

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

Jointly with the

**PLANNING & OPERATIONS COMMITTEE**

November 12, 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,  
D. Harrison

Ex Officio Member: Director Barbre

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

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

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

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

**ACTION ITEMS**

1. AUTHORIZATION TO CONTRACT WITH DISTRIBUTION SYSTEM FLUSHING COMPANIES

**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. EMERGENCY USE OF MET SYSTEM TO MAKE MEMBER AGENCY DELIVERIES
3. SOLE SOURCE AGREEMENT WITH VALVETEK

4. AGENCIES PARTICIPATING IN METROPOLITAN'S CYCLIC COST OFFSET PROGRAM
5. CADIZ WATER CONSERVATION AND STORAGE PROJECT (CADIZ PROJECT): NEW THREE VALLEYS MWD STUDY ON BONANZA SPRINGS
6. STATE WATER BOARD TRIENNIAL REVIEW OF THE OCEAN PLAN – RE-OPENING THE DESALINATION AMENDMENT
7. STATUS REPORTS
  - a. Ongoing MWDOC Reliability and Engineering/Planning Projects
  - b. WEROC
  - c. Water Use Efficiency Projects
8. 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**  
November 20, 2019

**TO:** Board of Directors

**FROM:** **Planning & Operations Committee**  
(Directors Yoo Schneider, Dick, Tamaribuchi)

Robert Hunter  
General Manager

Staff Contact: J. Berg  
Director of Water Use Efficiency

**SUBJECT: Authorization to Contract with Distribution System Flushing Companies**

**STAFF RECOMMENDATION**

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Staff recommends the Board of Directors authorize the General Manager to enter into five-year contracts with Reliable Water Solutions, Inc. and ValveTek Utility Services, Inc. to provide Distribution System Flushing Services to retail water agencies throughout Orange County as part of MWDOC's Water Loss Control Shared Services.

**COMMITTEE RECOMMENDATION**

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Committee recommends (To be determined at Committee Meeting)

**SUMMARY**

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In December 2018, the Board adopted the Water Loss Control Shared Services Business Plan and authorized staff to begin offering a variety of shared services to water agencies throughout Orange County. Staff has completed a request for proposals process that identified two companies that provide unidirectional distribution system flushing services using the Neutral Output Discharge Elimination System (NO-DES) technology.

**DETAILED REPORT**

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The Water Loss Control Shared Services Business Plan includes unidirectional distribution system flushing services using the Neutral Output Discharge Elimination System (NO-DES) technology. System flushing is an important strategy to maintain water quality standards in the distribution system. Traditional flushing simply flushes water out of a fire hydrant and into the street, wasting significant volumes of water and creating negative public perception.

<b>Budgeted (Y/N):</b> N/A	<b>Budgeted amount:</b> N/A	<b>Core</b> __	<b>Choice</b> <u>X</u>
<b>Action item amount:</b> N/A		<b>Line item:</b> 70	
<b>Fiscal Impact (explain if unbudgeted):</b> Flushing services will be paid by agencies accessing this shared service.			

NO-DES flushing is unique because it pulls water from one hydrant, processes it through filter vessels, and places it back into the distribution system through a second hydrant. NO-DES also achieves higher flush velocities than traditional flushing, which provides more effective cleaning of debris and biofilm from the pipe walls. The NO-DES system monitors turbidity, chlorine residual, and pressure. If chlorine residuals drop below the desired level, NO-DES can add chlorine if requested by the water agency. Water agency staff work in conjunction with NO-DES operators to open and close distribution system valves systematically to flush broader and broader sections of the distribution system, allowing the NO-DES flushing system to remain stationary each day.

MWDOC's role in providing this shared service is to select and contract with distribution system flushing companies and to coordinate flushing services with agencies. Retail agencies accessing these services will pay all costs charged by flushing contractors, along with an administrative fee to MWDOC for coordination of these services. MWDOC's administrative fee is \$1,373 and provides for staff time for coordination and supervision of flushing services.

Staff prepared a Request for Proposals (RFP) describing the desired flushing services. The RFP was released on March 12, 2019 and required proposals to be submitted by March 26, 2019. Staff received two proposals by the deadline. Staff convened a proposal review panel that included staff from MWDOC, South Coast Water District, and Yorba Linda Water District. Review panel members reviewed and scored the proposals independently. Scoring categories included Scope of Work and Methodology, Team Experience and Capabilities, References, Schedule, and Fees. Panel member scores were then compiled into final composite scores, which only differed by six points between the two contractors. Both contractors are licensed by NO-DES to provide flushing services nation-wide and have southern California-based offices. Both contractors offered common pricing structure, which are summarized in Table I. For these reasons, the review panel concluded that both contractors are well qualified to provide flushing services.

<b>Table I</b> <b>Neutral Output Discharge Elimination System Flushing</b> <b>Cost Proposal</b>		
	<b>Reliable Water Solutions, Inc.</b>	<b>ValveTek Utility Services, Inc.</b>
Mobilization	\$500	\$500
Disinfection of Flushing Equipment	\$1,500	\$1,500
Daily Flushing Fee	\$3,700	\$3,700
Weekly Flushing Fee	\$18,500	\$18,500
Filter Bags (ea.)	\$15	\$15

As of the writing of this staff report, only the City of Westminster has committed to accessing the Distribution System Flushing Shared Service; however, several other agencies have expressed interest. Because of this, it is difficult to estimate the total cost of these services over the next five years.

Staff recommends the Board of Directors authorize the General Manager to enter into five-year contracts with Reliable Water Solutions, Inc. and ValveTek Utility Services, Inc. to

provide Distribution System Flushing Services to retail water agencies throughout Orange County. Contracting with two companies will give agencies a choice of contractors for flushing services and will maximize the availability of flushing services.

## BOARD OPTIONS

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### Option #1

- Staff recommends the Board of Directors authorize the General Manager to enter into five-year contracts with Reliable Water Solutions, Inc. and ValveTek Utility Services, Inc. to provide Distribution System Flushing Services to retail water agencies throughout Orange County as part of MWDOC's Water Loss Control Shared Services.

**Fiscal Impact:** None

**Business Analysis:** This recommendation is consistent with the Water Loss Control Shared Services Business Plan adopted by the Board in December 2018.

### Option #2

- Do not facilitate Distribution System Flushing Services for retail agencies.

**Fiscal Impact:** Will require agencies to invest considerable staff time to conduct Request for Proposals processes to hire flushing contractors.

**Business Analysis:** This recommendation is not consistent with the Water Loss Control Shared Services Business Plan adopted by the Board in December 2018.

## STAFF RECOMMENDATION

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### Option #1



**INFORMATION ITEM**

November 12, 2019

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

**FROM: Robert Hunter, General Manager**

Staff Contact: Karl Seckel

**SUBJECT: Emergency Use of MET System to Make Member Agency Deliveries**

**STAFF RECOMMENDATION**

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

**COMMITTEE RECOMMENDATION**

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Committee recommends (To be determined at Committee Meeting)

**SUMMARY**

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At the July 2019 Metropolitan Water District of Southern California (MET) Board meeting, MET Administrative Code amendments were approved to enable deliveries of member agency water supplies in MET's system during an emergency event. Attached is the MET Board document and the new Administrative Code language.

Allowing use of portions of the MET system by its member agencies in an emergency situation provides delivery options for water that otherwise would not exist. Under this policy, the use of the MET system can only occur under specific emergency conditions, subject to the approval of MET's General Manager. The policy only allows such deliveries if MET is unable to make deliveries to a member agency due to physical damage to MET's system resulting from a natural disaster or other emergency, and there are no alternate means for MET or the member agency to provide service to the area without the use of a portion of MET's system.

<b>Budgeted (Y/N):</b>	Budgeted amount: n/a	Core ✓	Choice __
<b>Action item amount: n/a</b>	Line item:		
<b>Fiscal Impact (explain if unbudgeted):</b>			

MWDOC has long advocated for options related to “pump-in” and conveyance of water in the MET system and has put forth various proposals over the years for introduction of water into either the East Orange County Feeder No. 2 (EOCF No.2), the Allen McColloch Pipeline (AMP) or the South County Pipeline (SCP). The only successes to date were:

- In 2009, the MET Board authorized its General Manager to execute a service connection agreement to allow an emergency pump-in to the AMP at service connection OC-72 (in the IRWD service area). The concept was to move emergency water through the AMP to the South County Pump Station to allow the water to be conveyed in the South County Pipeline. MET proposed to utilize wheeling regulations to move the water. Ultimately, because of technical issues getting the water to the South County Pump Station, this project was withdrawn by MWDOC.
- At the same time, MET’s General Manager was authorized to execute an agreement to allow water from the Upper Chiquita Reservoir to be delivered back into the South County Pipeline. Ultimately, this was accomplished without the need for an agreement. The provisions for accomplishing this had been included in the agreements in which MET participated in construction of the South County Pump Station. MET’s final approval by way of a letter to MWDOC was worded in the following manner:
  - “For the SCP Tie-in project, MWDOC submitted plans and specifications as well as a surge analysis report. The Metropolitan Water District of Southern California (Metropolitan) has reviewed the project plans and specifications, and the surge analysis report, and we have no comments. Provided that MWDOC follows the submitted plans and specifications, and complies with the recommendations in the surge analysis report, Metropolitan is satisfied that the SCP Tie- in project will not cause damaging hydraulic transients to our facilities.”
- Also at the same time, MET’s General Manager, was authorized to negotiate agreements for subsequent board consideration for using the Southern section of the AMP to deliver water from the Baker Water Treatment Plant. It was noted that the agreements will define terms of the lease agreements and wheeling service charges for the movement of local water in the AMP and through the South County Pump Station, if and when applicable. A lease agreement was the concept to be utilized.
  - It took until 2011 to negotiate an agreement with MET. The item was set to go to the MET Board in May of 2011 when the agreement was pulled by MWDOC. The final negotiation of a Lease Agreement to pump-in and move water in the southern portion of the AMP had resulted in additions and requirements by MET to such a degree that the Baker Participants finally decided to build their own pump station and pipeline to the SCP and not utilize the AMP. Thus the item was pulled from the MET agenda.

MWDOC is extremely interested in this most recent proposal by MET and has volunteered to assist MET by working to develop the necessary agreements ahead of time to allow facilities to be located in such a manner that water could be moved from groundwater wells in a relatively quick manner to send it through the EOCF No. 2 to connect to pipelines to deliver the water to South Orange County. We believe there may be opportunities to utilize the EOCF No. 2 to also allow base-loaded deliveries through the system based on MWDOC's ownership in the pipeline. Legally, there may be a hurdle either between MET and MWDOC or between MWDOC and its agencies who have been assigned capacity in the EOCF No. 2, regarding use of capacity to convey other than MET water in the facility. MWDOC will continue to work on resolution of these issues and will keep the Board informed.





- Board of Directors  
*Engineering and Operations Committee*

7/9/2019 Board Meeting

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**8-4**

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## **Subject**

Authorize amendments to the Administrative Code regarding deliveries of member agency water supplies in Metropolitan's system in an emergency; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA

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## **Executive Summary**

Administrative Code amendments are being proposed to enable deliveries of member agency water supplies in Metropolitan's system in an emergency. These deliveries are intended to provide Metropolitan's member agencies the ability to deliver member agency water through Metropolitan's system under specific emergency conditions, subject to the General Manager's approval. Emergency deliveries can only be made if Metropolitan is unable to make deliveries to a member agency due to physical damage to Metropolitan's system resulting from a natural disaster or other emergency, and there are no alternate means for Metropolitan or the member agency to provide service to an area without the use of a portion of Metropolitan's system.

### **Timing and Urgency**

The proposed amendments to the Administrative Code will provide the member agencies with an additional option for making deliveries to areas of their system that are impacted by an emergency and have no feasible delivery options, subject to the General Manager's approval. These amendments will also enable member agencies to effectively plan for emergencies by proactively developing emergency delivery proposals for Metropolitan to evaluate in advance of an actual emergency.

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## **Details**

### **Background**

Metropolitan has a robust water system reliability program that enhances infrastructure reliability through a variety of initiatives to address seismic vulnerabilities and augment the resiliency of the system. Examples include the Prestressed Concrete Cylinder Pipe Rehabilitation and Replacement Program, and the Water Treatment Plant Seismic Upgrade Program. Another key component supporting system reliability is the Emergency Response Program that ensures Metropolitan is prepared to respond and recover from an earthquake or other emergency. The Emergency Response Program involves many critical efforts, including maintaining in-house manufacturing and construction capability, emergency communications capability through a two-way radio network, and partnerships and mutual assistance capability with the member agencies and other agencies throughout the State.

In an effort to enhance water delivery reliability after a serious emergency that renders Metropolitan unable to make deliveries to a specific area of the system, staff is proposing to allow the member agencies to utilize undamaged portions of Metropolitan's system to make deliveries of member agency water supplies under certain emergency conditions. This capability would provide another option to maintain deliveries to retail water users in the service area after an emergency interruption. Although Metropolitan currently has plans and agreements with the member agencies for responding to an emergency, there is a lack of clarity regarding the use of Metropolitan's system under emergency conditions in which Metropolitan cannot meet member agency delivery requests. Staff proposes changes to the Administrative Code to clarify the conditions of these emergency deliveries in a proactive way, instead of a reactive way in response to damaged infrastructure following a serious emergency.

Should these Administrative Code changes be implemented, a clearer path would be available for member agencies to prepare proposals for review by Metropolitan for potential emergency deliveries, in advance of a serious emergency. Authorization to utilize Metropolitan's system under specific emergency conditions requires amendments to add a new section to Division IV, Chapter 5 of the Administrative Code. The proposed new section is set forth in Attachment 1. The section below summarizes the proposed changes.

### **Summary and Explanation of Proposed Additions to Administrative Code, Division IV, Water Service Policies**

#### **Changes to Chapter 5: Water Service Regulations – General**

Add Section 4519 (Emergency Deliveries of Member Agency Water Supplies in Metropolitan's System) to provide Metropolitan's member agencies the ability to deliver member agency water supplies through Metropolitan's system under specific emergency conditions, subject to the General Manager's approval and the following conditions:

##### **a) Emergency**

For the purposes of this proposed Administrative Code change, an emergency is defined as a condition where Metropolitan is physically unable to make deliveries for greater than seven days to a member agency service connection due to damage associated with a natural disaster or other emergency, as determined solely by Metropolitan's General Manager. For purposes of an emergency under this proposed change, any water supplied by a member agency into Metropolitan's system is considered member agency water, even if all or part of that supply was originally a Metropolitan water delivery. The determination of an emergency shall be made solely by Metropolitan's General Manager.

##### **b) Emergency Deliveries**

Use of Metropolitan's system for emergency delivery of member agency water supplies will only be considered if there are no alternate means for Metropolitan to make deliveries to the member agency's system through another service connection on Metropolitan's system, and the member agency has no feasible alternate method(s) to provide extended service to an area without the use of Metropolitan's system. Feasible alternate methods include, but are not limited to, use of interconnections with neighboring agencies, delivery of other local supplies, and use of local emergency storage reserves. The determination of feasible alternate methods shall be made solely by Metropolitan's General Manager. The goal of these Administrative Code changes is to help ensure water can be supplied to a geographic area in an emergency. It is not for use as a means to increase reliance on Metropolitan's system by offsetting other member agency funded emergency reliability or resiliency projects. It is also not intended for use to offset mandatory conservation measures or a Water Supply Allocation.

##### **c) Multiple Agencies**

A member agency may move its supplies through Metropolitan's system due to an emergency: (1) to make emergency deliveries to itself, and/or (2) to make emergency deliveries to one or more other member agencies that request this because the agency or agencies have no feasible alternate methods of delivery. In the latter situation, all of the requirements, liabilities, and indemnifications of a member agency in this section shall be divided or shared between the participating member agencies, and Metropolitan shall have no such responsibilities. The participating member agencies shall agree to the division or sharing of requirements, liabilities, and indemnifications in writing in advance of the emergency deliveries, subject to Metropolitan's review and approval. The term "member agency" is referred to in singular form throughout this section, but can apply to multiple participating agencies, where applicable.

##### **d) Ability to Serve**

Metropolitan's General Manager reserves the right to determine if Metropolitan's system will be used for emergency deliveries subject to available system capacity and facility impacts. Emergency deliveries of member agency water supplies may not occur if doing so impairs or impedes Metropolitan's emergency recovery efforts.

**e) Water Quality Standards and Liability**

The member agency will be responsible for meeting all water quality standards and requirements for member agency water introduced into Metropolitan's system during the emergency deliveries. The member agency assumes all risk of any adverse impacts to downstream water quality in Metropolitan's system and any other system that could be affected by the emergency deliveries. Prior to the initiation of emergency deliveries of member agency water supplies in Metropolitan's system, the member agency shall provide water quality data to confirm the compatibility of the member agency water supply (either treated or untreated) with Metropolitan's water and distribution system. The member agency is responsible for obtaining all required drinking water permits and/or approvals for the new water source(s) from the State Water Resources Control Board, Division of Drinking Water. If another member agency is not participating in emergency deliveries but is affected by a member agency's participation (e.g., the affected agency has an operational service connection receiving Metropolitan's water from the west, and this connection is also incidentally receiving emergency deliveries being made from the east, due to its location downstream of where the emergency deliveries are being made), the participating member agency will coordinate with the affected agency and ensure that all compliance and permitting requirements are met for the affected agency.

**f) Indemnification**

The member agency must indemnify Metropolitan for any claims arising from the emergency deliveries as set forth in Section 4502 of Metropolitan's Administrative Code, as may be amended over time, and from any costs or liability arising out of any violation by the member agency of any laws or regulations related to the emergency deliveries, including but not limited to CEQA and its implementing regulations. In addition to indemnity under Section 4502 of Metropolitan's Administrative Code, the member agency shall defend, indemnify, and hold harmless Metropolitan, its Board of Directors and its officers, agents, and employees from all liability and claims of any kind arising out of or in connection with any effects on the member agency's, its member subagencies', or any other affected parties' water quality and/or operations as a result of the emergency deliveries.

**g) System Integrity**

The member agency is responsible for the costs of repairing any damage that occurs in the portion of Metropolitan's system being used and affected by the member agency during the period of emergency deliveries. Metropolitan may elect to perform the repairs on a reimbursable basis, at the General Manager's sole discretion.

**h) Compensation**

The member agency will not be required to pay Metropolitan's rate for wheeling service for the emergency deliveries of member agency water. This is conditioned on the idea that Metropolitan and the member agency have no other options available to provide service to a specific area after an emergency until the damage to Metropolitan's system is repaired. However, the member agency is required to reimburse Metropolitan for its direct costs and administration fees, as determined by the General Manager, during the emergency delivery (e.g., use of a Metropolitan pump station to make emergency deliveries of member agency water supply). In addition, the member agency will pay Metropolitan's full-service rate (all rates and charges that apply to full-service deliveries) for Metropolitan's water flushed through Metropolitan's system at the conclusion of the emergency deliveries.

**i) Operational Requirements**

The member agency is responsible for ensuring that emergency deliveries of member agency water comply with Administrative Code requirements including, but not limited to, Chapter 8: System Interconnections – Hydraulic Transients. The member agency shall request and obtain approval from Metropolitan for emergency deliveries in advance of initiating emergency deliveries, and Metropolitan shall determine whether to commence emergency deliveries at its sole discretion.

At the conclusion of the emergency deliveries, a short shutdown will occur to flush the system with Metropolitan water and return the system to its normal operating configuration. The member agency agrees to cooperate with Metropolitan to return the system to its normal operating configuration as soon as possible

after the restoration of Metropolitan's system, as determined by Metropolitan's General Manager. Alternatively, the member agency can opt for Metropolitan to flush the system by pushing the member agency water supplies through the system and back to the member agency for its own use, if the member agency accepts responsibility for this process.

#### **j) Term for Emergency Deliveries**

In his sole discretion, Metropolitan's General Manager shall determine when the emergency begins and when the emergency ends because emergency deliveries are no longer necessary or need to be discontinued.

Emergency deliveries of member agency water supplies shall not exceed one year in length unless a longer term is approved by Metropolitan's board. Metropolitan will endeavor to provide the member agency with 72 hours advance notice of the conclusion of the emergency and the return of normal operations.

### **Policy**

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Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

Metropolitan Water District Administrative Code Chapter 5 – Water Service Regulations – General

Metropolitan Water District Administrative Code Section 4119 (Wheeling Service)

Metropolitan Water District Administrative Code Section 4405 (Wheeling Service)

Metropolitan Water District Administrative Code Chapter 8 – System Interconnections – Hydraulic Transients

Metropolitan Water District Administrative Code Section 4502 (Liability and Indemnification)

### **California Environmental Quality Act (CEQA)**

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#### **CEQA determination for Option #1:**

The proposed action is not defined as a project under CEQA because it involves continuing administrative activities, such as general policy and procedure making (Section 15378(b)(2) of the State CEQA Guidelines). In addition, where it can be seen with certainty that there is no possibility that the proposed action in question may have a significant effect on the environment, the proposed action is not subject to CEQA (Section 15061(b)(3) of the State CEQA Guidelines).

#### **CEQA determination for Option #2:**

None required.

### **Board Options**

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#### **Option #1**

Authorize amendments to the Administrative Code regarding deliveries of member agency water supplies in Metropolitan's system in an emergency

**Fiscal Impact:** None

**Business Analysis:** These amendments provide an option for the member agencies to deliver member agency water supplies through Metropolitan's system to areas that cannot receive deliveries from Metropolitan due to damage following a natural disaster or other emergency. These amendments are intended for use only if there are no options available to make water deliveries to the affected area, subject to the General Manager's approval.

#### **Option #2**

Do not authorize amendments to the Administrative Code regarding deliveries of member agency water supplies in Metropolitan's system in an emergency.


**Fiscal Impact:** None

**Business Analysis:** This option could limit the ability to make water deliveries to portions of Metropolitan's service area that cannot receive these deliveries due to damage following a natural disaster or other emergency.

**Staff Recommendation**

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Option #1

  
\_\_\_\_\_  
Brent M. Yamasaki  
Interim Manager, Water System Operations

6/26/2019  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Jeffrey Kightlinger  
General Manager

6/27/2019  
\_\_\_\_\_  
Date

**Attachment 1 – Proposed New Addition to the Administrative Code as Section 4519**

Ref# wso12666566

**§ 4519. Emergency Deliveries of Member Agency Water Supplies in Metropolitan's System**

Emergency deliveries of member agency water supplies in Metropolitan's system are intended to provide Metropolitan's member public agencies the ability to deliver member agency water supplies through Metropolitan's system under specific emergency conditions, subject to the General Manager's approval and the requirements listed herein.

(a) Emergency: For the purposes of this section, an emergency shall be defined as a condition in which Metropolitan is physically unable to make deliveries to an operable existing member agency service connection due to damage associated with a natural disaster or other catastrophic event, for a period expected to be greater than seven days. For purposes of an emergency under this section, member agency supplies include any water the member agency introduces into Metropolitan's system even if all or part of its supply was originally delivered to the member agency by Metropolitan. The determination of an emergency shall be made solely by Metropolitan's General Manager.

(b) Emergency Deliveries: Use of Metropolitan's system for emergency deliveries of member agency water supplies will only be considered if:

- i) There are no alternate means for Metropolitan to make deliveries to the member agency's system through another service connection on Metropolitan's system, and
- ii) The member agency has no feasible alternate method(s) to provide extended service to an area without the use of Metropolitan's system. Feasible alternate methods include, but are not limited to, use of interconnections with other neighboring agencies, delivery of other member agency water supplies, and use of local emergency storage reserves. The determination of feasible alternate methods shall be made solely by Metropolitan's General Manager.

(c) Multiple Agencies: A member agency may move its supplies through Metropolitan's system due to an emergency: (i) to make emergency deliveries to itself, and/or (ii) to make emergency deliveries to one or more other member agencies that request this because the agency or agencies have no feasible alternate methods of delivery. In the latter situation, all of the requirements, liabilities, and indemnifications of a member agency in this section shall be divided or shared between the participating member agencies, and Metropolitan shall have no such responsibilities. The participating member agencies shall agree to the division or sharing of requirements, liabilities, and indemnifications in writing in advance of the emergency deliveries, subject to Metropolitan's review and approval. The term "member agency" is referred to in singular form throughout this section, but can apply to multiple participating agencies, where applicable.

(d) Ability to Serve: Metropolitan's General Manager reserves the right to determine if Metropolitan's system will be used for emergency deliveries subject to available system capacity and facility impacts. Emergency deliveries of member agency water supplies may not occur if doing so impairs or impedes Metropolitan's emergency recovery efforts.

(e) Water Quality Standards and Liability: The member agency will be responsible for meeting all water quality standards and requirements for its member agency water supplies introduced into Metropolitan's system during the emergency and until Metropolitan's system is completely flushed with Metropolitan's water at the conclusion of the emergency operation. In addition:

- i) The member agency shall assume all risk of any adverse impacts to water quality and system conditions attributable to its emergency deliveries of member agency water supplies through Metropolitan's system and other affected facilities, including all other affected downstream member agency connections and systems that may receive all or part of the member agency water supplies.
- ii) Prior to initiation of emergency deliveries, the member agency will provide the necessary water quality data to confirm the compatibility of its member agency water supplies (either treated or untreated) with Metropolitan's water and distribution system. Water quality characteristics of the supplied water must be compatible with Metropolitan's water to ensure compliance with regulatory, aesthetic, physical, and operational objectives in Metropolitan's system.
- iii) The member agency is responsible for obtaining all required drinking water permits and/or approvals for the new water source(s) from the State Water Resources Control Board, Division of Drinking Water. If another member agency is not participating in emergency deliveries but is affected by a member agency's participation, the participating member agency will coordinate with the affected agency and ensure that all compliance and permitting requirements are met for the affected agency.

(f) Indemnification: The member agency must indemnify Metropolitan for any claims arising from the emergency deliveries as set forth in Section 4502 of Metropolitan's Administrative Code, as may be amended over time, and from any costs or liability arising out of any violation by the member agency of any laws or regulations related to the emergency deliveries, including but not limited to CEQA and its implementing regulations. In addition to indemnity under Section 4502 of Metropolitan's Administrative Code, the member agency shall defend, indemnify, and hold harmless Metropolitan, its Board of Directors and its officers, agents, and employees from all liability and claims of any kind arising out of or in connection with any effects on the member agency's, its member subagencies', or any other affected parties' water quality and/or operations as a result of the emergency deliveries.

(g) System Integrity: The member agency is responsible for paying for all costs of repairing any damage resulting from the emergency deliveries that occurs in the portion of Metropolitan's system being used and affected by the member public agency during the period of emergency deliveries. To ensure the timely return of Metropolitan's facilities to service and in accordance with Metropolitan's standards, Metropolitan may elect to perform the repairs on a reimbursable basis, at the General Manager's discretion.

(h) Compensation: The member agency will compensate Metropolitan for the delivery of member agency water supplies through Metropolitan's system as follows:

- i) The member agency will not be required to pay Metropolitan's rate for wheeling service for the delivery of the member agency's water supplies through Metropolitan's system during an emergency.
- ii) The member agency will pay Metropolitan for its direct costs and administration fees, as determined by the General Manager, incurred as a result of the emergency deliveries (e.g., costs associated with the use of a Metropolitan pump station to make emergency deliveries of member agency water supplies or system modifications needed to facilitate emergency deliveries).
- iii) The member agency will pay Metropolitan's full service rate (all rates and charges that apply to full service deliveries) for Metropolitan water flushed through Metropolitan's system at the conclusion of the emergency for flushing related to emergency deliveries. Flushing costs related to Metropolitan's own activities (e.g. flushing a repair zone upstream of the area used by the member agency for emergency deliveries) are not the responsibility of the member agency.

(i) Operational Requirements: Operational requirements for the emergency deliveries of member agency water supplies in Metropolitan's system include:

- i) The member agency is responsible for ensuring that emergency deliveries of member agency water comply with Administrative Code requirements, including but not limited to, Chapter 8: System Interconnections – Hydraulic Transients.
- ii) The member agency shall request and obtain approval from Metropolitan for emergency deliveries of member agency water supplies into Metropolitan's system in advance of initiating emergency deliveries.
- iii) Metropolitan shall permit commencement of emergency deliveries of member agency water supplies at its sole discretion.
- iv) At the conclusion of the emergency, a short shutdown will occur to flush the system with Metropolitan water and return the system to its normal operating configuration. The member agency agrees to cooperate with Metropolitan to return the system to its normal operating configuration as soon as possible after the restoration of Metropolitan's system, as determined by Metropolitan's General Manager.
- v) Alternatively, rather than flushing the system with Metropolitan water at the conclusion of the emergency, the member agency can opt for Metropolitan to flush the system by pushing the member agency water supplies back to the member agency for its own use, if the member agency accepts responsibility for this process.



(j) Term for Emergency Deliveries: In his sole discretion, Metropolitan's General Manager shall determine: (i) when the emergency begins; and (ii) when the emergency ends because emergency deliveries are no longer necessary or need to be discontinued. Emergency deliveries of member agency water supplies shall not exceed one year in length unless a longer term is approved by Metropolitan's Board of Directors. Metropolitan will endeavor to provide the member agency with 72 hours' notice of the conclusion of the emergency and the return of normal operations.

# MUNICIPAL WATER DISTRICT OF ORANGE COUNTY

*Fiscal Year 2019-20*

## ***Sole Source Procurement Justification for Projects under \$25,000\****



- A. Supplier Information/Name of Company and Prime Contact at the Supplier and at MWDOC:

ValveTek Utility Services, Inc.  
Jeff Favina, President  
Interhaven Avenue, North Plainfield, NJ 07060  
(347) 739-4674

- B. Contract awards to Supplier over prior 36-months:

None

- C. Product(s) or Service(s) to be provided and Deliverables:

Unidirectional Distribution System Flushing Services for the City of Westminster Water Department.

- D. Justification Definition\*\*

Westminster water was experiencing an urgent water quality challenge due to the 405 Freeway construction and ValveTek was available and willing to perform one week of flushing at a discounted rate.

- E. Narrative Explanation:

The City of Westminster elected to access Distribution System Flushing through MWDOC's Water Loss Control Shared Services. Staff has completed a Request for Proposals Process for Distribution System Flushing services, but has not yet been granted Board authorization to contract with flushing contractors. The RFP process found two qualified flushing contractors including Reliable Water Solutions, LLC. and ValveTek Utility Services, Inc. Board authorization to contract with both flushing contractors is planned for November 2019.

Westminster has indicated that they will access additional flushing once MWDOC Board authorization is granted.

- F. Budget Line Item Reference & Amount:

\* Projects over \$25,000 must go to a Committee of the Board.


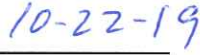


\*\* Possible justifications include but are not limited to: Only qualified bidder; Proprietary item; Urgent necessity; Bid process did not produce competitors; Governmental agency, association or Utility; Prior phase of professional services contract completed successfully by same Consultant; and Special technical expertise by Consultant for tasks desired.

These flushing services will be paid in full by the City of Westminster per the Shared Services Agreement.

G. Core or Choice designation:

Choice Water Loss Control Shared Services

H. Signature/Approvals:

	
Requestor	Date
	
General Manager	Date

\* Projects over \$25,000 must go to a Committee of the Board.

\*\* Possible justifications include but are not limited to: Only qualified bidder; Proprietary item; Urgent necessity; Bid process did not produce competitors; Governmental agency, association or Utility; Prior phase of professional services contract completed successfully by same Consultant; and Special technical expertise by Consultant for tasks desired.



**INFORMATION ITEM**

November 12, 2019

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

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

Staff Contact: Harvey De La Torre  
Melissa Baum-Haley  
Chris Lingad

**SUBJECT: AGENCIES PARTICIPATING IN METROPOLITAN'S CYCLIC COST  
OFFSET PROGRAM**

**STAFF RECOMMENDATION**

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Staff recommends the Planning & Operations Committee receive and file.

**SUMMARY**

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Metropolitan's (MET) Cyclic Cost Offset Program (also known as "Cyclic In-Lieu Deliveries") offers a financial credit to offset the costs of delivering surplus imported water into Cyclic Storage Accounts to its member agencies. For Orange County, Cyclic In-Lieu Deliveries are an alternative method of delivering more imported water into the groundwater basin during very wet years. The Cyclic In-Lieu Deliveries are only available when MET's General Manager has determined MET has optimized all of its storage "put" capacity and is in a position of losing water.

Upon evaluation of current conditions of the OC groundwater basin, OCWD has opted to take up to 33,000 acre-feet of cyclic water this calendar year. Deliveries began via both Direct Cyclic and In-Lieu delivery methods commencing in late-August and September 2019, respectively.

In coordination with OCWD staff and three participating groundwater producers, MWDOC staff is administering the operations of the program and submitting monthly certification forms to Metropolitan. The purpose of this report is to provide the MWDOC Board with information on who is participating in the program this year and deliveries received.

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

## BACKGROUND

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Two years ago (August 2017), MWDOC, Orange County Water District (OCWD) and MET signed a 10-year Cyclic Storage Account agreement that allows the pre-delivery of additional imported water (up to 100,000 AF) to be stored into the OC groundwater basin and be purchased over a mutually agreed upon payment schedule not to exceed 5 years. The delivery of this water can be done through direct spreading or injection, and, under unique conditions authorized by MET's General Manager, through in-lieu means. Acceptance of water into the Cyclic Storage Account is at the discretion of MWDOC/OCWD.

The benefit of Cyclic Storage Accounts for MET is the ability to store additional water within its service area, increase regional reliability with more dry-year storage, and to generate additional revenue during a wet year when water sales are typically low. It is a water management tool MET can exercise quickly during times of surplus conditions to increase in-region storage.

The benefit to the local agencies is the ability to store additional water that is under more local control. As it is a pre-delivery program, it improves local reliability (i.e. increases the OC basin groundwater level) and allows an agency to purchase this water over a set period time.

Although MET prefers to deliver cyclic water to a groundwater basin via spreading grounds, under unique circumstances deliveries can occur via in-lieu means. For a groundwater agency to take in-lieu water, a financial credit must be provided to offset the treated water costs to make them financially neutral. Metropolitan offers a financial credit up to \$225/AF to the local agencies for water certified.

On July 19, 2019, the MET General Manager stated that as this year's water supplies are well above average and water demands continue to trend low, the supply versus demand balance is projecting that MET will end the calendar year with record amounts of water in regional storage reserves. Thus, setting the conditions to make Cyclic In-Lieu Deliveries of water available, MET implemented the Cyclic Cost Offset Program effective August 1<sup>st</sup> 2019, for any member agency seeking such deliveries.

## STATUS UPDATE

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OCWD has consistently supported the delivery of Direct as well as In-Lieu Cyclic water. While it was initially reported to the MWDOC Board, as part of the August 21, 2019 Action Item to enter into MET agreement for Cyclic In-Lieu deliveries, that OCWD would refrain from participation in the Cyclic Cost Offset Program at that time. Upon re-evaluation of current conditions of the OC groundwater basin, OCWD has opted take up to approximately 33 TAF of cyclic water this calendar year via both Direct Cyclic and In-Lieu delivery methods as described below:

- Cyclic In-Lieu deliveries can total approximately 9.5 TAF through the participation of the City of Huntington Beach, Irvine Ranch Water District, and Mesa Water. Of note, these producers are not impacted by the presence of polyfluoroalkyl substances (PFAS) which has been identified in the northeast part of the OC groundwater basin.

The Cyclic In-Lieu deliveries commenced in September 2019. Thus far, approximately 3.7 TAF has been delivered.

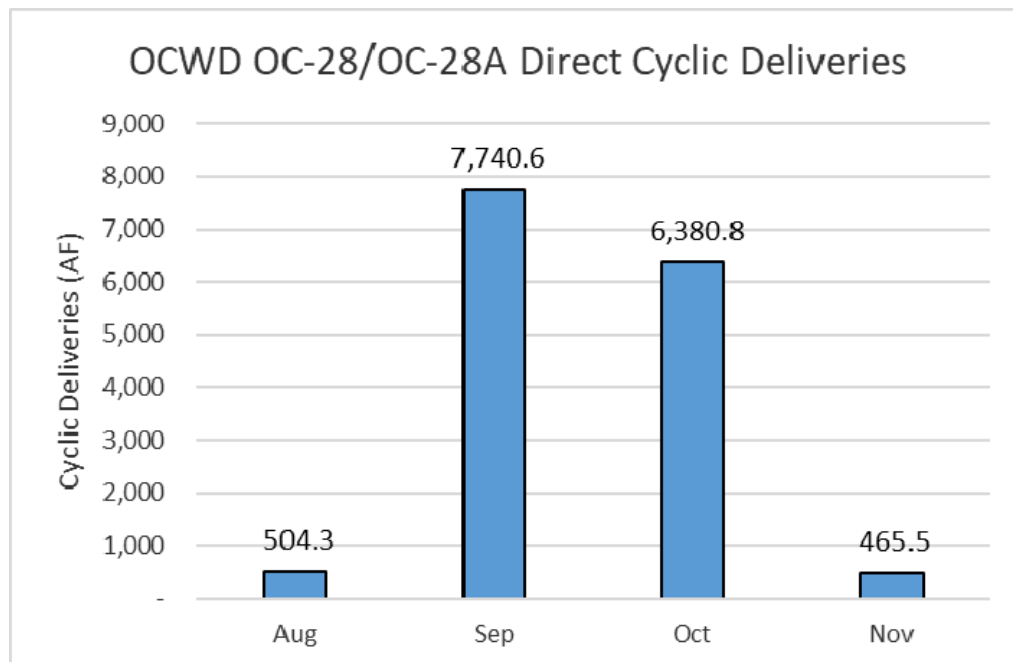
- The remaining deliveries are anticipated through OC-28/OC-28A via direct spreading. These deliveries commenced in late-August 2019 and to date, approximately 15 TAF has been delivered.

Total Cyclic deliveries (Direct and In-Lieu) as of November 6, 2019 is 18.7 TAF.

MWDOC staff will return to the MWDOC Board with a year-end update on progress toward achieving the storage goal. Further, OCWD anticipates purchase of these 2019 Cyclic Cost Offset Program deliveries by the end of the calendar year to capitalize on the current 2019 rates.

**FY 2019-20 Cyclic In-Lieu Deliveries by Agency (AF)**

In-Lieu Credits	SEP	OCT	NOV	DEC	TOTAL
City of Huntington Beach	951.9	626.8			1,578.7
Irvine Ranch Water District	1,710.6				1,710.6
Mesa Water	150.0	257.3			407.3
<b>Agency Total</b>	<b>2,812.5</b>	<b>884.1</b>	<b>0.0</b>	<b>0.0</b>	<b>3,696.6</b>





**INFORMATION ITEM**  
November 12, 2019

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

**FROM: Robert Hunter, General Manager**

Staff Contact: Karl Seckel

**SUBJECT: Cadiz Water Conservation and Storage Project (Cadiz Project): NEW  
Three Valleys MWD Study on Bonanza Springs**

**STAFF RECOMMENDATION**

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

**COMMITTEE RECOMMENDATION**

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Committee recommends (To be determined at Committee Meeting)

**SUMMARY**

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Karl Seckel participated in an October 10, 2019 Workshop at Three Valleys MWD (Three Valleys). Three Valleys is a potential customer of the Cadiz Water Conservation and Storage Project (Cadiz Project) (as is SMWD in Orange County) and wants to ensure the science behind the project is sound. A number of technical studies and an EIR have already been completed on the Cadiz project. Furthermore an Independent Peer Review of the Groundwater Monitoring, Management and Mitigation Plan (GMMMP) for the Cadiz Project was conducted in 2018. The review found the GMMMP measures were adequate and protective of natural resources but recommended additional actions to increase public confidence in the project. The debate has continued.

To resolve any lingering questions, Three Valleys authorized a definitive, science-based study in June 2019 to resolve any questions about possible impacts of the Cadiz Project on the Bonanza Springs, located about 1400 feet higher and about 11 miles away from the

<b>Budgeted (Y/N):</b>	Budgeted amount: n/a	Core ✓	Choice __
<b>Action item amount: n/a</b>	Line item:		
<b>Fiscal Impact (explain if unbudgeted):</b>			

Cadiz groundwater basin. The purpose of the new study is to resolve any doubt about the degree of hydrological connection/impact between springs in the Fenner Valley watershed and the aquifer below.

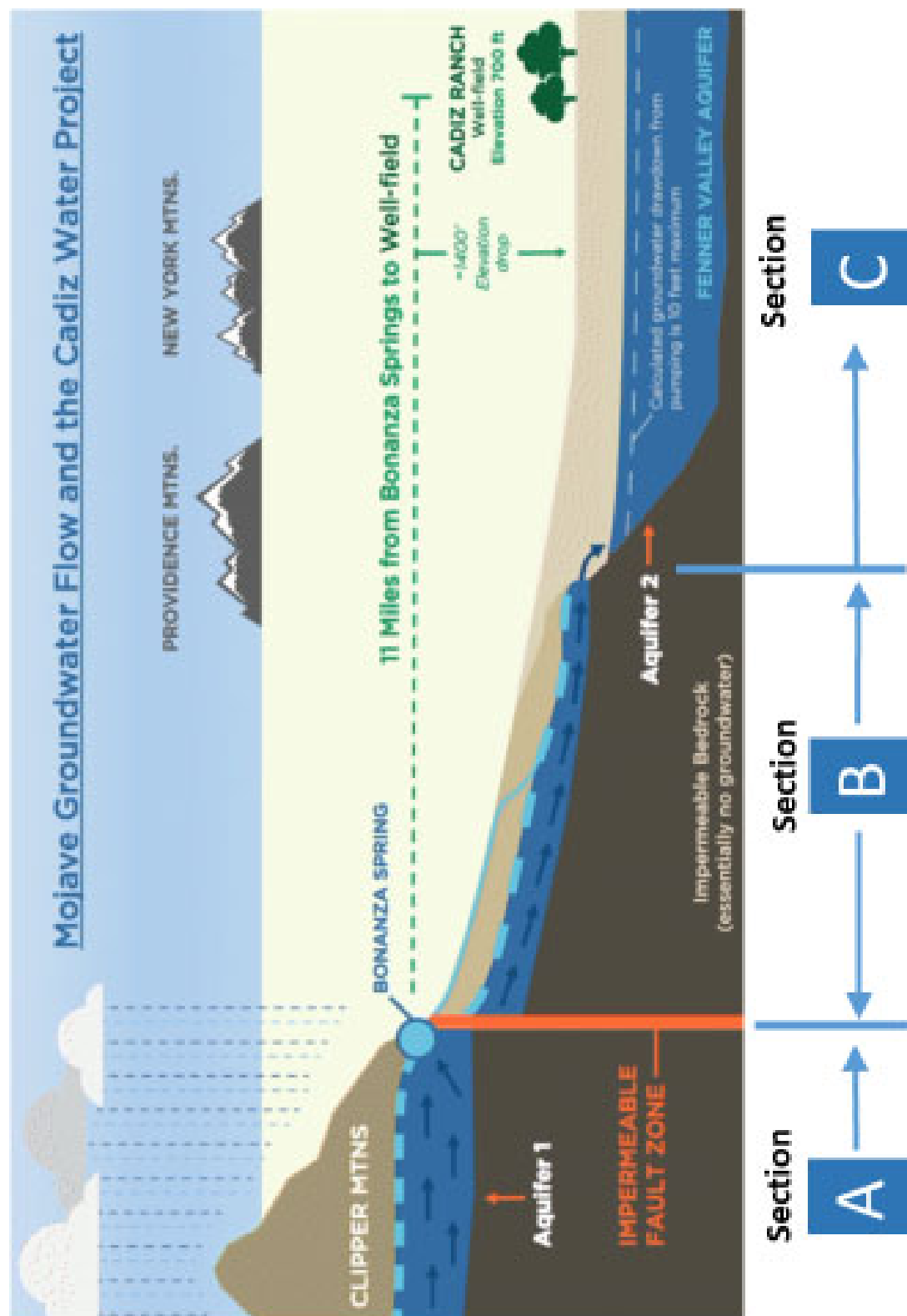
### **Comments on the Project and the Process:**

- The Cadiz Project proposes to capture groundwater beneath the Fenner Valley, at the base of a large desert watershed where there is currently an agricultural operation. The project anticipates delivery of some of that water to Southern California homes and businesses via a pipeline and MET's Colorado River Aqueduct. During permitting process, concerns were raised about the project's impact on springs in the upper elevations of the surrounding watershed upon which plant and animal life depend. The closest spring to Cadiz operations – Bonanza Spring – is 11 miles away and 1,400 feet higher in elevation. It has become a lightning rod for the project.
- The goal of the upcoming independent study by Three Valleys is to determine the degree of hydrologic connection between the Cadiz Water Conservation and Storage Project (Cadiz Project) and Bonanza Spring. The first phase of the study is the development of a study plan – the start of the process was the October 10 meeting. Representatives from environmental groups, government agencies, water districts, and other stakeholders were invited to the workshop.
- The study plan will be finalized and, depending on required permits, the field study will begin in November 2019 and take about 9 months to complete. A report of the study will then be prepared and a presentation of study findings presented to Three Valleys in late 2020.
- The study investigators have committed to established scientific methods of data collection, with review, analysis and interpretation of the data completed in an objective, open and transparent manner.
- The Study Program will be performed by a team of experts in hydrology, hydrogeology, geophysics, geochemistry, groundwater modeling, and desert ecology, supported by professionals at aquilogic.
- The purpose of the October meeting was to get input into the study requirements and determine the best approaches to collecting information and data regarding the flow of water in the vicinity. Very little data is currently available on the Bonanza Spring and that seems to be part of the problem. Another part of the problem is conducting work in a pristine desert environment without damaging or changing the local environment.
- The Study will likely include:
  - Geophysical mapping in the area immediately above, and for some distance below, the Bonanza Spring to delineate faults and other structural features.



- Installation of monitoring wells immediately below the spring and at the edge of the Fenner Valley alluvial aquifer (one mile southeast of Bonanza Spring) to evaluate groundwater conditions at and below the spring.
- Installation of a weather station or rain gauge in the bedrock watershed that supports flow at Bonanza Spring to evaluate the relationship between precipitation, recharge, and spring flow.
- Installation of spring flow gauges at three springs to assess the impact of seasonal precipitation, climatic changes, and sustained pumping on future spring flow.
- Vegetation monitoring below the spring to track changes over time.
- Monitoring of groundwater and spring geochemical conditions to help understand the connection between Bonanza Spring and the alluvial aquifer in the Fenner Valley below.

The graphic below provides a simple illustration showing the local geology/geography. The difficulty of understanding the flow of water without much data is to clearly understand the flow conditions in Sections A, B and C and how they interact with one another. The intent of the study is to develop the data to provide clear answers.





**INFORMATION ITEM**

November 12, 2019

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

**FROM: Robert Hunter, General Manager**

Staff Contact: Charles Busslinger

**SUBJECT: State Water Board Triennial Review of the Ocean Plan – Re-opening the Desalination Amendment**

**STAFF RECOMMENDATION**

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

**COMMITTEE RECOMMENDATION**

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Committee recommends (To be determined at Committee Meeting)

**SUMMARY**

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State Water Resources Control Board (State Water Board) periodically reviews the Water Quality Control Plan for Ocean Waters of California (Ocean Plan) to prioritize issues for State Water Board staff planning efforts over the next several years. The Desalination Implementation Provisions of the Ocean Plan (i.e. the Desalination Amendment) has received a high score, indicating a likely 're-opening' of the Desalination Amendment.

**DETAILED REPORT**

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The Clean Water Act and California Water Code require that the State Water Board periodically review the Water Quality Control Plan for Ocean Plan. The review results in a Staff Report and Work Plan, which includes a prioritized list of issues that guide State Water Board planning efforts regarding the Ocean Plan for the next several years.

<b>Budgeted (Y/N):</b>	Budgeted amount:	Core __	Choice __
<b>Action item amount:</b>		Line item:	
<b>Fiscal Impact (explain if unbudgeted):</b>			

State Water Board staff established criteria to rank the overall priority of each proposed issue based upon “State Water Board values”. The ranking is reportedly not meant to reflect an issue’s level of importance, but rather is a method of prioritization to “allow State Water Board staff to efficiently and effectively focus resources over the next several years.” State Water Board staff anticipates initiating one or more new projects of higher ranking in the next few years.

The top five priority issues based on the State Water Board criteria are:

- 1) Issue T – Tribal Beneficial Uses,
- 2) Issue N – Bacteria Objectives for Water Contact Recreation,
- 3) Issue I – Exceptions to the Ocean Plan for Discharges into Areas of Special Biological Significance,
- 4) Issue O – Desalination Implementation Provisions, and**
- 5) Issue F – Ocean Acidification, Hypoxia, and Climate Change Impacts.

#### **Issue O – Desalination Implementation Provisions (Desalination Amendment)**

The State Water Board adopted the Ocean Plan implementation provisions for desalination facilities using seawater in May 2015 to address effects associated with the construction and operation of seawater desalination facilities. The amendment took effect in January 28, 2016 and [Water Code section 13142.5(b)] states that “for each new or expanded facility using seawater for cooling, heating, or industrial processing, the best available site, design, technology, and mitigation measures feasible shall be used to minimize the intake and mortality of all forms of marine life.”

#### **CalDesal Input**

CalDesal’s Regulatory Workgroup started meeting on the re-opening of the desalination implementation provisions almost a year ago when State Water Board staff started the triennial review of the Ocean Plan by holding informational workshops to “listen to stakeholders”. MWDOC staff and other CalDesal members attended those meetings and provided input. State Water Board staff subsequently released a “Draft Staff Report and Work Plan for 2019 Review” of the Ocean Plan in June 2019 which included preliminary scoring.

In response to the high preliminary score of the Desalination Implementation Provisions issue in the Draft Report and Work Plan (46 out of 50); CalDesal provided a comment letter encouraging the State Water Board not to re-open the desalination amendment as it would be counterproductive to go through a full amendment process. Specifically CalDesal supported administratively clarifying, streamlining, and expediting the permitting process as an administrative cleanup initiative; and asserted that the issue should be ranked much lower. The CalDesal letter pointed to limited experience issuing permits under the rules which only took effect in 2016, and the already lengthy project permitting process and planning timeline; which amending the rules and regulations at this point would be technically obstructive and counterproductive. Finally the letter encouraged the State Water Board and other State agencies to streamline the desalination facility permitting process by completing the Memorandum of Agreement (MOA) to facilitate timely and effective coordination between the State Water Board and other state agencies during review of

environmental documents and permitting which would accomplish the goals of Issue O without ranking it a “High Priority”.

#### *State Water Board Response*

The State Water Board responded to CalDesal’s comments by agreeing that the current desalination provisions are resource-intensive and are taking an extended period of time to implement. Therefore the State Water Board review of the desalination provisions in the Ocean Plan and consideration of substantive areas to streamline the current permitting process, to better ensure a timely application review are a ‘high priority’. The State Water Board also indicated that the assigned points to this issue was representative of a comprehensive assessment (i.e. no change to the score); that they continue to work on an MOA, and should the State Water Board proceed with reviewing the desalination provisions, one of the first steps will be to review substantive aspects of the desalination regulatory framework.

#### **Observations**

- The State has indicated that ‘if the State Water Board direct staff to proceed with reviewing the desalination amendments (which State Board staff is recommending as one of the top 5 high priority issues), one of the first steps will be to review substantive aspects of the desalination regulatory framework. This review of the framework is likely to take an extended period of time, result in additional requirements, and cause further permit issuance delays. This is a concern.
- The State is also looking at cost recovery for staff time to review desalination permit applications. Three options were looked at and the State Water Board agreed on fees by intake type with an annual cap of \$200,000:
  - Subsurface intake base fee of \$60,000 plus a multiplier of \$1,007/MGD; or
  - Surface intake base fee of \$120,000 plus a multiplier of \$1,007/MGD

## ENGINEERING & PLANNING

<p><b>Doheny Ocean Desalination Project</b></p>	<p>In March 2018, South Coast WD (SCWD) was awarded a \$10 million grant from the State Department of Water Resources (DWR) for the Doheny Ocean Desalination Project.</p> <p>In April 2019, U.S. Representative Mike Levin announced that SCWD is set to receive more than \$8.3 million in US Bureau of Reclamation (USBR) WaterSMART Desalination Construction Program grant funding for the Project. The grant is subject to pending federal appropriations. Congressman Levin is acting as the lead office on this request in the House.</p> <p>On June 27, 2019 the SCWD Board certified the Final Environmental Impact Report (FEIR) for the Phase I Local Doheny Ocean Desalination Project, which would produce up to 5 million gallons per day (MGD) of new, drinking water supplies for the area. SCWD subsequently filed its Notice of Determination and is beginning the permitting process with various permitting agencies.</p> <p>On July 11, 2019 SCWD's Board adopted a resolution pursuing a second year (round) of the USBR WaterSMART Desalination Construction Program grant funding. SCWD is eligible to receive a cumulative total of \$20 million for the Project from USBR. Approximately two to six awards are expected to be made by USBR with up to \$12 million available in this round. The recipient must provide at least 75% of the total project costs. Reclamation has recently indicated that an initial \$8.3M is still with Congress and will be part of a Federal budget approval.</p> <p>SCWD has been working on Assembly Bill 1752 to allow SCWD to proceed with a Design-Build-Operate (DBO) Contract while maintaining access to State funding for the Project (both DWR grant money and State Revolving Fund loans). SCWD efforts have been successful and AB 1752 was signed into law on October 3, 2019.</p> <p>On October 23, 2019 the US EPA invited SCWD to submit a loan application for a Water Infrastructure Finance and Innovation Act (WIFIA) low interest loan in the amount of \$60 million for the Doheny Ocean Desalination Project.</p> <p>Next Steps:</p> <ol style="list-style-type: none"> <li>1. Project Delivery – SCWD has begun working with Hawkins Delafield and Wood, and GHD on development of several documents for a DBO contract including; Request for Statement of Qualifications (SOQ) for potential bidders, contract documents, and a RFP package.</li> <li>2. Peer Review Cost Estimate – Rich Svindland, of California American Water (CalAm), who helped develop the 6.4 MGD Monterey Ocean Desal Project using slant well technology, completed a peer review cost estimate for the Doheny Ocean Desal Project. A workshop was held on October 30, 2019 to present the Peer Review by CalAm based on their experience in developing and <b>bidding</b> a project in Monterey (that plant has not been constructed due to permitting and legal issues). The CalAm presentation and review of the previous Doheny Desal cost estimate by GHD indicated some differences in</li> </ol>
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	<p>capital and operating costs including a higher level of staffing for the plant as suggested by CalAm. Overall the cost differences resulted in estimated increased costs:</p> <ul style="list-style-type: none"> <li>• Capital costs were estimated at 5.4% higher</li> <li>• O&amp;M costs were estimated at 15.8% higher</li> <li>• Overall, the unit cost of water increased from \$1556 per AF to \$1805 per AF, an increase of \$249 per AF, an overall increase of about 16.0%</li> </ul> <p>3. Slant Well Risk Evaluation – A workshop has also been scheduled on the risks of slant well technology on November 14, 2019 at 6:00pm. We will provide an update to the Board on new information after the workshop.</p> <p>4. High Level Schedule (has slipped a bit due to the Regional Board schedule)</p> <table> <tr> <td>a. Environmental permitting</td><td>Late Summer 2020</td></tr> <tr> <td>b. DBOM Contract Develop</td><td>Early 2020</td></tr> <tr> <td>c. DBOM Contract Award</td><td>Early 2021</td></tr> <tr> <td>d. Construction</td><td>Early 2023</td></tr> </table>	a. Environmental permitting	Late Summer 2020	b. DBOM Contract Develop	Early 2020	c. DBOM Contract Award	Early 2021	d. Construction	Early 2023
a. Environmental permitting	Late Summer 2020								
b. DBOM Contract Develop	Early 2020								
c. DBOM Contract Award	Early 2021								
d. Construction	Early 2023								
<b>MET 2019-20 Shutdown Schedule</b>	<p>MWDOC staff have held several meetings with MET and MWDOC member agencies since July 2019 to review the MET 2019-2020 Shutdown Schedule. One of the proposed shutdowns involves the complete shutdown of the Diemer Water Treatment Plant in March 2020 to accommodate four construction projects at the plant. MWDOC staff have been working with potentially affected agencies and MET to see what options are available to accommodate a Diemer shutdown; given the State Water Board's intention to reduce PFOA &amp; PFOS Response Level (RL) triggers, and that action's resulting impacts to groundwater pumping in OC.</p> <p>Karl Seckel participated in a meeting with the City of Anaheim and Metropolitan regarding the Diemer Plant and other shutdowns. As a result of the meeting, the collective input to MET was that the shutdown CAN be accommodated if the new PFAS regulations have not been adopted at the time of the shutdown; if the new regulations are put into place, Orange County cannot sustain a shutdown of the Diemer Plant. MET is examining the ability to juggle various shutdowns to determine if the Diemer Shutdown can be moved into January 2020. MET will be coordinating closely with Anaheim on a shutdown to replace a turnout valve and a leaking venturi meter; this work will require a shutdown of the EOCF#2, which will also be difficult to sustain if the new PFAS regulations are in effect, but the work can probably be accommodated in a 3-day shutdown.</p> <p>Currently, the State Water Board has delayed the lowering of the Response Level triggers for PFAS, but it is unclear when the new regulations will be released. MWDOC is continuing to work with MET to provide information and discuss options as new information is available.</p>								
<b>SMWD Rubber Dams Project (San Juan</b>	<p>Santa Margarita WD continues to focus on diversifying its water supply portfolio for south Orange County residents, businesses, schools, and visitors.</p>								

<b>Watershed Project)</b>	<p>On June 21, 2019, the San Juan Watershed Environmental Impact Report (EIR) was approved.</p> <p>The original project had three Phases; Phase 1 was three rubber dams recovering about 700 AFY; Phase 2 added up to 8 more rubber dams with the introduction of recycled water into the creek to improve replenishment of the basin for up to 6,120 AFY, and Phase 3 added more recycled water topping out at approximately 9,480 AFY. Under this arrangement, most or all of the production and treatment involved the existing San Juan Groundwater Desalter with expansions scheduled along the way to increase production over 5 mgd. Fish passage and regulatory hurdles to satisfy subsurface travel time requirements are presenting some difficulties.</p> <p>SMWD is working with the Ranch on the next phase of development within SMWD and have access to riparian groundwater from the Ranch. Furthermore, they have discovered that the local geology has high vertical percolation rates and sufficient groundwater basin travel time to potentially allow percolation of treated recycled water. SMWD is of opinion that groundwater production and treatment of the groundwater can be initiated in a relatively short time-frame while permitting for percolation augmentation using recycled water from the nearby Trampas reservoir can be added as permitting allows. They believe the new project area may be able to ultimately produce 4,000 to 5,000 AF per year; they believe the original project will continue to be developed for production out of the wells and treatment provided by San Juan Capistrano as the two agencies merge. Ultimate production out of the basin could exceed 10,000 AF per year if all goes well.</p>
<b>MWDOC Workshop with SOC Agencies on Nov 6</b>	<p>MWDOC held a workshop with the SOC Agencies to focus on extension/expansion of the existing South Orange County Emergency Service Program with IRWD and to discuss emergency needs and additional options for emergency water or base-loaded projects for South OC, and to discuss the implications of integrating new local water supply sources into the regional distribution system. The following projects were discussed:</p> <ul style="list-style-type: none"> <li>• Emergency Services Program Extension/Expansion with IRWD</li> <li>• Groundwater from OCWD and/or other OC Basin Producers</li> <li>• Pump-in to the EOCF#2</li> <li>• PFAS and Water Quality expectations</li> <li>• Doheny Desal</li> <li>• Poseidon Desal</li> <li>• San Juan Basin IPR</li> <li>• Irvine Lake Storage</li> <li>• Strand Ranch</li> <li>• Peters Canyon Treatment Plant</li> <li>• Oceanus/Camp Pendleton</li> <li>• Reliance on MET</li> </ul> <p>Black &amp; Veatch and Hazen Sawyer provided input on the need for various water quality investigations prior to bringing new supply projects into operations. Black &amp; Veatch also discussed the work they are conducting for MWDOC on</p>



	<p>development of a hydraulic model of the regional water system in Orange County as a tool to assist future evaluation of operational strategies. There appears to be support from the SOC agencies for such a model that could be accessed by any project proponent.</p> <p>Staff is in the process of distilling information from the meeting and will be bringing back a report to a future P&amp;O meeting.</p>
<b>South Orange County Emergency Service Program</b>	<p>MWDOC, IRWD, and Dudek have completed the initial draft study to determine if the existing IRWD South Orange County Interconnection capacity for providing emergency water to South Orange County can be expanded and/or extended beyond its current time horizon of 2030.</p> <p>Based on the South OC meeting 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 also had several alternatives they thought should be researched by Dudek and MWDOC. Follow-up on these options have been pursued.</p> <p>Dudek participated in the November 6 workshop to re-engage with the SOC agencies on this project. Support from the agencies was expressed to take a small next step to install Variable Frequency Drives at a pump station within IRWD that was paid for by SOC that allows water from the IRWD system to be sent to SOC. The Variable Frequency Drives will provide more flexibility to the IRWD operations staff to allow additional water to be sent to SOC while meeting all of the IRWD needs.</p>
<b>Strand Ranch Project</b>	<p>MWDOC and IRWD staff have been exchanging information about the benefits from having water stored in the Strand Ranch Project in case emergencies occur such as Delta Levee Failures that might result in no exports from the Delta until operations are restored. Previously, staff from the two agencies have developed an evaluation process to quantify the benefits of Drought Protection afforded by having water stored in the Strand Ranch Project from having the water classified as “extraordinary supplies” under MET’s Water Supply Allocation Plan.</p>
<b>Poseidon Resources Huntington Beach Ocean Desalination Project</b>	<p>The Santa Ana Regional Water Quality Control Board (SARWQCB) continues to work with Poseidon on renewal of 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 Management Plan (UWMP), the OC</p>

	<p>Water Reliability Study, OCWD's Long Term Facilities Plan and other OCWD planning documents. There were a considerable range of views expressed at the meeting. One of the reactions from the SARWQCB was that they did not believe they could permit a project if it was not highly probable that the project would move forward. The alternative position was noted that it is hard to agree ahead of time to move forward with the project if the full extent of terms and conditions are unknown.</p> <p>The Regional Board schedule for the permit is:</p> <p>Draft Permit                      Will be discussed in a Fall Workshop (anticipated for December 6<sup>th</sup>)</p> <p>Final Permit                      Anticipated issuance in early 2020</p> <p>Assuming success, Poseidon would then seek its final permits from the California Coastal Commission.</p>
<b>Trampas Canyon Dam and Reservoir</b>	<p>Construction of Trampas Canyon Dam and Reservoir by SMWD, Orange County's largest recycled water reservoir, is on track to be completed in the summer of 2020. The 5,000 AF reservoir will store recycled water in low demand months to provide supplies to SMWD and other agencies in the summer periods. The dam and pipeline phase of the project is 62% complete. Award of the pump station phase is anticipated in November 2019, with anticipated substantial completion of the pump station in July 2020.</p>
<b>Benefits of Additional Surface Storage in Southern California</b>	<p>CDM Smith and staff are working on a technical memo that is a spin-off from the 2018 Orange County Water Reliability Study (2018 OC Study). The work will evaluate a conceptualized new MET surface reservoir in terms of overall ability to provide additional supply yield under a number of scenarios. The modeling from the 2018 OC Study will be used to evaluate the use of new storage, the potential yield and the costs of the yield from the reservoir. Staff anticipates a presentation to the P&amp;O Committee in December.</p>
<b>Meetings</b>	
	<p>Charles Busslinger and Karl Seckel participated in a conference call with IRWD staff on October 9, 2019 to discuss IRWD's perspective on the extension/expansion alternatives identified in the Dudek Study for the South OC Emergency Service Program. The alternatives will be further discussed with all of the south OC agencies at the upcoming regional planning &amp; local water supply integration workshop in November 2019.</p>
	<p>Charles Busslinger attended a October 15, 2019 site visit to service connection OC-3 with staff from the City of Orange and MET regarding pending electrical modifications as part of a MET repair and replacement project to upgrade MET infrastructure. The meeting resulted in a path forward to complete electrical modifications to everyone's satisfaction. Agreements to document the minor changes are currently being prepared for Board consideration in the next month or two.</p>

	Charles Busslinger and Karl Seckel attended a meeting on October 23, 2019 at Santa Margarita WD regarding the San Juan Watershed project. As indicated above, some aspects of the project are changing and more information will be provided next month after the November 6, 2019 workshop on regional planning & local water supply integration.
	Charles Busslinger and Chris Lingad participated in an October 29, 2019 conference call with MET regarding OC Feeder bulkhead removal and return to service operations; currently scheduled for November 12-18, 2019. Currently the OC-44 pipeline is down for repairs by Mesa WD and MWDOC is assisting in the coordination of the two projects.
	Karl Seckel, Rob Hunter and MWDOC Director Yoo-Schneider attended the Laguna Beach County Water District Board meeting to provide a retirement send-off to Renae Hinchey who was the General Manager for the past 19 years.

**Status of Ongoing WEROC Projects  
November 2019**

<b>Description</b>	<b>Comments</b>
<b>Hazard Mitigation Planning</b>	<p>WEROC is completing follow-up with the 19 agencies who participated in the 2018 update of the Orange County Water and Wastewater Multi-Jurisdictional Hazard Mitigation Plan. Once all agencies have adopted the Plans, MWDOC needs to compile and bind all approval resolutions into an Appendix and send it to FEMA. That is the last step for this version of the Hazard Mitigation Plans that are updated every five years.</p>
<b>America's Water Infrastructure Act (AWIA).</b>	<p><i>Ongoing: WEROC launched an effort to facilitate a joint RFP and contract with participating WEROC member agencies to address the new requirements of 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 the population of 100,000 or more. New actions:</i></p> <ul style="list-style-type: none"> <li>• 25 Agencies participated in the Phase 1 Crosswalk Compliance</li> <li>• It now appears that 22 agencies will participate in the Phase 2 Risk and Resilience Assessments and Phase 3 Emergency Response Plans.</li> <li>• All Phase 1 Crosswalks have been developed and provided to agencies. Some discussion and editing is still occurring. The crosswalks remain a draft as agencies work through the Phase 2 and Phase 3 processes.</li> <li>• HSG assistant project managers began conducting the first Risk and Resiliency Assessment Workshops on October 29. The workshops are two-day events with key staff from each of the agencies to complete the asset and threat characterization. A second two-day workshop will complete the consequence and vulnerability analysis. The combination of these workshops will provide the basis for a completed RRA. Work is proceeding with the first workshops for the agencies while scheduling of the second workshops are underway.</li> <li>• Karl Seckel is working with the Participating Agencies to obtain approved and executed Agreement between MWDOC and Participating Agencies for their participation and costs for Phase 2 &amp; 3.</li> </ul>
<b>WEROC Coordination with its member agencies</b>	<p>Daniel attended the California Emergency Services Association conference in Sonoma County. The conference had some great presentations and classes and a few key highlights include FEMA Community Resilience, Geospatial Information Awareness, Early wildfire detection, and notification, etc. Having been trained as a Terrorism Liaison Officer Daniel continues to review daily intelligence reports in order to better direct WEROC efforts and inform member agencies to threat trends. WEROC obtained and coordinated an ICS-</p>

	<p>300 training (intermediate incident command training) on October 15-17<sup>th</sup> for 40 to 50 staff from among our agencies. Janine attended and graduated from this great training furthering her knowledge in FEMA emergency management operational standards. This training was specific to water and wastewater and all member agencies were invited. We are currently working with CalOES and Texas A&amp;M to schedule ICS-400 (advanced incident command) training in July of 2020. WEROC's goal is to secure this at no cost to our member agencies.</p> <p>WEROC continues to focus on retired water and wastewater employees for EOC volunteers. This pool of candidates will have much more water-specific knowledge that will pay dividends during disaster recovery. A partnership with OCWA is also currently being discussed as a way to enhance the EOC volunteer roster.</p>
<b><i>Coordination with the County of Orange</i></b>	<p><i>Ongoing: OC OA Alert and Warning Working Group meetings have concluded following the release of the operational area agreement to the executive board. This was a 6-month planning effort. Daniel attended the meetings and worked with the County's Control One to address some of WEROC's concerns. These concerns are associated with emergency notification legal obligations.</i></p> <p><i>Completed: WEROC staff participation in the OA Agreement Revision Working Group. Update: The Draft Revised Agreement developed by the working group has been reviewed and approved by the County's Legal Counsel. The OA shared this revised draft to all OC government entities and requested input by October 31. Input was provided by WEROC and about five other agencies. The OA will develop the final agreement that will need to be approved by all agencies.</i></p>
<b><i>PSPS Events</i></b>	<p><i>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 the Phase 1 proceedings (covers only this winter period). Party Status ensures that we receive all communications regarding the proceedings and that our comments are included officially for consideration. The Phase 2 (Permanent Program) will be starting soon.</i></p> <p>Over the past month, a number of PSPS events have been planned by SCE and SDG&amp;E. Work is underway to improve communications. Our belief is that only two circuits were actually de-energized during the recent Red Flag events. WEROC plugged into the available information and coordinated communications with our agencies.</p>
<b><i>EOC Readiness</i></b>	<p>Janine Schunk and Daniel participated in the OA and MET radio tests and WebEOC tests. Janine also facilitated the WEROC monthly radio test.</p> <p>Daniel and Janine have installed all satellite phone cradles and power stations and are currently troubleshooting shooting a radio and satellite phone connectivity</p>

	<p>issue. WEROC will be picking up the MWDOC emergency generator to install a solar battery maintainer system sometime in November.</p> <p>Janine coordinated the maintenance of the South EOC and is working to register the new MWDOC alt EOC generator. She has also been working on updates to Safety Center, the COOP, and position binders. WEROC has recently obtained a solar panel and charge controller and will be installing this on the new generator to keep the battery ready for emergency service at all times. Fountain Valley public works department has been helpful in providing service and routine maintenance for modest fees.</p>
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## Status of Water Use Efficiency Projects

October 2019

Description	Lead Agency	Status % Complete	Scheduled Completion or Renewal Date	Comments
<b>Smart Timer Rebate Program</b>	MWDSC	Ongoing	Ongoing	In September 2019, 371 smart timers were installed in Orange County.  To date, 25,884 smart timers have been installed through this program.
<b>Rotating Nozzles Rebate Program</b>	MWDSC	Ongoing	Ongoing	In September 2019, 693 rotating nozzles were installed in Orange County.  To date, 568,174 rotating nozzles have been installed through this program.
<b>SoCal Water\$mart Residential Indoor Rebate Program</b>	MWDSC	Ongoing	Ongoing	In September 2019, 256 high efficiency clothes washers and 21 premium high efficiency toilets were installed in Orange County.  To date, 119,851 high efficiency clothes washers and 60,444 high efficiency toilets have been installed through this program.
<b>SoCal Water\$mart Commercial Rebate Program</b>	MWDSC	Ongoing	Ongoing	In September 2019, 386 residential premium high efficiency toilets and 88 commercial premium high efficiency toilets were installed in Orange County.  To date, 106,588 commercial devices have been installed through this program.
	MWDSC	Ongoing	Ongoing	This program is designed to improve water efficiency for commercial customers through upgraded equipment or services that do not qualify for standard rebates. Incentives are based on the amount of water customers save and allow for customers to implement custom water-saving projects. Total water savings to date for the entire program is 914 AFY and 4,136 AF cumulatively.

<b>Description</b>	<b>Lead Agency</b>	<b>Status % Complete</b>	<b>Scheduled Completion or Renewal Date</b>	<b>Comments</b>
<b>Turf Removal Program</b>	MWDOC	Ongoing	Ongoing	<p>In September 2019, 24 rebates were paid, representing \$38,571 in rebates paid this month in Orange County.</p> <p>To date, the Turf Removal Program has removed approximately 22.4 million square feet of turf.</p>
<b>Spray to Drip Conversion Program</b>	MWDOC	Ongoing	Ongoing	<p>This is a rebate program designed to encourage residential and commercial property owners to convert their existing conventional spray heads to low-volume, low-precipitation drip technology.</p> <p>To date, 253 residential sites and 69 commercial sites have completed spray to drip conversion projects.</p>
<b>Recycled Water Retrofit Program</b>	MWDSC	Ongoing	Ongoing	<p>This program provides incentives to commercial sites for converting dedicated irrigation meters to recycled water.</p> <p>To date, 155 sites, irrigating a total of 1,559 acres of landscape, have been converted. MWDOC has paid a total of \$56,950.00 in grant funding to 20 of those sites. The total potable water savings achieved by these projects is 3,357 AFY and 10,905 AF cumulatively.</p>