MEETING OF THE<br>BOARD OF DIRECTORS OF THE<br>MUNICIPAL WATER DISTRICT OF ORANGE COUNTY<br>Jointly with the<br>PLANNING \& OPERATIONS COMMITTEE<br>September 8, 2015, 8:30 a.m.<br>MWDOC Conference Room 101<br>Teleconference Site:<br>20989 Park Lane<br>Rollins, MT 59931<br>(406) 844-2282

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

P\&O Committee:
Director Osborne, Chair
Director Barbre
Director Hinman
Ex Officio Member: L. Dick
Ex Officio Member: L. Dick

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

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. APPROVAL OF RESOLUTION DESIGNATING AUTHORIZED AGENTS FOR THE 2014 GRANT TRANSFER AGREEMENT WITH THE COUNTY OF ORANGE AS THE LOCAL ADMINISTRATOR OF HOMELAND SECURITY GRANTS FUNDS

## DISCUSSION ITEMS

2. STATUS UPDATE ON THE OC RELIABILITY STUDY - SEPTEMBER 2015

## 3. STATUS ON METROPOLITAN'S 2015 INTEGRATED RESOURCES PLAN (IRP)

INFORMATION ITEMS (The following items are for informational purposes only background information is included in the packet. Discussion is not necessary unless a Director requests.)
4. STATUS REPORTS
a. Ongoing MWDOC Reliability and Engineering/Planning Projects
b. WEROC
c. Water Use Efficiency Projects
d. Water Use Efficiency Programs Savings and Implementation Report
5. REVIEW OF ISSUES RELATED TO CONSTRUCTION PROGRAMS, WATER USE EFFICIENCY, FACILITY AND EQUIPMENT MAINTENANCE, WATER STORAGE, WATER QUALITY, CONJUNCTIVE USE PROGRAMS, EDUCATION, DISTRICT FACILITIES, and MEMBER-AGENCY RELATIONS

## ADJOURNMENT

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

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

## ACTION ITEM

September 16, 2015

TO: Board of Directors<br>FROM: Planning \& Operations Committee<br>(Directors Osborne, Barbre, Hinman)<br>Robert Hunter<br>Staff Contact: Kelly Hubbard General Manager<br>\section*{SUBJECT: Approval of Resolution Designating Authorized Agents for the 2014 Grant Transfer Agreement with the County of Orange as the Local Administrator of Homeland Security Grants Funds}

## STAFF RECOMMENDATION

Staff recommends that the Board of Directors approve the execution of the 2014 Grant Transfer Agreement with the County of Orange as the Local Homeland Security (HLS) Grant Administrator. Staff recommends the Board give approval to the WEROC Program Manager and the General Manager as designated Authorized Agents for this grant.

## COMMITTEE RECOMMENDATION

Committee recommends (to be determined at Committee Meeting)

## DETAILED REPORT

The County of Orange administers all Homeland Security (HLS) grant funds within the county. The Municipal Water District of Orange County (MWDOC) and the Water Emergency Response Organization of Orange County (WEROC) has requested from the County approval of training funds for Kelly Hubbard and Brandon Stock, WEROC Coordinator, to attend the California Emergency Services Association (CESA) Annual Training and Conference, and for Kelly Hubbard to attend the International Association of Emergency Managers Annual Conference. Signing this Transfer Agreement with the County will allow for the district to accept HLS Grant funds in reimbursement of Kelly and Brandon attending the conferences identified above. The California Emergency Services Association (CESA) Conference is included within the Budget. The International Association

| Budgeted (Y/N): N | Budgeted amount: \$0 | Core X | Choice__ |
| :--- | :--- | :--- | :--- |
| Action item amount: $\$ 5,414$ <br> Pending State Award to County | Line item: |  |  |
| Fiscal Impact (explain if unbudgeted): <br> conference attendance. |  |  |  |

of Emergency Managers (IAEM) Annual Conference was not specifically budgeted, but there are conference and travel funds available for these costs that were not used on another budgeted conference (a conflict prevented attendance). A staff report will be presented at the September Administration and Finance Committee for approval of this conference.

In order to receive any 2014 HLS grant funds the District must designate by resolution at least one authorized agent. Authorized agents execute for and on behalf of MWDOC any actions necessary for obtaining the HLS grant funds and implementing projects. Staff recommends that the board approve two authorized agents by title - the General Manager and the WEROC Program Manager. The recommendation to designate two authorized agents by title is to allow the greatest flexibility in the grant funding management.

The Board has taken similar action this year and in previous years in regards to the Homeland Security Funds and for the Urban Areas Security Initiative (UASI) funds with the County of Orange and the Cities of Santa Ana and Anaheim. The attached agreements and resolution are required for each grant year with each local grant administrator that MWDOC seeks to receive funds. The provisions of this grant agreement are the same as those grant agreements already signed in previous years. By signing this agreement, the district would also then be eligible for other grants opportunities throughout the 2014 HLS Grant cycle, should a project present itself as a good opportunity that may meet national homeland security goals. If staff decided to pursue a significant project under this grant, other than this training reimbursement, the project would be presented to the Board for input and approval. A summary of related grant funds received to date and proposed are noted below:

| Funds Received | Grant Year | Amount |
| :--- | :---: | :---: |
| Hazard Mitigation Plan | 2005 | $\$ 168,053$ |
| EOC Remodel \& Mapping | 2009 | $\$ 76,290$ |
| Trainings \& Conferences | $2008-2013$ | $\$ 17,320$ |
| Water Trailers | 2011 | $\$ 497,304$ |
|  |  | $\mathbf{\$ 7 5 8 , 9 6 7}$ |
| TOTAL Received |  |  |


| Funds Proposed | Grant Year | Amount |
| :--- | :---: | :---: |
|  <br> Connections | 2014 | $\$ 16,000$ |
| Fuel Delivery Trailers | 2014 | $\$ 100,000$ |
| Training \& Conferences | 2014 | $\$ 5,414$ |
|  |  | $\$ 121,414$ |
| TOTAL Proposed |  |  |

## Attachments

1. Agreement to Transfer Property or Funds for 2014 Homeland Security Grant Program Purposes
2. California Governor's Office of Emergency Services, FY 2014 Grant Assurances (All HSGP Applicants)
3. Resolution to designate two authorized agents


## AGREEMENT TO TRANSFER PROPERTY OR FUNDS FOR 2014 HOMELAND SECURITY GRANT PROGRAM PURPOSES

THIS AGREEMENT is entered into this $\qquad$ day of $\qquad$ 201 , which date is identified for purposes of reference only, by and between the COUNTY OF ORANGE, a political subdivision of the State of California, hereinafter referred to as "COUNTY", and profit corporation), hereinafter referred to as "SUBGRANTEE."

WHEREAS, COUNTY, acting through its Sheriff-Coroner Department in its capacity as the lead agency for the Orange County Operational Area, has applied for, received and accepted a grant from the State of California, acting through its California Office of Emergency Services, to enhance county-wide emergency preparedness, hereinafter referred to as "the grant", as set forth in the grant documents that are attached hereto as Attachments A (FY 14 CA Supplement to the Federal Program Guidance), B (FY 14 Homeland Security Grant Program Guidance), and C (FY 14 Homeland Security Grant Assurances) and incorporated herein by reference.

WHEREAS, the terms of the grant require that COUNTY use certain grant funds to purchase equipment, technology or services that will be transferred to SUBGRANTEE to be used for grant purposes.

## NOW, THEREFORE, IT IS MUTUALLY AGREED AS FOLLOWS:

1. COUNTY shall transfer to SUBGRANTEE the equipment, technology or services as specified in Attachment D hereto, which is incorporated herein by reference. If the grant requires COUNTY to transfer to SUBGRANTEE equipment, technology or services that COUNTY has not yet acquired, COUNTY shall transfer said equipment, technology or services to SUBGRANTEE as soon after acquisition by COUNTY as is reasonably practicable.
2. If COUNTY transfers grant funds to SUBGRANTEE, SUBGRANTEE shall use said grant funds only to acquire equipment, technology or services as set forth in Attachment B hereto and/or to perform such other grant functions, if any, that Attachments $A, B$ and $C$ permit SUBGRANTEE to expend
grant funds. SUBGRANTEE shall provide COUNTY with a budget breakdown signed by the authorized agent.
3. Throughout its useful life, SUBGRANTEE shall use any equipment, technology or services acquired with grant funds only for those purposes permitted under the terms of the grant, and shall make it available for mutual aid response.
4. SUBGRANTEE shall exercise due care to preserve and safeguard equipment acquired with grant funds from damage or destruction and shall provide regular maintenance and repairs for said equipment as are necessary, in order to keep said equipment in continually good working order. Such maintenance and servicing shall be the sole responsibility of the SUBGRANTEE, who shall pay for material and labor costs for any maintenance and repair of said equipment throughout the life of said equipment.
5. SUBGRANTEE shall assume all continuation costs of said equipment, technologies and/or services to include but not be limited to upgrades, licenses and renewals of said equipment, technologies and/or services.
6. If equipment acquired with grant funds becomes obsolete or unusable, SUBGRANTEE shall notify COUNTY of such condition. SUBGRANTEE shall transfer or dispose of grant-funded equipment only in accordance with the instructions of COUNTY.
7. SUBGRANTEE agrees to indemnify, defend and hold harmless COUNTY and their elected and appointed officials, officers, agents and employees from any and all claims and losses accruing or resulting to any and all contractors, subcontractors, laborers, and any other person, firm or corporation furnishing or supplying work services, materials or supplies in connection with SUBGRANTEE's use of grant-funded equipment, technology or services and SUBGRANTEE's performance of this Agreement, including Attachments A, B and C hereto, and from any and all claims and losses accruing or resulting to any person, firm, or corporation who may be injured or damaged by SUBGRANTEE in SUBGRANTEE's use of grant-funded equipment, technology or services and SUBGRANTEE's performance of this Agreement, including Attachments $\mathrm{A}, \mathrm{B}$ and C hereto.
8. By executing this Agreement, SUBGRANTEE agrees to comply with and be fully bound by all applicable provisions of Attachments A, B and C hereto. SUBGRANTEE shall notify COUNTY CFDA: 97.067
immediately upon discovery that it has not abided or no longer will abide by any applicable provision of Attachments A, B and C hereto.
9. SUBGRANTEE and COUNTY shall be subject to examination and audit by the State Auditor with respect to this Agreement for a period of three years after final payment hereunder.
10. No alteration or variation of the terms of this Agreement shall be valid unless made in writing and signed by duly authorized representatives of the parties hereto, and no oral understanding or agreement not incorporated herein shall be binding on any of the parties hereto.
11. SUBGRANTEE may not assign this Agreement in whole or in part without the express written consent of COUNTY.
12. For a period of three years after final payment hereunder or until all claims related to this Agreement are finally settled, whichever is later, SUBGRANTEE shall preserve and maintain all documents, papers and records relevant to the work performed or property or equipment acquired in accordance with this Agreement, including Attachments A, B and C hereto. For the same time period, SUBGRANTEE shall make said documents, papers and records available to COUNTY and the agency from which COUNTY received grant funds or their duly authorized representative(s), for examination, copying, or mechanical reproduction on or off the premises of SUBGRANTEE, upon request during usual working hours.
13. SUBGRANTEE shall provide to COUNTY all records and information requested by COUNTY for inclusion in quarterly reports and such other reports or records as COUNTY may be required to provide to the agency from which COUNTY received grant funds or other persons or agencies.
14. COUNTY may terminate this Agreement and be relieved of the payment to SUBGRANTEE if a) SUBGRANTEE fails to perform any of the covenants contained in this Agreement, including Attachments A, B and C hereto, at the time and in the matter herein provided, or b) COUNTY loses funding under the grant. In the event of termination, COUNTY may proceed with the work in any manner deemed proper by COUNTY.
15. SUBGRANTEE and its agents and employees shall act in an independent capacity in the performance of this Agreement, including Attachments A, B and C hereto, and shall not be considered officers, agents or employees of COUNTY or of the agency from which COUNTY received grant funds. CFDA: 97.067
16. SUBGRANTEE and its agents and employees shall act in an independent capacity in the performance of this Agreement, including Attachments A, B and C hereto, and shall not be considered officers, agents or employees of COUNTY or of the agency from which COUNTY received grant funds. IN WITNESS WHEREOF, the parties have executed this Agreement in the County of Orange, State of California.

DATED: $\qquad$ 201_

COUNTY OF ORANGE, a political subdivision of the State of California

By

> Sheriff-Coroner "COUNTY"

APPROVED AS TO FORM:
COUNTY COUNSEL


Dated: Nov. 12, 201_4

DATED: $\qquad$ SUBGRANTEE

By: $\qquad$

By: $\qquad$
ATTEST:

By $\qquad$
City Clerk
DATED: $\qquad$ 201

# California Governor's Office of Emergency Services <br> FY 2014 Grant Assurances <br> (All HSGP Applicants) 

Name of Applicant: $\qquad$
Address: $\qquad$
City: $\qquad$ State: $\qquad$ Zip Code: $\qquad$
Telephone Number: $\qquad$ Fax Number: $\qquad$
E-Mail Address: $\qquad$

As the duly authorized representative of the applicant, I certify that the applicant named above:

1. Will assure that the Funding Opportunity Announcement for this program is hereby incorporated into your award agreement by reference. By accepting this award, the recipient agrees that all allocations and use of funds under this grant will be in accordance with the requirements contained in the FY2014 Homeland Security Grant Program Funding Opportunity Announcement, the California Supplement to the FY2014 Homeland Security Grant Program Funding Opportunity Announcement, and all applicable laws and regulations.
2. All allocations and use of funds under this grant will be in accordance with the Allocations, and use of grant funding must support the goals and objectives included in the State and/or Urban Area Homeland Security Strategies as well as the investments identified in the Investment Justifications which were submitted as part of the California FY2014 Homeland Security Grant Program application. Further, use of FY2014 funds is limited to those investments included in the California FY2014 Investment Justifications submitted to DHS/FEMA and Cal OES and evaluated through the peer review process.
3. Understands that in the event FEMA determines that changes are necessary to the award document after an award has been made, including changes to period of performance or terms and conditions, recipients will be notified of the changes in writing. Once notification has been made, any subsequent request for funds will indicate recipient acceptance of the changes to the award. Please call the FEMA/GMD Call Center at (866) 927-5646 or via e-mail to ASK-GMD@dhs.gov if you have any questions.
4. Has the legal authority to apply for Federal assistance and has the institutional, managerial and financial capability to ensure proper planning, management and completion of the grant provided by the U.S. Department of Homeland Security (DHS)/Federal Emergency Management Agency (FEMA) and subgranted through the State of California, California Governor's Office of Emergency Services (Cal OES).
5. Will assure that grant funds are used for allowable, fair, and reasonable costs only and will not be transferred between grant programs (for example: State Homeland Security Program and Urban Area Security Initiative) or fiscal years.
6. Will comply with any cost sharing commitments included in the FY2014 Investment Justifications submitted to DHS/FEMA/Cal OES, where applicable.
7. Will establish a proper accounting system in accordance with generally accepted accounting standards and awarding agency directives.
8. Will give the DHS/FEMA, the General Accounting Office, the Comptroller General of the United States, the Cal OES, the Office of Inspector General, through any authorized representatives, access to, and the right to examine, all paper or electronic records, books, and documents related to the award, and will permit access to its facilities, personnel and other individuals and information as may be necessary, as required by DHS/FEMA or Cal OES, through any authorized representative, with regard to examination of grant related records, accounts, documents, information and staff.
9. Agrees, and will require any subrecipient, contractor, successor, transferee, and assignee to acknowledge and agree to comply with applicable provisions governing DHS access to records, accounts, documents, information, facilities, and staff.
a. Recipients must cooperate with any compliance review or complaint investigation conducted by DHS or Cal OES.
b. Recipients must give DHS and Cal OES access to and the right to examine and copy records, accounts, and other documents and sources of information related to the grant and permit access to facilities, personnel, and other individuals and information as may be necessary, as required by DHS and Cal OES program guidance, requirements, and applicable laws.
c. Recipients must comply with all other special reporting, data collection, and evaluation requirements, as prescribed by law or detailed in program guidance, and recipients must submit timely, complete, and accurate reports to the appropriate DHS officials and maintain appropriate backup documentation to support the reports.
d. If, during the past three years, the recipient has been accused of discrimination on the grounds of race, color, national origin (including limited English proficiency), sex, age, disability, religion, or familial status, the recipient must provide a list of all such proceedings, pending or completed, including outcome and copies of settlement agreements to the DHS/Cal OES awarding office and the DHS Office of Civil Rights and Civil Liberties.
e. In the event any court or administrative agency makes a finding of discrimination on grounds of race, color, national origin (including limited English proficiency), sex, age, disability, religion, or familial status against the recipient, or the recipient settles a case or matter alleging such discrimination, recipients must forward a copy of the complaint and findings to the DHS Component and/or awarding office.

The United States has the right to seek judicial enforcement of these obligations.
10. Will comply with any other special reporting, assessments, national evaluation efforts, or information or data collection requests, including, but not limited to, the provision of any information required for the assessment or evaluation of any activities within this agreement, or detailed in the program guidance.
11. Agrees that funds utilized to establish or enhance State and Local fusion centers must support the development of a statewide fusion process that corresponds with the Global Justice/Homeland Security Advisory Council (HSAC) Fusion Center Guidelines, follow the Federal and State approved privacy policies, and achieve (at a minimum) the baseline level of capability as defined by the Fusion Capability Planning Tool.
12. Understands that a hold is in place on Fusion Center activities and the applicant is prohibited from obligating, expending, or drawing down HSGP - UASI funds in support of their State and/or Major Urban Area Fusion Center. Cal OES will notify the subgrantee in writing when DHS/FEMA has lifted the hold.
13. Will initiate and complete the work within the applicable timeframe (subgrantee performance period), in accordance with grant award terms and requirements, after receipt of approval from Cal OES and will maintain procedures to minimize the amount of time elapsing between the award of funds and the disbursement of funds.
14. Will provide timely, complete and accurate progress reports, and maintain appropriate support documentation to support the reports, and other such information as may be required by the awarding agency, including the Initial Strategy Implementation Plan (ISIP), within 45 (forty-five) days of the award, and update these reports and related documentation via the Grant Reporting Tool (GRT) twice each year.
15. Will provide timely notifications to Cal OES of any developments that have a significant impact on awardsupported activities, including changes to key program staff.
16. Agrees to be non-delinquent in the repayment of any Federal debt. Examples of relevant debt , include delinquent payroll and other taxes, audit disallowances, and benefit overpayments. See OMB Circular A129 and form SF-424B, item number 17 for additional information and guidance.
17. Will comply with the requirements of 31 U.S.C. § 3729 , which set forth that no subgrantee, recipient or subrecipient of federal payments, shall submit a false claim for payment, reimbursement, or advance. Administrative remedies may be found in 38 U.S.C. §§ 3801-3812, addressing false claims and statements made.
18. Will comply with all applicable provisions of DHS/FEMA's regulations, including Title 44 of the Code of Federal Regulations, Part 13, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments, including the payment of interest earned on advances.
19. Will comply with the Office of Management and Budget (OMB) Circular A-102, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments (also known as the "A-102 Common Rule"), which are also located found within DHS regulations at Title 44, Code of Federal Regulations (CFR) Part 13, "Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments"; will comply with OMB Circular A-110, Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other NonProfit Organizations, relocated to 2 CFR Part 215.
20. Will comply with the financial and administrative requirements set forth in the current edition of the DHS Financial Management Guide; OMB Circular A-21, Cost Principles for Educational Institutions, relocated to 2 CFR Part 220; OMB Circular A-87, Cost Principles for State, Local, and Indian Tribal Governments, relocated to 2 CFR Part 225; OMB Circular A-122, Cost Principles for Non-Profit Organizations, relocated to 2 CFR Part 230; and OMB Circular A-133, Audits of States, Local Governments and Non-Profit Organizations, as applicable.
21. Will comply with all provisions of the Federal Acquisition Regulations, including but not limited to Title 48 CFR Part 31.2, part 31.2 Contract Cost Principles and Procedures, Contracts with Commercial Organizations.
22. Will comply with provisions of the Hatch Act (5 U.S.C. §§ 1501-1508 and 7324-7328), which limits the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
23. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes, or presents the appearance of, personal or organizational conflict of interest, or personal gain for themselves or others, particularly those with whom they have family, business, or other connections.
24. Understands and agrees that Federal funds will not be used, directly or indirectly, to support the enactment, repeal, modification or adoption of any law, regulation, or policy, at any level of government, without the express prior written approval from DHS/FEMA and Cal OES.
25. Will comply with all applicable lobbying prohibitions and laws, including those found 31 U.S.C.§ 1352. , and agrees that none of the funds provided under this award may be expended by the recipient to pay any
person to influence, or attempt to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any Federal action concerning the award or renewal of any Federal contract, grant, loan, or cooperative agreement.
26. Agrees that, to the extent contractors or subcontractors are utilized, will use small, minority-owned, women-owned, or disadvantaged businesses, to the extent practicable.
27. Will comply with Title 2 of the Code of Federal Regulations Part 225, Appendix A, paragraph (C)(3)(c), which provides that any cost allocable to a particular Federal award or cost objective under the principles provided for in this authority may not be charged to other Federal awards to overcome fund deficiencies.
28. Will ensure that Federal funds do not replace (supplant) funds that have been budgeted for the same purpose through non-Federal sources. Subgrantees and subrecipients may be required to demonstrate and document that a reduction in non-Federal resources occurred for reasons other than the receipt or expected receipt of Federal funds.
29. Will comply, if applicable, with the Lead-Based Paint Poisoning Prevention Act ( 42 U.S.C. § 4801 et seq.), which prohibits the use of lead based paint in construction or rehabilitation of structures.
30. Will comply with all federal and state laws and regulations relating to civil rights protections and nondiscrimination. These include, but are not limited to:
a. Title VI of the Civil Rights Act of 1964, Public Law 88-352, (42 U.S.C. § 2000d et seq.), codified at 6 CFR Part 21 and 44 CFR Part 7, which provides that no person in the United States will, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.
b. Title IX of the Education Amendments of 1972, as amended (20 U.S.C. § 1681 et seq.), which prohibits discrimination on the basis of gender in educational programs and activities. These regulations are codified at 6 CFR Part 17 and 44 CFR Part 19.
c. The Americans with Disabilities Act, as amended, which prohibits recipients from discriminating on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities ( 42 U.S.C. § 12101 et seq.).
d. The Age Discrimination Act of 1975, as amended (42 U.S.C. §§ 6101 et seq.), which prohibits discrimination on the basis of age in any program or activity receiving federal financial assistance.
e. The Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse.
f. The Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism.
g. Sections 523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. § 290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records.
h. Title VIII of the Civil Rights Act of 1968 (42 U.S.C. § 3601 et seq., as implemented by 24 CFR Part 100), as amended, relating to nondiscrimination in the sale, rental and financing of housing.
i. Title 44 of the Code of Federal Regulations (CFR) Parts 7, 16, and 19 relating to nondiscrimination.
j. The requirements of any other nondiscrimination provisions in the specific statute(s) under which the application for Federal assistance is being made and any other applicable statutes.
k. The requirements of Section 504 of the Rehabilitation Act of 1973, 29 U.S.C. § 794, as amended, which provides that no otherwise qualified individual with a disability in the United States will, solely by reason of the disability, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. These requirements pertain to the provision of benefits or services as well as to employment.

1. Will, in the event that a Federal or State court or Federal or State administrative agency makes a finding of discrimination after a due process hearing on the grounds or race, color, religion, national
origin, gender, or disability against a recipient of funds, the recipient will forward a copy of the finding to the Office of Civil Rights, Office of Justice Programs.
m. Will provide an Equal Employment Opportunity Plan, if applicable, to the Department of Justice Office of Civil Rights within 60 days of grant award.
n. Will comply, and assure the compliance of all its subgrantees and contractors, with the nondiscrimination requirements and all other provisions of the current edition of the Office of Justice Programs Financial and Administrative Guide for Grants, M7100.1.
2. Will comply with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (42 U.S.C. § 4601 et seq. [P.L. 91-646]), which provides for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or Federally assisted programs. These requirements apply to all interested in real property acquired for project purposes regardless of Federal participation in purchases. Will also comply with Title 44 CFR, Part 25, Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally-assisted programs.
3. Will comply with all provisions of DHS/FEMA's regulation 44 CFR Part 10, Environmental Considerations.
4. Will comply with all applicable Federal, State, and Local environmental and historical preservation (EHP) requirements. Failure to meet Federal, State, and Local EHP requirements and obtain applicable permits may jeopardize Federal funding. Agrees not to undertake any project having the potential to impact EHP resources without the prior written approval of DHS/FEMA and Cal OES, including, but not limited to, ground disturbance, construction, modification to any structure, physical security enhancements, communications towers, any structure over 50 years old, and purchase and/or use of any sonar equipment. The subgrantee must comply with all conditions and restrictions placed on the project as a result of the EHP review. Any construction-related activities initiated without the necessary EHP review and approval will result in a noncompliance finding, and may not be eligible for reimbursement with DHS/FEMA and Cal OES funding. Any change to the scope of work will require re-evaluation of compliance with the EHP. If ground-disturbing activities occur during the project implementation, the subgrantee must ensure monitoring of the disturbance. If any potential archeological resources are discovered, the subgrantee will immediately cease activity in that area and notify DHS/FEMA/ and Cal OES and the appropriate State Historic Preservation Office.
5. Any construction activities that have been initiated prior to the full environmental and historic preservation review could result in a non-compliance finding. Subgrantees must complete the DHS/FEMA EHP Screening Form (OMB Number 1660-0115/FEMA Form 024-0-01) and submit it, with all supporting documentation, to their Cal OES program representative, for processing by the DHS/FEMA GPD EHP.
6. Grantees should submit the FEMA EHP Screening Form for each project as soon as possible upon receiving their grant award. The Screening From for these types of projects is available at: www.fema.gov/doc/government/grant/bulletins/info329 final_screening_memo.doc.
7. Will ensure that the facilities under its ownership, lease or supervision, which shall be utilized in the accomplishment of this project, are not on the Environmental Protection Agency's (EPAs) List of Violating Facilities, and will notify Cal OES and the DHS/FEMA of the receipt of any communication from the Director of the EPA Office of Federal Activities indicating if a facility to be used in the project is under consideration for listing by the EPA.
8. Will provide any information requested by DHS/FEMA/ and Cal OES to ensure compliance with applicable laws including, but not limited to, the following:
a. Institution of environmental quality control measures under the Archaeological and Historic Preservation Act, Endangered Species Act, and Executive Orders on Floodplains (11988), and Environmental Justice (EO12898) and Environmental Quality (EO11514).
b. Notification of violating facilities pursuant to EO 11738.
c. Assurance of project consistency with the approved state management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. § 1451 et seq.).
d. Protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended, (P.L. 93-523).
e. California Environmental Quality Act (CEQA), California Public Resources Code Sections 2108021098, and California Code of Regulations, Title 14, Chapter 3 §§ 15000-15007.
f. Wild and Scenic Rivers Act of 1968 ( 16 U.S.C. § 1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
g. Applicable provisions of the Coastal Barrier Resources Act (P.L. 97-348) dated October 19, 1982 (16 USC § 3501 et seq.), which prohibits the expenditure of most new Federal funds within the units of the Coastal Barrier Resources System.
9. Will comply with Standardized Emergency Management System (SEMS) requirements as stated in the California Emergency Services Act, Government Code, Chapter 7 of Division 1 of Title 2, § 8607.1(e) and CCR Title 19, §§ 2445, 2446, 2447, and 2448.
10. Agrees that subgrantees and subrecipients collecting Personally Identifiable Information (PII) must have a publically-available privacy policy that describes what PII they collect, how they plan to use the PII, whether they share PII with third parties, and how individuals may have their PII corrected where appropriate. Subgrantees and subrecipients may also find DHS Privacy Impact Assessments, guidance and templates online at http://www.dhs.gov/xlibrary/assets/privacy/privacy pia fuidance june2010.pdf and at http://www.dhs.gov/xlibrary/assets/privacy/privacy_pia_template.pdf, respectively.
11. Agrees that all DHS/FEMA-funded project activities carried on outside the United States are coordinated as necessary with appropriate government authorities and that appropriate licenses, permits, and approvals are obtained.
12. Will comply with Section 6 of the Hotel and Motel Fire Safety Act of 1990, 15 U.S.C. § 2225(a), whereby all subgrantees, recipients, and subrecipients must ensure that all conference, meeting, convention, or training space, funded in whole or in part with Federal funds, complies with the fire prevention and control guidelines of the Federal Fire Prevention and Control Act of 1974, 15 U.S.C. § 2225.
13. Will comply with the Preference for U.S. Flag Air Carriers: (air carriers holding certificates under 49 U.S.C. § 41102) for international air transportation of people and property to the extent that such service is available, in accordance with the International Air Transportation Fair Competitive Practices Act of 1974 (49 U.S.C. § 40118) and the interpretative guidelines issued by the Comptroller General of the United States in the March 31, 1981 amendment to Comptroller General Decision B138942.
14. Agrees that all publications created or published with funding under this grant shall prominently contain the following statement: "This document was prepared under a grant from FEMA's Grant Programs Directorate, U.S. Department of Homeland Security. Points of view or opinions expressed in this document are those of the authors and do not necessarily represent the official position or policies of FEMA's Grant Programs Directorate or the U.S. Department of Homeland Security." The recipient also agrees that, when practicable, any equipment purchased with grant funding shall be prominently marked as follows: "Purchased with funds provided by the U.S. Department of Homeland Security."
15. Acknowledges that DHS/FEMA reserves a royalty-free, nonexclusive, and irrevocable license to reproduce, publish, or otherwise use, and authorize others to use, for Federal government purposes: a) the copyright in any work developed under an award or sub-award; and b) any rights of copyright to which a recipient or sub-recipient purchases ownership with Federal support. The recipient must affix the applicable copyright notices of 17 U.S.C. section 401 or 402 and an acknowledgement of Government sponsorship (including award number) to any work first produced under Federal financial assistance awards, unless the work
includes any information that is otherwise controlled by the Government (e.g. classified information or other information subject to national security or export control laws or regulations). The recipient agrees to consult with DHS/FEMA and Cal OES regarding the allocation of any patent rights that arise from, or are purchased with, this funding.
16. Recipients receiving Federal financial assistance to be used to perform eligible work approved in the submitted application for Federal assistance and after the receipt of Federal financial assistance, through the State of California, agrees to the following:
a. Promptly return to the State of California all funds received which exceed the approved, actual expenditures as determined by the Federal or State government.
b. In the event the approved amount of the grant is reduced, the reimbursement applicable to the amount of the reduction will be promptly refunded to the State of California.
c. Property and equipment purchased under the HSGP reverts to Cal OES if the grant funds are deobligated or disallowed and not promptly repaid.
d. HSGP funds used for the improvement of real property must be promptly repaid following deobligation or disallowment of costs, and Cal OES reserves the right to place a lien on the property for the amount owed.
e. Separately account for interest earned on grant funds, and will return all interest earned, in excess of $\$ 100$ per Federal Fiscal Year.
17. Understands that recipients who receive awards made under programs that provide emergency communication equipment and its related activities must comply with the SAFECOM Guidance for Emergency Communication Grants, including provisions on technical standards that ensure and enhance interoperable communications.
18. Will comply, if applicable, with the Laboratory Animal Welfare Act of 1966 (P. L. 89-544, as amended, 7 U.S.C. § 2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
19. Will comply with the minimum wage and maximum hour provisions of the Federal Fair Labor Standards Act (29 U.S.C. § 201), as they apply to employees of institutions of higher education, hospitals, and other non-profit organizations.
20. Agrees that "Classified national security information," as defined in Executive Order (EO) 12958, as amended or updated via later executive order(s), means information that has been determined pursuant to EO 12958 to require protection against unauthorized disclosure and is marked to indicate its classified status when in documentary form. No funding under this award shall be used to support a contract, subaward, or other agreement for goods or services that will include access to classified national security information if the award recipient has not been approved for and granted access to such information by appropriate authorities.
21. Agrees that where an award recipient has been approved for and has access to classified national security information, no funding under this award shall be used to support a contract, subaward, or other agreement for goods or services that will include access to classified national security information by the contractor, subrecipient, or other entity without prior written approval from the DHS Office of Security, Industrial Security Program Branch (ISPB), or, an appropriate official within the Federal department or agency with whom the classified effort will be performed. Such contracts, subawards, or other agreements shall be processed and administered in accordance with the DHS "Standard Operating Procedures, Classified Contracting by States and Local Entities," dated July 7, 2008; EOs 12829, 12958, 12968, and other applicable executive orders; the National Industrial Security Program Operating Manual (NISPOM); and other applicable implementing directives or instructions. Security requirement documents may be located at: http://www.dhs.gov/xopnbiz/grants/index.shtm
22. Immediately upon determination by the award recipient that funding under this award may be used to support a contract, subaward, or other agreement involving access to classified national security information pursuant to paragraph 47, and prior to execution of any actions to facilitate the acquisition of such a contract, subaward, or other agreement, the award recipient shall contact ISPB, and the applicable Federal department or agency, for approval and processing instructions.

DHS Office of Security ISPB contact information:
Telephone: 202-447-5346
Email: DD254AdministrativeSecurity@dhs.gov
Mail: Department of Homeland Security
Office of the Chief Security Officer
ATTN: ASD/Industrial Security Program Branch
Washington, D.C. 20528
52. Will comply with the requirements regarding Data Universal Numbering System (DUNS) numbers. If recipients are authorized to make subawards under this award, they must first notify potential subrecipients that no entity may receive or make a subaward to any entity unless the entity has provided a DUNS number.

For purposes of this award term, the following definitions will apply:
a. "Data Universal Numbering System (DUNS)" number means the nine digit number established and assigned by Dun and Bradstreet, Inc. (D\&B) to uniquely identify business entities. A DUNS number may be obtained from D\&B by telephone (currently 866-705-5711) or the Internet, currently at http://fedgov.dnb.com/webform.
b. "Entity", as it is used in this award term, means all of the following, as defined at 2 CFR part 25, subpart C, as a Governmental organization, which is a State, local government, or Indian Tribe; or a foreign public entity; or a domestic or foreign nonprofit organization; or a domestic or foreign forprofit organization; or a Federal agency, but only as a sub recipient under an award or subaward to a non-Federal entity.
c. "Subaward" means a legal instrument to provide support for the performance of any portion of the substantive project or program for which you received this award and that you as the recipient award to an eligible subrecipient. It does not include your procurement of property and services needed to carry out the project or program (for further explanation, see section 210 of the attachment to OMB Circular A-133,"Audits of States, Local Governments, and Non-Profit Organizations") and may be provided through any legal agreement, including an agreement that you consider a contract.
d. "Subrecipient" means an entity that receives a subaward from you under this award, and is accountable to you for the use of the Federal funds provided by the subaward.
53. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. § 276a to 276a-7), the Copeland Act (40 U.S.C. § 276 c and 18 U.S.C. § 874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§ 327-333), regarding labor standards for Federally-assisted construction sub-agreements.
54. Agrees that equipment acquired or obtained with grant funds:
a. Will be made available pursuant to applicable terms of the California Disaster and Civil Defense Master Mutual Aid Agreement, in consultation with representatives of the various fire, emergency medical, hazardous materials response services, and law enforcement agencies within the jurisdiction of the applicant, and deployed with personnel trained in the use of such equipment in a manner consistent with the California Law Enforcement Mutual Aid Plan or the California Fire Services and Rescue Mutual Aid Plan.
b. Is consistent with needs as identified in the State Homeland Security Strategy and will be deployed in conformance with that Strategy.
55. Will comply with Homeland Security Presidential Directive (HSPD)-5, Management of Domestic Incidents. The adoption of the National Incident Management System (NIMS) is a requirement to receive Federal preparedness assistance, through grants, contracts, and other activities. The NIMS provides a consistent
nationwide template to enable all levels of government, tribal nations, nongovernmental organizations, and private sector partners to work together to prevent, protect against, respond to, recover from, and mitigate the effects of incidents, regardless of cause, size, location, or complexity.
56. Will comply with OMB Standard Form 424B Assurances - Non construction Programs, whereby the awarding agency may require subgrantees and subrecipients to certify to additional assurances.
57. Will not make any award or permit any award (subgrant or contract) to any party which is debarred or suspended or is otherwise excluded from or ineligible for participation in Federal assistance programs under Executive Order 12549 and 12689, "Debarment and Suspension." As required by Executive Order 12549, Debarment and Suspension, and implemented at 44 CFR Part 17, for prospective participants in primary covered transactions, the applicant will provide protection against waste, fraud and abuse, by debarring or suspending those persons deemed irresponsible in their dealings with the Federal government. Applicant certifies that it and its principals:
a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, sentenced to a denial of Federal benefits by a State or Federal court, or voluntarily excluded from covered transactions by any Federal department or agency.
b. Have not within a three-year period preceding this application been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction, violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.
c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and have not within a three-year period preceding this application had one or more public transactions (Federal, State, or local) terminated for cause or default; and
d. Where the applicant is unable to certify to any of the statements in this certification, he or she shall attach an explanation to this application.
58. Will comply with requirements to acknowledge Federal funding when issuing statements, press releases, requests for proposals, bid invitations, and other documents describing projects or programs funded in whole or in part with Federal funds.
59. Will obtain, via Cal OES, the prior approval from DHS on any use of the DHS seal(s), logos, crests or reproductions of flags or likenesses of DHS agency officials, including use of the United States Coast Guard seal, logo, crests or reproductions of flags or likenesses of Coast Guard officials.
60. Will comply with the requirements of the Drug-Free Workplace Act of 1988 (41 U.S.C. § 701 et seq.), which requires that all organizations receiving grants from any Federal agency agree to maintain a drug-free workplace. The recipient must notify the awarding office if an employee of the recipient is convicted of violating a criminal drug statute. Failure to comply with these requirements may be cause for debarment. These regulations are codified at 2 CFR 3001.
61. Will comply with the requirements of the government-wide award term which implements Section 106(g) of the Trafficking Victims Protection Act (TVPA) of 2000, as amended (22 U.S.C. § 7104), located at 2 CFR Part 175. This is implemented in accordance with OMB Interim Final Guidance, Federal Register, Volume 72, No. 218, November 13, 2007. In accordance with Section $106(\mathrm{~g})$ of the TVPA, as amended, requires the agency to include a condition that authorizes the agency to terminate the award, without penalty, if the recipient or a subrecipient engages in severe forms of trafficking in persons during the period of time that the award is in effect, procures a commercial sex act during the period of time that the award is
in effect, or uses forced labor in the performance of the award or subawards under the award. Full text of the award term is provided at $2 \mathrm{CFR} \S 175.15$.
62. Will comply with Title VI of the Civil Rights Act of 1964 prohibition against discrimination on the basis of national origin, which requires that recipients of federal financial assistance take reasonable steps to provide meaningful access to their programs and services. Meaningful access may entail providing language assistance services, including oral and written translation, where necessary. Recipients are encouraged to consider the need for language services for LEP persons served or encountered both in developing budgets and in conducting programs and activities. Recipient shall comply with DHS Guidance to Federal Financial Assistance Recipients Regarding Title VI Prohibition Against National Origin Discrimination Affecting Limited English Proficient Persons, 76 Fed. Reg. 21755-21768 (April 18, 2011), resulting from Executive Order 13166. For assistance and information regarding LEP obligations, refer to DHS Recipient Guidance at https://www.dhs.gov/guidance-published-help-department-supported-organizations-provide-meaningful-access-people-limited and additional resources on http://www.lep.gov.
63. Will comply with the requirements of 42 U.S.C. § 7401 et seq. and Executive Order 11738, which provides for the protection and enhancement of the quality of the nation's air resources to promote public health and welfare and for restoring and maintaining the chemical, physical, and biological integrity of the nation's waters is considered research for other purposes.
64. Will comply with the requirements of the Federal regulations at 45 CFR Part 46 and the requirements in DHS Management Directive 026-04, Protection of Human Subjects, prior to implementing any work with human subjects. The regulations specify additional protections for research involving human fetuses, pregnant women, and neonates (Subpart B); prisoners (Subpart C); and children (Subpart D). The use of autopsy materials is governed by applicable State and local law and is not directly regulated by 45 CFR Part 46.
65. Will comply with the requirements of the National Environmental Policy Act (NEPA), as amended, 42 U.S.C. § 4331 et seq., which establishes national policy goals and procedures to protect and enhance the environment, including protection against natural disasters. To comply with NEPA for its grant-supported activities, DHS requires the environmental aspects of construction grants (and certain non-construction projects as specified by the Component and awarding office) to be reviewed and evaluated before final action on the application.
66. Will comply with the requirements of section 1306(c) of the National Flood Insurance Act, as amended, which provides for benefit payments under the Standard Flood Insurance Policy for demolition or relocation of a structure insured under the Act that is located along the shore of a lake or other body of water and that is certified by an appropriate State or local land use authority to be subject to imminent collapse or subsidence as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels. These regulations are codified at 44 CFR Part 63.
67. Will comply with the requirements of the Flood Disaster Protection Act of 1973, as amended (42 U.S.C. § 4001 et seq.), which provides that no Federal financial assistance to acquire, modernize, or construct property may be provided in identified flood-prone communities in the United States, unless the community participates in the National Flood Insurance Program and flood insurance is purchased within one year of the identification. The flood insurance purchase requirement applies to both public and private applicants for DHS support. Lists of flood-prone areas that are eligible for flood insurance are published in the Federal Register by FEMA.
68. Will comply with the requirements of Executive Order 11990, which provides that federally-funded construction and improvements minimize the destruction, loss, or degradation of wetlands. The Executive Order provides that, in furtherance of section 101(b)(3) of NEPA (42 U.S.C. § 4331(b)(3)), Federal agencies, to the extent permitted by law, must avoid undertaking or assisting with new construction located in wetlands unless the head of the agency finds that there is no practicable alternative to such construction,
and that the proposed action includes all practicable measures to minimize harm to wetlands that may result from such use. In making this finding, the head of the agency may take into account economic, environmental, and other pertinent factors. The public disclosure requirement described above also pertains to early public review of any plans or proposals for new construction in wetlands. This is codified at 44 CFR Part 9.
69. Will comply with the requirements of the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act (USA PATRIOT Act), which amends 18 U.S.C. §§ 175-175c. Among other things, it prescribes criminal penalties for possession of any biological agent, toxin, or delivery system of a type or in a quantity that is not reasonably justified by a prophylactic, protective, bona fide research, or other peaceful purpose. The act also establishes restrictions on access to specified materials. "Restricted persons," as defined by the act, may not possess, ship, transport, or receive any biological agent or toxin that is listed as a select agent.
70. Understands the reporting of subawards and executive compensation rules, including first tier subawards to Cal OES.
a. Applicability. Unless you are exempt as provided in paragraph d. of this award term, you must report each action that obligates $\$ 25,000$ or more in Federal funds that does not include Recovery funds (as defined in section 1512(a)(2) of the American Recovery and Reinvestment Act of 2009,
b. Where and when to report: you must report on each obligating action described in the following paragraphs to Cal OES. For subaward information, report no later than the end of the month following the month in which the obligation was made. (For example, if the obligation was made on November 7, 2013, the obligation must be reported by no later than December 31, 2013.)
c. What to report: You must report the information about each obligating action that the submission instructions posted in Information Bulletin 350, to Cal OES. To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at http://www.sec.gov/answers/execomp.htm. Subgrantees must report subrecipient executive total compensation to Cal OES by the end of the month following the month during which you make the subaward. Exemptions include: If, in the previous tax year, you had gross income, from all sources, under $\$ 300,000$, you are exempt from the requirements to report on subawards, and the total compensation of the five most highly compensated executives of any subrecipient.
d. Reporting Total Compensation of Recipient Executives: You must report total compensation for each of your five most highly compensated executives for the preceding completed fiscal year, if
i. the total Federal funding authorized to date under this award is $\$ 25,000$ or more;
ii. in the preceding fiscal year, you received 80 percent or more of your annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR § 170.320 (and subawards); and $\$ 25,000,000$ or more in annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR § 170.320 (and subawards); and
iii. The public does not have access to information about the compensation of the executives through periodic reports filed under Section 13(a) or 15(d) of the Securities Exchange Act of 1934 ( 15 U.S.C. $\S ~ 78 \mathrm{~m}(\mathrm{a}), 78 \mathrm{o}(\mathrm{d})$ ) or § 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at http://www.sec.gov/answers/execomp.htm.)
iv. Subrecipient Executives. Unless you are exempt as provided above, for each first-tier subrecipient under this award, you shall report the names and total compensation of each of the subrecipient's five most highly compensated executives for the subrecipient's preceding completed fiscal year, if in the subrecipient's preceding fiscal year, the subrecipient received 80 percent or more of its annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at $2 \mathrm{CFR} \S 170.320$ (and subawards); and $\$ 25,000,000$ or more in annual gross revenues from Federal procurement contracts (and subcontracts), and Federal
financial assistance subject to the Transparency Act (and subawards); and the public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. $\S 78 \mathrm{~m}(\mathrm{a}), 78 \mathrm{o}(\mathrm{d})$ ) or $\S 6104$ of the Internal Revenue Code of 1986.
71. Understands that failure to comply with any of these assurances may result in suspension, termination, or reduction of grant funds.
72. The undersigned represents that he/she is authorized by the above named applicant to enter into this agreement for and on behalf of the said applicant.

Signature of Authorized Agent: $\qquad$
Printed Name of Authorized Agent: $\qquad$
Title: $\qquad$ Date: $\qquad$

## RESOLUTION NO. <br> MUNICIPAL WATER DISTRICT OF ORANGE COUNTY WATER EMERGENCY RESPONSE ORGANIZATION OF ORANGE COUNTY (WEROC) <br> AUTHORIZATION FOR FEDERAL FINANCIAL ASSISTANCE PROVIDED BY THE FEDERAL DEPARTMENT OF HOMELAND SECURITY

WHEREAS, The Municipal Water District of Orange County (MWDOC) manages the Water Emergency Response Organization of Orange County (WEROC) Program on behalf of the organization's 35 signatories.

WHEREAS, WEROC has been designated by the County of Orange as the water and wastewater Operational Area coordination entity for the purpose of assisting the county's water and wastewater utilities with disaster preparedness, prevention, response, recovery, and mitigation.

WHEREAS, MWDOC desires to keep the WEROC emergency operations centers, communications equipment and other such supplies in good working order and to date with the current technological abilities of the Operational Area.

WHEREAS, MWDOC also desires to keep its program and volunteer staff trained in current emergency management practices and required levels of training according to the National Incident Management System and the California State Emergency Management System.

WHEREAS, MWDOC also desires to ensure eligibility for project and training funding that may become available throughout the year.

WHEREAS, MWDOC has and will continue to submit grant applications to the Homeland Security Grant Program to continue to enhance the capabilities of the WEROC program and its staff.

NOW, THEREFORE, BE IT RESOLVED by Board of Directors of the Municipal Water District of Orange County that the Water Emergency Response Organization of Orange County (WEROC) Program Manager, or the General Manager, is hereby authorized to execute for and on behalf of the Municipal Water District of Orange County, a public entity established under the laws of the State of California, any actions necessary for the purpose of obtaining federal financial assistance provided by the federal Department of Homeland Security and sub-granted through the County of Orange as a Administrator for Fiscal Year 2014.

Said Resolution was adopted, on roll call, by the following vote:
AYES:
NOES:
ABSENT:
ABSTAIN:

I hereby certify that the foregoing is a true and correct copy of Resolution No. adopted by the Board of Directors of Water District at its meeting held on.

> MARIBETH GOLDSBY

District Secretary
Municipal Water District of Orange County

# INFORMATION ITEM 

September 8, 2015

TO: Planning \& Operations Committee<br>(Directors Osborne, Barbre, Hinman)<br>FROM: Robert Hunter, General Manager<br>Staff Contact: Karl Seckel/Richard Bell

SUBJECT: Status Update on the OC Water Reliability Study - September 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 August meeting of the Workgroup, the topic centered on estimating future levels of demands in the County, taking into account where we are at today and projecting a continuing strong water use efficiency ethic. Quite a bit of the discussion centered on how much demands would "bounce back" following the drought we are in with numerous positions being expounded. The level of demands is critical to the study effort. It was suggested we look at:

- The bounce back from other drought events in Southern California
- Australia for what they experienced following their millennial drought
- MET and what their assumptions will be in their IRP and whether they had any input from Dr. David Sunding from the Brattle Group, developer of the MET retail demand forecast

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

## Demand Bounce Back

The demand bounce back is important in that any savings that can be counted on for the long-run are NEW supplies that do not need to be developed, thus improving reliability. The investigations turned up the following:

- Bounce-back in demands in Southern California from the droughts in 1976-77, 198792 and 2008-10 were at around 100\% (or heading in that direction). In talking this over with a number of planning folks, the consensus seems to be that "this drought is different", meaning the duration and magnitude of impacts to that we are pretty much in "uncharted waters".
- We examined what examples we could find of demand rebound in Australia. In contacting local folks, the input we received was that it depended on so many factors that it was not an instance of "here is what happens", but the answer seems to be "it depends". Anecdotally, examples of both low and high bounce back in different parts of Australia from as low as maybe $10 \%$ to as high as maybe 100\%. The suggestion was as follow:
o Understand the history - what are the historical trends in demand and what have the drivers been (weather, drought advisories, behavioral changes, the propagation of more water efficient fixtures, appliances and technology, alternative sources of water).
o How is water currently being used (different customer sectors, end uses of water etc.)?
o Develop an end use model that captures all of the information above.
o Use that model to predict the magnitude of the increase in demand that will come with the lifting of mandatory restrictions on water use. This model will not just give a single answer, because there will be a number of scenarios based on different assumptions.
o Reference previous droughts (in multiple jurisdictions) to estimate the duration that the rebound is likely to take. Some stats are also applied at this point.
o The end result of the above will be a number of "opinions" on the magnitude and duration of the rebound. The last step is to weigh up all the information and decide on what is the appropriate answer for the jurisdiction under consideration.
- In talking to MET, their staff is considering the following approach:
o The water conservation we are currently seeing comes from either (a) structural changes (change in landscape materials, sprinkler heads, Smartimers, toilet or shower change outs, etc.) or (b) behavior changes (these include being more prudent in outdoor water use, shorter showers, full loads of laundry, dishwasher less often, etc.)
o Because the recent drop in water consumption over the past several months has been so dramatic, at around 25\%, the majority of savings has to be attributed to behavioral types of changes. These changes have also resulted in lawns going brown and losing other plant materials. It is unknown what these will be replaced with in the future. Also because of the rather drastic
reduction, the majority have to do with conservation of outdoor irrigation. MET believes this is true as the current demands they are looking at are consistent with WET winter demand levels.
o When the drought is over, some of these behavioral changes will stay and some will go. This drought has been rather dramatic, much more so than the 1976-77, 1987-92 and 2008-2010 droughts. The bounce back in each of those droughts was essentially $100 \%$ after a year or two. Because of the severe nature of this drought and the unprecedented coverage in the media, MET expects that $90 \%$ of the recent reduction has the "potential" to bounce back. There is no exact science as to what the actual bounce back will be, but additional conservation measures over time can be used to capture some of the current savings and it can be retained over the long run. MET is expecting the $90 \%$ bounce back over 5 -years or so, with future offsets depending on active conservation investments made by customers and potential savings due to the Model Water Efficient Landscape Ordinance (MWELO).
o An interesting item MET brought up was demand elasticity. MET's believe is that demand elasticity mostly applies to outdoor irrigation and the investments folks can pursue to cut down water use when rates go up. At the levels we are at right now, the elasticity has already been taken out of the system in the sense that if you have already turned off your outdoor irrigation, you can't turn it off a second time.

The figure below shows the historical nature of demands in Orange County and includes an estimate of where we will end this year. The blue dashed line represents a 5 year rebound of $90 \%$ of the recent decline with future growth in demands in OC being offset by future conservation.

Water Demand Forecast



The Member Agencies also reviewed the Planning Scenarios being used for the GAP analyses and examined some of the modeling intricacies to focus on understanding how the model works to evaluate future demands and supplies from the various sources. Information from MET's IRP was also discussed.

## Seismic Risk Assessment for OC

The draft Seismic Risk Assessment reports should be circulated in DRAFT form in September to receive input and comments from our agencies. These reports will be used to generate System Reliability GAP Analyses.

## Schedule

The study efforts are behind at this time. The Workgroup began discussing a three part rollout of the work over September, October and November and the Phase 2 work that could begin as early as December. The initial phase of work for the OC Water Reliability Study was designed to estimate the supply GAPS and projects that could fill the supply GAPS, whether they be projects from MET or projects developed from within OC or by OC agencies. The Phase 2 work would allow additional work on alternatives by incorporating project portfolios into the model developed in Phase 1. The Phase 2 work would also provide additional information on the costs of alternatives. The schematic below provides an overview of the Phase 1 and 2 efforts.


This will not be done for only one set of planning assumptions, but rather a whole suite of planning scenarios


## DISCUSSION ITEM

September 8, 2015

| TO: | Planning \& Operations Committee |  |
| :--- | :--- | ---: |
| FROM: | Robert Hunter <br> General Manager | Staff Contact: Karl Seckel |
|  |  |  |
|  | Harvey De La Torre |  |

## SUBJECT: Status on Metropolitan's 2015 Integrated Resources Plan (IRP)

## STAFF RECOMMENDATION

Staff recommends the Board of Directors review and discuss this information

## REPORT

The attached presentation is an overview of Metropolitan's 2015 Integrated Resources Plan (IRP) Preliminary Findings of their current outlook of water supplies and demands. It was presented to MWD's IRP Board Committee on August 18 as a "First Step" in identifying the water supply reliability gaps using only existing supplies. In other words, it is what our total water supplies could cover over the next 25 years if we did nothing more; relying only on existing and under construction projects: no Delta Fix, no additional local resource projects, and no additional active conservation measures. At the end MET staff did add objectives from the 2010 IRP to examine what improvements occur.
MWD included each key water supply's projections over the next 25 years based on using only existing and under construction projects, and what are the probability of a shortage occurring under expected demands. This gap analysis revealed that the "do nothing" approach is not sustainable and the shortage probability and size will increase over time due to further the dependence on storage to help meet demands.

To help meet this supply gap, MWD ran the shortage probability under the scenario of what if we develop all of our 2010 IRP Target, such as achieving the $20 \%$ reduction in GPCD as a region by 2020, develop 100 TAF of additional local resources, implement near and long term Delta improvement (including the California WaterFix), and develop Dry-Year supply programs to ensure a filled a Colorado River Aqueduct. The results show the development of all of the 2010 IRP supply targets would dramatically mitigate shortages and provide enough supplies to meet future demands.

| Budgeted (Y/N): n/a | Budgeted amount: n/a | Core_ $\mathrm{X}_{-}$ | Choice __ |
| :--- | :--- | :--- | :--- |
| Action item amount: n/a | Line item: |  |  |
| Fiscal Impact (explain if unbudgeted): |  |  |  |

However, although these numbers/analysis are preliminary, MWDOC staff have the following observations/concerns:

- There is a need to review demand projections, in light of the recent Governor's mandatory water restrictions, to determine the estimated demands over the short and long term?
- How much do we rely on the near and long term Delta improvements?
- Groundwater sustainability need to be carefully evaluated, so we may better understand the need for MWD water for the long term sustainability of groundwater basins
- Developing and timing of Local Projects appear to critical to the supply need
- We need to assess the storage space in both local basins and in MWD's various storage accounts, as well as the amount needed to refill them to protect against future dry periods
IRP


Page 29 of 65
MWDOC Staff Observations

1. MET IRP Information is PRELIMINARY -
MWDOC staff is still reviewing the info.
2. The level of demands and "demand rebound" is
a significant issue.
3. Understanding the need for MET water for the
long term sustainability of groundwater basin
operations is essential.
4. Realizing "benefits" of the California Fix
beginning as early as 2020 is essential along
with a Plan "B" if it doesn't happen.
5. A lot of storage space needs refilling.

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| Total CRA Base Supplies <br> (Million Acre-Feet) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 2020 | 2025 | 2030 | 2035 | 2040 |
| 0.92 | 0.88 | 0.88 | 0.85 | 0.84 |
| 2016 | 2020 | 2024 | 2028 |  |


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## 2

 -
RP Draft Forecast
, Southern Nevada




2040

## 

## 2036

203

Calendar Year


Scenario
ance
Total Range of SWP Supplies

| Total Range of SWP Supplies <br> (Million Acre-Feet) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2020 | 2025 | 2030 | 2035 | 2040 |
| Min | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 |
| Avg | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 |
| Max | 1.55 | 1.55 | 1.55 | 1.55 | 1.55 |

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| Description | Lead Agency | Status <br> \% <br> Complete | Scheduled <br> Completion <br> Date | Comments |
| :--- | :---: | :---: | :---: | :--- |
| Baker Treatment <br> Plant or Expansion <br> of Baker Water <br> Treatment Plant | IRWD, <br> MNWD, <br> SMWD, <br> ETWD <br> Trabuco <br> CWD |  | On line date <br> is summer <br> 2016 | No NEW Information; construction is proceeding towards a <br> start-up in 2016 |
| Doheny <br> Desalination <br> Project | South Coast <br> Water <br> District, <br> Laguna Beach <br> CWD | \begin{tabular}{l}
\end{tabular} |  | Groundwater modeling efforts under the Doheny Desal <br> Foundational Action Program and under the San Juan Basin <br> Foundational Action Program are beginning to roll out. Work <br> continues under the MET Foundational Action Plan. The <br> groundwater modeling reports on both the use of vertical extraction <br> wells for the San Juan Basin Authority Project and the slant well <br> intake for the Doheny Ocean desalination project will be discussed <br> at the September 8 San Juan Basin Authority meeting. The technical <br> work will help to provide the understanding of how the projects can <br> best be designed to work together. With the results starting to arrive, <br> MWDOC is now working with NWRI to convene a Science <br> Advisory Panel to review and comment on both the work being done <br> by SJBA as well as the work being done by South Coast Water <br> District and Laguna Beach County Water District. The panel is <br> expected to convene in October or November and complete their <br> report by the end of the year. |

$\left.\begin{array}{|l|l|l|l|l|}\hline \text { Description } & \begin{array}{c}\text { Lead Agency } \\ \end{array} & \begin{array}{c}\text { Status } \\ \text { \% } \\ \text { Complete }\end{array} & \begin{array}{c}\text { Scheduled } \\ \text { Completion } \\ \text { Date }\end{array} & \\ \hline \begin{array}{l}\text { Poseidon Resources } \\ \text { Ocean Desalination } \\ \text { Project in } \\ \text { Huntington Beach }\end{array} & & & \begin{array}{l}\text { Comments } \\ \text { OCWD has continued work on evaluating where the product water } \\ \text { produced from the Poseidon Project would be utilized, either for the } \\ \text { seawater barrier operations, injection or replenishment in the } \\ \text { groundwater basin, for direct delivery to other agencies or some } \\ \text { combination thereof. OCWD will be setting up a meeting with the } \\ \text { South County Agencies to discuss potential delivery amounts from } \\ \text { the Poseidon Project. }\end{array} \\ \hline \begin{array}{l}\text { Orange County } \\ \text { Water Reliability } \\ \text { Study }\end{array} & & & \begin{array}{l}\text { At the July meeting of the Workgroup, the topic centered on Seismic } \\ \text { Hazards to Water Facilities supplying Orange County. MWDOC's } \\ \text { Consultants GeoPentech and G\&E Engineering Teamed up to share } \\ \text { preliminary input from their work. At this time, the work is deemed } \\ \text { draft in that MWDOC is still awaiting comments back from MET on } \\ \text { the impacts to the MET Pipelines and Pipelines in Orange County. }\end{array} \\ \text { MWDOC and CDM-Smith also conducted several meetings of a }\end{array}\right\}$

| Other <br> Meetings/Work |  |  |  |
| :--- | :--- | :--- | :--- |
|  |  |  | Karl Seckel, Harvey De La Torre and Arcadis met to plan the <br> Kick-Off meetings for the agencies who will be participating in <br> the UWMP contract. The Kick-Off Meeting was held on August <br> 27. MWDOC has received confirmation that 24 agencies will be <br> participating with us in the process; the cost-sharing agreements <br> are being executed and MWDOC will be invoicing the agencies. |
|  |  |  | Karl Seckel, Keith Lyon and Kevin Hostert participated in a <br> meeting with EOCWD and MET regarding metering <br> inconsistencies at OC-70; it was agreed at the meeting to conduct <br> an intennal inspection of the venturi meter and also to inspect a <br> check valve that could be influencing the quality of the metering <br> at the facility. Once the inspections are complete and if they do <br> not turn up any issues, a flow test will be conducted to determine <br> where the metering discrepancies might be coming from. |
|  |  |  |  |
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$\left.\begin{array}{|l|l|l|l|}\hline & & & \\ & & & \begin{array}{l}\text { Additional meetings were held on August 21 to plan for the } \\ \text { follow-up survey for elementary students and to ensure full } \\ \text { coordination of the NEW High School Program being developed } \\ \text { by Inside the Outdoors and The Ecology Center. }\end{array} \\ \text { Directors Hinman, Tamaribuchi and Thomas met with } \\ \text { representatives from Inside the Outdoors and The Ecology Center } \\ \text { to get an overview of activities for the coming year. }\end{array}\right\}$

|  |  |  | serving EOCWD. MET has requested that EOCWD relocate <br> some of their equipment and a sampling tap outside of the <br> facility, in a secure cabinet, to eliminate the need for EOCWD <br> staff to enter the facility. |
| :--- | :--- | :--- | :--- |
|  |  |  | Karl Seckel and Legal Counsel Joe Byrne began preparation for <br> an upcoming meeting with MET Ops and Legal Staff to discuss <br> an AMP Sale Agreement issue related to the "buy-down" of the <br> EOCWD HGL in the Sale Agreement and whether or not MET is <br> responsible for providing back-up power at the OC-70 service <br> connection, which is a pumped service connection under certain <br> conditions. MWDOC's role is to represent the AMP Participants <br> in enforcing the AMP Sale Agreement. |
|  |  |  | Karl Seckel is working with Dan Ferons at SMWD and Glen <br> Boyd at MET to get MET comments on the design proposal for <br> moving the Cadiz water into the Colorado River Aqueduct. We <br> are awaiting comments back from MET on a proposal submitted <br> several months ago. |
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Status of Ongoing WEROC Projects

| Description | Comments |
| :---: | :---: |
| General Activities | Brandon attended the American Water Works Association (AWWA) California-Nevada Section Water Education Seminar on 8/12/15 at Santiago Canyon College. Brandon attended sessions on a variety of water emergency planning concepts, cyber security and water quality. The seminar allowed Brandon to network with personnel on all levels and create contacts with vendors to help bolster the WEROC program. WEROC, as an organization, was mentioned numerously throughout all the seminars and presentations, along with the support and appreciation given to the individual responsible for bolstering the program, Kelly Hubbard. <br> Brandon attended "Social Media for Natural Disaster Response and Recovery" (PER-304) in Newport Beach at the city department EOC. The course focused on the use of social media in disaster preparedness, response, and recovery. Social media has shown to help people communicate and collaborate about events as the disaster unfolds. Social media can provide rapid and immediate real-time information about events that helps provide greater situational awareness leading to better decision making. The course defines social media and its uses and identifies the tools, methods, and models to properly make use of social media in the context of disaster management and provides the information and hands-on experience necessary to help in social media disaster plans. |
| Coordination with Member Agencies | Kelly Hubbard in coordination with ISDOC hosted an Emergency Preparedness training for elected officials on August $11^{\text {th }}$ and $26^{\text {th }}$. Kelly has offered this class 4 times before, but it's been a while. The training is strongly recommended for elected officials as a requirement of NIMS (National Incident Management System (NIMS) compliance which is needed for homeland security grant funding eligibility. <br> WEROC hosted a two-day Disaster Cost Recovery Training at Orange County Sanitation District on August 19 and $20^{\text {th }}$. The training provided an overview of the disaster cost recovery processes, including requirements for obtaining and retaining federal disaster assistance grants- |


| Description | Comments |
| :---: | :---: |
|  | specifically, FEMA's Public Assistance Program. Additionally, the training included information on disaster response cost documentation and disaster assistance eligibility guides. Brandon and Mary Snow attended the training from MWDOC. <br> Kelly and Vicki Osborn, Orange County Emergency Management Division, had a conference call with the California Office of Emergency Services (CalOES) on costs related to the drought and developing guidance for water utilities on what costs related to drought response could be eligible if a federal declaration was declared for drought. The phone call was difficult because it was a discussion on "what if the drought continues and it gets worse," it's really a disaster we haven't truly dealt with here in CA. Kelly and Vicki will continue to work with Cal OES on this concept. <br> Kelly attended the Midway City Sanitary District Compressed Natural Gas (CNG) Grand Opening on August $27^{\text {th }}$. Ken Robbins, General Manager, was very proud to explain how the facility was built with reliability and disaster resilience in mind. |
| Coordination with the County of Orange | Kelly attended the Orange County Operational Area (OA) Executive Board meeting as the voting representative for ISDOC. The agenda included the approval of several county-based emergency exercises. <br> Brandon attended the Orange County Emergency Management Organization (OCEMO) meeting which was held at the 2-1-1 OC offices in Santa Ana. The meeting included presentations on FirstNet and how it impacts Orange County; an overview of 2110C; and a quick overview of PrepareOC's new portal on the Homeland Security Information Network (HSIN). <br> Brandon and Karl Seckel attended the Emergency Operations Center (EOC) Management Section training for the OC Operational Area (OA) on August 25. The course provided an overview of the Management Section including the specific roles and responsibilities of the Policy/Command Group. Instruction included decision making responsibilities such as how we proclaim a local emergency, how resources are requested and mobilized to support emergency |

Status of Water Use Efficiency Projects
August 2015

| Description | Lead Agency | Status \% Complete | Scheduled Completion or Renewal Date | Comments |
| :---: | :---: | :---: | :---: | :---: |
| Smart Timer Rebate Program | MWDSC | Ongoing | September 2015 | For July 2015, 130 residential and 51 commercial smart timers were installed in Orange County. <br> For program water savings and implementation information, see MWDOC Water Use Efficiency Program Savings and Implementation Report. |
| Rotating Nozzles Rebate Program | MWDSC | Ongoing | Ongoing | For July 2015, 661 residential and 7,641 commercial rotating nozzles were installed in Orange County. <br> For program savings and implementation information, please see MWDOC Water Use Efficiency Program Savings and Implementation Report. |
| Water Smart Landscape Program | MWDOC | On-going | November 2015 | In July 2015, a total of 12,625 meters received monthly irrigation performance reports comparing actual water use to a landscape irrigation budget customized to each meter. <br> For program savings and implementation information, please see MWDOC Water Use Efficiency Program Savings and Implementation Report. |
| SoCal Water\$mart Residential Indoor Rebate Program | MWDSC | On-going | On-going | In July 2015, 524 high efficiency clothes washers and 1,866 high efficiency toilets were installed through this program. <br> For program savings and implementation information, please see MWDOC Water Use Efficiency Program Savings and Implementation Report. |

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\begin{array}{|l|c|c|c|l|}\hline \begin{array}{l}\text { SoCal Water\$mart } \\
\text { Commercial Rebate } \\
\text { Program }\end{array} & \text { MWDSC } & \text { On-going } & \text { On-going } & \begin{array}{l}\text { In July 2015, 113 high efficiency toilets, 569 multi-family 4- } \\
\text { liter high efficiency toilets, 13 multi-family high efficiency } \\
\text { toilets, 49 zero water urinals, and 95 plumbing flow control } \\
\text { valves were installed through this program. }\end{array}
$$ <br>
For program savings and implementation information, please <br>
see MWDOC Water Use Efficiency Program Savings and <br>

Implementation Report.\end{array}\right]\)|  |
| :--- |

Item 4c

| Turf Removal Program | MWDOC | On-going | Ongoing | In August 2015, 241 rebates were paid, representing 739,432 square feet of turf removed in Orange County. To date, the Turf Removal Program has removed approximately 8,391,779 square feet of turf. <br> For program savings and implementation information, please see MWDOC Water Use Efficiency Program Savings and Implementation Report. |
| :---: | :---: | :---: | :---: | :---: |
| California Sprinkler Adjustment Notification System - Base Irrigation Schedule Calculator | MWDOC | 10\% | December 2015 | MWDOC was awarded an additional grant from the Bureau of Reclamation to develop the Base Irrigation Schedule Calculator in support of the California Sprinkler Adjustment Notification System (CSANS). This system will e-mail or "push" an irrigation index to assist property owners with making global irrigation scheduling adjustments. Participants will voluntarily register to receive this e-mail and can unsubscribe at any time. <br> The CSANS program is being promoted via a bill insert. EcoLandscape California (ELC) was selected and approved by the Board to develop the Base Irrigation Schedule Calculator and instructional videos. The agreement with ELC was executed in late August. Development of the calculator will begin in September. |
| Public Spaces Program | MWDOC | 30\% | December 2015 | This program targets publicly-owned landscape properties located in the South Orange County IRWM Plan area and encourages the removal of non-functional turfgrass, the upgrade of antiquated irrigation timers, and the conversion of high-precipitation-rate fixed spray irrigation to low-precipitation-rate rotating nozzles and/or drip irrigation. <br> 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 August 2015, with the remaining five to be funded at the end of Calendar Year 2015. |

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| Home Certification Program | MWDOC | 28\% | July 2015 | This program provides single-family sites with indoor and outdoor audits to identify areas for water savings improvements and opportunities and offers rebates for the installation of residential water efficiency devices, including smart timers and high efficiency rotating nozzles. <br> In July 2015, 10 residential surveys were conducted, and survey results are pending. |
| :---: | :---: | :---: | :---: | :---: |
| Landscape Irrigation Survey Program | MWDSC | Ongoing | June 2016 | Through this program, Metropolitan offers, at no cost, the services of a certified landscape irrigation auditor who will survey and provide written recommendations for qualifying non-residential properties within Metropolitan's service area. <br> To date, 145 sites in the MWDOC service area have contacted Metropolitan to request surveys. |
| Spray to Drip Conversion Pilot Program | MWDOC | 35\% | April 2016 | This is a pilot program designed to test the efficacy of replacing conventional spray heads in shrub beds with lowvolume, low-precipitation drip technology. Through a rebate program format, residential sites will be encouraged to convert their existing spray nozzles to drip. <br> To date, 156 residential applications and 38 commercial applications have received a Notice to Proceed. Of these, 103 residential sites and 27 commercial sites have been completed. |
| CII Performance-Based Water Use Efficiency Program | MWDOC | 2\% | December 2017 | This program will provide enhanced rebate incentives to commercial, industrial, and institutional sites and largelandscape properties (landscapes $\geq 1$ acre). <br> The program launched during the first Quarter of 2015. |
| Landscape Training and Outreach <br> Landscape Training and Outreach (cont.) | MWDOC \& County Stormwater | Ongoing | Ongoing | The Orange County Garden Friendly (OCGF) Pilot Program promotes the use of climate appropriate plants and water efficient irrigation practices, with the overall goals of reducing water runoff and improving outdoor water use efficiency. The OCGF Pilot Program is a collaborative effort of the Orange County Stormwater Program (OCSP) and the University of California Cooperative Extension (UCCE). Each partner plays a role in planning and implementing the Program. |


| Item 4c |
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| The OCGF 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. |

1

## Implementation Report

Retrofits and Acre-Feet Water Savings for Program Activity

| Program | Program <br> Start Date | Retrofits Installed in | Month Indicated |  | Current Fiscal Year |  | Overall Program |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Interventions | Water Savings | Interventions | Water Savings | Interventions | Annual Water Savings[4] | Cumulative <br> Water <br> Savings[4] |
| High Efficiency Clothes Washer Program | 2001 | July-15 | 524 | 1.51 | 524 | 1.51 | 103,891 | 3,584 | 20,651 |
| Smart Timer Program - Irrigation Timers | 2004 | July-15 | 181 | 3.33 | 181 | 3.36 | 13,248 | 4,618 | 28,896 |
| Rotating Nozzles Rebate Program | 2007 | July-15 | 8,302 | 33.19 | 8,302 | 33.19 | 469,172 | 2,383 | 9,681 |
| SoCal Water\$mart Commercial Plumbing Fixture Rebate Program | 2002 | July-15 | 839 | 2.58 | 839 | 2.58 | 49,005 | 3,518 | 34,052 |
| Water Smart Landscape Program [1] | 1997 | July-15 | 12,625 | 900.91 | 12,625 | 900.91 | 12,625 | 10,578 | 69,384 |
| Industrial Process Water Use Reduction Program | 2006 | July-15 | 0 | 0.00 | 0 | 0.00 | 13.00 | 346 | 1,306 |
| Turf Removal Program ${ }^{[3]}$ | 2010 | August-15 | 739,432 | 8.62 | 874,106 | 12 | 8,391,779 | 1,175 | 2,703 |
| High Efficiency Toilet (HET) Program | 2005 | July-15 | 1,866 | 6.61 | 1,866 | 6.61 | 48,167 | 1,780 | 11,177 |
| Home Water Certification Program | 2013 | July-15 | 10 | 0.020 | 10 | 0.020 | 269 | 6.327 | 14.254 |
| Synthetic Turf Rebate Program | 2007 |  |  |  |  |  | 685,438 | 96 | 469 |
| Ultra-Low-Flush-Toilet Programs ${ }^{[2]}$ | 1992 |  |  |  |  |  | 363,926 | 13,452 | 162,561 |
| Home Water Surveys ${ }^{[2]}$ | 1995 |  |  |  |  |  | 11,867 | 160 | 1,708 |
| Showerhead Replacements ${ }^{[2]}$ | 1991 |  |  |  |  |  | 270,604 | 1,667 | 19,083 |

${ }^{(1)}$ Water Smart Landscape Program participation is based on the number of water meters receiving monthly Irrigation Performance Reports. $\mathcal{U}^{(2)}$ 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.
${ }_{0}^{[4]}$ 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

| Agency | 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 | FY15/16 | Total | Current FY Water <br> Savings Ac/Ft (Cumulative) | Cumulative Water <br> Savings across all <br> Fiscal Years | 15 yr. Lifecycle Savings Ac/Ft |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Brea | 132 | 175 | 156 | 42 | 186 | 144 | 93 | 115 | 114 | 10 | 1,744 | 0.03 | 345.77 | 902 |
| Buena Park | 85 | 114 | 146 | 59 | 230 | 145 | 105 | 106 | 91 | 6 | 1,394 | 0.02 | 262.51 | 721 |
| East Orange CWD RZ | 18 | 22 | 17 | 3 | 23 | 10 | 10 | 8 | 8 | 1 | 182 | 0.00 | 38.10 | 94 |
| El Toro WD | 91 | 113 | 130 | 32 | 162 | 112 | 134 | 121 | 111 | 9 | 1,418 | 0.03 | 266.78 | 734 |
| Fountain Valley | 205 | 219 | 243 | 72 | 289 | 158 | 115 | 102 | 110 | 6 | 2,265 | 0.02 | 466.48 | 1,172 |
| Garden Grove | 238 | 304 | 332 | 101 | 481 | 236 | 190 | 162 | 165 | 17 | 3,202 | 0.05 | 641.06 | 1,657 |
| Golden State WC | 339 | 401 | 447 | 168 | 583 | 485 | 265 | 283 | 359 | 27 | 4,644 | 0.08 | 906.61 | 2,403 |
| Huntington Beach | 761 | 750 | 751 | 211 | 963 | 582 | 334 | 295 | 319 | 24 | 7,865 | 0.07 | 1,647.06 | 4,070 |
| Irvine Ranch WD | 1,972 | 2,052 | 1,844 | 1,394 | 2,621 | 2,170 | 1,763 | 1,664 | 1,882 | 122 | 21,894 | 0.35 | 4,141.97 | 11,329 |
| La Habra | 96 | 136 | 83 | 22 | 179 | 128 | 82 | 114 | 87 | 4 | 1,212 | 0.01 | 229.56 | 627 |
| La Palma | 33 | 35 | 51 | 25 | 76 | 46 | 34 | 25 | 34 | 2 | 421 | 0.01 | 78.64 | 218 |
| Laguna Beach CWD | 57 | 77 | 77 | 27 | 96 | 57 | 38 | 37 | 39 | 6 | 887 | 0.02 | 180.44 | 459 |
| Mesa Water | 239 | 249 | 246 | 73 | 232 | 176 | 114 | 86 | 89 | 7 | 2,332 | 0.02 | 497.99 | 1,207 |
| Moulton Niguel WD | 652 | 716 | 742 | 250 | 1,127 | 679 | 442 | 421 | 790 | 79 | 8,737 | 0.23 | 1,682.85 | 4,521 |
| Newport Beach | 245 | 270 | 259 | 57 | 197 | 142 | 116 | 92 | 95 | 11 | 2,508 | 0.03 | 540.05 | 1,298 |
| Orange | 366 | 365 | 403 | 111 | 349 | 262 | 218 | 163 | 160 | 18 | 3,712 | 0.05 | 780.48 | 1,921 |
| Orange Park Acres | 4 | 8 | - | - | - | - | - | - | - | - | 12 | 0.00 | 3.09 | 6 |
| San Juan Capistrano | 109 | 103 | 127 | 43 | 190 | 110 | 76 | 73 | 92 | 15 | 1,378 | 0.04 | 270.43 | 713 |
| San Clemente | 204 | 261 | 278 | 63 | 333 | 206 | 140 | 94 | 141 | 10 | 2,485 | 0.03 | 493.57 | 1,286 |
| Santa Margarita WD | 654 | 683 | 740 | 257 | 1,105 | 679 | 553 | 662 | 792 | 62 | 8,745 | 0.18 | 1,655.22 | 4,525 |
| Seal Beach | 47 | 46 | 57 | 7 | 81 | 51 | 31 | 29 | 38 | 6 | 576 | 0.02 | 112.94 | 298 |
| Serrano WD | 30 | 31 | 23 | 7 | 21 | 20 | 13 | 10 | 26 | 1 | 339 | 0.00 | 71.76 | 175 |
| South Coast WD | 107 | 130 | 148 | 43 | 183 | 112 | 89 | 79 | 68 | 4 | 1,501 | 0.01 | 296.67 | 777 |
| Trabuco Canyon WD | 69 | 60 | 62 | 28 | 82 | 62 | 30 | 45 | 47 | 7 | 743 | 0.02 | 146.12 | 384 |
| Tustin | 152 | 146 | 144 | 45 | 174 | 97 | 78 | 59 | 80 | 7 | 1,509 | 0.02 | 313.52 | 781 |
| Westminster | 213 | 171 | 233 | 74 | 329 | 208 | 121 | 82 | 109 | 6 | 2,359 | 0.02 | 479.90 | 1,221 |
| Yorba Linda | 288 | 350 | 367 | 117 | 394 | 273 | 181 | 167 | 156 | 14 | 3,587 | 0.04 | 748.37 | 1,856 |
| MWDOC Totals | 7,406 | 7,987 | 8,106 | 3,331 | 10,686 | 7,350 | 5,365 | 5,094 | 6,002 | 481 | 87,651 | 1.38 | 17,297.94 | 16,934 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Angheim | 854 | 847 | 781 | 860 | 910 | 477 | 331 | 285 | 295 | 14 | 10,217 | 0.04 | 2,140.67 | 5,287 |
| Foflerton | 269 | 334 | 330 | 69 | 397 | 270 | 200 | 186 | 211 | 18 | 3,441 | 0.05 | 644.18 | 1,780 |
| Sabta Ana | 236 | 235 | 257 | 87 | 355 | 190 | 163 | 131 | 132 | 11 | 2,582 | 0.03 | 568.36 | 1,336 |
| OT Non-MWDOC Totals | 1,359 | 1,416 | 1,368 | 1,016 | 1,662 | 937 | 694 | 602 | 638 | 43 | 16,240 | 0.12 | 3,353.22 | 3,137 |

[^0]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 |  | FY 15/16 |  | 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 | Res | Comm. |  |
| Brea | 3 | 9 | 0 | 0 | 2 | 0 | 8 | 0 | 9 | 8 | 4 | 0 | 43 | 6 | 3 | 0 | 83 | 72 | 398.13 |
| Buena Park | 3 | 1 | 0 | 0 | 0 | 0 | 4 | 19 | 3 | 0 | 0 | 0 | 4 | 10 | 0 | 0 | 14 | 30 | 85.75 |
| East Orange CWD RZ | 0 | 0 | 0 | 0 | 1 | 0 | 5 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 13 | 0 | 3.55 |
| El Toro WD | 0 | 25 | 2 | 18 | 5 | 5 | 26 | 2 | 7 | 2 | 11 | 0 | 8 | 9 | 3 | 0 | 76 | 330 | 1,975.99 |
| Fountain Valley | 1 | 0 | 0 | 6 | 2 | 2 | 8 | 2 | 3 | 2 | 4 | 0 | 7 | 10 | 0 | 0 | 45 | 27 | 114.90 |
| Garden Grove | 2 | 1 | 6 | 0 | 5 | 4 | 7 | 0 | 5 | 2 | 9 | 0 | 10 | 14 | 0 | 3 | 60 | 30 | 106.32 |
| Golden State WC | 1 | 2 | 9 | 22 | 7 | 4 | 13 | 3 | 9 | 49 | 9 | 25 | 39 | 12 | 0 | 0 | 134 | 139 | 520.02 |
| Huntington Beach | 13 | 1 | 6 | 27 | 6 | 36 | 15 | 4 | 18 | 33 | 20 | 35 | 19 | 2 | 7 | 0 | 149 | 162 | 665.19 |
| Irvine Ranch WD | 29 | 56 | 14 | 145 | 28 | 153 | 267 | 71 | 414 | 135 | 71 | 59 | 67 | 310 | 6 | 0 | 1,192 | 1,659 | 7,923.60 |
| La Habra | 0 | 0 | 0 | 21 | 0 | 0 | 3 | 0 | 4 | 7 | 2 | 0 | 4 | 7 | 24 | 9 | 45 | 45 | 146.84 |
| La Palma | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 2 | 0 | 1 | 1 | 7 | 1 | 1.60 |
| Laguna Beach CWD | 2 | 0 | 2 | 14 | 4 | 1 | 109 | 2 | 76 | 2 | 71 | 0 | 86 | 0 | 0 | 0 | 384 | 19 | 157.52 |
| Mesa Water | 6 | 7 | 13 | 7 | 7 | 22 | 21 | 0 | 10 | 2 | 15 | 2 | 17 | 28 | 3 | 0 | 136 | 101 | 486.58 |
| Moulton Niguel WD | 21 | 23 | 17 | 162 | 36 | 60 | 179 | 31 | 51 | 74 | 40 | 45 | 46 | 95 | 2 | 0 | 517 | 572 | 2,337.11 |
| Newport Beach | 10 | 27 | 7 | 58 | 6 | 0 | 275 | 12 | 242 | 26 | 168 | 75 | 11 | 9 | 24 | 20 | 1,004 | 374 | 1,953.11 |
| Orange | 5 | 2 | 2 | 13 | 5 | 8 | 25 | 0 | 20 | 24 | 13 | 9 | 18 | 31 | 2 | 0 | 167 | 142 | 667.88 |
| San Juan Capistrano | 10 | 0 | 7 | 49 | 13 | 1 | 103 | 2 | 14 | 18 | 6 | 11 | 6 | 19 | 1 | 2 | 181 | 111 | 448.59 |
| San Clemente | 81 | 20 | 13 | 209 | 46 | 11 | 212 | 17 | 26 | 7 | 28 | 2 | 28 | 24 | 7 | 1 | 995 | 359 | 2,052.60 |
| Santa Margarita WD | 25 | 44 | 10 | 152 | 61 | 53 | 262 | 7 | 53 | 171 | 64 | 93 | 53 | 321 | 3 | 0 | 642 | 1,015 | 3,563.74 |
| Santiago CWD | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 1 | 15 | 1 | 1.37 |
| Seal Beach | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 1 | 0 | 1 | 36 | 1 | 12 | 0 | 0 | 3 | 52 | 104.07 |
| Serrano WD | 0 | 0 | 11 | 0 | 4 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 23 | 0 | 5.91 |
| South Coast WD | 11 | 6 | 3 | 10 | 13 | 3 | 78 | 10 | 13 | 16 | 8 | 4 | 104 | 73 | 2 | 0 | 264 | 201 | 828.80 |
| Trabuco Canyon WD | 1 | 0 | 2 | 0 | 2 | 10 | 12 | 0 | 6 | 0 | 2 | 0 | 6 | 1 | 5 | 0 | 79 | 104 | 695.22 |
| Tustin | 7 | 9 | 10 | 14 | 10 | 0 | 11 | 0 | 8 | 4 | 9 | 1 | 18 | 14 | 2 | 0 | 79 | 49 | 211.34 |
| Westminster | 3 | 0 | 3 | 0 | 1 | 1 | 2 | 0 | 1 | 1 | 2 | 0 | 13 | 17 | 4 | 0 | 45 | 31 | 130.93 |
| Yorba Linda | 8 | 5 | 5 | 21 | 25 | 0 | 22 | 0 | 20 | 0 | 12 | 5 | 32 | 2 | 6 | 1 | 211 | 86 | 528.77 |
| MWDOC Totals | 242 | 238 | 142 | 949 | 289 | 374 | 1,671 | 185 | 1,017 | 583 | 571 | 402 | 648 | 1,026 | 120 | 38 | 6,563 | 5,712 | 26,115.40 |


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


| Anaheim |
| :--- |
| Fullerton |
| Santa Ana |
| Non-M |

age 57 of 65
through MWDOC and Local Agency Conservation Programs

| Agency | $\begin{gathered} \text { FY } \\ 07 / 08 \end{gathered}$ | $\begin{gathered} \text { FY } \\ 08 / 09 \end{gathered}$ | $\begin{gathered} \text { FY } \\ 09 / 10 \end{gathered}$ | $\begin{gathered} \text { FY } \\ 10 / 11 \\ \hline \end{gathered}$ | $\begin{gathered} \text { FY } \\ 11 / 12 \end{gathered}$ | $\begin{gathered} \text { FY } \\ 12 / 13 \end{gathered}$ | $\begin{gathered} \text { FY } \\ 13 / 14 \end{gathered}$ | $\begin{gathered} \text { FY } \\ 14 / 15 \end{gathered}$ | $\begin{gathered} \text { FY } \\ 15 / 16 \end{gathered}$ | Totals | Cumulative Water Savings across all Fiscal Years |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Brea | 27 | 113 | 24 | 4 | 1 | 234 | 0 | 10 | 49 | 589 | 346 |
| Buena Park | 153 | 432 | 122 | 379 | 290 | 5 | 23 | 56 | 0 | 1,765 | 904 |
| East Orange CWD RZ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| El Toro WD | 0 | 92 | 143 | 1 | 137 | 0 | 212 | 6 | 0 | 759 | 512 |
| Fountain Valley | 17 | 35 | 0 | 2 | 314 | 0 | 0 | 1 | 0 | 623 | 517 |
| Garden Grove | 5 | 298 | 130 | 22 | 0 | 4 | 1 | 167 | 34 | 1,399 | 1,300 |
| Golden State WC | 46 | 414 | 55 | 68 | 135 | 0 | 1 | 0 | 0 | 1,804 | 1,677 |
| Huntington Beach | 48 | 104 | 126 | 96 | 156 | 104 | 144 | 7 | 0 | 1,530 | 1,351 |
| Irvine Ranch WD | 121 | 789 | 2,708 | 1,002 | 646 | 1,090 | 451 | 725 | 213 | 11,021 | 5,872 |
| La Habra | 191 | 75 | 53 | 4 | 0 | 0 | 0 | 0 | 41 | 584 | 476 |
| La Palma | 0 | 140 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 166 | 74 |
| Laguna Beach CWD | 20 | 137 | 189 | 0 | 0 | 0 | 27 | 0 | 0 | 446 | 281 |
| Mesa Water | 141 | 543 | 219 | 669 | 41 | 6 | 0 | 79 | 152 | 2,963 | 1,812 |
| Moulton Niguel WD | 9 | 69 | 151 | 6 | 0 | 0 | 0 | 3 | 0 | 583 | 722 |
| Newport Beach | 98 | 27 | 245 | 425 | 35 | 0 | 0 | 566 | 0 | 1,834 | 1,144 |
| Orange | 18 | 374 | 67 | 1 | 73 | 1 | 271 | 81 | 62 | 1,966 | 1,560 |
| San Juan Capistrano | 2 | 1 | 1 | 0 | 0 | 0 | 14 | 0 | 0 | 260 | 367 |
| San Clemente | 2 | 18 | 43 | 0 | 19 | 0 | 0 | 1 | 0 | 432 | 350 |
| Santa Margarita WD | 6 | 23 | 11 | 0 | 0 | 0 | 0 | 2 | 0 | 117 | 182 |
| Santiago CWD | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Seal Beach | 1 | 2 | 124 | 0 | 0 | 0 | 0 | 0 | 0 | 354 | 383 |
| Serrano WD | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| South Coast WD | 9 | 114 | 56 | 422 | 84 | 148 | 0 | 382 | 0 | 1,320 | 441 |
| Trabuco Canyon WD | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 14 |
| Tustin | 115 | 145 | 25 | 230 | 0 | 0 | 0 | 75 | 0 | 832 | 720 |
| Westminster | 40 | 161 | 16 | 63 | 35 | 1 | 28 | 0 | 0 | 815 | 898 |
| Yorba Linda | 10 | 24 | 8 | 30 | 0 | 1 | 0 | 0 | 135 | 420 | 498 |
| MWDOC Totals | 1,079 | 4,134 | 4,537 | 3,424 | 1,966 | 1,594 | 1,172 | 2,161 | 686 | 32,593 | 22,399 |


[1] Retrofit devices include ULF Toilets and Urinals, High Efficiency Toilets and Urinals, Multi-Family and Multi-Family 4-Liter HETs, Zero Water Urinals, High Efficiency Clothes Washers,
Cooling Tower Conductivity Controllers, Ph Cooling Tower Conductivity Controllers, Flush Valve Retrofit Kits, Pre-rinse Spray heads, Hospital X-Ray Processor Recirculating Systems,
Water Smart Landscape Program

| Agency | 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 | FY 15-16 | Overall Water Savings To Date (AF) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Brea | 0 | 0 | 0 | 0 | 0 | 22 | 22 | 22 | 22 | 22 | 59.66 |
| Buena Park | 0 | 0 | 0 | 17 | 103 | 101 | 101 | 101 | 101 | 101 | 441.07 |
| East Orange CWD RZ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| El Toro WD | 227 | 352 | 384 | 371 | 820 | 810 | 812 | 812 | 812 | 812 | 4,683.10 |
| 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 | 14 | 34 | 32 | 34 | 32 | 32 | 32 | 32 | 32 | 193.74 |
| Huntington Beach | 0 | 0 | 0 | 31 | 33 | 31 | 31 | 31 | 31 | 31 | 141.79 |
| Irvine Ranch WD | 646 | 708 | 1,008 | 6,297 | 6,347 | 6,368 | 6,795 | 6,797 | 6,769 | 6,769 | 36,853.66 |
| Laguna Beach CWD | 0 | 0 | 57 | 141 | 143 | 141 | 124 | 124 | 124 | 124 | 706.53 |
| La Habra | 0 | 0 | 23 | 22 | 24 | 22 | 22 | 22 | 22 | 22 | 132.01 |
| La Palma | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| Mesa Water | 138 | 165 | 286 | 285 | 288 | 450 | 504 | 511 | 514 | 514 | 2,833.39 |
| Moulton Niguel WD | 113 | 180 | 473 | 571 | 595 | 643 | 640 | 675 | 673 | 673 | 3,974.93 |
| Newport Beach | 23 | 58 | 142 | 171 | 191 | 226 | 262 | 300 | 300 | 300 | 1,436.96 |
| Orange | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| San Clemente | 204 | 227 | 233 | 247 | 271 | 269 | 269 | 299 | 407 | 407 | 2,274.08 |
| San Juan Capistrano | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| Santa Margarita WD | 618 | 945 | 1,571 | 1,666 | 1,746 | 1,962 | 1,956 | 2,274 | 2,386 | 2,386 | 13,667.31 |
| 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 | 62 | 117 | 108 | 110 | 118 | 118 | 118 | 164 | 164 | 794.80 |
| Trabuco Canyon WD | 0 | 12 | 49 | 48 | 62 | 60 | 60 | 60 | 60 | 60 | 337.67 |
| Tustin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| Westminster | 0 | 10 | 18 | 18 | 20 | 18 | 18 | 18 | 18 | 18 | 112.60 |
| Yorba Linda WD | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| MWDOC Totals | 1,969 | 2,733 | 4,395 | 10,025 | 10,787 | 11,273 | 11,766 | 12,196 | 12,435 | 12,435 | 68,643.3 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Anaheim | 0 | 0 | 0 | 142 | 146 | 144 | 190 | 190 | 190 | 190 | 740.85 |
| 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 | 142 | 146 | 144 | 190 | 190 | 190 | 190 | 740.85 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Orange Co. Totals | 1,969 | 2,733 | 4,395 | 10,167 | 10,933 | 11,417 | 11,956 | 12,386 | 12,625 | 12,625 | 69,384.16 |

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 | FY 15/16 | Overall Program Interventions | Annual Water Savings[1] | Water Savings across all Fiscal |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Brea | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Buena Park | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 54 | 360 |
| East Orange | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| El Toro | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fountain Valley | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Garden Grove | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Golden State | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 22 |
| Huntington Beach | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 3 | 127 | 224 |
| Irvine Ranch | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 6 | 98 | 358 |
| La Habra | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| La Palma | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Laguna Beach | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mesa Water | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Moulton Niguel | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Newport Beach | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 21 | 16 |
| Orange | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 43 | 327 |
| San Juan Capistrano | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| San Clemente | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Santa Margarita | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Seal Beach | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Serrano | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| South Coast | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Trabuco Canyon | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tustin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Westminster | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Yorba Linda | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MWDOC Totals | 2 | 1 | 2 | 1 | 1 | 3 | 1 | 2 | 0 | 13 | 346 | 1306 |

[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.
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 | FY 15-16 | Total | Cumulative Water Savings across all Fiscal Years |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Brea | 0 | 2 | 7 | 43 | 48 | 8 | 0 | 0 | 38 | 146 | 14 | 306 | 52.39 |
| Buena Park | 0 | 1 | 2 | 124 | 176 | 7 | 0 | 0 | 96 | 153 | 18 | 577 | 123.68 |
| East Orange CWD RZ | 0 | 0 | 10 | 12 | 1 | 0 | 0 | 0 | 13 | 26 | 1 | 63 | 12.13 |
| El Toro WD | 0 | 392 | 18 | 75 | 38 | 18 | 0 | 133 | 218 | 869 | 46 | 1,807 | 341.58 |
| Fountain Valley | 0 | 69 | 21 | 262 | 54 | 17 | 0 | 0 | 41 | 132 | 29 | 625 | 164.75 |
| Garden Grove | 0 | 14 | 39 | 443 | 181 | 24 | 0 | 0 | 63 | 350 | 58 | 1,172 | 272.08 |
| Golden State WC | 2 | 16 | 36 | 444 | 716 | 37 | 80 | 2 | 142 | 794 | 80 | 2,349 | 501.94 |
| Huntington Beach | 2 | 13 | 59 | 607 | 159 | 76 | 0 | 0 | 163 | 1,190 | 112 | 2,381 | 429.38 |
| Irvine Ranch WD | 29 | 1,055 | 826 | 5,088 | 2,114 | 325 | 0 | 1,449 | 810 | 1,777 | 275 | 13,748 | 3,737.11 |
| Laguna Beach CWD | 0 | 2 | 17 | 91 | 28 | 11 | 0 | 0 | 45 | 112 | 10 | 316 | 65.20 |
| La Habra | 0 | 3 | 18 | 296 | 34 | 20 | 0 | 0 | 37 | 94 | 17 | 519 | 137.64 |
| La Palma | 0 | 1 | 10 | 36 | 26 | 13 | 0 | 0 | 21 | 59 | 8 | 174 | 35.62 |
| Mesa Water | 0 | 247 | 19 | 736 | 131 | 7 | 0 | 0 | 174 | 162 | 38 | 1,514 | 441.42 |
| Moulton Niguel WD | 0 | 20 | 104 | 447 | 188 | 46 | 0 | 0 | 400 | 2,497 | 380 | 4,082 | 548.08 |
| Newport Beach | 0 | 5 | 19 | 163 | 54 | 13 | 0 | 0 | 49 | 168 | 40 | 511 | 106.57 |
| Orange | 1 | 20 | 62 | 423 | 79 | 40 | 0 | 1 | 142 | 978 | 95 | 1,841 | 316.09 |
| San Juan Capistrano | 0 | 10 | 7 | 76 | 39 | 11 | 0 | 0 | 35 | 140 | 45 | 363 | 65.54 |
| San Clemente | 0 | 7 | 22 | 202 | 66 | 21 | 0 | 0 | 72 | 225 | 45 | 660 | 135.47 |
| Santa Margarita WD | 0 | 5 | 14 | 304 | 151 | 44 | 0 | 0 | 528 | 997 | 205 | 2,248 | 328.22 |
| Seal Beach | 0 | 678 | 8 | 21 | 12 | 1 | 0 | 2 | 17 | 50 | 9 | 798 | 309.74 |
| Serrano WD | 2 | 0 | 1 | 13 | 5 | 0 | 0 | 0 | 2 | 40 | 8 | 71 | 11.24 |
| South Coast WD | 2 | 2 | 29 | 102 | 41 | 12 | 23 | 64 | 102 | 398 | 31 | 806 | 126.91 |
| Trabuco Canyon WD | 0 | 0 | 4 | 23 | 23 | 0 | 0 | 0 | 10 | 108 | 32 | 200 | 28.05 |
| Tustin | 0 | 186 | 28 | 387 | 479 | 17 | 0 | 0 | 64 | 132 | 31 | 1,324 | 389.42 |
| Westminster | 0 | 17 | 25 | 541 | 167 | 23 | 0 | 0 | 35 | 161 | 19 | 988 | 275.61 |
| Yorba Linda WD | 0 | 14 | 89 | 323 | 96 | 18 | 0 | 0 | 40 | 280 | 51 | 911 | 214.33 |
| MWDOC Totals | 38 | 2,779 | 1,494 | 11,282 | 5,106 | 809 | 103 | 1,651 | 3,357 | 12,038 | 1,697 | 40,354 | 9,170.16 |


through MWDOC and Local Agency Conservation Programs

| Agency | FY 11/12 |  | FY 12/13 |  | FY 13/14 |  | FY 14/15 |  | FY 15/16 |  | Total Program |  | Cumulative Water Savings across all Fiscal Years |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Res | Comm. | Res | Comm. | Res | Comm. | Res | Comm. | Res | Comm. | Res | Comm. |  |
| Brea | 3,397 | 9,466 | 7,605 | 0 | 5,697 | 0 | 71,981 | 30,617 | 5,999 | 0 | 94,679 | 40,083 | 45.22 |
| Buena Park | 0 | 0 | 0 | 0 | 0 | 0 | 11,670 | 1,626 | 406 | 0 | 12,076 | 1,626 | 3.78 |
| East Orange | 0 | 0 | 0 | 0 | 1,964 | 0 | 18,312 | 0 | 1,908 | 0 | 22,184 | 0 | 6.22 |
| El Toro | 4,723 | 0 | 4,680 | 72,718 | 4,582 | 0 | 27,046 | 221,612 | 3,611 | 0 | 44,642 | 294,330 | 118.70 |
| Fountain Valley | 1,300 | 0 | 682 | 7,524 | 4,252 | 0 | 45,583 | 5,279 | 1,147 | 0 | 52,964 | 12,803 | 21.69 |
| Garden Grove | 14,013 | 0 | 4,534 | 0 | 8,274 | 0 | 67,701 | 22,000 | 8,463 | 0 | 102,985 | 68,177 | 80.91 |
| Golden State | 42,593 | 30,973 | 31,813 | 3,200 | 32,725 | 8,424 | 164,507 | 190,738 | 21,750 | 0 | 293,388 | 233,335 | 190.90 |
| Huntington Beach | 27,630 | 48,838 | 9,219 | 12,437 | 20,642 | 0 | 165,600 | 58,942 | 8,444 | 0 | 232,336 | 123,868 | 142.11 |
| Irvine Ranch | 6,450 | 1,666 | 32,884 | 32,384 | 36,584 | 76,400 | 234,905 | 317,999 | 13,690 | 89,930 | 329,936 | 531,173 | 274.30 |
| La Habra | 0 | 8,262 | 0 | 0 | 0 | 0 | 14,014 | 1,818 | 1,642 | 2,936 | 15,656 | 20,791 | 17.39 |
| La Palma | 0 | 0 | 0 | 0 | 0 | 0 | 4,884 | 0 | 0 | 57,400 | 4,884 | 57,400 | 9.40 |
| Laguna Beach | 2,533 | 0 | 2,664 | 1,712 | 4,586 | 226 | 13,647 | 46,850 | 2,693 | 0 | 27,101 | 48,788 | 24.38 |
| Mesa Water | 6,777 | 0 | 10,667 | 0 | 22,246 | 0 | 131,675 | 33,620 | 11,861 | 0 | 183,226 | 33,620 | 68.00 |
| Moulton Niguel | 4,483 | 26,927 | 11,538 | 84,123 | 14,739 | 40,741 | 314,250 | 1,612,845 | 36,450 | 17,023 | 382,416 | 1,797,798 | 660.28 |
| Newport Beach | 3,454 | 0 | 3,548 | 2,346 | 894 | 0 | 33,995 | 65,277 | 0 | 0 | 41,891 | 67,623 | 33.89 |
| Orange | 12,971 | 0 | 15,951 | 8,723 | 11,244 | 0 | 120,093 | 281,402 | 12,052 | 0 | 172,311 | 290,125 | 141.72 |
| San Clemente | 21,502 | 0 | 16,062 | 13,165 | 18,471 | 13,908 | 90,349 | 1,137 | 11,167 | 258,560 | 157,551 | 286,770 | 108.39 |
| San Juan Capistrano | 22,656 | 103,692 | 29,544 | 27,156 | 12,106 | 0 | 101,195 | 32,366 | 9,854 | 19,598 | 175,355 | 182,812 | 166.80 |
| Santa Margarita | 1,964 | 11,400 | 10,151 | 11,600 | 17,778 | 48,180 | 211,198 | 514,198 | 39,791 | 81,910 | 285,365 | 672,849 | 277.82 |
| Seal Beach | 0 | 0 | 3,611 | 0 | 0 | 0 | 15,178 | 504 | 554 | 0 | 19,343 | 504 | 6.49 |
| Serrano | 0 | 0 | 0 | 0 | 2,971 | 0 | 41,247 | 0 | 0 | 0 | 44,218 | 0 | 12.80 |
| South Coast | 6,806 | 0 | 9,429 | 4,395 | 15,162 | 116,719 | 84,282 | 191,853 | 19,761 | 0 | 135,440 | 329,291 | 161.69 |
| Trabuco Canyon | 272 | 0 | 1,542 | 22,440 | 2,651 | 0 | 14,771 | 0 | 585 | 50,000 | 19,821 | 72,440 | 25.95 |
| Tustin | 0 | 0 | 9,980 | 0 | 1,410 | 0 | 71,285 | 14,137 | 0 | 0 | 82,675 | 14,137 | 30.10 |
| Westminster | 0 | 0 | 0 | 0 | 0 | 0 | 14,040 | 34,631 | 8,084 | 0 | 22,124 | 34,631 | 14.76 |
| Yorba Linda | 0 | 0 | 0 | 0 | 0 | 0 | 112,136 | 12,702 | 22,250 | 54,587 | 145,735 | 67,289 | 55.24 |
| 0 MWDOC Totals | 183,524 | 241,224 | 216,104 | 303,923 | 238,978 | 304,598 | 2,195,544 | 3,692,153 | 242,162 | 631,944 | 3,100,302 | 5,282,263 | 2,698.94 |
| (1) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \$Anaheim | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| Fullerton | 0 | 0 | 0 | 0 | 0 | 9,214 | 0 | 0 | 0 | 0 | 0 | 9,214 | 3.87 |
| Santa Ana | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| N 7 Non-MWDOC Totals | 0 | 0 | 0 | 0 | 0 | 9,214 | 0 | 0 | 0 | 0 | 0 | 9,214 | 3.87 |

[^1]HOME WATER SURVEYS PERFORMED BY AGENCY

| Agency | $\qquad$ | 13/14 <br> Cert Homes | Surveys | $14 / 15$ <br> Cert Homes | $\begin{array}{r} \mathrm{FY} \\ \text { Surveys } \end{array}$ | 15/16 <br> Cert Homes | Surveys | tal Cert Homes | Cumulative Water Savings |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Brea | 1 | 0 | 2 | 0 | 0 | 0 | 3 | 0 | 0.16 |
| Buena Park | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0.05 |
| East Orange | 19 | 0 | 1 | 0 | 0 | 0 | 20 | 0 | 1.39 |
| El Toro | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0.14 |
| Fountain Valley | 3 | 0 | 4 | 0 | 0 | 0 | 7 | 0 | 0.40 |
| Garden Grove | 0 | 0 | 6 | 0 | 0 | 0 | 6 | 0 | 0.28 |
| Golden State | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| Huntington Beach | 2 | 0 | 5 | 0 | 0 | 0 | 7 | 0 | 0.38 |
| Irvine Ranch | 1 | 0 | 3 | 0 | 0 | 0 | 4 | 0 | 0.21 |
| La Habra | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0.05 |
| La Palma | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| Laguna Beach | 4 | 0 | 8 | 0 | 0 | 0 | 12 | 0 | 0.66 |
| Mesa Water | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| Moulton Niguel | 4 | 0 | 4 | 0 | 0 | 0 | 8 | 0 | 0.47 |
| Newport Beach | 2 | 0 | 8 | 0 | 1 | 0 | 11 | 0 | 0.54 |
| Orange | 2 | 0 | 18 | 0 | 0 | 0 | 20 | 0 | 0.99 |
| San Clemente | 15 | 0 | 13 | 0 | 0 | 0 | 28 | 0 | 1.67 |
| San Juan Capistrano | 4 | 0 | 13 | 0 | 0 | 0 | 17 | 0 | 0.89 |
| Santa Margarita | 15 | 0 | 40 | 1 | 3 | 0 | 58 | 1 | 3.01 |
| Seal Beach | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0.07 |
| Serrano | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0.09 |
| South Coast | 6 | 0 | 4 | 0 | 0 | 0 | 10 | 0 | 0.61 |
| Trabuco Canyon | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 0.19 |
| Tustin | 0 | 0 | 10 | 0 | 0 | 0 | 10 | 0 | 0.47 |
| Westminster | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| Yorba Linda | 0 | 0 | 13 | 0 | 4 | 0 | 17 | 0 | 0.71 |
| MWDOC Totals | 78 | 0 | 164 | 1 | 9 | 0 | 251 | 1 | 13.43 |


| Anaheim | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fullerton | 0 | 0 | 17 | 0 | 1 | 0 | 18 | 0 | 0.82 |
| Santa Ana | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| Non-MWDOC Totals | 0 | 0 | 17 | 0 | 1 | 0 | 18 | 0 | 0.82 |

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 |

[^2]ULF TOILETS INSTALLED BY AGENCY
through MWDOC and Local Agency Conservation Programs

| Agency | $\begin{gathered} \text { Previous } \\ \text { Years } \end{gathered}$ | 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 | 18 | 299 | 299 | 122 | 144 | 867 | 585 | 341 | 401 | 26 | 48 | 17 | 4 |  | 3,720 | 1,692.64 |
| Buena Park | 361 | 147 | 331 | 802 | 520 | 469 | 524 | 1,229 | 2,325 | 1,522 | 50 | 40 | 18 | 9 | , | 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 |  | 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 |  | 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 |  | 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 | ,964 | 1,205 | ,729 | 088 | 8,788 | 5,614 | 0,822 | 10,716 | 9,164 | 9 | 34 | 5 | 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 |




[^0]:    20,071

[^1]:    2,703

    | Orange County Totals | 183,524 | 241,224 | 216,104 | 303,923 |
    | :--- | :--- | :--- | :--- | :--- |

[^2]:    
    [1]Installed device numbers are calculated in square feet

