Monitoring Plan should contain responses to the following questions:

- What are the anticipated project physical benefits?
- What are the corresponding numeric targets for each project benefit?
- How will proposed numeric targets be measured?
- What are baseline conditions?
- When will the targets be met (upon project completion, five years after completion, etc.)
- How often will monitoring be undertaken (monthly yearly, etc.).
- Where are monitoring point locations (ex: meter located at..., at stream mile...)? Include relevant maps.
- How will the project be maintained (ex: irrigation, pest management, weed abatement..)?
- What will be the frequency and duration of maintenance proposed activities?
- Are there any special environmental considerations (e.g., resource agency requirements, permit requirements, CEQA/NEPA mitigation measures)?
- Who is responsible for collecting the samples (who is conducting monitoring and/or maintenance)?
- How, and to whom, will monitoring results be reported (e.g.,: paper reports, online databases, public meetings)?
- What adaptive management strategies will be employed if problems are encountered during routine monitoring or maintenance?
- What is the anticipated life of the project?

PROPOSITION 84 INTEGRATED REGIONAL WATER MANAGEMENT PROGRAM 2014
DROUGHT SOLICITATION
IMPLEMENTATION GRANT FUNDING CONTRACT
BETWEEN THE
SANTA ANA WATERSHED PROJECT AUTHORITY
AND
ORANGE COUNTY WATER DISTRICT

This Proposition 84 Integrated Regional Water Management Program ("IRWMP") 2014 Drought Solicitation Implementation Grant Funding Contract ("Contract") is made between Santa Ana Watershed Project Authority ("SAWPA") and Orange County Water District ("OCWD"), the "Sub-Grantee". SAWPA and the Sub-Grantee may be individually referred to as "Party", and collectively referred to as the "Parties".

WHEREAS, Section 79560 et seq. of the Water Code establishes the IRWMP providing approximately \$900 million for local assistance grants to be allocated to projects to protect from drought, improve water quality and improve water security by reducing dependence on imported water; and

WHEREAS, in [Month Day 2015], the California Department of Water Resources ("DWR") and SAWPA entered into a Proposition 84 Integrated Regional Water Management Implementation Grant Agreement ("Grant Agreement") providing that SAWPA would serve as the program manager for the \$12,860,110 in IRWMP grant funds to be disbursed to the Sub-Grantee, consistent with IRWMP requirements, and ensuring that the maximum benefit of such funds are realized in the Santa Ana River and the Upper Santa Margarita Watersheds; and

WHEREAS, consistent with the Proposition 84 Integrated Regional Water Management Implementation Program Grant Agreement between DWR and SAWPA, SAWPA intends to disburse to the Sub-Grantee a portion of the \$12,860,110 in IRWMP grant funds for its components of the Interregional Landscape Water Demand Reduction Program by way of this Contract with the Sub-Grantee; and

WHEREAS, Interregional Landscape Water Demand Reduction Program will implement a suite of measures that include the Institutional and HOA Turf Removal Project, Web-Based Water Consumption Reporting, Analytics and Customer Engagement Tool Project, Aerial Mapping Project, and Implementation of Conservation Based Rate Structures Project across the Santa Ana River Watershed and portions of the Upper Santa Margarita Watershed to promote sustainable water-use conservation; and

WHEREAS, the Sub-Grantee is implementing the Interregional Landscape Water Demand Reduction Program in coordination with the other Sub-Grantees to the Grant Agreement, in addition to SAWPA, which include Eastern Municipal Water District, Inland Empire Utilities Agency, San Bernardino Valley Municipal Water District, Western Municipal Water District and Rancho California Water District; and

WHEREAS, the Project Agreement 22 Committee ("Committee") will issue Policy Statements as needed regarding the allocation of funds for the Interregional Landscape Water Demand Reduction Program and other policy provisions for the Program.

THEREFORE, based on the foregoing incorporated recitals and in consideration of the mutual covenants and conditions set forth in this Contract, the Parties hereby agree to the following:

SECTION 1.

PROJECT DESCRIPTION

The Sub-Grantee's Project is the Institutional and HOA Turf Removal Project ("Project") component of the Interregional Landscape Water Demand Reduction Program as described in the Grant Agreement. The Project will be implemented in Orange County by the Sub-Grantee and the Municipal Water District of Orange County (MWDOC) within the Santa Ana River Watershed by providing financial incentives to highly visible properties that are maintained by a public agency or a homeowner association (HOA) who apply for funding to support individual landscape retrofit projects. MWDOC has an existing landscape retrofit conservation program that provides customers in its service area a financial incentive for landscape retrofit projects subject to certain conditions. The Project will involve MWDOC paying from the grant up to \$1 per square foot to provide an increased incentive to institutional and HOA applicants that have highly visible landscape retrofit projects in order to conserve additional water and create a market transformation from ornamental turf grass to drought tolerant landscapes in the Santa Ana River and the Upper Santa Margarita Watersheds.

SAWPA shall confer with OCWD to ensure individual landscape retrofit projects as part of the Project occur within the confines of the Metropolitan Water District service area and the Santa Ana River Watershed before payment under the Grant Agreement occurs. The Sub-Grantee shall maintain adequate reporting and record keeping for the IRWMP grant funds and local cost share allocated by the Committee's Policy Statements.

SECTION 2.

CONTRACT DOCUMENTS; ORDER OF PRECEDENCE; SUB-GRANTEE GENERAL COMMITMENT

This Contract incorporates and includes as part of its terms and conditions the Grant Agreement between DWR and SAWPA entered into on [Date], [Agreement No. XX], attached hereto as **Attachment "A"**.

In the event of any inconsistency between this Contract and the Grant Agreement, except as otherwise specifically provided, the inconsistency shall be resolved by giving precedence to the Grant Agreement.

The Sub-Grantee shall comply with all terms, provisions, conditions, and commitments of this Contract and the Grant Agreement. Such compliance shall include providing SAWPA with all deliverables, budget detail, reports and all other documents required by the Grant Agreement.

On behalf of and for the benefit of SAWPA, Sub-Grantee shall comply with all of the obligations and requirements of the Grant Agreement as if the Sub-Grantee were the "Grantee" under the terms of the Grant Agreement. Such compliance shall be to the fullest extent necessary and as may be required by SAWPA in order to enable SAWPA to comply with the Grant Agreement as "Grantee."

SECTION 3.

ESTIMATED ELIGIBLE PROJECT COSTS; GRANT AMOUNT

The estimated reasonable cost of the Institutional and HOA Turf Removal Project at the time of SAWPA's and DWR's approval of the Project is **Two Million Fifty-Nine Thousand Seventeen** dollars (\$2,059,017) for at least 824,228 square feet of turf retrofitted. The IRWMP grant and local matching funds will be provided to individual landscape retrofit projects on properties owned and maintained by a

homeowner association or public agency, whereby each individual property can receive no more than \$250,000 in IRWMP grant funds per the policy statement issued by the Committee.

Eight Hundred Eighty Thousand Eight Hundred Ninety-Four dollars (\$880,894) is the Sub-grantee's share of the IRWMP grant funds designated for implementing this Project within the Santa Ana River Watershed as designated by the Committee's policy statement. In order to meet the qualifications for this grant, the Sub-Grantee will require that MWDOC conserve, at a minimum, approximately 111 AFY of water, approximately 44 gallons per square foot per year, and retrofit 824,228 square feet of turf by June 30, 2018. The designated required local cost share is \$1,178,123. The allocation of IRWMP grant funds between the Sub-Grantees to the Grant Agreement is subject to reallocation by the Committee as designated by the Committee's policy statements.

Subject to all of the terms, provisions, and conditions of this Contract, and subject to the availability of the grant funds, SAWPA shall disburse such grant funds in an amount not to exceed the Sub-Grantee's allocation designated by the Committee. However, SAWPA's actual grant disbursements to the Sub-Grantee under this Contract shall not exceed payments received from the DWR. Local match funds shall not include SRF loans per DWR criteria.

If MWDOC or the Sub-Grantee proceeds to approve applications and make obligations through its conservation program, the final grant amount will be determined in accordance with the provisions of this Contract. If MWDOC or the Sub-Grantee fails or refuses to proceed with or complete the project within the project period, SAWPA shall consider such failure or refusal to be a material violation and breach of this Contract. SAWPA shall have all rights and remedies as are otherwise available to it for breach of this Contract by the Sub-Grantee.

If actual Project costs exceed the Project's estimated reasonable cost, SAWPA shall have no obligation to provide grant funds for such exceedence.

Eligible project costs include the reasonable costs of removing turf grass, materials, dumping fees, equipment rental, design work and labor costs by licensed contractor at individual project sites that meet the criteria established by the Committee, such as high visibility.

Costs not eligible for reimbursement or eligible to be counted as local match include, but are not limited to:

- Costs incurred before the dates specified below.
- Operation and maintenance costs, including post construction performance and monitoring costs.
- Purchase of equipment that is not an integral part of the project.
- Establishing a reserve fund.
- Purchase of water supply.
- Replacement of existing funding sources for on-going programs.
- Monitoring and assessment costs for efforts required after project construction is complete.
- Support of existing agency requirements and/or mandates in response to negligent behavior.
- Purchase of land in excess of the minimum required acreage necessary to operate as an integral part of a project.
- Payment of principal or interest of existing indebtedness or any interest payments unless the debt is incurred after execution of this Grant Agreement.
- Overhead not directly related to project costs.
- Travel and per diem costs.

Work performed after January 1, 2010, are eligible to be counted as local match. Work performed on or after January 17, 2014, is eligible for reimbursement.

SECTION 4. SCOPE OF WORK AND COMPLETION OF PROJECT

The Scope of Work shall be as provided for Sub-Grantee's component project described in the Grant Agreement. The Parties understand that time is of the essence, and agree to expeditiously proceed with and complete the Project.

SECTION 5. DISBURSEMENT

Grant funds will be disbursed in accordance with the disbursement provisions of the Grant Agreement.

SECTION 6. FISCAL MANAGEMENT SYSTEMS AND ACCOUNTING STANDARDS

The Sub-Grantee agrees that, at a minimum, its fiscal control and accounting procedures shall be sufficient to permit tracking of grant funds to a level of expenditure adequate to establish that such funds have not been used in violation of State law or this Contract. The Sub-Grantee shall maintain separate Project accounts in accordance with generally accepted government accounting standards and the conditions outlined in Exhibit D.

SECTION 7. TERM

This Contract shall not be effective until it has been executed by SAWPA. The Term of this Contract shall be the same as the Term of the Grant Agreement, unless sooner terminated pursuant to the provisions of this Contract or the Grant Agreement. Notwithstanding the foregoing, the obligations of this Contract and the Grant Agreement shall continue through the life of the Project.

SECTION 8. COVENANT TO OPERATE AND MAINTAIN PROGRAM

The Sub-Grantee shall properly staff, operate and maintain all portions of their landscape retrofit conservation program, including program management, contractor oversight and monitoring, during the Project's useful life and in accordance with this Contract, the Grant Agreement, and all applicable state and federal laws, rules and regulations. In the event that the Sub-Grantee assigns or transfers all or any portions of the Project to another entity, the Sub-Grantee shall be responsible to ensure that the assignee or transferee of all or any portions of the Project shall properly staff, operate and maintain all portions of the Project during its useful life and in compliance with this Contract, the Grant Agreement, and all applicable state and federal laws, rules and regulations. The Parties to this Contract understand and agree that this covenant shall survive the expiration or termination of this Contract. The Parties further understand and agree that this covenant is for the benefit of SAWPA and DWR and shall be enforceable during the useful life of the Project facilities. The Parties agree that the useful life of the Project facilities is 10 (ten) years from and after Project completion.

The Sub-Grantee shall prepare and maintain the Project Monitoring Plan ("PMP") required by the Grant Agreement. DWR and SAWPA shall approve the PMP before the Sub-Grantee becomes eligible for grant reimbursement and implements any sampling or monitoring activities.

The Sub-Grantee shall not abandon, substantially discontinue use of, lease, or dispose of the Project, including its construction, or any significant part or portion thereof, during the useful life of the Project without SAWPA's and DWR's prior written approval.

SECTION 9. ASSIGNMENT

Neither this Contract, nor any duties or obligations under this Contract, nor any of the Project facilities referenced in this Contract shall be assigned by any Party without the prior written consent of the other Party.

Should an assignment or transfer occur, whenever SAWPA or the Sub-Grantee are named or referred to herein, such reference shall be deemed to include the successor to the powers, duties and functions that are presently vested in SAWPA and the Sub-Grantee, and all Contracts and covenants required hereby to be performed by or on behalf of SAWPA and/or the Sub-Grantee shall bind and inure to the benefit of the respective successors thereof whether so expressed or not. SAWPA and Sub-Grantee both understand and agree that the otherwise applicable duties, obligations, and liabilities of Sub-Grantee under this Contract shall, by a separate agreement between Sub-Grantee and WDOC, be assigned and transferred to, and otherwise carried out by MWDWC – the entity who will receive and distribute grant funds to eligible participants for the purposes described in this Contract herein.

SECTION 10. COMPLIANCE WITH LAWS AND REGULATIONS

The Sub-Grantee agrees that it shall, at all times, comply with and require its contractors and subcontractors to comply with all applicable federal and state laws, rules, regulations and guidelines. The Sub-Grantee shall comply with, implement, and fulfill all environmental mitigation measures applicable to the Project, and which may otherwise be required by this Contract and the Grant Agreement, the California Environmental Quality Act ("CEQA"), and the State CEQA Guidelines.

SECTION 11. ACKNOWLEDGEMENT OF CREDIT/SIGNAGE REQUIREMENTS

The Sub-Grantee shall include appropriate acknowledgement of credit to the State, SAWPA and to all cost-sharing partners for their support when promoting the Project or using any data and/or information developed under this Sub-Grantee Agreement.

During construction and post-construction of individual landscape retrofit projects that exceed 6,000 square feet, the Sub-Grantee shall work with MWDWC to ensure that at least two signs at least 18 inches tall by 24 inches wide be installed in two prominent locations on the individual landscape retrofit project sites, which shall include a statement that the Project is financed under the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Proposition 84). The sign shall also include the logo of the Department of Water Resources and the One Water One Watershed program (to be provided by SAWPA).

Before it is constructed, the Sub-Grantee shall provide the draft design layout of the sign to SAWPA for approval. Sub-Grantee shall notify SAWPA that the signs have been erected by providing them with a site map with the sign location noted and a photograph of the sign.

SECTION 12. CONSTRUCTION ACTIVITIES AND NOTIFICATION

The Sub-Grantee shall immediately notify SAWPA in writing of:

(1) Any substantial change in the scope, budget, or work performed of the Project. The Sub-Grantee agrees that no substantial change in the scope of the Project may be undertaken until written notice of the proposed change has been provided to SAWPA, and SAWPA and DWR have given written approval for such a change;

(2) Any public or media event publicizing the accomplishments and/or results of this Grant Agreement and provide the opportunity for attendance and participation. The Sub-Grantee must notify SAWPA at least 20 calendar days prior to the event.

(3) Unscheduled cessation of all major construction work on the Project where such cessation of work is expected to or does continue for a period of 30 calendar days or more;

(4) Any circumstance, combination of circumstances, or condition which is expected to delay project completion for a period of 90 calendar days or more beyond the initial estimated date of completion of the Project previously provided to SAWPA;

(5) Completion of construction of the Project and provide SAWPA and DWR the opportunity to participate in the inspection. The Sub-Grantee must notify SAWPA at least 20 calendar days prior to final inspection.

SECTION 13. PAYMENT OF PROJECT COSTS

The Sub-Grantee shall provide for and make payment for all Project costs. All costs and payments for the Project shall be paid by the Sub-Grantee promptly and in compliance with all applicable laws. All grant disbursements will be reimbursements.

SECTION 14. WITHHOLDING OF GRANT DISBURSEMENTS

SAWPA may withhold all or any portion of the grant funds provided for by this Contract in the event that:

(1) The Sub-Grantee have violated, or threatens to violate, any term, provision, condition, or commitment of this Contract;

(2) The Sub-Grantee fails to maintain reasonable progress toward completion of the Project;
or

(3) DWR directs SAWPA to withhold any such grant funds.

SECTION 15. INVOICING

(A) Invoices shall be completed on a State-provided invoice form and shall meet the following format requirements:

(1) Invoices must contain the date of the invoice, the time period covered by the invoice, and the total amount due.

(2) Invoices must be itemized. The amount claimed for salaries/wages/consultant fees must include a calculation formula (i.e. hours or days worked times the hourly or daily rate = the total amount claimed). Refer to **Attachment C**.

(3) Sufficient evidence of local rebate funding documentation (which shall include the site address of the individual landscape retrofit project and the amount of square feet of turf removed for each individual landscape retrofit project) must be provided for all costs included in the invoice.

(4) Each invoice shall clearly delineate those costs claimed for reimbursement from the State's grant amount and those costs that represent MWDOC's share or local match as applicable.

(B) Invoices also shall include the following information:

(1) Costs incurred for work performed in implementing the IRWM program or program contracts during the period identified in the particular invoice.

(2) Costs incurred for any interests in real property (land or easements) that have been necessarily acquired for a project during the period identified in the particular invoice for the construction, operation, or maintenance of a project.

(3) Appropriate receipts and reports for all costs incurred.

SECTION 16. RECORDS AND REPORTS

(A) Without limitation on the requirement that Project accounts be maintained in accordance with generally accepted government accounting standards, the Sub-Grantee shall comply with the records and reporting requirements imposed by the Grant Agreement, and shall also:

(1) Establish an official Project file that documents all significant actions relative to the Project;

(2) Establish separate accounts that adequately and accurately itemizes and describes all amounts received and expended on the Project, including all grant funds received under this Contract;

(3) Establish separate accounts that adequately and accurately itemizes and describes all income received which is attributable to the Project, specifically including any income attributable to grant funds disbursed under this Contract;

(4) Establish an accounting system that adequately and accurately itemizes and describes final total costs of the Project, including both direct and indirect costs;

(5) Establish such accounts and maintain such records as may be necessary for the State, DWR and SAWPA to fulfill federal reporting requirements, including any and all reporting requirements under federal tax statutes or regulations; and

(6) If Force Account is used by the Sub-Grantee for any phase of the Project, establish an account that adequately and accurately itemizes and describes all employee hours, and associated tasks charged to the Project per employee.

(B) The Sub-Grantee shall require all Project contractors and subcontractors to maintain books, records, and other material relative to the Project in accordance with generally accepted accounting standards, and to require that such contractors and subcontractors retain such books, records, and other material for a minimum of five (5) years after Project completion. The Sub-Grantee shall require that such books, records, and other material shall be subject, at all reasonable times, to inspection, copying, and audit by SAWPA, DWR or its authorized representatives.

(C) The Sub-Grantee shall maintain its books, records and other material concerning the Project in accordance with generally accepted government accounting standards and as required by the Grant Agreement.

(D) All documents required or requested to be provided to SAWPA shall be submitted electronically in the both the native format (e.g. Microsoft Word, Microsoft Excel, etc) and PDF. All documents shall be public domain or the property of SAWPA once submitted.

(E) The Sub-Grantee agrees to expeditiously provide, during work on the Project and for three years after the projection completion, such reports, data, information and certifications as may be reasonably required by SAWPA or DWR. Such documents and information shall be provided in electronic format.

SECTION 17. QUARTERLY PROGRESS REPORTS

Quarterly Progress Reports shall be completed using the templates provided as shown in **Attachment B**. Quarterly Progress Reports shall provide a brief description of the work performed, activities, milestones achieved, any accomplishments as well as any problems encountered in the performance of the work. The first quarterly report shall cover the period between [XX,] and [XX], and be submitted no later than [XX], with future reports due on successive three month increments. Future quarterly reports shall cover the periods [January-March (due April 15), April-June (due July 15), July-September (due October 15), and October-December (due January 15).]

SECTION 18. PROJECT REVIEW AND EVALUATION; FINAL REPORTS AND AUDIT

(A) SAWPA may perform a project review or otherwise evaluate the project to determine compliance with the contract documents at any time or if questions about the proper use or management of the funds arise. SAWPA may review or evaluate the contractor or vendor for compliance with the terms and conditions of the contract document. The project review and evaluation may be performed by SAWPA or may be contracted to a responsible third party. Any findings and recommendations of the project review and evaluation shall be addressed by the Sub-Grantee within 60 days of the date such findings and recommendations are provided to the Sub-Grantee and before the next invoice is paid by SAWPA.

(B) Inventory of equipment purchased with grant funds.

(1) At least 75 days prior to submission of the final project invoice, Sub-Grantee shall consult with SAWPA on the scope of the inventory of equipment purchased with grant funds. This inventory shall include all items with a current estimated fair market value of more than \$5,000 per item.

(2) At least 45 days prior to submission of the final project invoice, Sub-Grantee shall provide SAWPA with a final inventory list of equipment purchased with grant funds. DWR shall have

the opportunity to take title to any item on the inventory list. Should DWR take title to any item on the inventory list, DWR shall arrange for delivery and transportation of such inventory.

(C) In addition to the documents and deliverables required to be provided by the Grant Agreement, within 90 days after completion of Project but no later than 14 days prior to the due date indicated in the Grant Agreement, the Sub-Grantee shall provide to SAWPA, a final Project summary report on the Project. The summary shall include, at a minimum, all of the following:

(1) A description of the completed project including purpose, goals, activities completed and participants, the general performance characteristics (e.g. the delivery rate and quantity of water pumped) of the constructed facilities, a description of the water quality benefits attained from the construction of the project (consistent with the Project Management Plan), any goals not achieved or only partially achieved, lessons learned, public outreach conducted, a summary of the construction program, a summary of all documents submitted to SAWPA in compliance with this Contract and the Grant Agreement, and copies of any final documents or reports generated or utilized during a project. The summary shall also contain a description of startup activities, problems encountered, corrective measures completed as well as any changes or amendments to the project.

(2) A final cost summary listing the total project cost, total project costs eligible for grant funding under the DWR's grant funding program and this Contract, total amount of grant funds received, and other financial information as may be reasonably required by the DWR to verify Sub-Grantee's entitlement to grant funds, to assure program integrity, and to comply with federal requirements.

The report shall be accompanied by such other financial information as may be required by SAWPA or DWR to verify Sub-Grantee entitlement to grant funds, to assure program integrity, and to comply with any federal or state requirements. A duly authorized representative of the Sub-Grantee shall certify the report as correct.

(3) A final schedule showing actual progress versus planned progress.

(4) If applicable, certification of final project by a registered civil engineer, consistent with Standard Condition D-15, "Final Inspection and Certification of Registered Civil Engineer".

(5) A DWR "Certification of Project Completion".

(D) SAWPA may call for an audit of financial information relative to the Project, where SAWPA determines that an audit is desirable to assure program integrity or where such an audit becomes necessary because of federal or state requirements. Where such an audit is called for, the audit shall be performed by a Certified Public Accountant independent of the Sub-Grantee and at the cost of the Sub-Grantee. The audit shall be in the form required by SAWPA.

SECTION 19. PROJECT CLOSEOUT DOCUMENTATION

To ensure that that the Project is closed out in a manner that provides an auditable file for SAWPA, Sub-Grantee shall follow a close-out procedure that includes payment of all subcontracts, completion of all punch lists, defects correction, satisfaction of warranty or guarantee issues, and any other requirements for the completion of the scope of work. Such close-out procedures shall include those procedures contained in the Grant Agreement or otherwise required by SAWPA and DWR.

SECTION 20. POST-PERFORMANCE REPORTS

Post-Performance Reports shall be submitted to SAWPA within 75 calendar days after the first operational year of a project has elapsed. This record keeping and reporting process shall be repeated annually for a total of 10 years after the completed project begins operation.

SECTION 21. TERMINATION; IMMEDIATE REPAYMENT; INTEREST

(A) SAWPA may terminate this Contract at any time prior to completion of the Project for Sub-Grantee's violation of any provision of this Contract upon written notice by SAWPA of the violation and failure of Sub-Grantee to come into compliance within a reasonable time as established by SAWPA.

(B) In the event of such termination, the Sub-Grantee agrees, upon demand, to immediately repay to SAWPA an amount equal to the amount of grant funds disbursed to the Sub-Grantee prior to such termination. In the event of termination, prejudgment interest shall accrue on all amounts due from the date that notice of termination is mailed to the Sub-Grantee to the date of full repayment by the Sub-Grantee.

(C) SAWPA may terminate this Contract should DWR terminate SAWPA as program manager, or terminate funding for this Contract or the Project or should DWR terminate its standard agreement with SAWPA on this Project. Upon such DWR-caused termination, SAWPA shall not be liable to the Sub-Grantee for any damages, costs or expenses resulting from such termination.

SECTION 22. DAMAGES FOR BREACH AFFECTING TAX EXEMPT STATUS

In the event that any breach of any of the provisions of this Contract or other action by the Sub-Grantee shall result in the loss of tax exempt status for any bonds, or if such breach shall result in an obligation on the part of the SAWPA to reimburse the federal government by reason of any arbitrage profits, the Sub-Grantee shall immediately reimburse SAWPA and/or DWR in an amount equal to any damages paid by or loss incurred by the State due to such breach.

SECTION 23. ARBITRATION

Any dispute which may arise under this Contract by and between the SAWPA and the Sub-Grantee, including the Sub-Grantee's assignor, transferee, subcontractors, laborers, and suppliers, shall be submitted to binding arbitration. The arbitrator shall decide each and every dispute in accordance with the laws of the State of California, and all other applicable laws. Unless the Parties stipulate in writing to the contrary, prior to the appointment of the arbitrator, all disputes shall first be submitted to non-binding mediation.

SECTION 24. COSTS AND ATTORNEY FEES

In the event of arbitration or litigation between the parties hereto arising from this Contract, it is agreed that the prevailing party shall be entitled to recover reasonable costs and attorney fees.

SECTION 25. WAIVER

Any waiver of any rights or obligations under this Contract or the Grant Agreement shall be in writing and signed by the Party making such waiver, and approved by SAWPA and the DWR.

SECTION 26. AMENDMENT

This Contract may be amended at any time by mutual written agreement of the Parties and the DWR.

SECTION 27. SAWPA REVIEWS; SUB-GRANTEE AS INDEPENDENT CONTRACTOR

(A) The Parties agree that review or approval of the Project or Project plans and specifications by SAWPA is for administrative and eligibility purposes only and does not relieve the Sub-Grantee of their responsibility to properly plan, design, construct, operate, and maintain the Project. As between SAWPA and the Sub-Grantee, the Sub-Grantee agrees that it has sole responsibility for proper planning, design, construction, operation, and maintenance of the Project.

(B) The Sub-Grantee is an independent contractor exclusively responsible for the design, construction, operation and maintenance of the specific project funded by this Grant Funding Contract and that the Sub-Grantee is not acting as SAWPA's agent, nor is SAWPA acting as an agent of the Sub-grantee.

SECTION 28. INDEMNIFICATION

(A) The Sub-Grantee shall defend, indemnify and hold harmless SAWPA and DWR and their directors, commissioners, officers, employees, agents and assigns (collectively the "Indemnified Parties") against any and all losses, claims, damages or liabilities, joint or several, including attorneys fees and expenses incurred in connection therewith, to which such Indemnified Parties may become liable in connection with or arising from this Contract, and the transactions, funding and construction activities contemplated by this Contract. The Sub-Grantee shall reimburse Indemnified Parties for any legal or other expenses incurred by it in connection with investigating any claims against it and defending any actions, insofar as such losses, claims, damages, liabilities or actions arise out of or related to this Contract, and the transactions, funding and construction activities contemplated by this Contract. The Sub-Grantee shall indemnify and save the Indemnified Parties harmless from and against any claims, losses, damages, attorneys fees and expenses arising from any and all contracts, contractors, subcontractors, suppliers, laborers, and any other person, entity or corporation furnishing or supplying such services, materials or supplies in connection with Sub-grantee's Project funded, in part, by this Contract. The Sub-Grantee shall indemnify and save Indemnified Parties harmless from any and all claims, losses, damages, attorneys fees and expenses that may arise from any breach or default by the Sub-Grantee in the performance of its obligations under this Contract, or any act of negligence by the Sub-Grantee or any of its agents, contractors, subcontractors, servants, employees or licensees concerning the subject matter of this Contract or the Project. The Sub-Grantee shall indemnify and hold the Indemnified Parties harmless from any and all claims, losses, damages, attorneys' fees and expenses arising out of the completion of the Project or the authorization of payment of Project Costs to or by the Sub-Grantee. No indemnification is required under this Section for claims, losses or damages arising out of the misconduct or active negligence under this Contract by SAWPA.

(B) The Sub-Grantee understands and agrees that it has complied and will comply with CEQA and the State CEQA Guidelines for the project which is the subject matter of this Grant Funding Contract. Sub-Grantee understands and agrees that it is ultimately and solely responsible, as the lead agency, for compliance with CEQA and any mitigation measures required for the Project. The Sub-Grantee hereby agrees to indemnify, defend and hold harmless SAWPA and the DWR from any and all claims or actions

related to this Project that may be made by any third party or public agency alleging, among other things, violations of CEQA or the State CEQA Guidelines.

(C) In addition to complying with the insurance requirements contained in the Grant Agreement, including Section 24 of Exhibit D of that Agreement, the Sub-Grantee shall ensure that adequate insurance coverage is provided by the Sub-Grantee and/or its contractors and subcontractors on the Project funded, in part, by this Contract. Such insurance shall include adequate coverage for comprehensive commercial general liability, business auto liability, workers compensation liability, professional and errors and omissions liability, property insurance, including all builders risk insurance. Such insurance coverage shall, at a minimum, insure against injuries to third parties, damage to property owned by third parties, physical damage to the Project and all related facilities, theft of building materials and supplies intended for the Project, delays in Project completion, delays in Project Completion due to strikes and governmental actions, liquidated damages, employee injuries and work-related illnesses, design errors resulting in increased project costs, environmental damage caused by construction activities related to the Project, and nonperformance by the contractors and subcontractors. Such insurance coverages shall be provided by admitted insurance companies authorized to do business in the State of California, and with a minimum "Best's Insurance Guide" rating of "A:VII".

SECTION 29. PROJECT AND INFORMATION ACCESS

The Sub-grantee agrees to ensure that SAWPA, DWR, or any authorized representative thereof, shall have reasonable access to the Project site at all reasonable times during Project construction, and thereafter for the useful life of the Project.

SECTION 30. OPINIONS AND DETERMINATIONS

Where the terms of this contract provide for action to be based upon the opinion, judgment, approval, review, or determination of either party hereto, such terms are not intended to be and shall never be construed as permitting such opinion, judgment, approval, review, or determination to be arbitrary and capricious.

IN WITNESS THEREOF, the parties have executed this Contract on the dates set forth below.

SANTA ANA WATERSHED PROJECT
AUTHORITY

Dated: _____

By: _____

ORANGE COUNTY WATER DISTRICT
Sub-Grantee

Dated: _____

By: _____
General Manager

Typed Name

OCWD GENERAL COUNSEL

IMPLEMENTATION GRANT FUNDING ASSIGNMENT AGREEMENT
BETWEEN
ORANGE COUNTY WATER DISTRICT
AND
MUNICIPAL WATER DISTRICT OF ORANGE COUNTY

This Implementation Grant Funding Assignment Agreement ("Assignment Agreement") is made between Orange County Water District ("OCWD") and the Municipal Water District of Orange County ("MWDOC" or "Assignee"), pertaining to OCWD's assignment of all duties, responsibilities, and liabilities otherwise applicable to OCWD under the Proposition 84 Integrated Regional Water Management Program ("IRWMP") 2014 Drought Solicitation Implementation Grant Funding Contract Between the Santa Ana Watershed Project Authority ("SAWPA") and Orange County Water District ("OCWD" or "Assignor") that was executed on or about June __-, 2015 (hereinafter "SAWPA Contract"). Assignee may be individually referred to as "Party," and Assignee and OCWD collectively referred to as the "Parties."

WHEREAS, Section 79560 et seq. of the Water Code establishes the IRWMP providing approximately \$900 million for local assistance grants to be allocated to projects to protect from drought, improve water quality and improve water security by reducing dependence on imported water; and

WHEREAS, in [Month Day 2015], the California Department of Water Resources ("DWR") and SAWPA entered into a Proposition 84 Integrated Regional Water Management Implementation Grant Agreement ("DWR Grant Agreement") providing that SAWPA would serve as the program manager for the \$12,860,110 in IRWMP grant funds to be disbursed to OCWD and other Sub -Grantees, consistent with IRWMP requirements, and ensuring that the maximum benefit of such funds are realized in the Santa Ana River and the Upper Santa Margarita Watersheds; and

WHEREAS, consistent with the Proposition 84 Integrated Regional Water Management Implementation Program Grant Agreement between DWR and SAWPA, SAWPA intends to disburse to OCWD, SAWPA's Sub-Grantee, a portion of the \$12,860,110 in IRWMP grant funds for its components of the Interregional Landscape Water Demand Reduction Program by way of the SAWPA Contract; and

WHEREAS, Interregional Landscape Water Demand Reduction Program will implement a suite of measures that include the Institutional and HOA Turf Removal Project, Web-Based Water Consumption Reporting, Analytics and Customer Engagement Tool Project, Aerial Mapping Project, and Implementation of Conservation Based Rate Structures Project across the Santa Ana River Watershed and portions of the Upper Santa Margarita Watershed to promote sustainable water-use conservation; and

WHEREAS, OCWD, via this Assignment Agreement to MWDOC, is implementing the Interregional Landscape Water Demand Reduction Program in coordination with the other Sub-Grantees to the Grant Agreement, in addition to SAWPA, which include Eastern Municipal Water District, Inland Empire Utilities Agency, San Bernardino Valley Municipal Water District, Western Municipal Water District and Rancho California Water District; and

WHEREAS, the Project Agreement 22 Committee ("Committee") will issue Policy Statements as needed regarding the allocation of funds for the Interregional Landscape Water Demand Reduction Program and other policy provisions for the Program; and

WHEREAS, the SAWPA Contract specifically recognizes MWDOC will be disbursing funds allocated to OCWD via the SAWPA Contract in furtherance of MWDOC's existing landscape retrofit conservation program that provides customers in MWDOC's service area a financial incentive for landscape retrofit projects subject to certain conditions; and

WHEREAS, Paragraph 9 of the SAWPA Contract specifically contemplates that OCWD will assign all duties, obligations and liabilities otherwise applicable to OCWD under the SAWPA Contract to MWDOC such that MWDOC will fully comply with all terms, conditions and responsibilities of the SAWPA Contract, and the DWR Grant Agreement; and

WHEREAS, MWDOC, as a condition of receiving \$880,994 in grant funds allocated to OCWD per the SAWPA Contract so as to permit MWDOC to significantly enhance its existing landscape retrofit program, has agreed to accept assignment of all duties, responsibilities, liabilities and obligations otherwise applicable to OCWD under the SAWPA Contract and the DWR Grant Agreement;

THEREFORE, based on the foregoing incorporated recitals and in consideration of the mutual covenants and conditions set forth in this Assignment Agreement, the Parties hereby agree to the following:

**SECTION 1. ASSIGNMENT OF ALL TERMS, CONDITIONS AND COVENANTS
OTHERWISE APPLICABLE TO OCWD**

Except as set forth in this Agreement, all of the terms, conditions and covenants in the DWR Grant Agreement and the SAWPA Contract, enclosed herewith and incorporated by reference herein, shall be assigned to MWDOC, and shall be carried out by MWDOC, in the same manner in which OCWD would have been required to carry out such contractual obligations in the absence of this Assignment Agreement. MWDOC, as the beneficiary of funds disbursed to OCWD pursuant to the SAWPA Contract, shall be responsible for implementing "the Project," as such term is described in Paragraph 1 of the SAWPA Contract. To the extent that MWDOC fails to implement the Project, or otherwise carry out any and all obligations imposed on OCWD under the SAWPA contract, MWDOC agrees that it shall be fully liable to OCWD for any such action or omission.

**SECTION 2. CONTRACT DOCUMENTS; ORDER OF PRECEDENCE; ASSIGNEE
GENERAL COMMITMENT**

This Contract incorporates and includes as part of its terms and conditions the SAWPA Contract, attached hereto as **Attachment "A"**, and the DWR Grant Agreement, attached hereto as **Attachment "B"**.

In the event of any inconsistency between this Assignment Agreement and either the DWR Grant Agreement or the SAWPA Contract, except as otherwise specifically provided herein, the inconsistency shall be resolved by giving precedence to the DWR Grant Agreement and then the SAWPA Contract. Assignee shall comply with all terms, provisions, conditions, and commitments of this Assignment Agreement, the SAWPA Contract and the DWR Grant Agreement. Such compliance shall include providing SAWPA, via OCWD, with all deliverables, budget detail, reports and all other documents required by the Grant Agreement and the SAWPA Contract.

On behalf of and for the benefit of SAWPA, Assignee shall comply with all of the obligations and requirements of the DWR Grant Agreement and SAWPA Contract as if the Assignee were the "Grantee" under the terms of the Grant Agreement. Such compliance shall be to the fullest extent necessary and as may be required by SAWPA or OCWD in order to enable SAWPA to comply with the Grant Agreement as "Grantee" and OCWD to comply with the SAWPA Contract as "Sub-Grantee"

SECTION 3.

SPECIFIC ASSURANCES AND OCWD OVERSIGHT

OCWD shall retain oversight responsibilities for ensuring MWDOC's compliance with all of the terms and conditions of the SAWPA Contract and DWR Grant Agreement, compliance responsibilities assigned to, and accepted by, MWDOC herein, which shall include, but are not limited to:

- a. MWDOC's adherence to all fiscal management and accounting standards imposed by Section 6 of the SAWPA Contract;
- b. MWDOC's proper and fully staffed operation and maintenance of the Project per Section 8 of the SAWPA Contract and the Scope of Work for the Project approved in the DWR Grant Agreement;
- c. MWDOC's assurance that the Project complies with all applicable laws and regulations, including but not limited to ensuring compliance with CEQA, per Sections 10 and 28(B) of the SAWPA Contract;
- d. MWDOC's assurance that the Project displays all signage and required acknowledgements as required by Section 11 of the SAWPA Contract;
- e. MWDOC's timely provision of all notifications to SAWPA where required by Section 12 of the SAWPA Contract;
- f. MWDOC's timely payment of all project costs as required by Section 14 of the SAWPA Contract;
- g. MWDOC's submission of invoices, records and reports to SAWPA, (and where requested, OCWD), meeting the requirements of Sections 15-18 of the SAWPA Contract;
- h. MWDOC's timely response and compliance with requirements arising out of any audits conducted by SAWPA per Section 18 (A) of the SAWPA Contract;
- i. MWDOC's compliance with all close-out procedures and reports required at the end of the Project as identified in Sections 19-20 of the SAWPA Contract;
- j. MWDOC's provision of insurance coverage for the Project and its associated contracts sufficient to satisfy the requirements of Section 28 (C) of the SAWPA Contract;
- k. MWDOC's provision of access to the Project to SAWPA, DWR and OCWD upon request per Section 29 of the SAWPA Contract.

Per this Assignment Agreement, MWDOC shall be required to comply with all of the requirements of the SAWPA Contract irrespective of OCWD's exercise, or non-exercise, of the oversight authorities retained by OCWD herein, and MWDOC agrees that the failure of OCWD to provide oversight of MWDOC's compliance with the SAWPA Contract shall not operate to discharge MWDOC from any otherwise applicable responsibility or obligation assigned to MWDOC pursuant to this Agreement.

SECTION 4.

DISBURSEMENT

Upon receipt of quarterly progress report and invoice document from MWDOC, OCWD shall submit them to SAWPA for grant reimbursement per the DWR Grant Agreement. Upon receipt of grant reimbursement funds from SAWPA, OCWD shall within 30 days disburse a grant reimbursement to MWDOC.

SECTION 5 . QUARTERLY PROGRESS REPORTS

Quarterly Progress Reports shall be completed using the templates provided by DWR and SAWPA.. Quarterly Progress Reports shall provide a brief description of the work performed, activities, milestones achieved, any accomplishments as well as any problems encountered in the performance of the work. MWDOC shall provide quarterly reports to OCWD to cover the periods [January-March (due April 13), April-June (due July 13), July-September (due October 13), and October-December (due January 13).] Upon receipt and within 2 days, OCWD shall submit MWDOC's Quarterly Progress Reports to SAWPA for compliance.

SECTION 6. POST-PERFORMANCE REPORTS

MWDOC shall submit Post-Performance Reports to OCWD within 73 calendar days after the first operational year of a project has elapsed. Upon receipt and within 2 days, OCWD shall submit MWDOC's Post-Performance Reports to SAWPA for compliance. This record keeping and reporting process shall be repeated annually for a total of 10 years after the completed project begins operation.

SECTION 7. TERMINATION; IMMEDIATE REPAYMENT; INTEREST

(A) SAWPA has the authority to terminate the SAWPA Contract at any time prior to completion of the Project for OCWD's and/or its Assignee's violation of any provision of the SAWPA Contract upon written notice by SAWPA of the violation and failure of Assignee to come into compliance within a reasonable time as established by SAWPA.

(B) In the event of such termination, Assignee, upon demand, will immediately repay to SAWPA an amount equal to the amount of grant funds disbursed to Assignee prior to such termination. In the event of termination, prejudgment interest shall accrue on all amounts due from the date that notice of termination is mailed to OCWD and/or Assignee, to the date of full repayment by Assignee.

(C) SAWPA may terminate the SAWPA Contract should DWR terminate SAWPA as program manager, or terminate funding for the Project, or should DWR terminate its standard agreement with SAWPA on this Project. Upon such DWR-caused termination, neither SAWPA, nor OCWD, shall be liable to Assignee for any damages, costs or expenses resulting from such termination.

SECTION 8. ARBITRATION

Any dispute which may arise under the SAWPA Contract by and between SAWPA and OCWD, or between MWDOC and OCWD, including the Parties' respective subcontractors, laborers, and suppliers, shall be submitted to binding arbitration. The arbitrator shall decide each and every dispute in accordance with the laws of the State of California, and all other applicable laws. Unless the Parties stipulate in writing to the contrary, prior to the appointment of the arbitrator, all disputes shall first be submitted to non-binding mediation.

SECTION 9. WAIVER

Any waiver of any rights or obligations under this Assignment Agreement, the SAWPA Contract, or the DWR Grant Agreement, shall be in writing and signed by the Party making such waiver, and approved by OCWD, SAWPA, or DWR as applicable.

SECTION 10. AMENDMENT

This Assignment Agreement may be amended at any time by mutual written agreement of the Parties.

SECTION 11. OCWD/SAWPA REVIEWS; MWDOC AS INDEPENDENT CONTRACTOR

(A) The Parties agree that review or approval of the Project or Project plans and specifications is for administrative and eligibility purposes only and does not relieve the Assignee of its responsibility to properly plan, design, construct, operate, and maintain the Project. As between SAWPA, OCWD and Assignee, Assignee agrees that it has sole responsibility for proper planning, design, construction, operation, and maintenance of the Project.

(B) Assignee is an independent contractor exclusively responsible for the design, construction, operation and maintenance of the specific project funded by this Assignment Agreement and the SAWPA Contract, and Assignee agrees that it is not acting as OCWD's agent, nor is OCWD acting as an agent of Assignee.

SECTION 12. INDEMNIFICATION

The Assignee shall defend, indemnify and hold harmless OCWD, SAWPA and DWR, and their directors, commissioners, officers, employees, agents and assigns (collectively the "Indemnified Parties") against any and all losses, claims, damages or liabilities, joint or several, including attorneys fees and expenses incurred in connection therewith, to which such Indemnified Parties may become liable in connection with or arising from this Assignment Agreement, the SAWPA Contract, the DWR Grant Agreement, and the transactions, funding and construction activities contemplated by these agreements in association with the Project. The Assignee shall reimburse Indemnified Parties for any legal or other expenses incurred by them in connection with investigating any claims against them and defending any actions, insofar as such losses, claims, damages, liabilities or actions arise out of or related to this Assignment Agreement, and the transactions, funding and construction activities contemplated by this Assignment Agreement. The Assignee shall indemnify and save the Indemnified Parties harmless from and against any claims, losses, damages, attorneys fees and expenses arising from any and all contracts, contractors, subcontractors, suppliers, laborers, and any other person, entity or corporation furnishing or supplying such services, materials or supplies in connection with Assignee's Project funded, in part, by this Assignment Agreement. The Assignee shall indemnify and save Indemnified Parties harmless from any and all claims, losses, damages, attorneys fees and expenses that may arise from any breach or default by the Assignee in the performance of its obligations under this Assignment Agreement, or any act of negligence by the Assignee or any of its agents, contractors, subcontractors, servants, employees or licensees concerning the subject matter of this Contract or the Project. The Assignee shall indemnify and hold the Indemnified Parties harmless from any and all claims, losses, damages, attorneys' fees and expenses arising out of the completion of the Project or the authorization of payment of Project Costs to or by the Assignee. No indemnification is required under this Section for claims, losses or damages arising out of the misconduct or active negligence under this Contract by OCWD.

IN WITNESS THEREOF, the parties have executed this Agreement on the dates set forth below.

ORANGECOUNTYWATER DISTRICT

Dated: _____

By: _____
General Manager

Michael R. Markus
Typed Name

OCWD GENERAL COUNSEL

MUNICIPAL WATER DISTRICT
OF ORANGE COUNTY

Dated: _____

By: _____
General Manager

Robert Hunter
Typed Name

MWDOC GENERAL COUNSEL



ACTION ITEM

July 15, 2015

TO: Board of Directors

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

Robert Hunter, General Manager

Staff Contact: Harvey De La Torre
Karl Seckel

**SUBJECT: Selection of a Consulting Team to assist in the development of
MWDOC's and Participating Agencies' 2015 Urban Water Management
Plans**

STAFF RECOMMENDATION

Staff recommends the Board of Directors authorize the General Manager to enter into a professional services contract with Arcadis to assist in the development of MWDOC's and Participating Agencies' 2015 Urban Water Management Plans and authorize the General Manager to enter into Agreements with various agencies for cost-sharing this effort and authorize expenditure of \$31,510 for preparation of MWDOC's UWMP.

Depending on the number of participating agencies, the contract amount can range up to \$1.15 million with all agencies participating and including 100% of the allowance for time and materials additions, but is expected to be no more than \$650,000 in total based on the allowances utilized in preparation of the 2010 UWMPs with all agencies participating.

DETAIL REPORT

The California Water Code 10644 (a) requires water suppliers (including wholesalers), either publicly or privately owned, that provide water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet annually to submit an updated Urban Water Management Plan (UWMP) with the Department of Water Resources at least once every five years; in years ending in six or one. This year the UWMPs are due July 1, 2016.

Budgeted (Y/N): Yes	Budgeted amount: \$65,000	Core ____	Choice ✓
Action item amount: \$650,000 estimated		Line item: 02-23-7010 \$31,510 for MWDOC	
Fiscal Impact (explain if unbudgeted): MWDOC’s contribution is estimated at \$31,510 with the remaining revenue coming from the Participating Agencies.			

While many of MWDOC's agencies are in process of starting preparation of their 2015 UWMPs either internally or by using a consultant, a number of agencies have asked MWDOC to facilitate a joint effort to retain one consulting firm to assist in updating their UWMP's as was done in 2010. In 2010, under a single contract, 22 UWMP's were prepared, including MWDOC's.

Based on this joint interest and the potential of saving costs through economies of scale, MWDOC is anticipating somewhere between 15 to 25 retail agencies to participate via the contract arrangement in 2015. With this in mind, MWDOC led the effort in preparing and issuing a Request for Proposals (RFP) for a single consultant to assist in developing UWMPs for retail agencies and MWDOC under the schedule below:

PREPARATION OF 2015 URBAN WATER MANAGEMENT PLANS FOR MWDOC AND A GROUP OF MWDOC MEMBER AGENCIES	
Task Item	Completion Date
1. MWDOC completion of draft in-house RFP	May 1
2. Send draft RFP to Potential Participating Agencies	May 1
3. Issue Draft RFP to Potential Consultants (issued to 8 consultants)	May 1
4. Conduct Mandatory Meeting for Consultants, Agencies are welcome (5 consultants participated)	May 18 2:30 PM MWDOC Offices
5. Closing date for submittal of comments and questions by Consultants and Agencies	May 21
6. Issuance of Final RFP	June 1
7. Proposals Due (2 proposals were received, involving 3 consultants)	June 15 3:00 PM
8. Selection Committee met to review and shortlist or select consultant or set the process for final selection of consultant (process may vary due to the number, quality and pricing of proposals)	June 24
9. Recommendation to MWDOC's P&O Committee	July 7
10. Notice to Agencies regarding UWMP selection, pricing and requesting final confirmation regarding commitments by various retail agencies	July 7 - 29
11. Authorization by the MWDOC Board	July 15
12. Notice to Proceed to Consultant	July 29

This shaded section is from the RFP which emphasized that MWDOC staff will be responsible for many activities with respect to preparation of the UWMPs since MWDOC works on a number of these activities in our normal course of business, and to keep the consultants costs to a minimum.

It was noted that MWDOC will be responsible for:

- Collecting and analyzing the data for completeness and consistency with other information available from the Participating Agencies and Metropolitan.
- Organizing the data into a format useable by the Consultant.
- MWDOC will be the primary contact and conduit with the Participating Agencies, except when follow-up information is required by the Consultant for documentation in the UWMP.
- Resolving any disagreements between the Consultant and any Participating Agency.
- MWDOC will be responsible for the 20 x 2020 (2015 interim) analysis for each Participating Agency.

In addition, MWDOC is working with its agencies on the Orange County Water Reliability Study, to be completed in the fall of 2015. Many of the items from the Study will facilitate development of the 2015 UWMP's for Orange County. The issues, including NEW requirements for the 2015 update are as follows:

1. 2015 OC Water Reliability Study (anticipated completion in Fall 2015)

- a. Water Demands (historical and projected)
- b. Estimated impact of WUE investments
- c. Demographics for each agency
- d. Water Loss Control for selected agencies
- e. 20 x 2020 Compliance (Regional OC Alliance) with 2015 reporting for the interim goal
- f. Reliability off of MET
- g. Local Projects, including Ocean Desalination, recycling and others

2. 2013 MWDOC WUE Master Plan (available from MWDOC website)

3. MET 2015 IRP Update (in progress)

4. MET 2015 UWMP – first draft report is anticipated in September/October with final draft in December 2015

5. OCWD Information

- a. 2014 OCWD Long Term Facilities Plan (available from OCWD website)
- b. 2015 Groundwater Management Plan update (available from OCWD website)

6. NEW UWMP REQUIREMENTS IN 2015

- a. 2015 interim goal for 20 x 2020 (MWDOC to provide, consultant to write up)
- b. Energy intensity of supplies (voluntary – not anticipated)
- c. More detailed discussion of DMM's for non-CUWCC signatories (consultant to provide for non-signatory agencies)

- d. Water loss reporting per AWWA methodology (MWDOC to provide for a number of agencies, consultant to write up; an extra item cost will be involved for those that have not done the water balance and top down audit – see itemized list of Time and Material Items on page 4).
- e. Electronic submittal of UWMP (consultant is responsible for preparation of the reports in the appropriate format, agencies to submit)
- f. Climate change impacts (MWDOC & MET to provide and consultant to write up)

7. Copies of the 2010 UWMP's are available on DWR's website.

The Consultant shall be primarily responsible for the writing and formatting of the UWMP for 2015 and documenting what was done and including the documentation in the UWMP as required. This includes preparation of the reports that will allow easy uploading to DWR in the required electronic format. The consultant shall also be responsible for any follow-up work required in the event that DWR does not find the reports to be acceptable or in the event DWR requires changes in the reports for up to 12 months after completion of the reports.

Proposals and Proposal Evaluation

On June 15, MWDOC received two proposals:

- Arcadis
- RMC/CDM Smith

It is staff's understanding that a number of consultants did not submit because of (1) competition from other firms who had previous experience working on a number of UWMPs in Orange County; and (2) the staff time required to complete up to +20 UWMPs while meeting other obligations made it difficult to commit a solid team. Fortunately, both Arcadis and RMC/CDM Smith proposals met all of the requirements of the RFP and demonstrated well-qualified teams with experience in writing and preparing UWMPs and the overall pricing of the proposals was similar. The differences between the two proposals was primarily in their approach to completing up to 25 plans simultaneously and the number of staff members that could potentially be involved (5 plus administration from Arcadis and 18 plus administration from RMC/CDM Smith).

MWDOC convened a review group to review and rank the proposals and approach. Staff from Mesa, Anaheim and MNWD participated along with MWDOC staff in the evaluation process. The selection process was very tight between the proposals, but the group recommended Arcadis for the contract based on the clarity of their proposal and including that many of the same employees were involved in completion of the UWMPs in 2010, which was considered to be very successful by MWDOC and its agencies.

Below is the basic pricing proposal submitted by Arcadis, without any of the contingency pricing items requested:

Arcadis Proposal Price Summary per UWMP per Agency Category (Basic Cost Without Contingency items)		
UMWP Category	Arcadis Proposal	
	Minimum of 15 Agencies	Minimum of 25 Agencies
MWDOC	\$26,410	
OCWD Groundwater Agencies	\$18,240	\$18,240
OCWD Groundwater Agencies with Recycled Water	\$19,040	\$19,040
South Orange County Agencies with Recycled Water	\$17,890	\$17,890
Non-OCWD North County Groundwater Basin Agencies	\$18,990	\$18,990
South OC Agencies without Recycled Water	\$17,390	\$17,390

Recommendation

Staff's recommendation is to proceed with a single contract with Arcadis for all agencies who elect to participate in the contract. **Attachment A** includes the total potential list of all agencies including Anaheim, Fullerton and Santa Ana and MWDOC. MWDOC staff and Legal Counsel have developed a DRAFT Cost Share Agreement for consideration by all of the agencies. The plan at this point is to solicit formal commitments for participation by all of the agencies by the end of July. Any agencies that elect not to participate will be dropped from the group.

Attachment A has the estimated total cost per agency, including the time and materials contingency allowances. The total basic UWMP contract cost, with all agencies participating, is \$503,000 - with all contingency items included, **Attachment A** shows a potential contract of \$1.15 million, however, based on the 2010 utilization of the contingency items, a total final contract price of \$650,000 or less is expected.

MWDOC budgeted funding in 2014-15 for the UWMP in the amount of \$65,000. Staff recommends encumbering funding in the amount of \$31,510 from the 2014-15 budget towards completion of its UWMP as outlined in **Attachment A**.

Attachment A												
List of Potentially Interested MWD/OC Agencies												
For Development of Urban Water Management Plans for 2015												
Itemized Time and Materials Cost Allowance (Contingency Items)												
Budget Groupings of Agencies	Base Price	Printing costs for additional copies (\$300 per copy)	Additional staff & complicated arrangements	CUWCC reporting agency	Storage Impact Section	Additional time to prepare and implement a "Communication Plan"	Additional time to process changes in data tables from MLE or other sources on the Agency's agenda	Attendance at Agency Management/Board/Council Meetings (\$1,000 per mg - assume 3 mgs)	Reporting of Water Loss Control for agencies who have not completed a top down audit	Agencies who request assistance in revising their Water Storage Contingency Plan	Agencies who might want assistance in assessing their current demand projection model or methodology	Total With All Contingencies
MWD/OC												
1. MWD/OC	\$26,410	\$ 900	\$0	\$0	\$0	\$0	\$1,200	\$3,000	\$0	\$0	\$0	\$31,510
OCWD Groundwater Agencies												
2. City of Buena Park	\$18,240	\$ 900	\$3,310	\$3,000	\$1,800	\$3,920	\$1,200	\$3,000	\$2,260	\$1,500	\$5,440	\$44,570
3. City of Fullerton (not a part of MWD/OC)	\$18,240	\$ 900	\$3,310	\$3,000	\$1,800	\$3,920	\$1,200	\$3,000	\$2,260	\$1,500	\$5,440	\$44,570
4. City of Garden Grove	\$18,240	\$ 900	\$3,310	\$0	\$1,800	\$3,920	\$1,200	\$3,000	\$2,260	\$1,500	\$5,440	\$41,570
5. City of La Palma	\$18,240	\$ 900	\$3,310	\$3,000	\$1,800	\$3,920	\$1,200	\$3,000	\$2,260	\$1,500	\$5,440	\$44,570
6. City of Orange	\$18,240	\$ 900	\$3,310	\$0	\$1,800	\$3,920	\$1,200	\$3,000	\$2,260	\$1,500	\$5,440	\$41,570
7. Serrano Water District	\$18,240	\$ 900	\$3,310	\$3,000	\$1,800	\$3,920	\$1,200	\$3,000	\$2,260	\$1,500	\$5,440	\$44,570
8. City of Seal Beach	\$18,240	\$ 900	\$3,310	\$0	\$1,800	\$3,920	\$1,200	\$3,000	\$2,260	\$1,500	\$5,440	\$41,570
9. City of Tustin	\$18,240	\$ 900	\$3,310	\$3,000	\$1,800	\$3,920	\$1,200	\$3,000	\$2,260	\$1,500	\$5,440	\$44,570
10. Yorba Linda Water District	\$18,240	\$ 900	\$3,310	\$3,000	\$1,800	\$3,920	\$1,200	\$3,000	\$2,260	\$1,500	\$5,440	\$44,570
11. City of Westminster	\$18,240	\$ 900	\$3,310	\$3,000	\$1,800	\$3,920	\$1,200	\$3,000	\$2,260	\$1,500	\$5,440	\$44,570
12. East Orange County Water District (1)+B37	\$19,986	\$ 900	\$3,310	\$0	\$1,800	\$3,920	\$1,200	\$3,000	\$2,260	\$1,500	\$5,440	\$43,316
OCWD Groundwater Agencies with Recycled Water												
13. City of Anaheim (not part of MWD/OC)	\$19,040	\$ 900	\$3,310	\$0	\$1,800	\$3,920	\$1,200	\$3,000	\$2,260	\$1,500	\$5,440	\$42,370
14. City of Fountain Valley	\$19,040	\$ 900	\$3,310	\$0	\$1,800	\$3,920	\$1,200	\$3,000	\$2,260	\$1,500	\$5,440	\$42,370
15. City of Newport Beach	\$19,040	\$ 900	\$3,310	\$0	\$1,800	\$3,920	\$1,200	\$3,000	\$2,260	\$1,500	\$5,440	\$42,370
16. City of Santa Ana (not a part of MWD/OC)	\$18,240	\$ 900	\$3,310	\$3,000	\$1,800	\$3,920	\$1,200	\$3,000	\$2,260	\$1,500	\$5,440	\$44,570
17. Huntington Beach	\$18,240	\$ 900	\$3,310	\$0	\$1,800	\$3,920	\$1,200	\$3,000	\$2,260	\$1,500	\$5,440	\$41,570
18. Mesa Water	\$19,040	\$ 900	\$3,310	\$0	\$1,800	\$3,920	\$1,200	\$3,000	\$2,260	\$1,500	\$5,440	\$42,370
South County Agencies with Recycled Water												
19. City of San Clemente	\$17,890	\$ 900	\$3,310	\$0	\$1,800	\$3,920	\$1,200	\$3,000	\$2,260	\$1,500	\$5,440	\$41,220
20. El Toro Water District	\$17,890	\$ 900	\$3,310	\$0	\$1,800	\$3,920	\$1,200	\$3,000	\$2,260	\$1,500	\$5,440	\$41,220
21. South Coast Water District	\$17,890	\$ 900	\$3,310	\$0	\$1,800	\$3,920	\$1,200	\$3,000	\$2,260	\$1,500	\$5,440	\$41,220
22. Moulton Niguel Water District	\$17,890	\$ 900	\$3,310	\$0	\$1,800	\$3,920	\$1,200	\$3,000	\$2,260	\$1,500	\$5,440	\$41,220
23. City of San Juan Capistrano	\$17,890	\$ 900	\$3,310	\$0	\$1,800	\$3,920	\$1,200	\$3,000	\$2,260	\$1,500	\$5,440	\$41,220
24. Santa Margarita Water District	\$17,890	\$ 900	\$3,310	\$3,000	\$1,800	\$3,920	\$1,200	\$3,000	\$2,260	\$1,500	\$5,440	\$44,220
25. Trabuco Canyon Water District	\$17,890	\$ 900	\$3,310	\$0	\$1,800	\$3,920	\$1,200	\$3,000	\$2,260	\$1,500	\$5,440	\$41,220
Non-OCWD Groundwater Agencies												
26. City of Brea	\$18,990	\$ 900	\$3,310	\$3,000	\$1,800	\$3,920	\$1,200	\$3,000	\$2,260	\$1,500	\$5,440	\$45,320
27. City of La Habra	\$18,990	\$ 900	\$3,310	\$3,000	\$1,800	\$3,920	\$1,200	\$3,000	\$2,260	\$1,500	\$5,440	\$45,320
South County Agencies without Recycled Water												
28. Laguna Beach County Water District	\$17,390	\$ 900	\$3,310	\$3,000	\$1,800	\$3,920	\$1,200	\$3,000	\$2,260	\$1,500	\$5,440	\$43,720
Total for All Agencies												
Total	\$502,996	\$24,300	\$86,060	\$36,000	\$46,800	\$101,920	\$32,400	\$81,000	\$58,760	\$39,000	\$141,440	\$1,150,676

ECOWD = Wholesale & Retail Plans under one

(1) EOCWD = Wholesale & Retail Plans under one



DISCUSSION ITEM

July 7, 2015

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

FROM: Robert Hunter
General Manager

Staff Contact: Karl Seckel

SUBJECT: Reliability Benefits in OC from the Poseidon Project

STAFF RECOMMENDATION

Staff recommends the P&O Committee discuss and receive and file the report.

DETAIL REPORT

The Poseidon Project is being discussed in many venues at this time. Staff would like to update the P&O Committee on several issues related to the Poseidon Project. The questions being discussed are:

1. Does the Poseidon Project qualify for the MET Local Resources Program (LRP) subsidy?
2. Will the Poseidon Project receive the MET LRP subsidy?
3. Is there an improvement in water supply reliability in OC and the MET service area from the Poseidon Project? If so, then how much of an improvement?
4. What other issues are related to the water supply reliability discussions?

Staff will attempt to clarify several of the issues imbedded in the questions, although the issues can be complex, difficult to explain and difficult to comprehend. The discussion provided is just a starting point in understanding how the Poseidon Project and other projects fit into the reliability equation in OC and MET. This discussion does not necessarily address all questions raised to date. We will have many such discussions as the work

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

continues under the OC Water Reliability Study. The following discussions should be considered as preliminary and incomplete at this time, but will serve as a focus point for receiving input into these complex issues.

1. Does the Poseidon Project qualify for the MET Local Resources Program (LRP) subsidy?

Short Response: Yes. Qualifying for the LRP subsidy requires that the project results in “supplies that replace an existing demand or prevents a new demand on MET’s imported water deliveries either through direct replacement of potable water or increased regional groundwater production.” Based on the program requirements and past MET actions, MWDOC staff believes the project qualifies for the LRP subsidy.

Discussion: Some seem to believe that OCWD will not be able to demonstrate that the OCWD demand on MET will be reduced once the Poseidon Project is in place compared to NOT having the Poseidon Project. MWDOC’s view is that OCWD will qualify for the subsidy. MWDOC notes that offsetting of MET supplies is not only associated with groundwater replenishment deliveries but is also associated with offsetting of full service supplies to the retail agencies within OCWD, which today is on the order of 300,000 acre-feet (AF), far exceeding the 56,000 AF from the Poseidon Project. MWDOC concurs that work with MET staff will be required on how best to measure the imported water demand reduction (or the increase in local production due to the Poseidon Project), but MWDOC does not anticipate a problem. (This remains just staff opinion until the MET Board actually agrees.) MWDOC has discussed with MET Local Resources Program staff how the Poseidon Project LRP Agreement provisions could be developed to demonstrate compliance for qualifying production of the Poseidon water for any of the three distribution options being considered:

- Seawater barrier operations
- Direct delivery to retail agencies
- Injection or percolation in the groundwater basin

While the MET staff cannot make commitments for their Board, it was noted that the current method for determining withdrawal of water from MET’s Conjunctive Use Storage Account could possibly be utilized. There are other options. The final LRP Agreement is always subject to approval by the MET Board and cannot be brought forward until such time as Poseidon has received all permits for the project, including the final Coastal Commission permit. Once the final Coastal Commission permit is received, the LRP Agreement would be agendized for MET Board consideration.

2. Will the Poseidon Project receive the MET LRP subsidy?

Short Response: Unknown. As noted above, once the final permits have been obtained by Poseidon, the LRP subsidy agreement will be taken to the MET board. It will be up to the MET board to make a final decision. MWDOC's role is to assist in the process.

3. Is there an improvement in water supply reliability in OC and the MET service area from the Poseidon Project? If so, then how much of an improvement?

Short Response: Yes, there is a water supply reliability improvement to both OC and MET from implementation of the project. The Poseidon Project will produce a new annual water supply of 56,000 AF. During periods of MET water supply allocations, OC would receive a direct benefit equivalent to whatever MET imported supply demand reduction percentage has been requested, say 10% to 50%, times the project yield. The remaining reliability benefit, 50% to 90% of the project yield, accrues to the MET service area. Out of the MET service area, OC purchases about 20% of MET's supplies, so OC gains a 20% benefit of the 50% to 90% benefit that accrues MET-wide. Tables 1 & 2 below track through sample calculations. It should be noted that all percentages in this response are generalized for discussion purposes. The more severe the allocation cut from MET (i.e., mandatory supply reduction) the greater the percent supply benefit to OC.

Discussion: To completely answer this question, we need to first define "improvement in water supply reliability." In general terms, reliability relates to the percent of normal water demand that can be provided under water shortages. This can include drought conditions when MET has enacted formal supply reductions through their water supply allocation process. Reliability improvement is a measure of the difference in reliability by having implemented an additional local project, such as the Poseidon Project. The following attempts to characterize the reliability improvements that occur directly and indirectly:

- a. From a narrow perspective, during years in which we are under water supply allocations from MET (such as this current year starting July 1), if OC will have more water available from a combination of local sources plus its allocation of water from MET, OC would be determined to be "more reliable". Thus, the "reliability improvement" is the increased supply of water (an acre-foot or percentage amount) over and above the amount of water that would have been available in OC in the absence of the Poseidon Project.
- b. In a broader sense, the Poseidon Project would reduce the demands OC has for purchases of MET water. Thus, MET would sell less water and would retain or add more water in their various storage accounts (unless they were all full). As a result, all of Southern California (within the MET system) would

be more reliable because of the additional water in MET's storage accounts resulting from the Poseidon Project. Since OC is part of the MET system, OC would be somewhat more reliable with the Poseidon Project. Having these supplies in storage can also help MET (and OC) to stay out of a water supply allocation situation, reduce the allocation reduction or shorten the duration of the shortage situation. As noted above, OC purchases about 20% of MET's supplies, so we could say OC roughly accrues 20% of this benefit.

- c. The narrow and broader perspective will be called "direct" and "indirect" benefits in the discussion below. The direct benefits accrue directly to OC while the indirect benefits accrue to the MET service area and hence help out all of MET, including OC.

The average person might expect OC to be more reliable by 56,000 AF per year with the Poseidon Project. This is not the case under either of these definitions.

The detailed "how much" answer is somewhat complicated and has several parts:

- During a water shortage allocation by MET, the basis MET uses to provide water allocations to their various member agencies is based on the principle of the "need for MET water" to meet retail demands. This is measured based on the actual use of MET water during agreed upon base years plus current local water supply conditions. If a NEW Ocean Desalination supply project producing 56,000 AF of water is brought into operation, the "need" for MET water in OC is lowered by 56,000 AF of water. This results in a lower allocation from MET. The methodology is structured to always result in a higher reliability for whomever has developed a local project compared to not having developed the local project. However, the higher "direct" reliability is not increased by the entire project yield (in our example 56,000 AF) but only by the percentage of the project yield proportional to the MET allocation level (i.e., the percent reduction in supply).
- Why was the MET water supply allocation developed in such a manner? Beginning in the early 1990's, MET's IRP adopted a more regional, cooperative approach to providing reliable supplies over the long run by the combined actions of MET, their member agencies and the subagencies, rather than MET providing the full reliability for all of Southern California. The IRP depends on MET accomplishing certain water supply actions and depends on local agencies accomplishing certain water supply actions. Collectively, these actions and investments are brought together to provide the overall water supply reliability for Southern California. Under this "cooperative" approach, the goal is to provide regional reliability for all while allowing a certain additional level of reliability for those who do more by developing local projects. This philosophy of everybody working together has been characterized as "sharing the pain" under water supply allocation events, but the overriding goal is to be fully reliable which would mean the region would not ever have to utilize water supply allocations.

- As an approximation, the reliability from the project yield under MET's current water supply allocation methodology can be estimated by the following calculation:
 - With a MET allocation reduction of 15%, areas that are 100% dependent on MET have to reduce water use by about 15% in round numbers. In the OCWD service area, with the Basin Production Percentage for groundwater production set at 70%, the overall demand reduction for the groundwater producers would be 15% of 30% or 4.5% (in round numbers). For OC as a whole, being roughly 50% dependent on MET, the overall reliability for a 15% reduction is shown in Table 1 at 92.5%. The reliability GAP would then be 7.5% of demands.
 - The "direct" reliability improvement in acre-feet is approximately equal to the MET regional percentage reduction they have requested in the allocation multiplied by the Project yield (Level 3 Allocation = 15% reduction in supply; $15\% \times 56,000 \text{ AF} = 8,400 \text{ AF}$ reliability improvement).
 - This means that OC would directly have about 8,400 AF more than they otherwise would have had if they had NOT constructed the Poseidon Project.
 - The other portion of the project yield, 47,600 AF, benefits the MET service area, including OC, because MET less MET supplies in this amount are required to be delivered in the MET service area.
 - Assuming OC is 20% of MET, the "indirect" benefit is 9,520 AF.
 - The two benefits combined are 17,920 AF or 32% of the Poseidon project yield. The reliability GAP has been reduced from 7.5% to 4.5%, about a 40% reduction.
- Tables 1&2 below are not exact, but provide sample calculations showing that if the Poseidon Project were operational when the baseline calculations were set for the current MET allocations (baseline years = 2012-13 & 2013-14), OC's reliability would be improved by 17,920 AF today. Table 2 extends the estimates and provides the sample calculations for two additional examples.

4. What other issues are related to the water supply reliability discussions?

- The definition of reliability used in this discussion regarding MET's water allocation methodology has been completely undermined by the Governor's 25% reduction scheme. The Governor's emergency reductions are focused solely on demand reduction and do not consider local supply conditions or increases in supply. Adding an additional 20 Poseidon Plants would not help under this situation.

- Under the MET allocation formula, the more unreliable MET is (situations with deeper allocation cutbacks), the more reliability improvement OC receives from having implemented a local project such as Poseidon. At a 50% allocation from MET, OC would have an improved reliability of about 28,000 AF (50% of 56,000 AF).
- Can the MET allocation formula be changed? This aspect of the allocation program has remained unchanged since about 1994. The support for “share the pain” is philosophical in nature and central to MET as a regional organization. The issue has been raised in a number of forums at MET but has never gotten enough support from other member agencies to be changed. It is a highly charged issue and it is perceived that a change would adversely affect many MET agencies and subagencies. The MET allocations are a zero sum game. In an allocation you are limiting the available supply of water. If Agency A receives a higher allocation, other agencies receive a lower allocation.
- Simply focusing on what happens during an allocation does not account for the years when MET is not in an allocation.
 - If OC implements the Poseidon Project, we would simply purchase less MET water, MET’s sales will go down and the unsold water will likely be stored in one of MET’s storage accounts for subsequent use in dry years. Overall, this would result in MET having more water in storage, being more reliable and Southern California and OC would be in shortage situations less frequently. This is a good thing, but OC is paying more for their water as a result. OC purchases about 20% of MET’s supplies and so the additional benefit needs to be accounted for.
 - Some would observe that the MET LRP incentive funds actually result from water purchase payments paid by all of the MET member agencies, including OC. In return for this funding, the MET service area receives improved reliability. Under the LRP, MET would be providing about \$400 million over 15 years towards the Poseidon Project; this has been estimated at about 23% of the cost of the Poseidon Project over the 50-year term now being considered (OC has contributed about 20% of the LRP funds to be provided via water rates paid to MET). Some question whether the funding provided by OC ratepayers is commensurate with the return on this investment as an OC investment (OC pays roughly 77% of the costs and receives 32% to 60% of the water supply reliability benefits (Table 2) – this does not account for the SYSTEM reliability benefits discussed below nor for the portion of the LRP payments contributed by OC.)
 - If OC can store the Poseidon water in years when it is not being used to meet demands directly, it becomes a question as to whether the water would result in a significantly higher reliability for OC under those circumstances, without a change in how MET approaches water

allocations. Again, MET looks at the “need” for MET water to meet demands. If local supplies are available, because water was stored in other years, it would likely be counted as “additional local supplies” during a MET allocation in a similar manner to how the Poseidon yield would be counted. OC would likely be better off by only a small percentage.

- One solution to this dilemma is to have MET pursue the project and incorporate the supplies into their water resources mix. The problem with this is that MET has historically evaluated that they have sufficient other supply options, costing less than \$1800 per AF, to help meet their demands and to put into their storage accounts during wet years for use during dry years. MET will soon be releasing their 2015 IRP projections; it is possible that MET could determine that it is time to consider ocean desalination and/or other similar supplies to improve their reliability over time. In addition, the OC Water Reliability Study will be modeling MET supplies over the long range to develop our own estimate of MET’s reliability and how other supply options might improve MET’s or OC’s reliability.
- “Extraordinary supplies”, as defined by MET, are “deliberate actions taken by member agencies to augment the total regional water supply only when MET is allocating supplies through the Water Supply Allocation Plan (WSAP)”. Extraordinary supplies cannot be base-loaded supplies such as the Poseidon Project (i.e., they can’t be used except during allocations). The only projects deemed by MET so far to meet this definition come from either the Strand Ranch Project or from transfers entered into only during years when a WSAP applies. The Strand Ranch Project was developed specifically to store wet year water to be used only when MET implements a WSAP. However again, the value of these extraordinary supplies was undermined by the Governor’s 25% reduction because they are focused only on demand (use) and not supply.
- **SYSTEM RELIABILITY IMPROVEMENTS:** The entire discussion above has focused on SUPPLY reliability benefits. The other benefit that accrues from developing some local projects is SYSTEM reliability benefits – having the capability to continue supplying water during emergency events such as following damaging earthquakes. If an earthquake knocked out the Diemer Filtration Plant in Yorba Linda, there would be a benefit to having an ocean desalination project in Huntington Beach continuing to produce 77 cubic feet per second (cfs) of supplies into the system. None of the discussions above have placed a value on the peak system capacity provided by the Poseidon Project. This represents 77 cfs of peak capacity that could be of value during an emergency event. There are other ways of providing this amount of system reliability, but the value of having this benefit available should be included in the reliability evaluations. MWDOC is in the process of completing a SYSTEM reliability study under the OC Water Reliability Study and should have results within the next several months. This will enable us to place a value on this benefit.

- This discussion has not included the “economic value” of being reliable. Shortages, whether short-term or longer-term, can have a significant impacts on our economy. The prior work by MWDOC and OCBC from 2004 provided estimates of the cost impacts of “not being reliable”, which were quite high.
- IRWD has been heavily involved in the discussions relative to the Poseidon Project, including presentations made to the OCWD Citizens Advisory Committee and in the Groundwater Producer’s meetings. For informational purposes only, MWDOC has attempted to summarize the main points they have made (without taking a stance on the statements).
 - Historically, MET has been very reliable, having gone into shortage allocations only in 1976-77, 1991-92, 2008-09, and now 2015-16 (4 times in 40 years). If OC knows MET will be reliable in the future and has water to sell to replenish the groundwater basin, OC should plan on purchasing the water to do so. This would always be our least cost option for OC and if we kept the groundwater basin at a higher level, we would have more protection during future shortages.
 - If MET is reliable, say 8 or 9 years out of 10, this means OC would only need the Poseidon water 1 or 2 years out of 10. However, ocean desalination projects generally cannot be effectively operated only a few years out of 10 as the financial allocation of capital costs to the smaller volume of water produced yields extremely expensive water. Operating the project to provide yield only in a few years out of 10 or simply operating in a manner that results in building up storage in MET’s storage accounts also results in a high unit cost of the project in OC, based on the limited reliability improvements available at this time.
 - However, if MET is much less reliable, maybe only 1 or 2 years out of 10, the argument in support of the Poseidon Project makes better sense and OC would receive a greater return on investment.

Table 1

**Approximate Direct and Indirect Water Reliability Improvement During a MET 15%
Water Allocation Reduction With and Without the Poseidon Project
Acre-Feet (AF)**

Row	Category	Current Supplies	With Poseidon	Approximate Reliability Improvement From Poseidon (3)
1	Total OC Demands	600,000	600,000	
2	Existing Local Supplies Today	300,000	300,000	
3	Poseidon Project	0	56,000	
4	Demands on MET	300,000	244,000	
5				
6	Call for a 15% Reduction = Reliability GAP (1)	45,000	36,600	
7	Reduced MET Demands	255,000	207,400	
8	Local supplies remain (2)	300,000	356,000	
9	Total supplies during allocation	555,000	563,400	
10	Reliability = Row 9 % of Row 1	92.5%	93.9%	1.4%
11	Direct Benefit = difference in Row 9			8,400
12	Remaining Poseidon Yield to MET			47,600
13	Assume OC = 20% of MET			9,520
14	Total Direct + Indirect Benefit			17,920
15	Percentage of Poseidon Yield			32.0%
16	Percentage of Reliability GAP Covered by Poseidon			39.8%
	(1) Reduction is in demands for MET water			
	(2) With and without the Poseidon Project			
	(3) Reliability in acre-feet and % higher supplies under a MET allocation with the Poseidon Project			

Table 2
Approximate Direct & Indirect Reliability Improvement
From the Poseidon Project Under Three Scenarios

Row		MET Supply Allocation Reduction Scenarios			
		15%	30%	50%	
1	Reliability % Without Poseidon	92.5%	85.0%	75.0%	
2	% Reliability GAP Without Poseidon	7.5%	15.0%	25.0%	
3	Reliability GAP in AF Without Poseidon	45,000	90,000	150,000	
4					
5					
6	Direct Poseidon Reliability to OC - AF	8,400	16,800	28,000	
7	Direct Poseidon Reliability to MET - AF	47,600	39,200	28,000	
8	Portion of MET Poseidon Reliability to OC (20% of MET)	9,520	7,840	5,600	
9					
10	Direct + Indirect Poseidon Reliability to OC - AF	17,920	24,640	33,600	
11	% of Poseidon Project Yield	32.0%	44.0%	60.0%	
12	% Reliability Improvement from Poseidon	3.0%	4.1%	5.6%	
13	Remaining Reliability GAP	4.5%	10.9%	19.4%	
14					
15	Portion of Reliability GAP Covered by Poseidon	39.8%	27.4%	22.4%	



INFORMATION ITEM

July 7, 2015

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

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

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

STAFF RECOMMENDATION

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

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

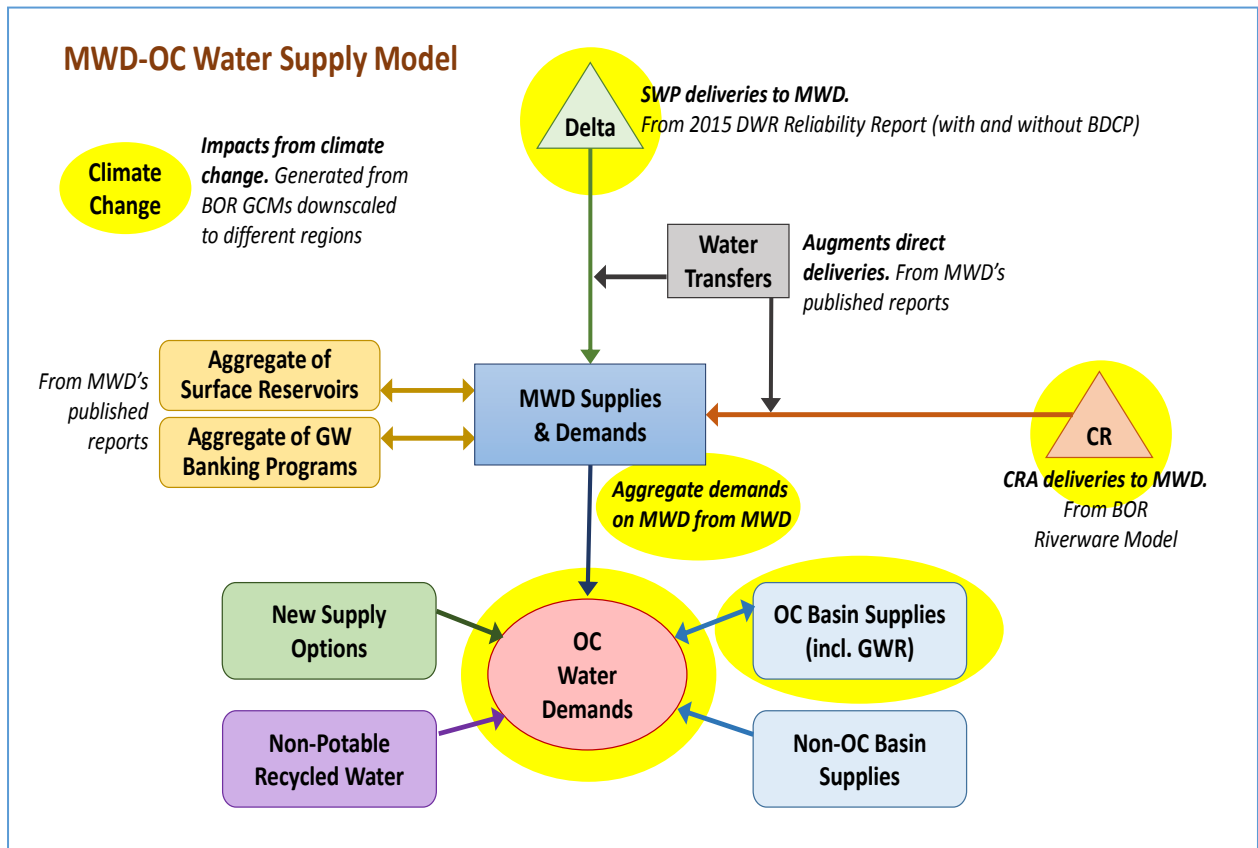
DETAILED REPORT

At the June meeting of the OC Water Reliability Workgroup, CDM conducted discussions on the following topics as they began sharing preliminary information from their modeling work:

- Reviewed the structure of their OC Reliability Model, as shown below.
- Previewed preliminary demand forecasts for OC, including future impacts from WUE investments
- Noted that the features of the model include the ability to provide:
 - Probability and Magnitude of MET Water Shortages and Allocation Levels under 93 years of hydrology (1922 to 2014), under the assumptions input
 - Probability and Magnitude of Water Shortages for:
 - Total OC County
 - North County
 - OC Basin

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

- MWDOC
- Three Cities
- South County
- OCWD Groundwater basin storage levels, under different BPP assumptions and various inputs related to the Santa Ana River base flows and stormflows tied to historical and projected hydrology
- Analysis of New Options/Operations, including:
 - Test new water supplies
 - Test different Basin operations and storage targets
 - Model results both with and without the Delta Fix
 - Model results both with and without climate variability
 - We can utilize historical hydrology for the modeling or construct a simulated “new” hydrology such as a repeat of the 2000 to 2014 beginning in 2015 (as an example, but one that seemed to get support from the Workgroup.
 - Model the MET IRP based on MET IRP assumptions to test our model results compared to MET’s model results
- MWDOC requested volunteers from members of the Workgroup to work with CDM on a quality control review of the detailed modeling and formulation of Planning Scenarios and to make recommendations back to the full workgroup. These modeling meetings are expected to take place in July and August.
- The CDM basic model structure is provided below:



In addition to the CDM work, it was noted that our Seismic Experts (G&E Engineering & GeoPentech) will be issuing their initial draft report and making a presentation at the July Workgroup meeting. The seismic analysis will provide the basis



INFORMATION ITEM

July 7, 2015

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

FROM: **Robert Hunter, General Manager**

Staff Contact: Karl Seckel and Richard Bell

SUBJECT: **State Water Project Update – Bay Delta California WaterFix and Delta Salinity Control and Emergency Response Plans**

STAFF RECOMMENDATION

Staff recommends the Planning & Operations Committee receive and file this report and provide input as appropriate.

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

SUMMARY

Over the last month, Board requests were made to provide updates on the status and timeline for the Bay Delta Twin Tunnel Project, now renamed “California WaterFix”, and Delta salinity intrusion control barriers and emergency response plans.

On April 30 the State announced that the Bay Delta Conservation Plan (BDCP) was divided into two separate projects: “California WaterFix” (Twin Tunnel Project) and “California EcoRestore” (Habitat Restoration). A revised, recirculated Draft EIR/EIS covering both projects is expected to be released on July 10 for a 45-day comment period. The ROD is expected by April, 2016 after a final new biological opinion is issued. Going forward, key questions facing the project are the risks of potential delays from legal challenges, permitting, financing, right-of-way acquisition, and other factors. The Twin Tunnel Project

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

may be at significant risk if construction contracts are not awarded by the end of Governor Brown's term in December 2018, depending on the next Governor's policies.

Salinity intrusion is a major risk to the SWP supply from (1) prolonged droughts, (2) climate change driving increasing sea level and salinity intrusion as well as reduced snowpack and reduced supply for salinity repulsion, and (3) a devastating earthquake or flood that would cause multiple levee failures and salt water flooding into the interior Delta. Over the past several years, various control plans have been developed by DWR and RECLAMATION to reduce reverse flows, to reduce salinity intrusion, to provide protection to endangered fish, and to develop emergency response plans. Recent projects have included:

- Delta Salinity Control and Emergency Plans for Earthquake and Flood Protection
- South Delta Improvement Project (2006)
- 2-Gate Project (2009)
- Temporary Salinity Control Barriers

Since 2008, DWR has led a multi-agency "Delta Flood Emergency Preparedness, Response and Recovery Program" effort to help protect the Delta and exports from levee failures. As part of this program, emergency rock stockpiles have been placed at three strategic Delta locations and warehouses have been built and provisioned. This program enables the State to quickly respond to levee failure(s). To ensure that Delta emergency response measures are implemented, including actions to develop a fresh water pathway after a major emergency event in the Delta, a funding agreement with DWR to improve levees on Old River, along the western portion of Bacon Island, is expected to be executed by mid-2015.

The South Delta Improvement Project (2006) and the 2-Gate Project (2009) EIR/EIS's were finalized, but neither were able to obtain fishery permits and were placed on hold. These projects would have increased protection to Salmon and Delta Smelt as well as controlling salinity while allowing increased exports.

Just recently, due to continuing drought and insufficient freshwater for repulsing intruding salt water, a temporary rock barrier was installed across West False River west of Franks Tract in the central Delta. This barrier will help to reduce salinity impacts to exports and several of the islands. This temporary barrier is required to be removed in November. This is the first time since 1977 that a temporary salinity barrier has been installed in the Delta.

DETAILED REPORT

State Water Project "California WaterFix"

On April 30, 2015 DWR announced the change in the BDCP into two projects: "California WaterFix" as a modified Preferred Alternative 4A and "California EcoRestore", the habitat restoration element. Based upon comments received from the regulatory agencies on the Draft EIR/EIS BDCP, it was concluded that a 50 year Section 10 habitat conservation permit would not be issued. As a result, DWR and USBR now propose to separate the conveyance facility and habitat restoration measures into the two separate projects. This will result in shorter permit terms and will require a new permit. The newly structured project would also include 2,100 acres of habitat restoration for direct project impact mitigation.

California EcoRestore is the large scale restoration program in the Delta and is no longer part of the Twin Tunnel project.

These two separate but parallel efforts will fulfill the requirement of the 2009 Delta Reform Act to meet the co-equal goals. A new Notice of Intent was published on June 15 by the USBR. In discussions with USBR staff, the Recirculated Draft EIR/Supplemental Draft EIS (RDEIR/SDEIS) is now planned to be released on July 10 for a 45-day comment period. The ROD is expected by April 1, 2016 when the final new BioOps (Section 7 consultation, biological opinion) is expected to be completed. MWDOC submitted comments on the previous DEIR/EIS and will plan to submit comments on the recirculated draft. We plan to coordinate with MET staff in development of our comments.

The April 30 State news release provided the general information on the revised project.

The California WaterFix (WaterFix) provides a second point of diversion for the SWP and CVP in the Sacramento River at the north end of the Delta. This second point of diversion will help to regulate where and when water is diverted for export. This will help to improve the natural direction of river flows, help native fish species navigate to and from the ocean during critical migration periods, protect against water supply disruptions, and improve export water quality and help to restore delivery capability of the projects.

The Twin Tunnel Project Components/Benefits

- Two 40 foot diameter, 40 mile tunnels up to 150' below ground
- Three new screened intakes, each with a diversion capacity of 3,000 cubic-feet per second (cfs). The intakes are designed to minimize impingement and entrainment of fish
- Provide for an estimated combined average annual yield of 4.9 million acre-feet for the SWP and CVP
- Protection against water supply disruption from failure of aging levees due to sea-level rise, earthquakes and flood events
- Reinstate a more natural direction of river flows in the South Delta
- New criteria to protect spring outflow to San Francisco Bay
- Criteria to protect Sacramento River flows and fish

Project and Related EcoRestore Environmental Mitigation

California WaterFix will include approximately 2,100 acres of habitat restoration to mitigate for the construction and operation of the new water facilities. Costs will be borne by the water agencies benefiting from the project. Over the next 5 years, California will pursue more than 30,000 acres of critical Delta restoration under the California EcoRestore program, and pursuant to pre-existing regulatory requirements and various enhancements to improve the overall health of the Delta. Proposition 1 funds and other state public dollars

will be directed exclusively for public benefits unassociated with any regulatory compliance responsibilities.

Project Cost

The cost for the Twin Tunnel Project and mitigation is estimated at \$14.9 billion, to be paid for by public water agencies that rely on the export supplies.

Project Yield

The California WaterFix preliminary documents indicate that the average yield from the project is estimated at 4.9 MAFY, down from the pre-2008 level of 5.7 MAFY. The SWP receives about 53% of the total exports from the Delta; the SWP would receive about 2.6 MAFY on average under the new plan. DWR recently released in April 2015 its updated Draft Delivery Capability Report for the State Water Project. This report provides an updated estimate of the current 2015 project yield based on the 2008 and 2009 Federal biological opinions for Delta Smelt and Salmonids (et al). However, it does not provide an estimate of future delivery capability, which will be incorporated in the RDEIR/EIS.

The current estimated 2015 average SWP yield is estimated at 2.60 MAFY based on the 1921-2003 hydrologic record, but does not include the current drought or recent climate changes (e.g. the much warmer conditions since 2000). The maximum Table A for export from the delta is 4.132 MAFY and all contractors have requested their full entitlement. The following table summarizes the SWP 2015 delivery capability under a range of conditions.

Hydrologic Case	Year(s)	SWP Delivery of Table A + Article 21 (taf/yr)	Percent of Table A
Long-Term Average	1921-2003	2,606	63%
Single Driest Year	1977	462	11%
6-Year Drought	1987-1992	1,195	29%
Single Wettest Year	1983	4,371	106%
6-Year Wet Period	1978-1983	3,507	85%

Metropolitan Water District would receive 46.2% of Table A plus its share of Article 21 water. Under past hydrology, on average, MET would receive 1,206,600 AFY. To achieve this average delivery, cyclical storage is required to balance out wet year supplies with dry year demands. MET's IRP process will be evaluating storage requirements as well as operational reserves and development of Foundational Action water supply programs as the future risk and uncertainties to its core supplies are considered significant.

Water Supply Risks

There are several potential risks that could further reduce the future yield of the SWP. These include: (1) new ESA listings with more restrictive conditions, (2) new water quality and fishery protection requirements, including additional outflow for salmonid protection as advocated by the SWRCB and EPA upwards of 800,000 AFY, (3) sea level rise and the need to release increasing amounts of water to repulse salt water intrusion in compliance with the current X2 salinity compliance location requirement, and (4) the impact of climate change on reduced snowpack and increased winter rainfall/runoff, higher ET and warmer

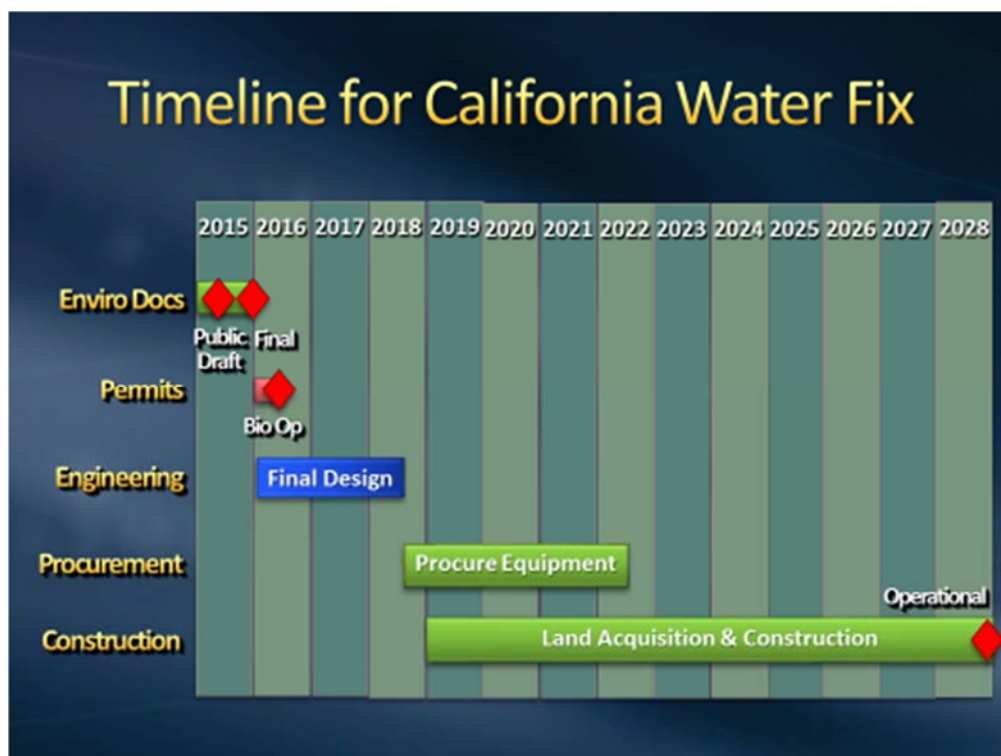
conditions that will require increased storage and likely increased releases for protection of endangered species and other existing uses.

Project Risks

When the environmental documents are finalized and the Record of Decision is entered into by the end of this year or early next year, it is widely expected that several legal actions will be brought against the project which could require up to three years or more to resolve. However, without a stay of the project, which is considered unlikely, the project should be able to proceed. Major risks that could delay the start of construction include new legal impediments, permit delays, financing issues, and delays in land acquisition that are on the project critical path. There is greater assurance that the project will be implemented if the project construction contracts are awarded and executed before the end of Governor's Brown term in December 2018. Construction work could encounter delays due to unexpected construction conditions or difficulties, cost overruns and contract disputes, delays in bond sales, and force majeure situations from natural disasters.

Project Schedule

The current schedule is to execute the Record of Decision by the end of this year and obtain the Section 7 federal biological opinion permit and State Water Board change in point of diversion by June 2016. Final design would then follow with procurement of remaining permits (e.g. USACOE 404 permit, et al), financing, acquisition of design data, acquisition of land and easements, procurement of equipment and long-lead time items, bidding and contracting, and construction. If all goes according to plan the project would be operational in 2027/28. The California WaterFix approximate schedule is shown on the following chart.



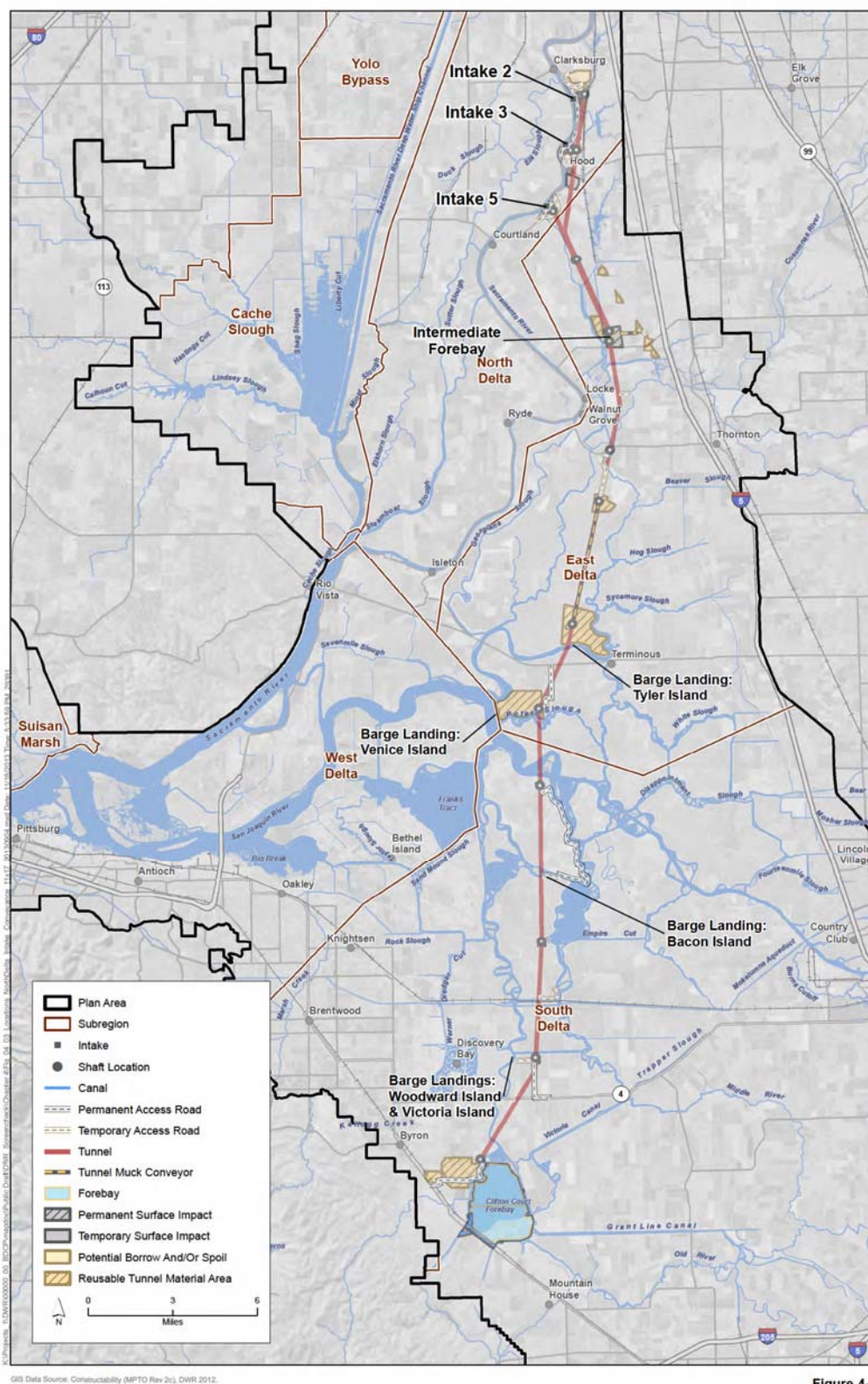


Figure 4-3
Locations of the Proposed North Delta
Intake and Conveyance Facilities

Location of Proposed Twin Tunnel Project

Delta Salinity Control and Emergency Plan for Earthquake and Flood Protection

Conveyance of water through the Delta to the Banks Pumping Plant requires releases to repulse saltwater and control reverse flows. With future predictions of sea level rise, saltwater intrusion into the Delta will increasingly become more difficult to repulse by releases of freshwater and greater releases will become necessary to meet the SWRCB 2,000 mg/l salinity compliance level (X2) at the western edge of the Delta. Short term measures include salinity barriers and emergency response plans. The Twin Tunnel Project will provide added protection by having a second point of diversion. Longer-term solutions will be necessary if sea level rise occurs to levels being predicted. These future measures may include more substantial control facilities, such as submerged barriers and locks west of the Delta.

Following the 2000 CALFED Record of Decision, the Delta Risk Management Strategy (DRMS) project looked at sustainability of the Delta and assessed major risks to the Delta resources from floods, seepage, subsidence, and earthquakes. The DRMS studies and reports were completed in 2008 and indicated that there are substantial risks to any one or several islands in any given year and the interior Delta is susceptible to salt water flooding from multiple levee failures triggered by a devastating earthquake.

The Delta Flood Emergency Preparedness, Response and Recovery Program (Delta ER Program) was established by the Disaster Preparedness and Flood Prevention Bond Act of 2006. This program was enacted to minimize potential impacts from flooding in the Delta that could impact Delta islands, Delta water exports, critical infrastructure, agricultural, environmental, and recreational resources.

The objectives of the program are to:

- Protect the lives, property, and infrastructure critical to the functioning of both the Sacramento- San Joaquin Delta and California.
- Protect water quality
- Reduce the recovery time of the SWP and CVP water supply from catastrophic flooding and salt water intrusion to less than six months.
- Minimize impacts on environmental resources.

In 2007, DWR initiated the Delta Emergency Rock and Transfer Facilities Project to provide rock storage facilities to improve response to emergency flooding events in the Delta. The Delta Emergency Rock and Transfer Facilities Project involved the establishment of three waterside material transfer and stockpile sites, in Rio Vista, Stockton, and Hood. Over 233,000 tons of rock were stockpiled at these locations.

Subsequently, the Delta Flood Emergency Facilities Improvement Project (FIP) was developed to ensure that the State has the appropriate infrastructure and supplies in the Delta to respond to and recover quickly and effectively from major flood or earthquake disasters in the Sacramento-San Joaquin River Delta. The Project CEQA was finalized in June 2013.

Currently, DWR is completing its Delta Flood Emergency Program Plan. This effort includes facility and management/response plans. DWR recently released an Interdepartmental DRAFT "Delta Flood Emergency Management Plan for agency review.

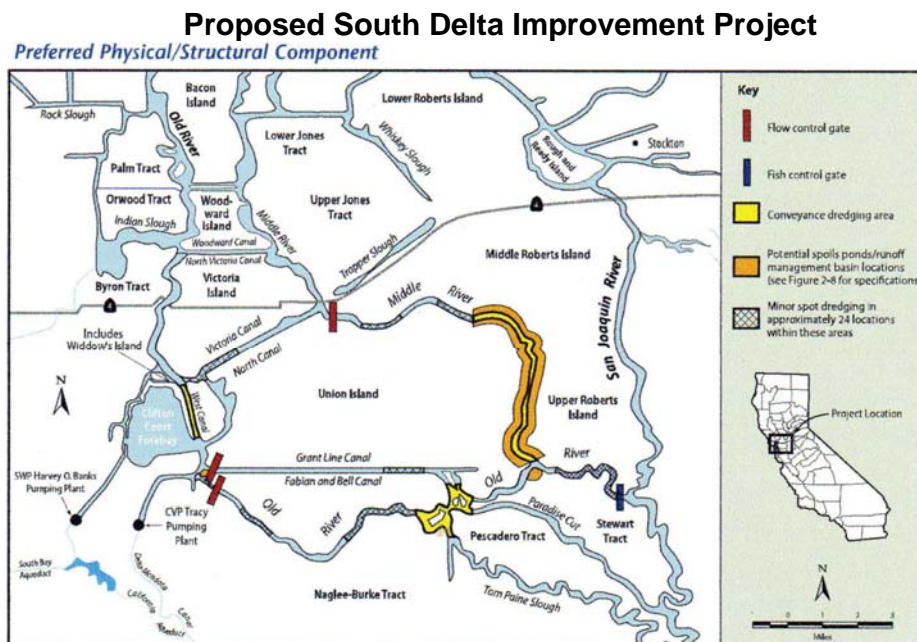
As reported by MET's General Manager at its June 9, 2015 Board Meeting, it is necessary to ensure that Delta emergency response measures are implemented, including actions to develop a fresh water pathway after a major emergency event in the Delta. DWR reported that a funding agreement to improve levees on Old River, along the western portion of Bacon Island, is expected to be executed by mid-2015. This work would enhance levee reliability for a substantial part of the Old River levee system by providing levee crown and slope fill, and waterside levee armoring. These levee improvements would add to conveyance and emergency response capabilities being implemented in the south Delta. DWR also reported that they will raise the elevation of their major emergency preparedness storage facility in Stockton to provide additional protection in the event of a major flood.

In a related matter, due to the continuing severe drought, the State recently installed a temporary salinity control barrier along the West False River located west of Franks Tract to provide some protection to the interior Delta from saline water intrusion as insufficient freshwater is available to repulse intruding salt water. This barrier is scheduled to be removed in November.

South Delta Improvement Project

The Final EIR/EIS for the South Delta Improvement Project was completed in December 2006. This project proposed a series of interrelated actions to manage water levels and water quality, protect fish and provide increased flexibility for operations of the CVP and the SWP. The proposed project elements are shown on the following map.

In June 2009 with the issuance by the National Marine Fishery Services Biological Opinion on operation of the water projects, NMFS directed DWR to halt implementation of the SDIP and indicated that they could not reinstate the permit until three years of predation studies were completed. There has been no action on the project permit since that time. The Twin Tunnel Project will lessen the need for these facilities.



2-Gates Fish Protection Demonstration Project

The August 2008 Draft Plan for the 2-Gates Fish Protection Demonstration Project was developed by MET and the San Luis & Delta-Mendota Water Authority (SLDMWA) to test alternative ways of protecting Delta Smelt (smelt) and controlling salinity intrusion. The project was designed to test various flows in the Sacramento-San Joaquin Delta (Delta) to evaluate its effectiveness in reducing entrainment of smelt and other sensitive aquatic species in SWP and CVP export pumps. The proposed location of the 2 gates are shown in the following figure.

The Draft Environmental Assessment and Finding of No Significant Impact was released for comment on October 19, 2009. Based on comments received, USBR in a letter to MET dated December 22, 2009 indicated that major questions regarding the scientific assumptions that underpinned the project were unanswered and that other critical aspects had not yet been resolved.

Shortly thereafter, in a letter from EPA Region 9 to the USACOE dated December 28, 2009, EPA stated that there is presently insufficient information to make a finding of compliance and urged the USACOE to deny the 404 permit. EPA holds final authority over 404 permits. Subsequently, MET and USBR agreed to place the physical gate elements under the plan on hold in early 2010 in favor of pursuing forecasting methods to characterize turbidity and fish distribution. Test forecasts led to improved modeling tools that are now being used in real time to help with operation of the water projects to minimize entrainment of adult Delta Smelt.

Proposed 2-Gates Fish Protection Demonstration Project Locations

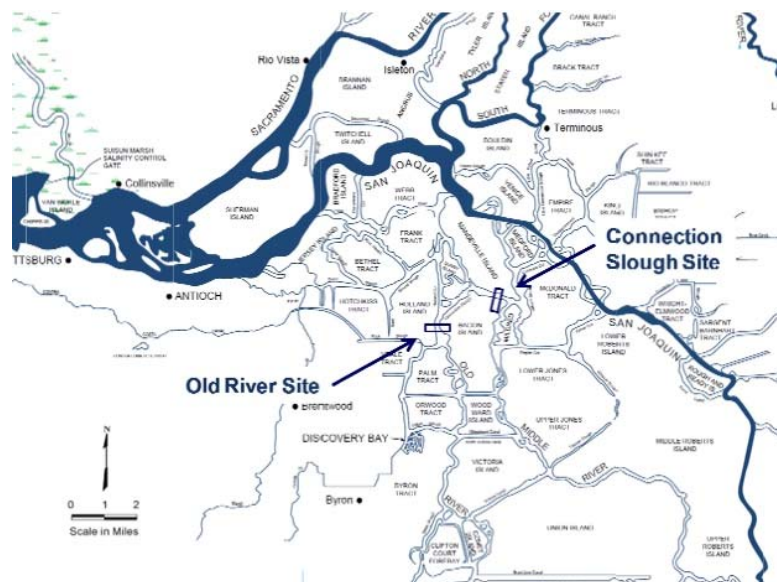
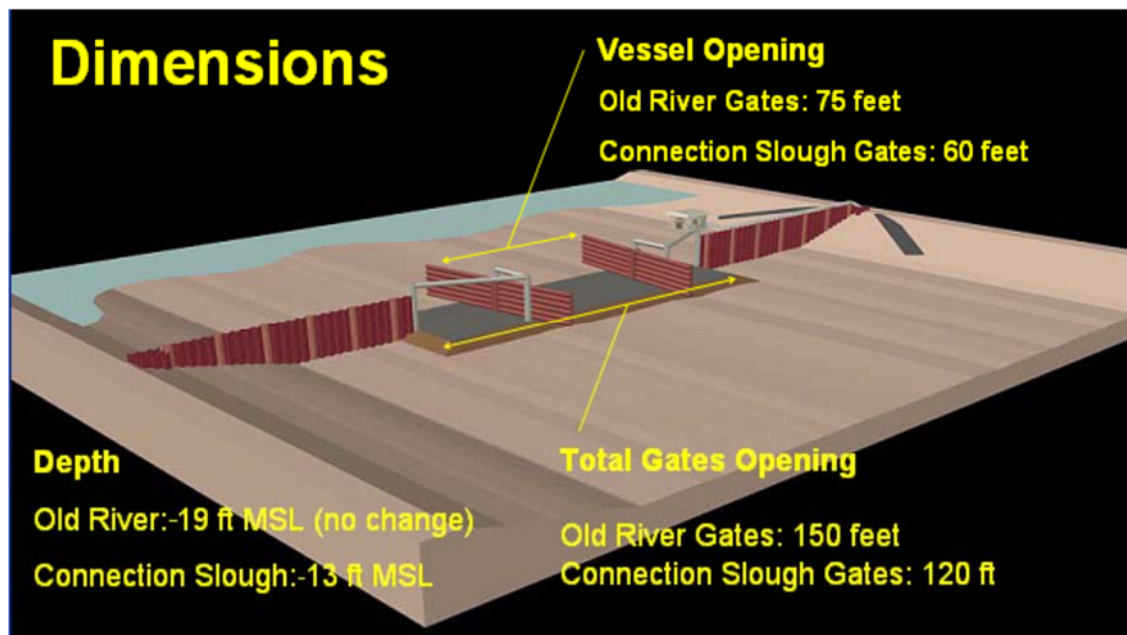


Illustration of the Planned Demonstration Gate



Emergency Drought Barriers to Control Salinity Intrusion

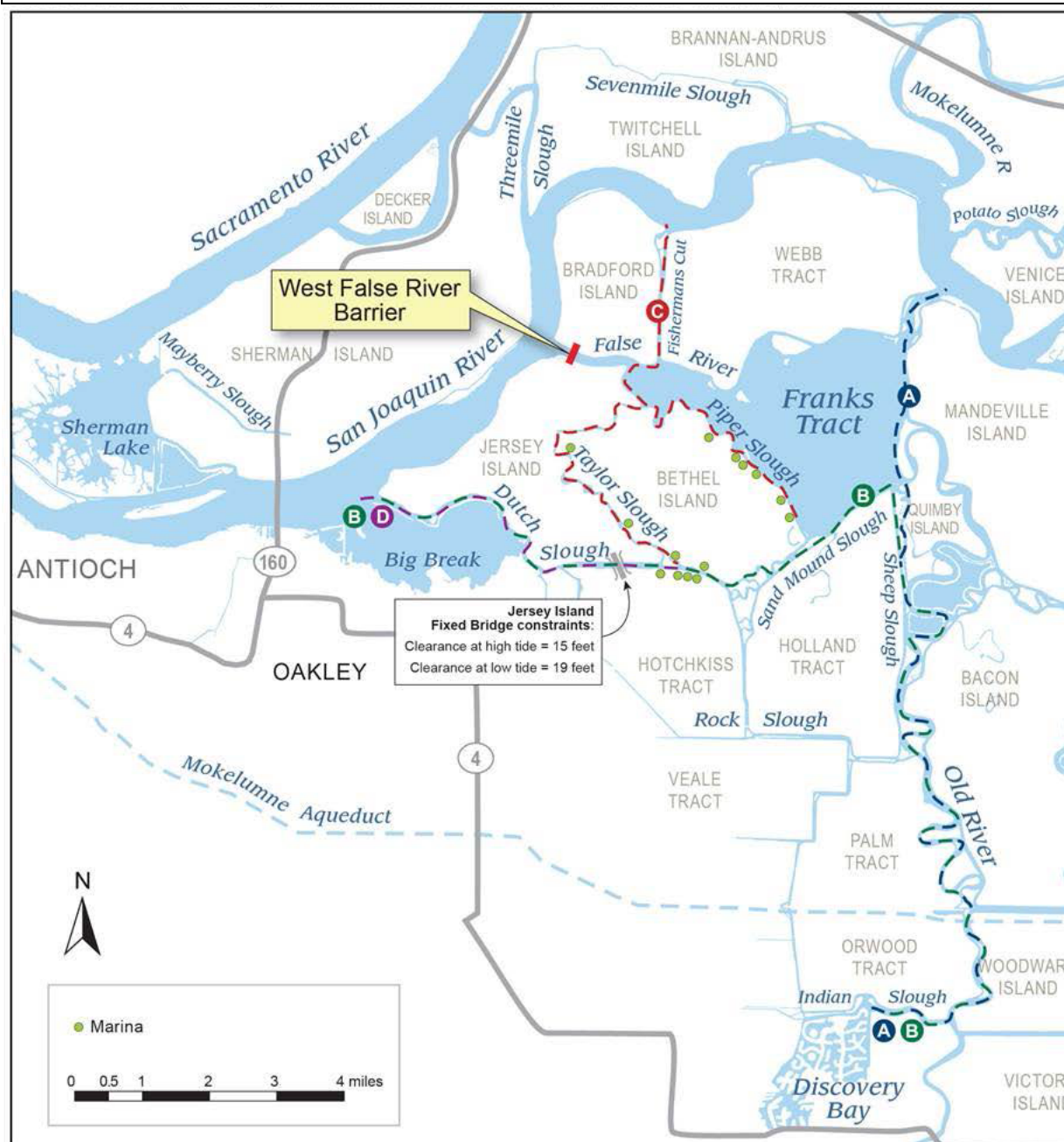
Under normal conditions, when saltwater threatens to encroach deeper into the Delta, there are only two real time, available control options: (1) water released from storage to repel salt water or (2) pumping from the Delta must be reduced to slow the rate of intrusion. The use of temporary physical rock barriers are costly, require advanced planning, extraordinary conditions, and permitting for installation. They have only been used once before.

The April 1, 2015 Executive Order by Governor Brown expedited installation of the West False River barrier to reduce salinity during the current extreme drought conditions. The West False River site raises fewer concerns for threatened and endangered fish than other potential barrier sites considered by DWR (Sutter Slough and Steamboat Slough). Barriers were used once before, in the severe drought of 1976-77.

The rock barrier was recently installed across the 750-foot-wide river between Jersey and Bradford islands and blocks salt water that tidal action attempts to push eastward from San Francisco Bay into Franks Tract. The trapezoidal barrier is about 120 feet wide at its base and 12 feet wide at its top above the waterline. About 150,000 tons of rocks were placed into the river's channel to create the barrier.

Design, installation, monitoring and mitigation are estimated to cost roughly \$22 million; the cost for removal is estimated at \$15 million. Costs are to be paid with a mix of funding from Proposition 50 and General Fund dollars.

Location of Temporary Rock Barrier at West False River





INFORMATION ITEM

July 7, 2015

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

FROM: Robert Hunter, General Manager

Staff Contact: Kelly Hubbard, WEROC Program Manager

SUBJECT: WEROC Exercise SurfQuake 2015 After Action/ Corrective Action Report

STAFF RECOMMENDATION

Staff recommends the Planning & Operations Committee review the WEROC Exercise SurfQuake 2015 After Action/ Corrective Action Report.

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

SUMMARY

The WEROC Exercise SurfQuake 2015 After Action/Corrective Action Report is attached for the board's review. This report was completed by the staff of the Water Emergency Response Organization of Orange County (WEROC), in coordination with MWDOC staff, the Orange County Operational Area, and the WEROC Member Agencies. The report will also be shared with the WEROC Member Agencies, the Orange County Operational Area and the Southern Region OES.

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

EXERCISE SURF QUAKE 2015
AFTER ACTION / CORRECTIVE ACTION REPORT
WATER EMERGENCY RESPONSE ORGANIZATION OF ORANGE COUNTY

Event Name

Surf Quake 2015

Event Summary

This exercise involved multiple agencies operating with the same simulated disaster scenario, for the purpose of allowing the Orange County Operational Area, Orange County local government, the WEROC Emergency Operations Center (EOC) and WEROC member agencies to facilitate role play that would encourage and improve collaboration and communication between these agencies, as they will need to coordinate in a real event. While the scenario remains the same, participating agencies are playing at different levels to facilitate the best learning environment for their particular agency. Below is a chart of the participating organizations and their level of participation.

Participating Organizations	Level of Play
State	
State of California Office of Emergency Services Southern California Region	Functional (Orange County Operational Area - OCOA)
California State University, Fullerton	Tabletop
State Water Resource Control Board, Division of Drinking Water	Functional (WEROC)
County	
Orange County Operational Area/Orange County Sheriff's Department	Functional
Orange County Board of Supervisors	Functional (OCOA)
County Executive Office	Functional (OCOA)
Health Care Agency	Functional (OCOA)
OC Community Resources	Functional (OCOA)
OC Public Works	Functional (OCOA)
Orange County Transportation Authority	Functional (OCOA)
Social Services Agency	Functional (OCOA)
City	
City of Anaheim	WebEOC Drill
City of Brea	WebEOC Drill
City of Huntington Beach	Functional

City of Irvine	Tabletop
City of La Habra	Tabletop
City of La Palma Public Works	Tabletop
City of Laguna Beach	Tabletop
City of Los Alamitos	Tabletop
City of Mission Viejo	Tabletop
City of Newport Beach	WebEOC Drill
City of Placentia	Tabletop
City of Seal Beach	Tabletop
Special Districts	
Coast Community College District	WebEOC Drill
Newport –Mesa Unified School District	Tabletop
Water Emergency Response OC	Functional
City of Glendora	Support to WEROC EOC
El Toro Water District	Functional
Irvine Ranch Water District	Support to WEROC EOC
Mesa Water District	Functional
Midway City Sanitation District	Field/Tabletop
Moulton Niguel Water District	Functional
Orange County Sanitation District	Support to WEROC EOC
Santa Margarita Water District	Tabletop
South Coast Water District	Functional
Non-Governmental Organizations	
Orange County Red Cross (OCOA)	Functional

Exercise Scenario Summary

A magnitude 7.2 earthquake occurs along the Newport-Inglewood Fault. The epicenter is in Huntington Beach, which is at the south end of the fault. The rupture moves north, activating the entire Newport-Inglewood Fault from end to end. The rupture causes severe to moderate shaking throughout all of Orange County. The earthquake impacts water levels, but does not cause a tsunami. This scenario was prepared by the U.S. Geological Survey.

An expanded scenario description is available as **Attachment A: Exercise Scenario Expanded**.

WEROC's Preparedness and Response Summary

WEROC continued to build upon the training program started in 2014 for the fall exercise with MET with additional training leading up to this exercise. Trainings provided prior to this exercise were:

- WEROC EOC Position Specific Training for WEROC EOC Staff
- Bare Bones Emergency Response Coordination for WEROC Member Agencies
- WebEOC basic training for WEROC EOC Staff and Member Agencies

Another aspect of preparing for the exercise was WEROC's participation in the Orange County Emergency Management Organization (OCOMO) Exercise Design Committee and the facilitation of a WEROC Member Agency Exercise Design Committee. These committee meetings facilitated the development of exercise objectives, the exercise scenarios, documents used for simulation, and other aspects of exercise planning. The OCOMO Exercise Committee met monthly starting in January and the WEROC Committee met monthly starting in February.

WEROC conducted Surf Quake 2015 as a functional exercise on May 21, 2015 at its South Emergency Operations Center (EOC) from 9:00 am to 12:00 noon. EOC staff were each assigned a role that they have either excelled in previously or in some cases a role they have not previously held with the intent of cross-training staff to other areas of EOC Functions. Kelly Hubbard was the Exercise Director and the EOC Director for this exercise, which is a bit unusual, but allowed for her to provide more direction to staff as a component of the simulated environment.

The WEROC Manager conducted an after-action briefing with the EOC staff immediately following the exercise and asked all staff to complete a feedback form. WEROC and its Member Agencies conducted an after-action meeting on June 2nd at the WEROC South EOC. Conducting the WEROC Member Agency After-Action meeting at the WEROC South EOC was very beneficial. It allowed member agencies to see how the information that their agency shared via multiple communication methods during the exercise was displayed in the WEROC EOC and acted upon. The OCOMO Exercise Committee will meet on July 15th and any additional suggestions received will be incorporated at that time.

All of the comments and suggestions received as part of these processes that pertain to the WEROC program are reflected in this report.

Activation Status

WEROC activated its South Emergency Operations Center (EOC) with 28 EOC staff participants. Volunteer staff received information from 7 participating water and wastewater utilities during the exercise, and communicated with the Operational Area. Many of the WEROC EOC staff were assigned positions for which they have not filled before to continue cross-training and familiarization of EOC operations. Information was collected, sorted, assessed, posted, shared, and responded to from the following sources:

- Staff operated the WEROC Radio, using the revised WEROC Radio Message Form;
- the PIO reviewed social media sources, WebEOC, and coordinated with responding agencies;

- as appropriate to their position staff utilized emails, phone calls and WebEOC; and
- All staff utilized 6 EOC information tracking boards to display and share information with others in the EOC.

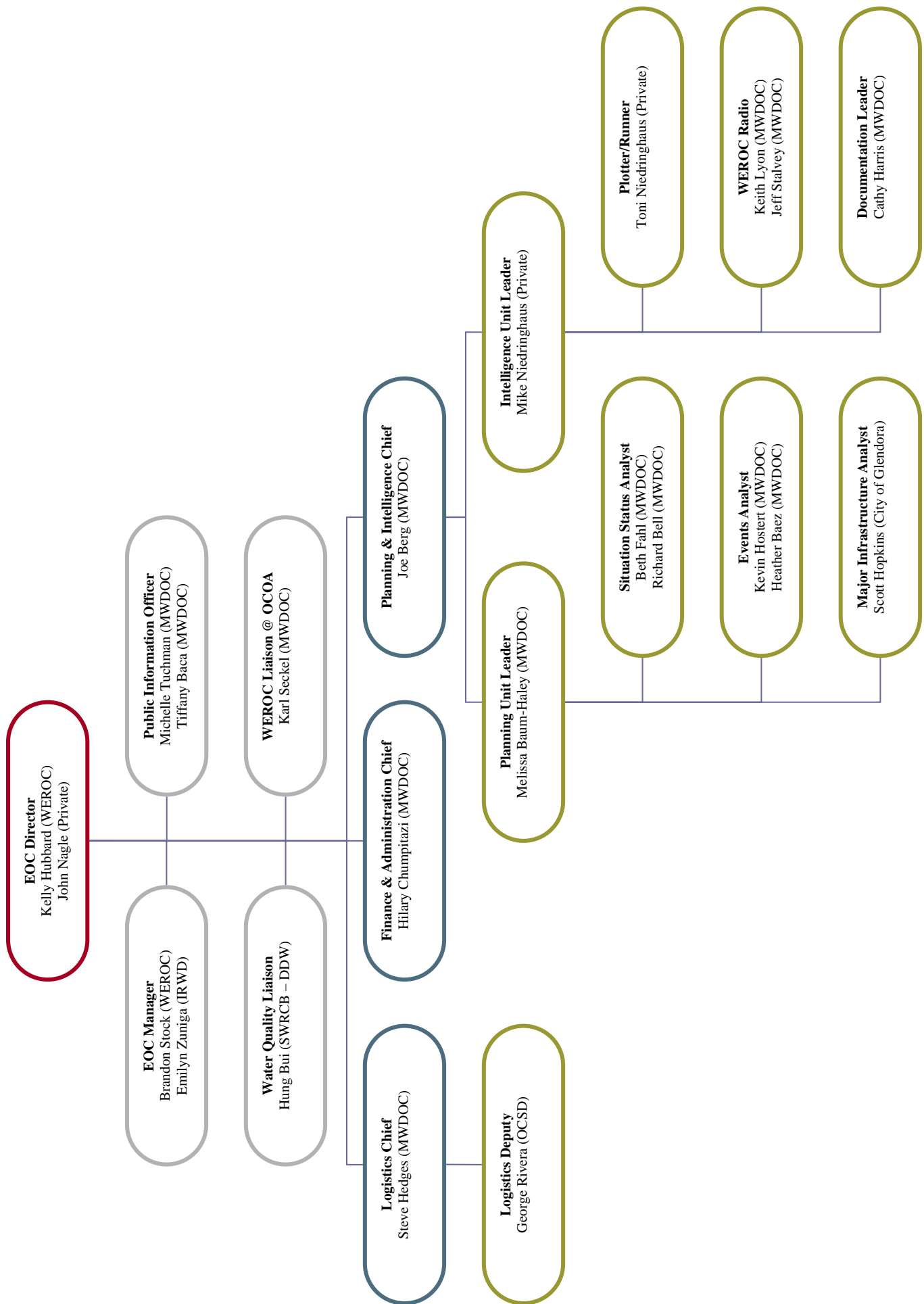
Most importantly this exercise continued to enhance the WEROC EOC staff's understanding of their specific positions, the WEROC member agencies, WEROC's mission and goals during a disaster, and general disaster response concepts.

Responding Staff

Special thanks must be given to the WEROC staff that come from MWDOC, the WEROC Member agencies and the private sector (see the organizational chart below for staff and their assignments):

- 16 MWDOC staff
- 3 private sector volunteers
- 1 California State Water Resources Control Board, Division of Drinking Water representative
- 2 WEROC Member Agency mutual aid staff
- 1 California Water and Wastewater Agency Response Network (CalWARN) Steering Committee Member

Lastly Marc Melissas, City of Stanton Emergency Manager, provided exercise facilitation and evaluation support to the WEROC Program Manager who was acting as the Exercise Director and EOC Director.



SEMS/NIMS Evaluation

The WEROC EOC and EOP were developed based on SEMS, NIMS and ICS principles. Following the Golden Guardian Exercise in 2008 significant changes in the WEROC EOC organizational structure and physical facility were made. These changes resulted in the removal of an Operations Section (because WEROC is not an operational entity) and the addition of more staff positions to handle information analysis within the Planning and Intelligence Section. Sometime after that the integration of WebEOC became vital to efficient EOC operations and pushed for further changes in process and protocol. The EOC operated under the SEMS standard for Area Command by utilizing the ICS functions of Management, Planning & Intelligence, Logistics, and Finance and Administration. In addition to these functions the WEROC EOC also utilizes positions that are specific to the water industry, such as a water quality advisor. Refer to the organizational chart above to see specific positions utilized. This exercise was a great success in demonstrating to staff their knowledge and understanding of the WEROC structure as it has evolved, its role within emergency response and the physical tools available to support their response.

In addition to the organizational structure within the EOC, WEROC operates within the 5 SEMS levels of coordination. WEROC acts as the Operational Area coordinator for water and wastewater utilities. This means that water and wastewater utilities report their concerns to WEROC, WEROC in turn reports summary reports to the Operational Area and then the Operational Area reports concerns to the California Office of Emergency Services through their Southern Region EOC.

Evaluation of Core Capabilities and Lessons Learned

Comments and lessons learned originating from all post-exercise meetings and pertaining to WEROC's participation in the SurfQuake 2015 exercise and the strengthening of the program have been incorporated into the WEROC Master Corrections List for further consideration. The WEROC EOC mostly met all of its Core Capabilities and Objectives it was looking to test. The following is a list of each objective and some comments in regards to each, a complete list of corrective actions are available in **Attachment B: WEROC SurfQuake 2015 Corrective Action List**.

<u>Core Capabilities and Objectives</u>	<u>Comments</u>
Operational Coordination – EOC Resources	
1. Evaluate WEROC EOC Position Guides, In Case of Crisis, and all resources available within the EOC to support EOC staff in understanding and carrying out their job functions.	Staff were much more proactive with using their position checklists and function binders in this exercise. They still require reminders about additional resources available to them; such as maps, phone books, and electronic forms available on computers or USB sticks. Current email lists and contact information was much better with the In Case

<u>Core Capabilities and Objectives</u>	<u>Comments</u>
	of Crisis application. Staff continue to want pre-developed group email lists available to them, however the logistics of maintaining group email lists is currently very difficult and would often result in outdated contacts.
Operational Coordination – Resource Management	
1. Track resource requests from several jurisdictions in the Operational Area while exercising ability to gather all information needed to monitor progress effectively.	Staff did a great job of making sure that resource requests were forwarded to Logistics whenever they received a request in another position or saw a request within information they received. During the exercise, Logistics became more proactive in monitoring various whiteboards, WebEOC and Gmail for resource requests resulting in more complete information on resource needs.
2. Ensure policy-level decisions are discussed and made on the prioritization of resource requests from several jurisdictions in the Operational Area when limited resources are available.	Staff initially would find resources and assign them without consideration for the larger situation status and possible additional needs. This resulted in resources being assigned for lower priority requests that were received first and those resources than not being available when a higher priority resource was received later. A Tabletop Exercise on large event resource prioritization and coordination could help to demonstrate how this might work in a real event.
3. Procure and fulfill resource requests based on available resources.	The overall logistics process was hindered by the simulated nature of the exercise. During the exercise, WEROC Staff would call a county supported “simulation cell” that was responsible for simulating responses from agencies not playing and businesses. This concept did not work well because the Simulation Cell staff did not have the proper background to answer water related questions. WEROC staff are working on methods to simulate and train staff on this concept better.
Operational Coordination – Incident Action Plan	
1. Obtain situational assessment of all affected jurisdictions within the	WEROC EOC staff did a great job at this. They were in WebEOC and checking every possible area for

<u>Core Capabilities and Objectives</u>	<u>Comments</u>
Operational Area, including initial damage estimates and resource needs.	situation status information. There was still gaps in information, which is to be expected in an exercise or real event. Some of the WEROC Member Agencies were struggling with WebEOC and where their information was being displayed, resulting in the information not being visible to outside agencies. Continued training for Member Agencies on WebEOC and other methods of communication will continue to be an area of focus.
2. Development of a comprehensive Water Situation Summary Report that is shared with ALL coordinating partners.	The Planning and Intelligence Chief was able to develop a Water Situation Summary Report very quickly and shared it with participating agencies via known email addresses.
3. Development of Incident Action Plan (IAP) for the next operational period. (Will be facilitated at the end of exercise.)	The EOC/Exercise Director facilitated a discussion at the end of the exercise to determine whether staff felt they had met the first Incident Action Plan objectives and to determine the next Operational period IAP. This was a beneficial exercise step in that it pushed staff to re-evaluate themselves based on the objectives that they were initially given.
Operational Communications	
1. Assess ability to effectively use communication methods available in the EOC, including message forms, whiteboards, WebEOC, radios and phones to maintain situational awareness.	Whiteboards, WebEOC and phones were all used well. Staff still struggled with the Gmail account system – mainly forgetting to check those accounts. There was a feeling of having too many “places” to check for information. Continued training will make this concept more manageable.
2. Evaluate message flow regarding the radio communications and new radio form.	The new Radio Message Form seemed to work well and will be implemented.
3. Enhance staff understanding and use of WebEOC as a situation analysis and information sharing tool.	Staff did a great job with WebEOC. Their understanding of the system continues to develop and contribute to the success of each exercise.

WEROC Exercise successes:

- Staff were assigned to different positions than which some have worked in the past. The downside of this is that staff do not have the opportunity to learn one position really well,

however the benefit of cross-training and greater understanding of various EOC functions continues to be a greater benefit.

- The scenario provided staff with a better sense of how their roles and responsibilities in the WEROC EOC contribute to the successful coordination of an emergency response effort.
- The provision of a robust pre-exercise training program during the previous year on specific aspects of WEROC and the EOC functions provided staff with a strong foundation of skills prior to the actual exercise, which led to better integration, communication, and awareness of key functions during the exercise.
- Staff demonstrated a greater aptitude and comfort level with WebEOC than they have in the past, resulting in a more complete and accurate situational awareness.

Major follow-up actions:

- WEROC EOC Staff and WEROC Member Agencies seem to have a good grasp of general response coordination concepts, but continue to have questions about concepts that are hard to simulate and teach through functional exercises. Through the after-action process a new training concept was developed to host a series of tabletop exercises with both parties at the same time to facilitate cross-training and greater learning experiences. Tabletop exercises focus on discussion instead of actual use of EOC tools often resulting in more in-depth conversations and learning opportunities. Additionally, by combining the WEROC EOC Staff with the WEROC Member Agencies in the same tabletop discussion both groups hopefully walk away with a greater understanding of each other's needs and capabilities during a disaster response.
- This exercise reinforced that the current EOC structure and set-up is a great improvement and works well for staff. However, the exercise also highlighted additional ways that the EOC can continue to be improved for better functionality. Quite a few of the corrective actions identified are concepts of continued improvement for our facilities and resources.

Member Agency Lessons Learned:

- Staff and supporting departments gained a greater respect for each other and their capabilities.
- Management recognized the need to provide more support and time to emergency planning efforts and training.
- Many of the agencies felt staff have improved immensely in their understanding of EOC coordination. However, all plan on providing more training in house and requested more training from WEROC.
- There is a concern from both the participating agencies and the WEROC Staff that the same small group of agencies participate in exercises on a regular basis. Staff would like to explore with the non-participating agencies how to get them more involved and how WEROC may be able to support them in this effort.
- In the Member Agency After-Action meeting the agencies really appreciated each other's planning and exercise efforts, many wanted to utilize other's materials for future exercises. In order to facilitate this concept, WEROC staff has created an Exercise Planning Dropbox (free online document sharing program) folder for agencies to upload their exercise materials and share them with each other. Additionally, WEROC staff will upload other training resources that have been collected over the years.

Corrective Actions and Process Evaluation

The WEROC SurfQuake 2015 Corrective Action List, Attachment B, is a list of problems or issues identified during the WEROC response. The corrective action list is a comprehensive process in which staff review EOC Activity Logs, White Board postings, WebEOC postings, feedback forms and more to develop a list of ways to improve our training, preparedness and response. For each problem statement possible solutions or corrective actions are identified, the lead agency responsible for each solution, additional agencies or departments that may coordinate with the lead agency, and a designated time frame which this corrective action should be addressed by. The timeframes are defined as the following:

- Immediate 1 to 4 weeks
- Short 1 to 6 months
- Long 6 months to 1 year
- On Going Continual process
- Parking Lot Recognition of the issue/problem, but no plausible solution is available at this time.

This corrective action list will be added to a WEROC Master Corrective Action List that includes all corrective actions identified during actual or simulated response. As items are addressed they are either adjusted or removed from the master list. The WEROC Master Corrective Action List serves as a working list of actions required for WEROC to respond in the most efficient way possible during the next exercise or disaster.

Report Completed

This report was completed by the staff of the Water Emergency Response Organization of Orange County (WEROC), in coordination with MWDOC staff, Orange County Sheriff's Department Emergency Management Division staff, and the WEROC Member Agencies. The report was submitted to the MWDOC Board, the WEROC Member Agencies, the Orange County Operational Area and the Southern Region OES in July 2015.

Glossary of Acronyms & Terms

EOC	Emergency Operations Center
EOP	Emergency Operations Plan
ICS	Incident Command System
JIC	Joint Information Center
MET	Metropolitan Water District of Southern California
MWDOC	Municipal Water District of Orange County
NIMS	National Information Management System (Federal)
OA	Operational Area
PIO	Public Information Officer
SEMS	Standard Emergency Management System (California)
SWRCB-DDW	California State Water Resources Control Board, Division of Drinking Water
WebEOC	An internet based information management system
WEROC	Water Emergency Response Organization of Orange County

Attachment A: Exercise Scenario Expanded SurfQuake 2015

On May 20th at 7:00 a.m., a 7.2 magnitude earthquake occurred along the Newport Inglewood Fault, centered in Huntington Beach and rupturing north. The entire Newport-Inglewood Fault was activated from end to end during the rupture. The Orange County coastal and near-coastal cities felt strong to severe shaking while the rest of the County experienced moderately strong shaking for a period of 30 seconds to two minutes. Immediately after the shaking stopped, existing emergency response measures were implemented. A 5.3 magnitude aftershock occurred at 2 a.m. on May 21st. More significant aftershocks are expected.

The National Tsunami Warning Center in immediately issued a tsunami warning. However, the water levels quickly subsided without causing damage to the coastal areas. There is currently no tsunami threat to the California coastline.

The earthquake rendered many landline phone systems unusable and the cell phone towers that remain standing continue to be overloaded with a substantially large call volume.

Due to the ground motion and resulting liquefaction, there is widespread damage to buildings and infrastructure. It is estimated that 20,000 persons are displaced due to damaged homes and fires. There are reports of numerous fires actively burning throughout the region. There are numerous hazardous material issues. Gas pipelines have been ruptured throughout the area and services are suspended in several locations.

There are numerous bridges and highways that have been significantly damaged. Debris caused from the earthquake is blocking major highways and roadways throughout the Operational Area, obstructing first responders and the movement of resources. Downed traffic signals have caused gridlocked streets throughout the region. As a result, there are more than 20,000 stranded commuters and visitors on highways, trains and airports.

John Wayne Airport has cancelled all commercial and general aircraft flights.

The entire county initially loses power. Some areas have been restored, however, much of the coastal and near coastal areas are still without power. There are serious impacts to the water system and most residents along the coast are without water.

The Operational Area Emergency Operations Center, along with the Emergency Operations Centers for all Orange County jurisdictions, are activated.

Issue or Problem Statement	Recommended Solution(s)	Lead Agency	Coordinating Partners	Timeline and Expected Due Date
WEROC desktop radio at the OA EOC (looks like a phone) appeared to not work or headset was not operable. Headset needs to have better sound quality.	Request Orange County Sheriffs Department Communications to repair and replace headset.	OC Sheriff's Department Communications	WEROC	Immediate
Technology in the EOC may need further instructions than what is currently available.	Add typed instructions on the wall above equipment (fax, printer, etc.) on how to use most common functions (like scanning to the computer).	WEROC	MWDOC IT	Immediate
Staff felt they still need more training on what to do right when they get to the EOC.	Consider updating the "Start-Up Checklist" for more specific actions based on specific positions. For the WEROC OA Liaison position this should be in the In Case of Crisis App.	WEROC	None	Long
	Develop a "Just In Time" training for EOC staff in real disasters. This is a powerpoint that could be shown to provide someone who has never been in the EOC the basics on EOC operations and their position.	WEROC	None	Long
	EOC tools, including: Gmail, Function Binders, forms, boards, and general EOC resources.	WEROC	WEROC EOC Staff	On-Going
Areas of training identified.	MWDOC COOP Training	WEROC	MWDOC Staff	Long
	OA EOC Specific Training	WEROC	OC OA EOC Staff	Short

Issue or Problem Statement	Recommended Solution(s)	Lead Agency	Coordinating Partners	Timeline and Expected Due Date
	WebEOC: 1) What you can and cannot expect to do with WebEOC, 2) Pushing Activity Log Items to OA Significant Events Board	WEROC	WEROC EOC Staff and Member Agencies	On-Going
	Train staff on Activity Log use for documentation.	WEROC	WEROC EOC Staff	On-Going
	Crisis Communications and Joint Information Systems Training	WEROC	MWDOC Public Affairs	Long
It would be helpful to visually map the damages and areas of concern on a large wall map.	Install whiteboard on the "Projection Wall" of the South EOC. Include a large county wide map with major infrastructure and points of reference that is dry erase.	WEROC	None	Long
	Explore WebEOC/ArcGIS mapping concepts with OC OA EOC Staff.	WEROC	OC OA EOC Staff	Long
Templates in MS Excel and Word for tracking of information and for reports.	Some of these were already available electronically however staff didn't know that they were available or where to find them. In these cases, further training on the resources available will help.	WEROC	WEROC EOC Staff	On-Going

Issue or Problem Statement	Recommended Solution(s)	Lead Agency	Coordinating Partners	Timeline and Expected Due Date
	Additionally, WEROC staff will work with Engineering and Public Affairs staff to further identify what other types of documents would be helpful. Including a list of agencies with population numbers and possible agency specific sheets.	WEROC	MWDOC Engineering and Public Affairs	Long
There were multiple problems with the Exercise Phone Book and staff once again wished to have pre-established group email lists.	Better training and coordination with Participating Agencies should help to reduce problems with the Exercise Phonebook in the future.	WEROC	WEROC Member Agencies	On-Going
The OA EOC JIC Conference Call was not well coordinated. It was unclear which agencies were invited and there was no clear "leader" of the conversation.	Develop a Conference Call Protocol for JIC coordination.	OC OA EOC Staff	OA Partners	Short
Many of the County Press Releases were not received in the WEROC EOC. Four were dictated over the phone, instead of emailed, faxed or attached to WebEOC.	Develop a better method of sharing press releases with the OA.	OC OA EOC Staff	OA Partners	Short

Issue or Problem Statement	Recommended Solution(s)	Lead Agency	Coordinating Partners	Timeline and Expected Due Date
<p>Staff and Member Agencies still have questions about information management and sharing. Including: 1) What information is shared with what positions and agencies? 2) How is information shared with various people and agencies? 4) What's a priority?</p>	<p>Develop a joint WEROC EOC staff and WEROC Member Agency tabletop training program to allow for cross training between the two groups.</p>	<p>WEROC</p>	<p>WEROC EOC Staff and Member Agencies</p>	<p>Long</p>
<p>Since many WEROC EOC staff do not have a water operations or engineering background it is hard for some to assess the information they are receiving and what additional questions should be asked.</p>	<p>Provide training that includes a "water operations" concepts. Including: how different events affect water supplies, how to mitigate those problems, what might be a major or minor problem, what would need follow-up, how water quality notifications work and etc.</p>	<p>WEROC</p>	<p>WEROC EOC Staff and Member Agencies</p>	<p>Long</p>
<p>Staff commented that information gets "posted" in many places and sometimes it is unclear where certain pieces of information goes.</p>	<p>Evaluate WebEOC and WEROC EOC Whiteboards for efficiencies and clarity.</p>	<p>WEROC</p>	<p>None</p>	<p>Short</p>
	<p>Train staff on any changes or clarifications.</p>	<p>WEROC</p>	<p>None</p>	<p>On-Going</p>

Issue or Problem Statement	Recommended Solution(s)	Lead Agency	Coordinating Partners	Timeline and Expected Due Date
<p>WEROC OA Liaison was asked to use a County Public Works Email that was established for the WEROC position. This caused confusion and for some information to not be received. Additionally many staff still struggled with which email systems to use.</p>	<p>Clarify available communication methods, include those in procedures and checklists and train to those.</p>	<p>WEROC</p>	<p>OC OA EOC Staff, WEROC EOC Staff, and Member Agencies</p>	<p>Long</p>
<p>Staff assigned the Drinking Water Trailers without having a regional plan based on priorities and availability of supply.</p>	<p>Develop a Drinking Water Distribution and Potable Water Trailer Mutual Aid Operations Plan.</p>	<p>WEROC</p>	<p>Agencies with Potable Water Trailers</p>	<p>Long</p>
<p>It was unclear what the communication protocol should be between the WEROC OA Liaison at the OC OA EOC and the WEROC EOC.</p>	<p>Review who at the WEROC EOC should communicate with the WEROC OA Liaison and then clarify SOPs. An open line of communication and identified communications channels should be clearly identified. Determine whether this position inputs in WebEOC?</p>	<p>WEROC</p>	<p>None</p>	<p>Short</p>

Issue or Problem Statement	Recommended Solution(s)	Lead Agency	Coordinating Partners	Timeline and Expected Due Date
OC OA EOC Logistics did not coordinate with or communicate the plan for bottle water procurement and distribution with the WEROC position.	Work with OC OA EOC Staff on possible solutions.	OC OA EOC Staff	WEROC	Short
Due to the compressed timeframe of an exercise the expected timeline for information collection was unrealistic and caused conflicting reports to be developed for water.	Work with OC OA EOC Staff on possible solutions.	OC OA EOC Staff	WEROC	Short
The County SIMCELL provided injects that were not accurate for water systems and SIMCELL staff did not know how to respond water related questions for simulation and caused confusion for EOC staff.	WEROC will need to have its own Water Specific SIMCELL for future exercises.	WEROC	WEROC Member Agencies	On-Going
It was very loud for the PIO in the main room of the EOC to be able to hear calls.	Consider switching the PIO and the Finance Chief's positions within the South EOC.	WEROC	None	Short
There was confusion about water quality notifications, what each one means, who has what authorities, and messaging by	Host a training with SWRCB-DDW on these concepts.	WEROC	SWRCB-DDW and WEROC Member Agencies	Long

Issue or Problem Statement	Recommended Solution(s)	Lead Agency	Coordinating Partners	Timeline and Expected Due Date
member agencies and WEROC Staff.	Develop a short cheat sheet on water quality notices. Include: descriptions, regulatory authorities, notifications and to who.	WEROC	SWRCB-DDW and WEROC Member Agencies	Long
A few Member Agencies could not access the pre-developed water quality notices in AlertOC.	Check each member agencies' access to the water quality scripts within AlertOC.	WEROC	None	Immediate
WEROC EOC Resource Recommendations	Logistics Resource Binder: 1) Needs a larger Binder, 2) Organize list by resources instead of by agency, 3) Consider how to best reference CalWARN Resources	WEROC	None	Immediate
	Label Phones with Phone Numbers	WEROC	None	Immediate
WEROC EOC Resource Recommendations	Add Flash drives of electronic files for most positions.	WEROC	None	Immediate
	Fix or replace Finance calculator.	WEROC	None	Immediate
	Update WebEOC password in all Function Binders	WEROC	None	Immediate
	Repair OA Radio at the WEROC South EOC.	WEROC	None	Immediate
	Update the Logistics Resource Binder for the Water Trailers. Include a map of where they are.	WEROC	None	Immediate
	Update the WEROC OA Liaison Binder for the following: 1)	WEROC	None	Immediate

Issue or Problem Statement	Recommended Solution(s)	Lead Agency	Coordinating Partners	Timeline and Expected Due Date
WEROC EOC Resource Recommendations	Add the pre-developed public information messages to the PIO Binder and Flash drive.	WEROC	None	Immediate
	Consider adding a "Recommended Distribution" list to the Water Situation Summary Report.	WEROC	None	Immediate
	Update the Activity Log to have separate fields for: Name, Position, and Disaster.	WEROC	None	Immediate
	Ensure that the Stafford Act categories are in the Finance Binder.	WEROC	None	Immediate
	Move the Conference Call Equipment out of Main Room for Noise Purposes.	WEROC	None	Immediate
	Make sure Radio instructions for both the "Phone" and the "Computer" WEROC Radio at the OA EOC are in WEROC OA Liaison Function Binder. Include how to change repeaters.	WEROC	OC Sheriff's Department Communications	Short
	Add OA password for WebEOC to the WEROC OA Liaison Function Guide and In Case of Crisis for that position.	WEROC	None	Short



INFORMATION ITEM

July 7, 2015

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

FROM: **Robert Hunter, General Manager**

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

SUBJECT: **Metropolitan's Turf Removal Rebate Program Update**

STAFF RECOMMENDATION

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

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

SUMMARY

On May 26, 2015, the Metropolitan Board authorized an additional \$350 million for Water Use Efficiency programs in response to the drought and the public's interest in water use efficiency programs. This authorization brought the overall authorization to \$450 million for the two-year budget from July 1, 2014 to June 30, 2016.

DETAILED REPORT

In early June 2015, Metropolitan staff determined that \$110 million of the \$450 million authorized is available for new participation in water use efficiency programs. This means that \$340 million has already been spent or is reserved through rebate applications that are being processed.

Moving forward, Metropolitan split the remaining \$110 million, focusing \$50 million on turf removal and \$60 million on device-based incentives. Once Metropolitan's funding for turf removal is exhausted, the Metropolitan Turf Removal program will end. The \$60 million for device-based incentives is anticipated to last through the end of the two-year budget period.

Currently, the turf removal rebate programs being administered by Metropolitan, MWDOC, Long Beach, Las Virgenes, and Santa Monica are simultaneously drawing funding from the \$50 million designated for turf removal. Metropolitan is compiling daily reporting from these agencies to track remaining funding.

At the July Planning and Operations Committee meeting staff will provide a verbal report on the status of the Turf Removal Rebate Program at Metropolitan and in Orange County.

Status of Ongoing MWDOC Reliability and Engineering and Planning Projects

June 30, 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 summer 2016	Karl Seckel and Kevin Hostert met with staff from IRWD to discuss several issues, including: <ul style="list-style-type: none"> OC-33 service connection operations, hydraulics and metering issues related to installation of the NEW Sonic meter in the spring of 2016 MET issues related to the Sonic meter Operational coordination for start-up of the Baker Treatment Plant in Summer 2016
Doheny Desalination Project	South Coast Water District, Laguna Beach CWD			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. South Coast Water District is proceeding ahead with the hiring of a Project Manager and Owners Rep Consultant to help them complete the CEQA and preliminary design work for the Doheny Desal Project.
Poseidon Resources Ocean Desalination Project in Huntington Beach				OCWD has continued work on evaluating where the product water produced from the Poseidon Project would be utilized, either for the seawater barrier operations, injection or replenishment in the groundwater basin, for direct delivery to other agencies or some combination thereof. MWDOC has been assisting OCWD in these efforts. Over the past month the following meetings have been held with MET, MWDOC and OCWD:

Description	Lead Agency	Status % Complete	Scheduled Completion Date	Comments
				<ul style="list-style-type: none"> • With MET water quality personnel to discuss water quality concerns • With MET operations personnel to discuss the operations of the EOCF#2, the Irvine Cross Feeder and the Orange County Feeder to ascertain operational issues that might arise with Poseidon water flowing into the fourth reach of the EOCF#2 • With MET Local Resources Program staff members to discuss how the Poseidon Project LRP Agreement provisions would be used to measure the additional production from the Poseidon Project or from the groundwater basin. While no formal commitments could be made by the MET staff members involved, the group felt comfortable that one or more baseline measurements could be developed to demonstrate compliance with the LRP provisions for use of the Poseidon water either for seawater barrier operations, direct delivery or injection or percolation in the groundwater basin. In fact, the current method for determining withdrawal of water from MET's Conjunctive Use Storage Account could possibly be utilized. The final LRP Agreement is always subject to final confirmation by the MET Board and cannot be brought forward until such time as Poseidon has received all permits for the project.
Orange County Water Reliability Study				A detailed write-up has been included in the P&O Packet this month.

Description	Lead Agency	Status % Complete	Scheduled Completion Date	Comments
California WaterFix & EcoRestore				A detailed write-up has been included in the P&O Packet this month.
Other Meetings/Work				
				Karl Seckel, Richard Bell and Harvey De La Torre participated in the discussions to select among two proposals received by MWDOC to prepare UWMPs for MWDOC and its agencies for 2015. Staff from Mesa Water, Anaheim and MNWD assisted in the review of the proposals. A detailed write up is included in the P&O Committee this month.
				Karl Seckel, Keith Lyon and Kevin Hostert participated in a meeting with EOCWD and MET regarding metering inconsistencies at OC-70. MET is planning on assisting with a flow test to determine where the metering discrepancies might be coming from.
				Karl Seckel and MWDOC Director Brett Barbre attended the Discovery Science Center Grand Expansion opening that more than doubles the museum space.
				Karl Seckel and Tiffany Baca participated in several meetings with our agencies regarding both the Elementary and High School Program offerings for this coming year. Staff from Discovery

Description	Lead Agency	Status % Complete	Scheduled Completion Date	Comments
				Science Center, Inside the Outdoors and The Ecology Center participated. Elementary School commitments are at about 64,000 and commitments for 10 High Schools have been received.
				Karl Seckel attended and participated in the Santiago Aqueduct Commission meeting in June.
				The San Juan Basin Authority meeting for June was cancelled, but the Authority Packet included a draft resolution for consideration by the SJBA to immediately cease pumping water under Water Rights Permit 21074 and request continued monitoring with reports to the Technical Advisory Committee and Board at least monthly of changed conditions to reconsider authorization of pumping at a future time. The resolution will be considered at the July meeting.

**Status of Ongoing WEROC Projects
June 2015**

Description	Comments
General Activities	<p>Kelly was invited to a policy forum that she could not attend that was hosted by Dr. Lucy Jones on earthquake resiliency. Since Kelly was unable to attend the forum Dr. Jones schedule a conference call to review the forum's outcomes and her vision on how to involve water utilities in her resiliency discussions. Dr. Jones intent was to discuss how to create resiliency through local government policy and community preparedness. Dr. Jones strongly believes that water utility resilience and community preparedness will be cornerstones to earthquake recovery. During the call, Kelly and Dr. Jones agreed to work together on ways in which she could assist the water industry to enhance its resilience to earthquakes. Dr. Jones agreed to provide technical review and comment on MWDOC's OC Reliability Study. Additionally, Kelly will be scheduling a meeting between Dr. Jones, Rob Hunter, Karl Seckel and herself to discuss policy and planning efforts that could contribute to all of Southern California's water resiliency.</p> <p>Kelly and Brandon Stock attended AWWA ACE 2015 in Anaheim June 8-10. Brandon attended the Conference as a volunteer and in exchange received full conference registration. As a volunteer Brandon assisted with room monitoring for Keynote Speaker Dr. Wallace J. Nichols, who gave a speech that discussed the emotional, behavioral, psychological and physical connection that draw humans to water. Throughout the rest of the conference Brandon attended sessions on: water emergency preparedness and response, best practices for asset resilience, drought response and planning, emergency response to the Napa Earthquake, water system design for flood protection, distribution system emergencies, and fire protection was presented.</p> <p>Kelly provided three separate presentations at ACE 2015:</p> <ul style="list-style-type: none"> • Partnerships in Shaping the Water Sector Liaison Position • Water Sector Position Overview and Why Every County Needs One • Water Preparedness 101 for Small Systems <p>Additionally, Kelly participated in the AWWA National Security & Emergency Planning Committee Meeting and the Cal WARN Annual Meeting at ACE 2015. Kelly proposed a</p>

Description	Comments
	<p>webinar training program for AWWA grant funding that would be made available nationally, but would be a great benefit for the WEROC Member Agencies.</p> <p>Brandon completed a draft revision of the California OES Regional Emergency Operations Center Water Sector Unit Leader Standard Operating Procedure. This is a document that Kelly led the development of in 2009 and was scheduled to be updated.</p> <p>Brandon attended Terrorism Liaison Officer (TLO) Basic Training which educates field responders (law, fire, public works, etc.) on policies and procedures of the Fusion Center which they would work with for their area. The Fusion Centers in the State utilize the Terrorism Liaison Officer (TLO) Program to foster communication and collaboration amongst the response community, including the federal homeland security and intelligence communities, and public safety stakeholders. TLOs serve as the conduit through which homeland security and crime-related information flows from the field to the Fusion Center for assessment and analysis. The Orange County Intelligence Assessment Center (OCIAAC) is one of the few county based Fusion Centers and has built a strong working relationship with WEROC.</p>
<p>Coordination with Member Agencies</p>	<p>UPDATE: The WEROC EOC staff and Member Agencies participated in the county-wide earthquake exercise "Surf Quake 2015" on May 21st. Over 25 local government agencies participated in the exercise. WEROC hosted an After-Action meeting on Tuesday, June 2nd for its member agencies. Additionally, Kelly met with Moulton Niguel Water District on a separate date since their staff were not available on the 2nd. Both meetings were held at the WEROC South EOC so that Member Agency staff could see how the WEROC EOC whiteboards worked during the exercise and what information was received. The After-Action meetings provided great feedback on the WEROC training program and future exercise development. The WEROC SurfQuake 2015 After-Action/Corrective Action Report has been provided as a separate agenda item for the July P&O Committee Meeting.</p> <p>Kelly worked with the Orange County Fire Authority and the Urban Area Security Initiative (OC Homeland Security grant coordination group) to allow WEROC Member Agency staff to register for and attend a series of fire based confined space rescue technician, trench rescue technician</p>

Description	Comments
	<p>and rescue systems II trainings for free through homeland security grant funding. These classes typically cost around \$600-800 per person per class. Only a few Member Agency staff will be attending the classes during this round of training, however it is WEROC's and OCFA's intention to continue to make these classes available to water utilities through grant funding.</p>
<p>Coordination with the County of Orange</p>	<p>Brandon Stock attended the Orange County Emergency Management Organization (OCEMO) monthly meeting at Concordia University in Irvine. There was a presentation given by Paul Simonds from Semptra Utilities which included a power point on their Emergency Operations Center and emergency response protocols. The presentation was beneficial and provided insight on how a power utility practices redundancy and emergency management.</p> <p>Kelly attended the June OCEMO WebEOC Committee Meeting. The group discussed the next software update of WebEOC and the redesign of OC's WebEOC functionality. The changes discussed will simplify reporting of emergency information and make the system easier to use for the WEROC EOC staff and Member Agencies. It will take approximately a year for the system to be completely redesigned and implemented. WEROC will continue to participate in its development and will provide training to Member Agencies and EOC staff once it is finished.</p>
<p>Coordination with Outside Agencies</p>	<p>ONGOING: Kelly participated in the California Office of Emergency Services (Cal OES) Southern Region Drought Conference Call on June 8, 15 and 22. Kelly participates as the Region 1 California Water/Wastewater Agency Response Network (CalWARN) representative. The calls provide good information on state-wide drought response efforts, programs, and activities.</p> <p>The Emergency Manager for Disneyland Parks and Properties for Southern California reached out to Kelly for some recommendations for emergency drinking water planning. For emergency planning purposes Disneyland is exploring their options to purchase portable treatment units to utilize their many water features on property to provide drinking water, sanitation and food services to any guests or staff that may end up stranded at the park following a major disaster. A meeting with Kelly, Disneyland emergency management staff, Disneyland engineering staff, and</p>

Description	Comments
	<p>the District Engineer for the State Water Resource Control Board – Division of Drinking Water (SWRCB-DDW) was held on June 22nd to discuss possible options for the park. SWRCB-DDW attended to assist in the water quality discussion, not as a regulatory agency, since Disneyland is not considered a public water system. The group discussed considerations for the various water sources, treatment options, storage options, distribution within park, and other partners that should be involved in future discussions. Disneyland staff will move forward with some strategic planning and schedule a future meeting with identified partners once some draft concepts have been developed.</p> <p>Brandon setup a conference call with New York City Office of Emergency Management (NYC OEM) to review their organizational structure and planning tools to help WEROC further develop its own programs and plans. Useful information came out of the discussion and helped trigger future thoughts about what WEROC can do to be successful in developing new plans. We are awaiting documents that will be shared by NYC OEM.</p> <p>Kelly has been working with the EPA Water Security Division to host two training opportunities for the WEROC Member Agencies in Orange County:</p> <ul style="list-style-type: none"> • Decontamination Tabletop Exercise for Drinking Water & Wastewater Systems – 6/23-24 • Water and Power Resiliency Workshop – July 16 <p>These trainings are only being offered once in California and so it was a great opportunity to host them in OC. Both have required quite a bit of coordination and planning with EPA to ensure that the training program is developed specifically for Southern California.</p> <p>The Decontamination Tabletop Exercise had 25 participants from water and wastewater utilities, SWRCB-DDW, Cal EPA, EPA, FEMA, OC Health Care Agency and OCFA. Additionally staff worked with SWRCB-DDW to add a 2 hour refresher class on the Emergency Water Quality Sample Kits for Unknown Contaminants. This portion had additional participants and was the first refresher in the state since 2006.</p>
WEROC Emergency Operations Center (EOC) Readiness	<p>UPDATE - Both EOC's continue to have construction onsite, however construction at both sites has largely wrapped up. The North EOC site has the IRWD Baker Raw Water Pump Station construction in process and the South EOC has a communications infrastructure construction</p>

Description	Comments
	<p>project onsite for El Toro Water District. Both sites are still accessible and in working order, but because the North EOC is physically a smaller site with construction traffic, the South EOC will continue as the primary EOC at this time.</p> <p>Brandon completed a significant update of forms, resource binders and function guides at the North EOC and will start on the materials at the Fountain Valley offices. The South EOC materials have already been updated.</p> <p>The minor bi-annual generator service was completed at the North EOC. El Toro Water District (ETWD) staff provide regular maintenance on the WEROC South EOC generator and recently discovered a few minor maintenance issues. ETWD staff notified WEROC of the issue, expedited the repair and made their own generator available if it was needed for an emergency response. Their response and coordination was exceptional and appreciated.</p> <p>In Case of Crisis, WEROC's emergency plan phone application, has been so successful the company had to merge with another phone application technology company in order to continue to support their product with a larger audience. Brandon and Kelly participated in a transition call with the support staff of "In Case of Crisis" and the new support staff for "Facility Dude" (the new company). The discussion allowed WEROC to touch base with our new point of contact for Facility Dude and set a time frame for full transition between the companies. The transition is mostly facilitated on the backend of the product with only a few concepts that WEROC staff will have to facilitate with EOC staff and Member Agencies for the update.</p> <p>The contract for the WEROC Radio Assessment with Eagle Communications was finalized and they have started site visits with member agencies. The finalization of the WEROC Radio Assessment is largely dependent on the coordination and availability of Member Agencies. The estimated project completed date is August 2015. A summary of the assessment will be provided to the Board when available.</p>

Status of Water Use Efficiency Projects

July 2015

Description	Lead Agency	Status % Complete	Scheduled Completion or Renewal Date	Comments
Smart Timer Rebate Program	MWDSC	Ongoing	September 2015	For May 2015, 15 residential and 58 commercial smart timers were installed in Orange County. For program water savings and implementation information, please see MWDSC Water Use Efficiency Program Savings and Implementation Report.
Rotating Nozzles Rebate Program	MWDSC	Ongoing	Ongoing	For May 2015, 290 residential and 18,337 commercial rotating nozzles were installed in Orange County. For program savings and implementation information, please see MWDSC Water Use Efficiency Program Savings and Implementation Report.
Water Smart Landscape Program	MWDSC	On-going	November 2015	In May 2015, a total of 12,518 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 MWDSC Water Use Efficiency Program Savings and Implementation Report.
SoCal Water\$mart Residential Indoor Rebate Program	MWDSC	On-going	On-going	In May 2015, 642 high efficiency clothes washers and 1,716 high efficiency toilets were installed through this program. For program savings and implementation information, please see MWDSC Water Use Efficiency Program Savings and Implementation Report.

SoCal Water\$mart Commercial Rebate Program	MWDSC	On-going	On-going	<p>In May 2015, 1,041 high efficiency toilets and 1 cooling tower conductivity controller were installed through this program.</p> <p>For program savings and implementation information, please see MWDSC Water Use Efficiency Program Savings and Implementation Report.</p>
Industrial Process Water Use Reduction Program	MWDSC	90%	December 2015	<p>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.</p>
MWDSC Conservation Meeting	MWDSC	On-going	Monthly	<p>This month's meeting was held on June 4, 2015 at MWDSC. The next meeting will be on July 2, 2015 at the City of San Clemente.</p>
Metropolitan Conservation Meeting	MWDSC	On-going	Monthly	<p>This month's meeting was held on June 18, 2015. The next meeting will be July 16, 2015 at Metropolitan.</p>
Water Smart Hotel Program	MWDSC	85%	June 2015	<p>MWDSC 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.</p> <p>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. The program received an extension from the Bureau through December 2015 to allow all hotels currently in process to complete their retrofits.</p>

Turf Removal Program	MWDOC	On-going	Ongoing	<p>In May 2015, 172 rebates were paid, representing 496,691 square feet of turf removed in Orange County. To date, the Turf Removal Program has removed approximately 6,178,354 square feet of turf.</p> <p>For program savings and implementation information, please see MWDOC Water Use Efficiency Program Savings and Implementation Report.</p>
California Sprinkler Adjustment Notification System – Base Irrigation Schedule Calculator	MWDOC	10%	December 2015	<p>MWDOC was awarded an additional grant from the Bureau of Reclamation to develop the Base Irrigation Schedule Calculator in support of the California Sprinkler Adjustment Notification System (CSANS). This system will e-mail or “push” an irrigation index to assist property owners with making global irrigation scheduling adjustments. Participants will voluntarily register to receive this e-mail and can unsubscribe at any time.</p> <p>The CSANS program is being promoted via a bill insert. Currently, Staff reviewed two responses to our Request for Proposals for the development of the Base Irrigation Schedule Calculator. The results of that review will be presented at the July Planning & Operations Committee Meeting.</p>
Public Spaces Program	MWDOC	20%	December 2015	<p>This program targets publicly-owned landscape properties located in the South Orange County IRWM Plan area and encourages the removal of non-functional turfgrass, the upgrade of antiquated irrigation timers, and the conversion of high-precipitation-rate fixed spray irrigation to low-precipitation-rate rotating nozzles and/or drip irrigation.</p> <p>To date, 10 cities, water districts, or other special districts (i.e., school districts) have applied for funding through this program, of which eight have followed through with projects. Three of those projects will be funded in June 2015, with the remaining five to be funded at the end of August 2015.</p>

Home Certification Program	MWDOC	17%	July 2015	<p>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.</p> <p>In May 2015, MWDOC 22 residential surveys were conducted, and survey results are pending.</p>
Landscape Irrigation Survey Program	MWDSC	Ongoing	June 2016	<p>Through this program, Metropolitan offers, at no cost, the services of a certified landscape irrigation auditor who will survey and provide written recommendations for qualifying non-residential properties within Metropolitan's service area.</p> <p>To date, 142 sites in the MWDOC service area have contacted Metropolitan to request surveys.</p>
Spray to Drip Conversion Pilot Program	MWDOC	35%	April 2016	<p>This is a pilot program designed to test the efficacy of replacing conventional spray heads in shrub beds with low-volume, low-precipitation drip technology. Through a rebate program format, residential sites will be encouraged to convert their existing spray nozzles to drip.</p> <p>To date, 121 residential applications and 38 commercial applications have received a Notice to Proceed. Of these, 85 residential sites and 20 commercial sites have been completed.</p>
CII Performance-Based Water Use Efficiency Program	MWDOC	2%	December 2017	<p>This program will provide enhanced rebate incentives to commercial, industrial, and institutional sites and large-landscape properties (landscapes ≥ 1 acre).</p> <p>The program launched during the first Quarter of 2015.</p>
Landscape Training and Outreach	MWDOC & County Stormwater	Ongoing	Ongoing	<p>The Orange County Garden Friendly (OCGF) Pilot Program promotes the use of climate appropriate plants and water efficient irrigation practices, with the overall goals of reducing water runoff and improving outdoor water use efficiency. The OCGF Pilot Program is a collaborative effort of the Orange</p>

Landscape Training and Outreach (cont.)				<p>County Stormwater Program (OCSF) and the University of California Cooperative Extension (UCCE). Each partner plays a role in planning and implementing the Program.</p> <p>The OCSF program held six events during Spring 2015 at the Home Depots in Cypress, Lake Forest, Irvine, Mission Viejo, and Costa Mesa, and at Green Thumb in Lake Forest. The calendar for 2015/2016 is currently in development.</p>
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Orange County

Water Use Efficiency Programs Savings and Implementation Report

Retrofits and Acre-Feet Water Savings for Program Activity

Program	Program Start Date	Retrofits Installed in	Month Indicated		Current Fiscal Year		Overall Program		
			Interventions	Water Savings	Interventions	Water Savings	Interventions	Annual Water Savings[4]	Cumulative Water Savings[4]
High Efficiency Clothes Washer Program	2001	May-15	642	1.48	6,270	83.86	102,997	2,845	17,690
Smart Timer Program - Irrigation Timers	2004	May-15	73	3.18	1,714	450.21	12,946	4,540	24,241
Rotating Nozzles Rebate Program	2007	May-15	18,627	6.20	75,557	1,456.45	447,959	2,298	8,705
SoCal WaterSmart Commercial Plumbing Fixture Rebate Program	2002	May-15	1,042	3.74	2,650	32.88	48,009	3,511	30,491
Water Smart Landscape Program [1]	1997	May-15	12,518	893.28	12,518	9,756.25	12,518	10,488	67,582
Industrial Process Water Use Reduction Program	2006	June-15	0	7.75	2	7.75	13.00	346	1,248
Turf Removal Program [3]	2010	May-15	496,691	5.79	4,548,378	1,274	6,178,354	865	2,205
High Efficiency Toilet (HET) Program	2005	May-15	1,716	6.08	12,782	498.38	44,962	1,662	9,070
Home Water Certification Program	2013	May-15	22	0.043	172	2.049	250	5,881	7,715
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				928	4,660,043	13,562	8,179,843	41,935	345,062

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

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

[3] Turf Removal Interventions are listed as square feet.

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

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

Agency	FY 01/02	FY 02/03	FY 03/04	FY 04/05	FY 05/06	FY 06/07	FY 07/08	FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	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	111	1,731	1.47	295.40
Buena Park	9	45	88	81	84	85	114	146	59	230	145	105	106	86	1,383	1.27	219.60
East Orange CWD RZ	3	8	20	20	11	18	22	17	3	23	10	10	8	7	180	0.12	32.95
El Toro WD	21	88	108	103	83	91	113	130	32	162	112	134	121	102	1,400	1.44	222.80
Fountain Valley	36	127	209	196	178	205	219	243	72	289	158	115	102	105	2,254	1.40	402.45
Garden Grove	39	173	278	243	243	238	304	332	101	481	236	190	162	157	3,177	1.97	548.67
Golden State WC	37	195	339	374	342	339	401	447	168	583	485	265	283	333	4,591	4.45	767.79
Huntington Beach	114	486	857	738	680	761	750	751	211	963	582	334	295	302	7,824	3.82	1,431.02
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	1,789	21,679	24.61	3,452.77
La Habra	8	40	86	81	66	96	136	83	22	179	128	82	114	82	1,203	1.14	192.09
La Palma	3	5	13	21	18	33	35	51	25	76	46	34	25	32	417	0.38	65.34
Laguna Beach CWD	17	88	119	84	68	57	77	77	27	96	57	38	37	36	878	0.42	156.77
Mesa Water	24	117	228	240	212	239	249	246	73	232	176	114	86	82	2,318	1.00	432.64
Moulton Niguel WD	158	630	841	640	570	652	716	742	250	1,127	679	442	421	735	8,603	8.69	1,431.78
Newport Beach	17	144	343	277	243	243	270	259	57	197	142	116	92	87	2,489	1.24	471.52
Orange	58	247	304	358	330	366	365	403	111	349	262	218	163	152	3,686	2.00	675.03
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	86	1,357	1.21	230.64
San Clemente	32	182	235	170	136	204	261	278	63	333	206	140	94	134	2,468	1.74	423.57
Santa Margarita WD	140	510	743	573	592	654	683	740	257	1,105	679	553	662	754	8,645	10.53	1,392.99
Seal Beach	13	28	57	39	46	47	46	57	7	81	51	31	29	37	569	0.42	96.43
Serrano WD	9	16	54	39	39	30	31	23	7	21	20	13	10	23	335	0.35	62.55
South Coast WD	35	138	165	97	103	107	130	148	43	183	112	89	79	63	1,492	0.89	255.02
Trabuco Canyon WD	10	63	76	58	44	69	60	62	28	82	62	30	45	44	733	0.64	125.26
Tustin	21	89	152	138	127	152	146	144	45	174	97	78	59	75	1,497	0.90	271.06
Westminster	37	159	235	196	186	213	171	233	74	329	208	121	82	105	2,349	1.43	414.43
Yorba Linda	36	214	342	355	333	288	350	367	117	394	273	181	167	152	3,569	2.08	647.25
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	5,671	86,839	75.62	14,720.59

Anaheim	917	677	904	1,364	701	854	847	781	860	910	477	331	285	274	10,182	3.84	1,912.81
Fullerton	40	196	369	289	263	269	334	330	69	397	270	200	186	201	3,413	2.87	569.31
Santa Ana	15	69	188	269	244	236	235	257	87	355	190	163	131	124	2,563	1.53	487.17
Non-MWDOC Totals	972	942	1,461	1,922	1,208	1,359	1,416	1,368	1,016	1,662	937	694	602	599	16,158	8.24	2,969.29

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	6,270	102,997	83.86	17,689.88
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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	41	5	78	71	345.07
Buena Park	3	1	0	0	0	0	4	19	3	0	0	0	4	10	14	30	64.91
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	6	8	71	329	1,749.59
Fountain Valley	1	0	0	6	2	2	8	2	3	2	4	0	6	10	44	27	94.60
Garden Grove	2	1	6	0	5	4	7	0	5	2	9	0	9	14	59	27	83.31
Golden State WC	1	2	9	22	7	4	13	3	9	49	9	25	34	12	129	139	420.04
Huntington Beach	13	1	6	27	6	36	15	4	18	33	20	35	13	1	136	161	548.32
Irvine Ranch WD	29	56	14	145	28	153	267	71	414	135	71	59	56	305	1,175	1,654	6,748.04
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	1	0	5	0	0.55
Laguna Beach CWD	2	0	2	14	4	1	109	2	76	2	71	0	86	0	384	19	127.01
Mesa Water	6	7	13	7	7	22	21	0	10	2	15	2	16	28	132	101	412.27
Moulton Niguel WD	21	23	17	162	36	60	179	31	51	74	40	45	36	84	505	561	1,920.37
Newport Beach	10	27	7	58	6	0	275	12	242	26	168	75	9	9	978	354	1,654.95
Orange	5	2	2	13	5	8	25	0	20	24	13	9	16	29	163	140	563.15
San Juan Capistrano	10	0	7	49	13	1	103	2	14	18	6	11	5	17	179	107	364.13
San Clemente	81	20	13	209	46	11	212	17	26	7	28	2	27	13	987	347	1,757.60
Santa Margarita WD	25	44	10	152	61	53	262	7	53	171	64	93	44	314	630	1,008	2,845.78
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	12	2	52	68.89
Serrano WD	0	0	11	0	4	0	3	0	1	0	0	0	3	0	22	0	4.80
South Coast WD	11	6	3	10	13	3	78	10	13	16	8	4	104	73	262	201	681.32
Trabuco Canyon WD	1	0	2	0	2	10	12	0	6	0	2	0	5	1	73	104	621.53
Tustin	7	9	10	14	10	0	11	0	8	4	9	1	14	14	73	49	174.53
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	29	2	202	85	461.01
MWDOC Totals	242	238	142	949	289	374	1,671	185	1,017	583	571	402	582	984	6,377	5,632	21,936.47

Anaheim	9	59	5	46	12	11	23	60	19	10	9	26	7	52	127	413	1,660.21
Fullerton	2	2	2	39	9	33	22	51	9	29	8	0	37	17	111	171	505.10
Santa Ana	2	4	1	8	8	0	6	5	8	19	7	8	8	27	44	71	139.45
Non-MWDOC Totals	13	65	8	93	29	44	51	116	36	58	24	34	52	96	282	655	2,304.76
Orange County Totals	255	303	150	1,042	318	418	1,722	301	1,053	641	595	436	634	1,080	6,659	6,287	24,241

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	248	0	0	464	75	2,535	449.34
East Orange	0	0	0	0	0	0	340	0	0	55	0	0	30	0	0	221	0	0	751	0	0	8.38
El Toro	145	2,874	890	174	0	0	357	76	0	23	6,281	0	56	3,288	0	1,741	20,607	0	2,584	33,416	890	424.86
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	88	0	0	768	151	0	15.53
Golden State	280	29	0	303	943	0	294	0	0	257	2,595	0	192	0	0	498	1,741	0	2,068	5,308	0	80.83
Huntington Beach	39	3,420	305	203	625	0	458	0	0	270	0	0	120	0	0	781	1,419	0	2,286	6,328	2,681	729.71
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	1,416	546	0	44,808	79,917	2,004	2,477.55
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	2,879	1,971	0	10,749	2,896	0	115.36
Mesa Water	195	83	0	118	0	0	297	277	0	270	0	0	361	0	0	229	0	0	1,751	385	343	113.51
Moulton Niguel	234	0	959	1,578	0	0	1,225	0	0	512	1,385	0	361	227	0	1,396	4,499	0	6,029	13,114	2,945	867.52
Newport Beach	92	4,781	0	337	1,208	0	640	3,273	0	25,365	50	0	19,349	6,835	0	253	3,857	0	46,123	20,743	0	721.91
Orange	129	0	0	135	30	0	343	0	0	264	0	0	245	120	0	268	668	0	2,503	981	0	50.55
San Clemente	729	1,299	0	2,612	851	0	4,266	117	1,343	631	172	0	415	5,074	0	326	0	0	9,563	7,538	1,343	359.42
San Juan Capistrano	656	5,709	0	1,452	0	0	949	0	0	684	30	0	370	0	0	357	732	0	4,972	8,131	0	229.92
Santa Margarita	1,731	937	611	3,959	3,566	0	4,817	0	0	983	0	0	389	0	0	1,144	1,513	0	14,267	6,084	611	396.05
Seal Beach	0	291	0	0	0	0	0	0	0	0	0	0	0	0	0	40	3,111	0	155	3,402	0	21.18
Serrano	1,498	0	0	364	0	0	58	0	0	190	0	0	105	0	0	377	0	0	2,710	0	0	44.30
South Coast	0	0	0	318	1,772	0	688	359	0	435	0	0	70	0	0	4,993	13,717	0	6,693	15,981	0	135.12
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	380	0	0	2,961	1,013	0	54.82
Westminster	80	0	0	0	0	0	26	0	0	15	0	0	0	0	0	54	0	0	286	0	0	4.97
Yorba Linda	371	3,256	0	529	0	0	559	0	0	730	0	0	40	990	0	921	0	0	4,153	4,359	500	242.37
MWD/C 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	19,039	54,734	0	169,777	212,084	14,752	7,826.40

Anaheim	273	164	105	372	382	0	742	38,554	0	459	813	0	338	0	0	498	442	0	3,079	40,355	105	542.04
Fullerton	48	0	1,484	416	0	0	409	0	0	119	0	0	107	0	0	534	0	0	2,174	64	1,484	291.52
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	1,342	442	0	6,112	43,645	1,589	878.92

Orange County Totals	9,624	79,065	8,368	16,184	12,238	0	20,245	48,079	1,343	60,547	12,460	0	37,153	24,202	0	20,381	55,176	0	175,889	255,729	16,341	8,705.32
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SOCAL WATER\$MART COMMERCIAL PLUMBING FIXTURES REBATE PROGRAM^[1]

INSTALLED BY AGENCY

through MWDOC and Local Agency Conservation Programs

Agency	FY 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	167	1,365	1,178
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	7	1,530	1,213
Irvin Ranch WD	1,085	87	325	1,044	429	121	789	2,708	1,002	646	1,090	451	657	10,740	5,179
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	382	1,320	372
Triabuco 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	2,005	31,751	20,001
Anaheim	400	947	362	1,113	780	766	3,298	582	64	48	165	342	463	10,372	5,457
Fullerton	41	138	270	91	96	133	579	29	4	0	94	0	178	1,681	1,283
Santa Ana	153	589	227	624	373	493	815	728	39	12	16	17	4	4,205	3,750
Non-MWDOC Totals	594	1,674	859	1,828	1,249	1,392	4,692	1,339	107	60	275	359	645	16,258	10,490
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	2,650	48,009	30,491

[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	56.52
Buena Park	0	0	0	0	17	103	101	101	101	101	426.66
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	4,567.21
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	189.17
Huntington Beach	0	0	0	0	31	33	31	31	31	31	137.37
Irvine Ranch WD	638	646	708	1,008	6,297	6,347	6,368	6,795	6,797	6,769	35,887.60
Laguna Beach CWD	0	0	0	57	141	143	141	124	124	124	688.83
La Habra	0	0	0	23	22	24	22	22	22	22	128.87
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	514	2,760.04
Moulton Niguel WD	57	113	180	473	571	595	643	640	675	673	3,878.88
Newport Beach	27	23	58	142	171	191	226	262	300	300	1,394.15
Orange	0	0	0	0	0	0	0	0	0	0	0.00
San Clemente	165	204	227	233	247	271	269	269	299	407	2,215.99
San Juan Capistrano	0	0	0	0	0	0	0	0	0	0	0.00
Santa Margarita WD	619	618	945	1,571	1,666	1,746	1,962	1,956	2,274	2,279	13,326.78
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	771.39
Trabuco Canyon WD	0	0	12	49	48	62	60	60	60	60	329.11
Tustin	0	0	0	0	0	0	0	0	0	0	0.00
Westminster	0	0	10	18	18	20	18	18	18	18	110.04
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	12,328	66,868.6
Anaheim	0	0	0	0	142	146	144	190	190	190	713.74
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	713.74
Orange Co. Totals	1,785	1,969	2,733	4,395	10,167	10,933	11,417	11,956	12,386	12,518	67,582.34

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	351
East Orange	0	0	0	0	0	0	0	0	0	0	0
El Toro	0	0	0	0	0	0	0	0	0	0	0
Fountain Valley	0	0	0	0	0	0	0	0	0	0	0
Garden Grove	0	0	0	0	0	0	0	0	0	0	0
Golden State	1	0	0	0	0	0	0	0	1	3	21
Huntington Beach	0	0	0	0	0	2	0	1	3	127	203
Irvine Ranch	0	0	2	1	1	1	1	0	6	98	342
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	12
Orange	1	0	0	0	0	0	0	0	1	43	319
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	1248

[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	63,175	14,210	79,874	23,676	37.32
Buena Park	0	0	0	0	0	0	0	0	9,255	0	9,255	0	2.59
East Orange	0	0	0	0	0	0	1,964	0	15,680	0	17,644	0	5.22
El Toro	0	0	4,723	0	4,680	72,718	4,582	0	20,918	221,612	34,903	294,330	116.48
Fountain Valley	0	0	1,300	0	682	7,524	4,252	0	40,224	5,279	46,458	12,803	20.03
Garden Grove	0	46,177	14,013	0	4,534	0	8,274	0	59,583	15,503	86,404	61,680	75.63
Golden State	0	0	42,593	30,973	31,813	3,200	32,725	8,424	143,882	157,176	251,013	199,773	172.68
Huntington Beach	801	3,651	27,630	48,838	9,219	12,437	20,642	0	147,232	54,916	205,524	119,842	134.66
Invine Ranch	5,423	12,794	6,450	1,666	32,884	32,384	36,584	76,400	216,548	262,323	297,889	385,567	239.07
La Habra	0	7,775	0	8,262	0	0	0	0	13,625	0	13,625	16,037	16.13
La Palma	0	0	0	0	0	0	0	0	4,199	0	4,199	0	1.18
Laguna Beach	978	0	2,533	0	2,664	1,712	4,586	226	12,286	1,189	23,047	3,127	10.84
Mesa Water	0	0	6,777	0	10,667	0	22,246	0	110,468	20,053	150,158	20,053	56.61
Moulton Niguel	956	16,139	4,483	26,927	11,538	84,123	14,739	40,741	276,771	926,425	308,487	1,094,355	450.10
Newport Beach	0	0	3,454	0	3,548	2,346	894	0	29,565	7,042	37,461	9,388	16.34
Orange	0	0	12,971	0	15,951	8,723	11,244	0	95,005	268,868	135,171	277,591	129.50
San Clemente	0	0	21,502	0	16,062	13,165	18,471	13,908	84,158	0	140,193	27,073	68.58
San Juan Capistrano	0	0	22,656	103,692	29,544	27,156	12,106	0	95,464	26,080	159,770	156,928	159.31
Santa Margarita	4,483	5,561	1,994	11,400	10,151	11,600	17,778	48,180	181,995	395,671	216,371	472,412	219.42
Seal Beach	0	0	0	0	3,611	0	0	0	13,494	504	17,105	504	5.94
Serrano	0	0	0	0	0	0	2,971	0	39,419	0	42,390	0	12.28
South Coast	0	16,324	6,806	0	9,429	4,395	15,162	116,719	73,598	191,853	104,995	329,291	155.93
Trabuco Canyon	0	0	272	0	1,542	22,440	2,651	0	12,192	0	16,657	22,440	18.15
Tustin	0	0	0	0	9,980	0	1,410	0	48,951	14,137	60,341	14,137	23.85
Westminster	0	0	0	0	0	0	0	0	10,583	34,631	10,583	34,631	12.66
Yorba Linda	11,349	0	0	0	0	0	0	0	99,934	12,702	111,283	12,702	41.07
MWDOC Totals	23,990	108,421	183,524	241,224	216,104	303,923	238,978	304,598	1,918,204	2,630,174	2,580,800	3,588,340	2,201.56

Anaheim	0	0	0	0	0	0	0	0	0	0	0	0	-
Fountain Valley	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	1,918,204	2,630,174	2,580,800	3,597,554	2,205.43
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[1] Installed device numbers are listed as square feet

HIGH EFFICIENCY TOILETS (HETs) INSTALLED BY AGENCY

through MWDOC and Local Agency Conservation Programs

Agency	FY05-06	FY 06-07	FY 07-08	FY 08-09	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	Total	Cumulative Water Savings across all Fiscal Years
Brea	0	2	7	43	48	8	0	0	38	141	287	39.15
Buena Park	0	1	2	124	176	7	0	0	96	144	550	98.74
East Orange CWD RZ	0	0	10	12	1	0	0	0	13	26	62	9.45
El Toro WD	0	392	18	75	38	18	0	133	218	840	1,732	263.44
Fountain Valley	0	69	21	262	54	17	0	0	41	124	588	137.81
Garden Grove	0	14	39	443	181	24	0	0	63	289	1,053	219.60
Golden State WC	2	16	36	444	716	37	80	2	142	732	2,207	399.33
Huntington Beach	2	13	59	607	159	76	0	0	163	1,134	2,213	325.66
Irvine Ranch WD	29	1,055	826	5,088	2,114	325	0	1,449	810	1,635	13,331	3,145.97
Laguna Beach CWD	0	2	17	91	28	11	0	0	45	106	300	51.50
La Habra	0	3	18	296	34	20	0	0	37	89	497	115.34
La Palma	0	1	10	36	26	13	0	0	21	51	158	27.88
Mesa Water	0	247	19	736	131	7	0	0	174	142	1,456	376.14
Moulton Niguel WD	0	20	104	447	188	46	0	0	400	2,312	3,517	366.48
Newport Beach	0	5	19	163	54	13	0	0	49	144	447	83.80
Orange	1	20	62	423	79	40	0	1	142	947	1,715	236.42
San Juan Capistrano	0	10	7	76	39	11	0	0	35	132	310	49.75
San Clemente	0	7	22	202	66	21	0	0	72	209	599	106.70
Santa Margarita WD	0	5	14	304	151	44	0	0	528	924	1,970	229.44
Seal Beach	0	678	8	21	12	1	0	2	17	42	781	275.44
Serrano WD	2	0	1	13	5	0	0	0	2	36	59	8.04
South Coast WD	2	2	29	102	41	12	23	64	102	386	763	92.10
Trabuco Canyon WD	0	0	4	23	23	0	0	0	10	92	152	18.85
Tustin	0	186	28	387	479	17	0	0	64	124	1,285	332.73
Westminster	0	17	25	541	167	23	0	0	35	155	963	233.31
Yorba Linda WD	0	14	89	323	96	18	0	0	40	240	820	173.85
MWDOC Totals	38	2,779	1,494	11,282	5,106	809	103	1,651	3,357	11,196	37,815	7,416.90

Anaheim	0	255	78	2,771	619	114	0	0	156	1,050	5,043	1,190.04
Fullerton	0	4	28	286	60	23	0	0	61	250	712	132.32
Santa Ana	0	11	25	925	89	23	0	0	33	286	1,392	330.90
Non-MWDOC Totals	0	270	131	3,982	768	160	0	0	250	1,586	7,147	1,653.25

Orange County Totals	38	3,049	1,625	15,264	5,874	969	103	1,651	3,607	12,782	44,962	9,070.15
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HOME WATER SURVEYS PERFORMED BY AGENCY

through MWDOC and Local Agency Conservation Programs

Agency	FY 13/14		FY 14/15		Total		Cumulative Water Savings
	Surveys	Cert Homes	Surveys	Cert Homes	Surveys	Cert Homes	
Brea	1	0	1	0	2	0	0.07
Buena Park	0	0	1	0	1	0	0.02
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	5	0	7	0	0.21
Irvine Ranch	1	0	2	0	3	0	0.09
La Habra	0	0	1	0	1	0	0.02
La Palma	0	0	0	0	0	0	0.00
Laguna Beach	4	0	7	0	11	0	0.35
Mesa Water	0	0	0	0	0	0	0.00
Moulton Niguel	4	0	4	0	8	0	0.28
Newport Beach	2	0	8	0	10	0	0.28
Orange	2	0	18	0	20	0	0.52
San Clemente	15	0	13	0	28	0	1.01
San Juan Capistrano	4	0	13	0	17	0	0.49
Santa Margarita	15	0	39	1	54	1	1.62
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	4	0	4	0	0.09
Tustin	0	0	10	0	10	0	0.24
Westminster	0	0	0	0	0	0	0.00
Yorba Linda	0	0	10	0	10	0	0.24
MWDOC Totals	78	0	156	1	234	1	7.34

Anaheim	0	0	0	0	0	0	0.00
Fullerton	0	0	16	0	16	0	0.38
Santa Ana	0	0	0	0	0	0	0.00
Non-MWDOC Totals	0	0	16	0	16	0	0.38

Orange County Totals	78	0	172	1	250	1	7.715
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SYNTHETIC TURF INSTALLED BY AGENCY^[1] through MWDOC and Local Agency Conservation Programs

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

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

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

ULF TOILETS INSTALLED BY AGENCY
through 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
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