MEETING OF THE BOARD OF DIRECTORS OF THE MUNICIPAL WATER DISTRICT OF ORANGE COUNTY Jointly with the **PLANNING & OPERATIONS COMMITTEE** July 1, 2019, 8:30 a.m.

Conference Room 101

#### **P&O Committee:**

Director Yoo Schneider, Chair Director Tamaribuchi Director Dick Staff: R. Hunter, K. Seckel, J. Berg, H. De La Torre, K. Davanaugh, K. Hubbard

Ex Officio Member: Director Barbre

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 <a href="http://www.mwdoc.com">http://www.mwdoc.com</a>.

## **ACTION ITEMS**

1. PRESSURE REGULATING VALVE REPLACEMENT PILOT PROGRAM

**INFORMATION ITEMS** (The following items are for informational purposes only – background information is included in the packet. Discussion is not necessary unless a Director requests.)

- 2. STATUS REPORTS
  - a. Ongoing MWDOC Reliability and Engineering/Planning Projects
  - b. WEROC
  - c. Water Use Efficiency Projects

3. 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.

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



ACTION ITEM July 17, 2019

TO: Board of Directors

FROM:Planning & Operations Committee<br/>(Directors Yoo Schneider, Dick, Tamaribuchi)

Robert Hunter, General Manager Staff Contact: J. Berg, Director of WUE

## SUBJECT: Pressure Regulating Valve Replacement Pilot Program

## STAFF RECOMMENDATION

Staff recommends the Board of Directors to authorize the General Manager to enter into professional services agreements with EcoTech Services, Inc. and Large Plumbing to provide pressure regulating valve testing and replacement services at a cost not to exceed \$249,850.

## COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

#### SUMMARY

The proposed Pressure Regulating Valve Replacement Pilot Program (PRV Pilot Program) will utilize contracted plumbers to replace non-functioning PRVs at single-family residences that are within high-pressure areas. By reducing pressure, plumbing fixtures in the home will flow at lower rates, thereby reducing water use, and piping will be protected, lowering the likelihood of leaks. This PRV Pilot Program will function as a water-saving and leak-prevention effort and, in addition, MWDOC will perform a technical evaluation of the Program. This analysis will provide valuable insight to the water savings potential of the Program, filling a void in applicable research, and will be shared with other agencies interested in implementing similar programs. If significant water savings are found, staff will

Budgeted (Y/N): Y	Budgeted a	amount: \$249,850.00	Core	Choice <u>X</u>
Action item amount: \$249,850.00		Line item:		
<b>Fiscal Impact (explain if unbudgeted):</b> The proposed PRV Pilot Program will be funded through a combination of Metropolitan Member Agency Administered (MAA) Program funds and Proposition 1 IRWM Grant funds, totaling \$249,850.00. The MAA funds were approved on Wednesday, March 20, 2019 for \$132,500. Proposition 1 Grant agreements will be executed in the first quarter of 2020 and total \$117,350 for both the North and South County efforts.				

evaluate the most effective long-term program implementation framework for broader implementation.

## DETAILED REPORT

It is estimated that PRVs have a useful life of ten to twelve years. When PRVs fail, they usually fail in the open position, thereby increasing indoor water pressure to street pressure. As a result, all plumbing fixtures, appliances, and leaks are likely flowing at higher rates causing an increase in water use. Replacing a defective PRV will reduce home pressure for indoor water use, thus preserving and protecting water using devices, appliances, and piping. The California Plumbing Code requires homes and businesses to have a pressure regulating valve (PRV) when the water supply pressure or street pressure is 80 psi or greater.

According to the Uniform Plumbing Code Illustrated Training Manual:

[a] limit of 80 psi (551.6 kPa) is the maximum static pressure of any water supply system. The reason for this is to reduce water hammer, unnecessary use of water, splashing, excessive discharge of pressure relief valves, and to protect appliance and fixture valves and mechanisms from pressure that exceeds their design limits. Any installation with pressures above 80 psi will require a pressure regulating valve to limit the pressure to 80 psi or below.

Staff is proposing implementation of a PRV Pilot Program, in partnership with member agencies such as the City of Brea, Mesa Water, and Santa Margarita Water District, to evaluate the viability of a PRV replacement program to save water. The PRV Pilot Program will rely on licensed plumber(s) to canvas targeted neighborhoods known to have high pressure. With the homeowner's permission, the licensed plumber will test the PRV. If the test results in a failed PRV, the licensed plumber will offer to replace it with a new one at no cost to the homeowner's owner. Pre and post retrofit water use will be collected and analyzed by MWDOC staff to quantify water savings.

## Request for Proposals Process

Staff composed and distributed a Request for Proposals (RFP) outlining the desired services and schedule for the PRV Pilot Program. On March 7, 2019, the RFP was distributed to more than 150 licensed plumbing contractors capable of providing the needed services. On March 20, 2019, staff held an RFQ informational meeting to review the RFP with potential respondents and give them an opportunity to ask questions regarding the desired work to be performed. Four plumbing contractors attended this meeting. The RFP required proposals to be submitted to MWDOC on March 28, 2019. Six plumbing contractors submitted proposals for the PRV Pilot Program: Coast View Plumbing, Inc., EcoTech Services, Inc., Justin Time Plumbing, Large Plumbing, Severson Plumbing Services, Inc., and T.E. Roberts, Inc.

All of the plumbing contractor's proposals described their capabilities to perform the required services of the PRV Pilot Program. All were deemed qualified to perform the services based on verification of their credentials, proposed cost, and references. Table 1 below lists the plumbing contractor and their fees to replace a defective PRV.

Table 1Pressure Regulating Valve Fee Structure				
Plumbing Contractor	PRV Replacement Cost			
Large Plumbing	\$550.00			
EcoTech Services, Inc.	\$560.00			
Severson Plumbing	\$590.00			
Services, Inc.				
Justin Time Plumbing	\$625.00			
Coast View Plumbing, Inc.	\$678.00			
T.E. Roberts, Inc.	\$927.00			

MWDOC proposes to hire two licensed Contractors, Large Plumbing and EcoTech Services, Inc. to perform the needed services of the PRV Replacement Program. Approximately 560 sites in high-pressure-zone-designated neighborhoods in Orange County will be offered PRV testing. These areas will be identified by the participating water agencies, and it will be the responsibility of the licensed Contractor(s) to determine if the existing PRV has failed and, if applicable, replace it with a new PRV.

Table 2 outlines the unit costs for sites receiving a PRV Replacement and sites receiving a PRV Test. PRV Replacement sites include PRV testing, and parts and labor for replacing a malfunctioning PRV. PRV Test sites receive only a PRV Test when a Test result verifies a properly functioning PRV.

Table 2 Unit Costs for Sites Receiving a PRV Replacement and Sites Receiving a PRV Test				
Type of Site VisitCost Per SiteEstimated # CostTotal Cost				
Site visit resulting in PRV Replacement	\$560	390 (70%)	\$218,400	
Site visit resulting in PRV Test	\$185	170 (30%)	\$31,450	
Total		560	\$249,850	

## Research Evaluation

The PRV Pilot Program will serve as a data collection and analysis effort that will include a Program evaluation to supplement the limited data available regarding water savings associated with PRV replacement. The evaluation will quantify water saved through the PRV Pilot Program and analyze the spatial distribution and density of homes in need of PRV replacement, ultimately contributing to determining the feasibility of a future PRV Replacement Program. It is roughly estimated that 30% of visited sites may not need a PRV replaced; however, this PRV Pilot Program will provide an opportunity to gather data to firm up this number, determine the amount of water saved when a PRV is replaced, and provide awareness of the issue to the homeowner.

## Funding

The PRV Pilot Program will be implemented using a combination of funding from Metropolitan (through their Member Agency Administered (MAA) program) and Grant funds from both North and South Orange County Proposition 1 IRWM funding.

Table 3 provides a summary of the funding partnership for the PRV Pilot Program. Metropolitan has approved \$132,500 through the Metropolitan-Funded, Member Agency-Administered funding allocated to MWDOC. This was done through a proposal to Metropolitan and was approved on March 20, 2019. Proposition 1 Grant Funds requested total \$117,350 from the North (SAWPA) and South (County of Orange) funding areas. Proposition 1 Projects that include PRV replacement are currently in the funding approval stage within both of the IRWM processes. Together, the MAA and Proposition 1 funding totals \$249,850.

Table 3 PRV Replacement Program Funding Plan				
Funding Source	Cost Per Site			
Metropolitan thru its MAA program	\$132,500			
Proposition 1 IRWM Grant Funds	\$117,350			
Total	\$249,850			

## **BOARD OPTIONS**

**Option #1:** Staff recommends the Board of Directors authorize the General Manager to enter into professional services agreements with EcoTech Services, Inc. and Large Plumbing to provide pressure regulating valve testing and replacement services at a cost not to exceed \$249,850.

**Fiscal Impact:** The proposed PRV Pilot Program will be funded through a combination of Metropolitan Member Agency Administered (MAA) Program funds and Proposition 1 IRWM Grant funds, totaling \$249,850.00. The MAA funds were approved on Wednesday March 20, 2019 for \$132,500. Proposition 1 Grant agreements will be executed in the first quarter of 2020 and total \$117,350 for both the North and South County efforts.

Business Analysis: Allows staff to evaluate a potential new water savings opportunity.

Option #2: No Action

Fiscal Impact: None

Business Analysis: N/A

## STAFF RECOMMENDATION

Option # 1

## **ENGINEERING & PLANNING South Orange** MWDOC, IRWD, and Dudek have completed the initial draft study to County determine if the existing IRWD South Orange County Interconnection capacity Emergency for providing emergency water to South Orange County can be expanded and/or Service Program extended beyond its current time horizon of 2030. Based on the SOC meeting was held on April 11, 2019, a spin-off meeting was held with MWDOC, Dudek and operations staff from MNWD and South Coast WD. The purpose was to involve the operators to determine the flexibility of the SOC agencies to deal with variable flows coming from IRWD as outlined in the study. The flows from IRWD to SOC are dependent on the internal demands within IRWD and so will vary from hour to hour and day to day. The discussions indicated that the SOC agencies have considerable flexibility to deal with this situation. The operations group further discussed the sharing of SCADA data among the agencies to have actual flow signals as to what is going on. The operations group also discussed how the system would be operated if the SCADA systems were out. Finally, the operations group had several alternatives they thought should be researched by Dudek and MWDOC. Follow-up on these options will be pursued. A future meeting with all SOC agencies will be scheduled over the next month or so to continue the discussions on cost-sharing facilities and operations that will ultimately involve negotiations directly between SOC Agencies and IRWD. These discussions could also involve discussions and negotiations between SOC and other groundwater producers as well. Information being developed by OCWD and MNWD will be important to the process as well. **Strand Ranch** Staff from MWDOC and IRWD met to discuss how to capture the benefits that Project can be provided by the development of "extraordinary supplies" from the Strand Ranch Project. The meeting was beneficial in understanding each other's positions relative to emergency use and drought protection. Additional work is required based on the exchange of information and another meeting will be set. Poseidon Rob Hunter, Karl Seckel and Directors Brett Barbre and Larry Dick attended the Santa Ana Regional Water Quality Control Board (SARWQCB) on renewal of Resources the NPDES Permit for the HB Desalination Project. At the June 14, 2019 SARWQCB meeting, the Regional Board staff provided an information item update on the "Identified Need" for the Poseidon project. In evaluating whether the proposed location is the "best site feasible", the Ocean Plan directs the Regional Board to evaluate, in part, if the identified need for desalinated water is consistent with applicable water planning documents. In the case of the proposed Poseidon project, the applicable water planning documents are Municipal Water District of Orange County's (MWDOC) 2015 Urban Water

	Term Facilities Plan and considerable range of vie from the SARWQCB wa it was not highly probable position was noted that it the project if the full exter	(P), the OC Water Reliability Study, OCWD's Long other OCWD planning documents. There were a ws expressed at the meeting. One of the reactions is that they did not believe they could permit a project i e that the project would move forward. The alternative is hard to agree ahead of time to move forward with nt of terms and conditions are unknown. It is not clear up with result from this meeting.	
	e	fill be discussed in a Fall Workshop	
		nticipated issuance by the end of the year	
	Assuming success, Posei California Coastal Comm	don would then seek its final permits from the ission. The next meeting of the Santa Ana Regional pard will be held on August 2.	
SMWD Rubber Dams Project (San Juan Watershed Project) and Other Projects	<ul> <li>Santa Margarita Water District continues to focus on diversifying its water supply portfolio for south Orange County residents, businesses, schools, and visitors. At their recent Board meeting on June 21, 2019, they approved a significant Environmental Impact Report (EIR) and two Memorandums of Understanding for ocean desalinization projects.</li> <li>The San Juan Watershed Project is being planned in three-phases and has the potential to develop an additional 4,010 to 8,240 acre-feet per year in addition to making better use of other natural supplies from the San Juan Groundwater Basin. At this time, funding is only being developed for the Phase 1 project. With the release of its EIR, the project may break ground in late 2020.</li> <li>SUMMARY OF THE POTENTIAL ANNUAL AVERAGE PROJECT YIELD</li> </ul>		
	Project Phase	Phase Yield (AFY)	
	Phase I	30 – 2,000 (Average = 700)	
	Subsequent phases	3,980 - 6,240	
	TOTAL	4,010 - 8,240	
	SOURCE: WEI 2017		
	Understanding (MOU) for Water District related to 1	WD also approved two non-binding Memorandums of r ocean water desalination. One is with Orange County Poseidon Water in Huntington Beach; the other is with er at Camp Pendleton. The District is also following the	

	progress of the Doheny Desalination project led by South Coast Water District. At this time, SMWD is seeking about 1,000 AF per year from ocean desalination sources.
	Finally, construction of Orange County's largest recycled water reservoir is on track to be completed in the summer of 2020. SMWD is also making great progress towards completion of the 5,000 AF Trampas Canyon Dam and Reservoir to help them and other agencies increase the amount of recycled water available in the summer periods.
Doheny Ocean Desalination Project	South Coast WD released the Doheny Ocean Desalination Project Draft Environmental Impact Report (EIR) on May 17, 2018 and the EIR public comment period closed on August 6, 2018. Consultant GHD has finished the additional technical studies needed to address the comments received. South Coast WD has scheduled a hearing on June 27, 2019 to consider comments and subsequent approval of the final EIR.
	South Coast WD is still tracking its Grant award from the Bureau of Reclamation 'Water SMART: Desalination Construction Projects under the WIIN Act'. They are in line to receive \$8.3 M in funding, however, the funding needs to be included in the E&W Appropriations list of projects for which the Secretary of Interior intends to award grants. Congressman Levin is acting as the lead office on this request in the House.
Water Quality and Other Integration Issues for Water Supply Projects in OC	MWDOC is continuing its work into water quality issues that could arise with integration of water supply projects into existing water systems. The pH, alkalinity, TOC, bromide, chloramine residual, and other water quality characteristics may vary among these water sources on a daily, monthly and seasonal basis. Planning needs to account for the water quality and operational considerations or risk unintended consequences. Our goal is to understand the issues prior to these projects going on-line. The White Papers prepared by our consultants will be released in the next couple of weeks and a workshop will be held with our member agencies.
Phase 1 – Investigation Phase for a Hydraulic Model	MWDOC has initiated the Phase 1 "Investigation Phase" to develop a specification, cost estimate and recommendations for development of a hydraulic model of the regional pipeline system in OC, including water quality modules. The Investigation Phase includes developing scopes of work required for successful model implementation and recommendations on software selection. Key aspects of the Investigative Phase include meetings with our agencies and MET water quality staff.
Meetings	
	Karl Seckel and Charles Busslinger met with Lisa Ohlund and Jeff Smyth from EOCWD to discuss the OC-70 billing accuracy. The discussions are in the

MET and MWDOC staff met to discuss future OC demands that might be supplied by MET from their Jensen Water Treatment Plant on the far West side of the MET system. MET is considering the cost savings from down-rating the plant, but want to make sure they still retain the operating flexibility in their system to meet future demands. Further information will be shared.
Karl Seckel and Charles Busslinger met with South Coast staff to advise them of information contained in the Water Quality Integration White Papers. South Coast and their consultants were aware of the issues in the White Papers, but it was a good cross-check to verify.
Charles Busslinger MET with MET Capital Improvement Engineers and Mesa Water to help coordinate projects by both MET and Mesa in the same vicinity. It appears all of the coordination issues will be resolved. The schedules by both entities are compromised by the upcoming nesting season restrictions by the Coastal Commission.

## Status of Ongoing WEROC Projects June 2019

Description	Comments
Coordination with WEROC Member Agencies	Ongoing: WEROC, with Michael Baker as the lead consultant, is facilitating 19 agencies through the process of updating the Orange County Water and Wastewater Multi-Jurisdictional Hazard Mitigation Plan. Update: The Hazard Mitigation Plan was approved by California Office of Emergency Services (CalOES). Staff received "required revisions" from FEMA (very common for a first submittal) and is working with participating agencies to provide the additional information requested both during a working lunch and through emails. A major area of concern in FEMA's review is their initial refusal to recognize our city partners within this plan. This issue was identified in the 2012 update and we believe that we met the expectations that were communicated to us at that time. Kelly Hubbard is working with the city participants, the consultant, CalOES and FEMA to resolve this issue. The plan with revisions and a letter addressing FEMA's concern with the City Departments was resubmitted to FEMA on May 1, 2019.
	<ul> <li>Ongoing: Kelly launched an effort to facilitate a joint RFP and contract with participating WEROC member agencies to address the new requirements of the America's Water Infrastructure Act (AWIA). On October 23, 2018, Congress signed into law the American Water Infrastructure Act (AWIA) (S.3021, Law 115-270). Per Section 2013 of Title II, the AWIA requires utilities to conduct a Risk and Resilience Assessment (RRA) of their community water systems and develop a corresponding Emergency Response Plan (ERP). March 31, 2020 for systems serving population of 100,000 or more. New actions:</li> <li>The RFP was posted to the MWDOC website and shared via Linkedin and multiple social media websites on May 15, 2019. A mandatory Preproposal Conference was hosted on June 4<sup>th</sup> with fourteen consultants in attendance. Proposals were due on Monday, June 17<sup>th</sup> at 10 am. Staff received 7 proposals. A multi-agency proposal review committee met on July 19<sup>th</sup>. Staff will be requesting approval of consultant selection at the MWDOC Administration &amp; Finance Board Committee Meeting on July 10, 2019.</li> <li>Staff hosted a Kick-Off meeting for Participating agencies on June 12. The meeting was to clarify the requirements of the legislation, the project phases and deadlines, as well as expectations of WEROC, the Consultant and the Participating Agency. Similar information was provided to the MWDOC Member Agency Manager's Meeting on June 20 as well.</li> </ul>
	Karl Seckel and Kelly met with the Betty Burnett, General Manager, and Sean Peacher, Safety and Emergency Manager, of SOCWA, on June 3 <sup>rd</sup> . This is an annual meeting with SOCWA as a funding agency to discuss the WEROC budget, WEROC's goals for the coming year and what efforts SOCWA is interested in. Kelly meets with each of the funding agencies for this purpose annually.

Training and Programs	Kelly attended the Diemer Treatment Plant Dam Tabletop Exercise on June 20, 2019. The exercise included MET's Emergency Manager, Safety of Dams Manager, and Diemer staff, as well as staff from OCFA, OC Sheriff's, the City of Yorba Linda and Yorba Linda Water District. The purpose of the exercise was to discuss the 3 dams at the Diemer Plant, notification procedures, potential impacts of a failure and response actions. Kelly also attended the Initial Planning Meeting for the MET OC Member Agency Tabletop Exercise in August. The three cities, WEROC and MET staff discussed the scenario, attendees and other planning considerations.
Coordination with the County of Orange	Kelly attended the June OCEMO Exercise Design meeting in Laguna Beach. The committee is planning a county-wide exercise for March 2020. Ongoing: OC OA Alert and Warning Working Group is a new committee to develop county-wide public Alert and Warning policies, procedures and tools such as request and approval forms. This will be a 6 month planning effort.
Coordination with Outside Agencies	On-going: California Public Utilities Commission (PUC) proceedings regarding the Impacts from De-Energization with a Focus on First Responders and Local Government. MWDOC has received party status to these proceedings. Party Status ensures that we receive all communications regarding the proceedings and that our comments are included officially for consideration. Kelly Hubbard will provide a staff report at the August Planning and Operations Committee Meeting.
EOC Readiness	Janine Schunk participated in the OA and MET radio tests and WebEOC tests. She also facilitated the WEROC monthly radio test. Janine and Kelly met with ETWD electrical and maintenance staff to do a test drill of the Draft South EOC Generator Operations Guide. Staff worked through the guide step by step to ensure it would clearly assist the EOC staff in turning on the generator and operating it. ETWD staff gave excellent recommendations on how to improve the draft guidance, including some suggested safety gear that will be added on site. Janine and Kelly refreshed the water supplies at the North EOC.

# **Status of Water Use Efficiency Projects**

## July 2019

Description	Lead Agency	Status % Complete	Scheduled Completion or Renewal Date	Comments
Smart Timer Rebate Program	MWDSC	Ongoing	Ongoing	In May 2019, 261 smart timers were installed in Orange County. To date, 24,951 smart timers have been installed through this program.
Rotating Nozzles Rebate Program	MWDSC	Ongoing	Ongoing	In May 2019, 106 rotating nozzles were installed in Orange County. To date, 567,473 rotating nozzles have been installed through this program.
SoCal Water\$mart Residential Indoor Rebate Program	MWDSC	Ongoing	Ongoing	In May 2019, 289 high efficiency clothes washers and 30 premium high efficiency toilets were installed in Orange County. To date, 119,071 high efficiency clothes washers and 60,351 high efficiency toilets have been installed through this program.
SoCal Water\$mart Commercial Rebate Program	MWDSC	Ongoing	Ongoing	In May 2019, 7 commercial premium high efficiency toilets, 88 plumbing control valves, and 266 laminar flow restrictors were installed Orange County. To date, 104,853 commercial devices have been installed through this program.
Industrial Process/ Water Savings Incentive Program (WSIP)	MWDSC	75%	July 2020	This program is designed for non- residential customers to improve their water efficiency through upgraded equipment or services that do not qualify for standard rebates. Incentives are based on the amount of water customers save and allows for customers to implement custom water-saving projects. This fiscal year, three projects have been

Description	Lead Agency	Status % Complete	Scheduled Completion or Renewal Date	Comments
Industrial Process/ Water Savings Incentive Program (WSIP) (cont.)				completed, which will save over 133 AFY. Total water savings to date for the entire program is 914 AFY and 3,775 AF cumulatively.
Turf Removal Program	MWDOC	Ongoing	Ongoing	In May 2019, 31 rebates were paid, representing \$282,658 in rebates paid this month in Orange County. To date, the Turf Removal Program has removed approximately 22.3 million square feet of turf.
Spray to Drip Conversion Program	MWDOC	Ongoing	Ongoing	This is a rebate program designed to encourage residential and commercial sites to convert their existing conventional spray heads to low-volume, low-precipitation drip technology. To date, 247 residential sites and 69 commercial sites have completed spray to drip conversion projects.
Recycled Water Retrofit Program	MWDSC	100%	September 2018	This program provides incentives for commercial sites to convert dedicated irrigation meters to recycled water. To date, Metropolitan has provided a total of \$545,868.18 in funding to 33 sites irrigating 113 acres of landscape, and MWDOC has paid a total of \$56,950.00 in grant funding to 20 of those sites. The total potable water savings achieved in total by these projects is 562 AFY.