

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

Jointly with the
PLANNING & OPERATIONS COMMITTEE

May 14, 2018, 8:30 a.m.
MWDOC Conference Room 101

P&O Committee:

Director Osborne, Chair
Director Tamaribuchi
Director Yoo Schneider

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

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 <http://www.mwdoc.com>.

ACTION ITEMS

1. LEAK DETECTION EQUIPMENT PURCHASE
2. BUREAU OF RECLAMATION WATERSMART GRANT RESOLUTION
3. BUREAU OF RECLAMATION CALFED WATER USE EFFICIENCY GRANT RESOLUTION
4. AWARD OF CONSULTANT CONTRACTS BASED ON THE STATEMENT OF QUALIFICATION (SOQ) SUBMITTALS REGARDING WATER SYSTEM OPERATIONS AND INTEGRATION OF NEW SUPPLIES
5. AB 3045 (GALLAGHER) – NATURAL RESOURCES AGENCY: STATE WATER PROJECT COMMISSION

DISCUSSION ITEM

6. UPDATE REGARDING THE LOCAL AGENCY FORMATION COMMISSION (LAFCO) MUNICIPAL SERVICES REVIEW

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.)

7. STATUS REPORTS
 - a. Ongoing MWDOC Reliability and Engineering/Planning Projects
 - b. WEROC
 - c. Water Use Efficiency Projects
 - d. Water Use Efficiency Programs Savings and Implementation Report
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

May 16, 2018

TO: Board of Directors

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

Robert Hunter,
General Manager

Staff Contact: J. Berg
Director of Water Use Efficiency

SUBJECT: Leak Detection Equipment Purchase

STAFF RECOMMENDATION

Staff recommends the Board of Directors authorize the purchase of leak detection equipment and training services from Pollardwater in an amount not to exceed \$100,232.76.

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

SUMMARY

In August 2017, the Municipal Water District of Orange County was awarded a grant from the Bureau of Reclamation for the purchase of Leak Detection Equipment for use by member agencies through a Leak Detection Equipment Lending Library.

DETAILED REPORT

Leak Detection Equipment Purchase

To initiate the leak detection equipment purchase, staff established a Leak Detection Equipment Project Advisory Committee (PAC) comprising staff from El Toro Water District, Irvine Ranch Water District, Moulton Niguel Water District, Santa Margarita Water District, Trabuco Canyon Water District, and Yorba Linda Water District. The PAC initiated the process by reviewing a variety of leak detection equipment available to the water industry and consulting water agencies who use leak detection equipment in their ongoing water

Budgeted (Y/N): Yes	Budgeted amount: \$100,000	Core <u>X</u>	Choice <u> </u>
Action item amount: \$100,232.76		Line item: 34-7040	
Fiscal Impact (explain if unbudgeted): The leak detection equipment will be purchased through a 50/50 cost share of MWDOC Core and Bureau of Reclamation grant funds.			

loss control programs. This information was used to compose a Request for Quotes (RFQ) document to solicit pricing from equipment manufacturers and distributors.

On January 22, 2018, staff released the RFQ to 11 Leak Detection Equipment manufacturers and distributors. This RFQ requested warranty and price information, field and classroom training costs, equipment user references, and defined the types of equipment to be considered for purchase, including Leak Noise Probes (aka, Sounding Rods), Ground Microphones, Leak Noise Correlators, Leak Noise Loggers, and High-Frequency Pressure Loggers.

A total of six responses to the RFQ were received by the February 5, 2018 deadline. Respondents included Advanced Infrastructure Technologies, Matchpoint Water Asset Management, Inc., Pollardwater, SebaKMT, Subsurface Locators, Inc., and Trimble, Inc.

PAC members conducted reference checks on all RFQ respondents. References provided helpful information on equipment durability, ease of use, level of manufacturer or distributor customer service, and responsiveness to customer needs. Based on information provided by member agencies, respondents, and references, the PAC recommends the purchase of Ground Microphones, Leak Noise Loggers, and Hi-Frequency Pressure Loggers. Specification sheets for each of these devices are provided as Attachment A. With the desired equipment defined, staff then compared the pricing offered by each RFQ respondent. Pollardwater not only offered all the equipment the PAC selected, but also offered the best purchase price. A summary of the proposed equipment purchase and associated cost is provided in Table 1. Pollardwater indicated the equipment would be delivered to MWDOC within two to four weeks after the date of order.

Table 1						
Leak Detection Equipment Purchase						
Equipment Supplier:		Pollardwater, Redmond WA				
Item No.	Device	Accessories	Quantity	Unit Cost	Total	Comments:
1	Subsurface LD-18 Digital Water Leak Detector		4	\$ 5,355.00	\$ 21,420.00	5-year Manufacturer Warranty
		Sensor w/ Magnet & Cable	4	\$ 745.00	\$ 2,980.00	
		40 in. Extension Rod	2	\$ 69.30	\$ 138.60	
		60 in. Extension Rod	2	\$ 87.30	\$ 174.60	
2	Zcorr Digital Correlating Logger w/8 Pods		3	\$ 15,500.00	\$ 46,500.00	5-year Manufacturer Warranty
3	Global Water PL200-H-1 Hydrant Water Pressure Logger		16	\$ 600.00	\$ 9,600.00	1-year Manufacturer Warranty
		Locking Security Cover	16	\$ 66.00	\$ 1,056.00	
4	User Training - Classroom and Field		4	\$ 2,800.00	\$ 11,200.00	Four 2-day sessions; includes travel and accommodations
			Subtotal		\$ 93,069.20	
			Sales Tax	8.75%	\$ 7,163.56	Sales tax = Fountain Valley, Calif.
			Grand Total		\$ 100,232.76	

Leak Detection Equipment Training

Pollardwater will provide four 2-day training sessions to train MWDOC and member agency staff on how to use the equipment. The total cost for this training is \$11,200 and includes costs associated with travel and accommodations for the trainer (Table 1). Each training session will include one day in-classroom and one day in-field training covering leak theory, methods and approach, equipment operation, hands on equipment use, and simulated leak scenarios. Training sessions will be held throughout the county and will be hosted by MWDOC and member agencies. Training will be implemented at various times over the next 12 to 16 months.

Leak Detection Equipment Lending Library

The leak detection equipment will be owned, warehoused, and maintained by MWDOC. Retail water agencies throughout Orange County will check this equipment out for a given period of time for use in their service areas. Each agency will be required to complete an equipment checkout form that will include agency name, contact person, phone, email address, date checked out, and date to be returned. The form will also contain a use agreement defining the agencies responsibilities should the equipment be lost, stolen or damaged. MWDOC will use this information to track the whereabouts of the equipment at any given time.

Once an agency has finished using the equipment, it will be returned to MWDOC and made available to another agency on a first-come, first-served basis. When the equipment is returned, agencies will be required to submit standardized forms to MWDOC containing leak identification and repair information, which will be reported to the Bureau of Reclamation as a deliverable contained in the grant to MWDOC. This reporting requirement will remain in place through September 30, 2019, which is the term of the Bureau of Reclamation Grant Agreement.

Bureau of Reclamation Grant Update

As a follow up to the February 2018 discussion with the Board regarding the development of the Water Loss Control Shared Services Business Plan, staff contacted the Bureau of Reclamation to share with them our efforts to develop the business plan and inquire about amending the agreement to include the purchase of meter accuracy testing equipment. Bureau staff indicated the addition of meter accuracy testing equipment in the grant was consistent with the original intent of the grant to focus on water loss control and encouraged us to submit a request for modification to the scope of work.

Since the grant term does not end until September 30, 2019, staff will continue to develop the business plan, as scheduled, with a Board “go / no-go” decision by the end of 2018. If the Board approves moving forward with implementation of the business plan, staff will submit the request for grant modification to include meter accuracy testing equipment in early 2019.



**SubSurface Leak
Detection, Inc.®**

MODEL LD-18 DIGITAL WATER LEAK DETECTOR

*With digital noise reduction that
removes intermittent sounds like
barking dogs and passing vehicles!*



Graph the leak sound levels at 5-10 spots directly over the pipe. Let the LD-18's amplifier pinpoint the leak's location for you instead of relying upon your hearing.



LD-18 DIGITAL WATER LEAK DETECTOR



Standard Items

- ① Amplifier with LCD Display, Controls, and USB Connection (to PC Computers)
- ② Padded Case for Amplifier
- ③ 40 inches Belt (50 inches and 60 inches Optional)
- ④ Ground Microphone and Handswitch
- ⑤ Magnet Base and Nutdriver

Features

All-digital amplifier with automatic noise reduction of intermittent sounds, high and low filters, storage and graphing of sound levels at different locations on the pipe, bar graph and numeric display of sound loudness, USB connection, and back light.



LD-18 Amplifier showing filter settings, bar graph and numeric display of sound loudness, and minimum sound level detected

Automatic noise reduction capability for intermittent noises such as pedestrian footsteps, people talking, and passing vehicles.

5 High Frequency filters, 3 Low Frequency filters (plus Low filter OFF), and 2 Notch filters (plus Notch filter OFF) to remove continuous interfering noises from A/C hum, motors, wind, etc.

Storage and graphical display of the leak's loudness at multiple locations along the pipe.



The "Saved" data file showing 10 leak sound levels and graphical display. Leak is at the peak sound level in the center.

Standard Accessories

- ⑥ Heavy-Duty ABS Plastic Carrying Case
- ⑦ Aviation-Grade Stereo Headphones
- ⑧ PC Software and USB Cable

Optional Accessories

- ⑨ Sensor with Strong Magnet and 9.75 ft. Cable (to listen at valves and hydrants)

Specifications

Amplifier

- Combined Sensitivity : 900 V/G or higher (at 400 Hz) and Amplification
- Low Filters : Off, 100 Hz, 200 Hz, 400 Hz
- High Filters : 400 Hz, 600 Hz, 800 Hz, 1200 Hz, 2200 Hz
- Notch Filters : Off, 50 Hz, 60 Hz
- Maximum No. of Sound Levels Saved in File : 250 (by date and time)
- Power : 4 C dry cell batteries
- Battery Life (continuous use) : 24 hours minimum
- Weight : 35 ounces (including 4 C batteries)
- Size : 6.4" x 3.0" x 5.7" (163mm x 76mm x 145mm)
- Weather Resistance : IP52 equivalent
- Temperature Range (Working) : Minus 4 F to Positive 130 F

Sensor

- Type : Piezo electric ceramic
- Weather Resistance : IP67 equivalent (3 ft water depth for 30 minutes)
- Standard Base : 3 - Pronged Plate (removable with nutdriver)

Manufactured by:



**SubSurface Leak
Detection, Inc.®**

4040 Moorpark Avenue, Suite 104
San Jose, CA 95117
(408) 249-4673 (Phone), (408) 249-9653 (Fax)
www.subsurfaceleak.com

Distributed by:



ZCORR

Advanced Digital Leak Detection System

ZCORR 21st century leak detection

Planning

Now you can truly be in control of your leak detection program... *all from your desktop or field computer.*

ZCORR is a network of Digital Correlating Loggers (DCLs) which pinpoint the exact locations of any leaks in one overnight surveillance. The easy-to-use **ZCORR** software revolutionizes the ease and accuracy of pipeline leak detection and pinpointing.

ZCORR lets the leak detection manager plan the placement of the **ZCORR** DCLs and analyze and review the overnight recording results - *all from the comfort and convenience of the office!*



Deployment

ZCORR is flexibly designed for a variety of deployment strategies:

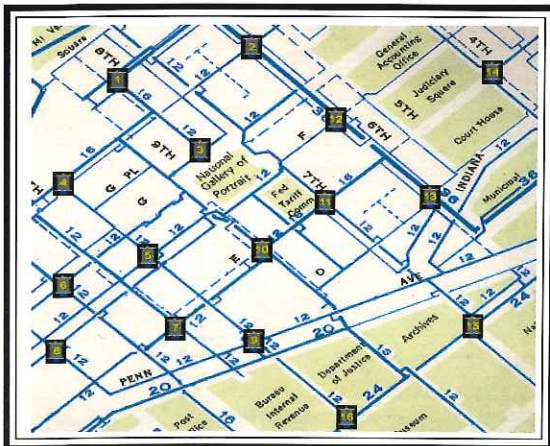
- ◆ One night - one zone
- ◆ Multiple nights - one zone
- ◆ Multiple nights - multiple zones

Deployment is planned by you, either in the office or in the field, working from your distribution system maps.



Work Order No. 21

Zone: A Deploy: 08/01/00
DCLs: 1-16 Retrieve: 08/02/00



Logger No.	Address	Deployed by (Initials):	Retrieved by (Initials):
1	Valve 22 @ 8th Avenue & I Street		
2	Valve 26 @ 6th Avenue & H Street		
3	Valve 17 @ 8th Avenue & G Street		
4	Valve 23 @ 10th Avenue & H Street		

Sample Deployment Scenario

Deploy:

Enter the location of each Digital Correlating Logger (DCL); navigate the digitized map and click to place DCL at its location. DCLs are typically placed 400 to 4,000 feet apart depending on the environment.

A printed **ZCORR** Work Order directs field personnel to place DCLs on specific valves or other pipe fittings.

Retrieve:

The next morning field personnel replace the DCLs in their Docking Station. The Docking Station connects to your desktop PC, laptop, or rugged mobile computer via a serial link.

Nighttime data recorded by the DCLs is transferred to the PC; permanently stored; and analysis is automatically performed, pinpointing the locations of any leaks present.

Analysis

Auto Analysis:

ZCORR automatically correlates data among all DCLs, pinpointing the map locations of any leak sounds present. Click on any pair of DCLs to see the leak noise correlation.

Listen:

ZCORR lets you listen to actual nighttime recorded leak sounds. Click on any logger symbol or leak index bar to hear the leak sound at that map location.

Correlation Results:

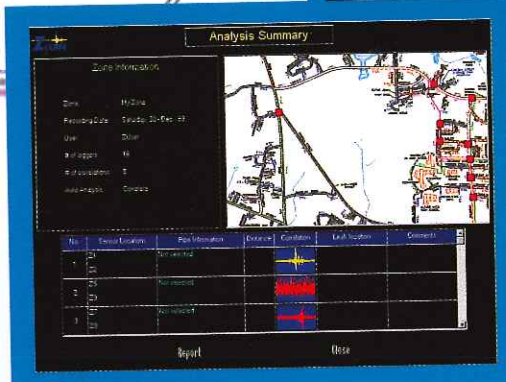
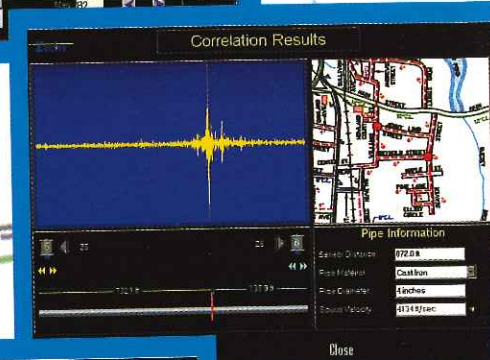
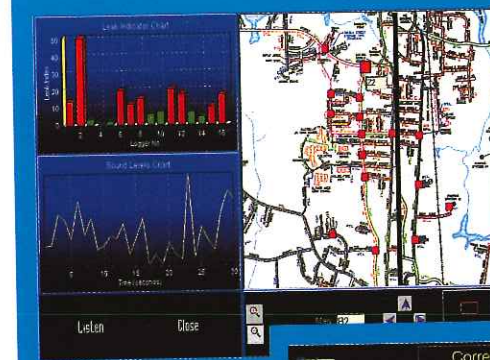
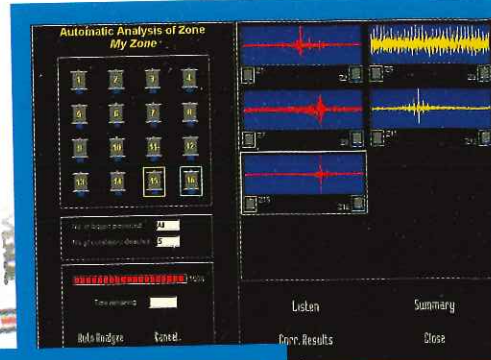
Click on any thumbnail image to get a detailed analysis: pinpoint multiple leaks; enter pipe information; see logger and leak locations on map.

Summary:

Shows a zone map with all DCLs and a summary table with all significant correlations and exact locations of pinpointed leak noises.

Report:

Prints a full report of the **ZCORR** analysis for the entire zone.



ZCORR ... the Digital Correlating Logger

Feature	ZCORR	Conventional Noise Loggers	Permanently Installed Noise Loggers
Pinpoints leak	Yes	No	No
Actual audio recording	Yes	No	No
Upgradeable/Reprogrammable	Yes	No	No
Digital mapping	Yes	No	No
Identifies multiple leaks	Yes	No	No
Communication mode	Internet/Docking Station	Docking Station	Drive-by Radio

Technical Specifications

Digital Correlating Logger (DCL)

Enclosure: Aluminum, cylindrical

Protection: IP68 – fully submersible

Weight: 1 lb (450 grams)

Dimensions: Height = 4.5 inches (11.4 cm)
Diameter = 2.25 inches (5.7 cm)

Mounting: Magnet, 40 lbs (18 kg) pull force

Operating temperature range: -20 to +140°F
(-30 to +60°C)

Power Source: Lithium battery, 5-year life,
factory-replaceable, non-rechargeable

Sensor: High resolution electronic accelerometer;
Shockproof to 6,000 g;
Sensitivity: 1 V/g;
Resolution: 0.25 μ g / $\sqrt{\text{Hz}}$

Data Acquisition: Frequency range: 1-3,000 Hz;
Signal range: sub 1 μ g – 20 mg;
Digital resolution: 20 bits

Docking Station

Enclosure: Rugged ABS carrying case

Protection: IP68 - closed; IP65 - open

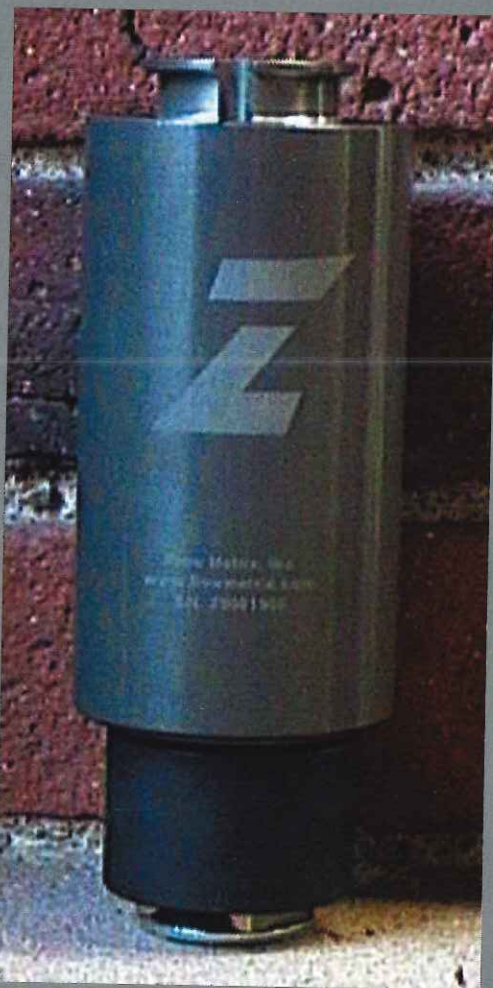
Weight: 15 lbs (6.8 kg) without DCLs

Dimensions: 20.5 x 16.75 x 8.5 inches
(52 x 42 x 22 cm)

Operating temperature range: 20 to 140°F
(-5 to +60°C)

Capacity: 3 to 16 DCLs

PC link: RS-232



Product Features

- ◆ **Zcoff** DCLs are locally intelligent. They feature auto-power management (have no on/off switch) and never require user intervention.
- ◆ **Zcoff** software has a familiar web browser interface, making it as easy to use as a remote control.
- ◆ The **Zcoff** system is expandable from 3 to an unlimited number of DCLs so it can grow with your leak detection program.
- ◆ With **Zcoff** a manager can run a leak detection program across pipeline networks anywhere in the world. DCLs can be transported ready to deploy, or setup and deprogrammed remotely, with data access and analysis by internet or email.
- ◆ **Zcoff** is fully upgradeable through software, making the latest technical advances available to all users.

For more information contact:

SubSurface Locators Inc.

Water Leak Correlators, Leak Detectors & Locators

865 Tahoe Blvd., Unit 205

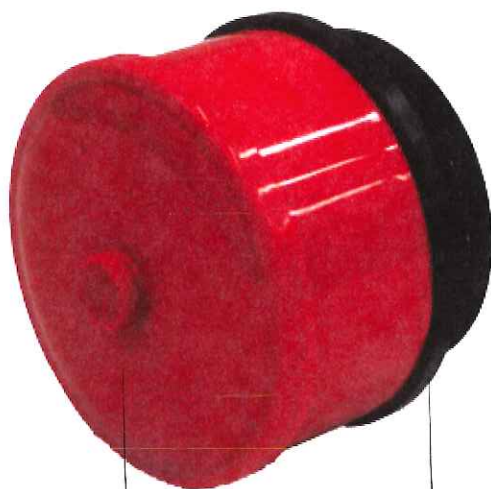
Incline Village, NV 89450

TEL (775) 298-2701

www.subsurface.com

PL200-H-1 Hydrant Water Pressure Loggers

Water distribution system pressure recorder with standard hydrant connection.



Description

The Global Water PL200-H-1 Hydrant Water Pressure Logger is an easy to use water pressure data logger that will assist you to quickly identify and locate distribution pressure problems as well as a wealth of system modeling data.

Smart Hydrant Connection Design

The Hydrant Water Pressure Logger's ez-connect adapter system allows you to connect directly to a standard 2 1/2 inch NST(NH) fire hydrant port, or easily adapt to other hose threads and special "city" threads. Designed to resemble a regular hydrant cap, the PL200-H-1 is less likely to be stolen or vandalized by casual passers by.

Powerful Datalogging

The Hydrant Water Pressure Logger's massive memory buffer will store over 81,000 pressure readings with user defined intervals from 1 per second to more than 1 per year. Plus, the logger's fast, 10 samples per second sampling mode can capture momentary events like pressure spikes and water hammer. (Note: Fast recording will reduce battery life.) Programmable start and stop alarm times makes it possible to synchronize multiple PL200-H-1 loggers to start simultaneously, delay start until a preset time, or limit the number of recordings during a given time period.

- Rugged and easy to use
- Records over 81,000 pressure readings
- Versatile ez-connector adapts to most thread sizes
- Fast 10 x per second mode to catch pressure spikes
- USB port works with any desktop or laptop PC
- Includes user friendly Windows™ software

Specifications

Accuracy: ± 1.0% full scale

Operating Temperature: Industrial, -40°C to +85°C (batteries may not apply)

Pressure Range: 0-200 psi, 300 psi overpressure

Pressure Connection: Standard 2 1/2" BSPP (British Standard Pipe Parallel) threads

Sample Modes: Fixed Interval: Programmable from 1 second to >1 year

High Speed: 10 samples/second

Exception: Log only on programmed deviation from previous reading

Storage Capacity: 81,759 recordings, battery voltage monitor, and date/time stamp

Communications: USB Type B

Power: 3.6 volt lithium AA (appr. 1 year battery life or 2 million samples)

Enclosure: Machined anodized aluminum fitting, polycarbonate electronics housing

Weight: 1.8 lbs (0.9 kg)

Dimensions: 3.9 in dia. x 3.1 in tall (9.9 cm dia. x 7.9 cm tall)

Options and Accessories

PL200-H-2 Hydrant Water Pressure Logger

Includes weather-resistant logger unit, 2-1/2 inch NHT F-F adapter and software package with USB cable.

PL200-H-1 Hydrant Water Pressure Logger

Includes weather-resistant logger unit and software package with USB cable. Adapter not included.

01-826 Hydrant Water Pressure Logger Adapter

2-1/2 inch NHT-F x 2-1/2 inch BSP-F Adapter

01-827 Hydrant Water Pressure Logger Spanner Wrench

Spanner wrench for 3.9 inch outside diameter.

Contact
Global Water
for all your
instrumentation
needs:

Water Level

Water Flow

Water Samplers

Water Quality

Weather

Remote Monitoring

Control



Global Water

a xylem brand

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140 Gold River Rd., Ste 210
Gold River, CA 95670



ACTION ITEM

May 16, 2018

TO: Board of Directors

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

Robert Hunter
General Manager

Staff Contact: Joe Berg
Director of Water Use Efficiency

SUBJECT: Bureau of Reclamation WaterSMART Grant Resolution

STAFF RECOMMENDATION

Staff recommends the Board of Directors adopt the attached resolution in support of MWD OC's 2018 WaterSMART Water and Energy Efficiency grant application to be submitted to the Bureau of Reclamation on May 10, 2018.

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

DETAILED REPORT

In March 2018, the Bureau of Reclamation released its "WaterSMART: Water and Energy Efficiency Grants for Fiscal Year 2018" Funding Opportunity Announcement. The objective of this announcement is to invite proposals to leverage money and resources by cost sharing with Reclamation on projects that seek to conserve and use water more efficiently; increase the production of hydropower; mitigate conflict risk in areas at a high risk of future water conflict; enable farmers to make additional on-farm improvements in the future, including improvements that may be eligible for Natural Resources Conservation Service funding; and accomplish other benefits that contribute to water supply reliability in the western United States. A total of \$16 million is available for project awards within the 17 western states. The Bureau has established two funding groups: Group 1 includes projects that will be awarded up to \$300,000 each; and Group 2 includes projects that will be awarded up to \$1 million each.

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

Staff will be submitting a Group 1 application proposing a Water Efficient Landscape Transformation Program to provide incentive funding for residential and commercial properties to promote water conservation through the transformation of high water using landscapes to landscapes utilizing a combination of California Friendly/Native installations, high efficiency irrigation, and alternatives to potable irrigation supply.

The FOA requires all applications to include an official Board Resolution supporting the grant application. The proposed Resolution containing the required content is attached for your consideration.

RESOLUTION NO. _____
RESOLUTION OF THE BOARD OF DIRECTORS OF MUNICIPAL WATER DISTRICT OF
ORANGE COUNTY SUPPORTING A BUREAU OF RECLAMATION 2018 WATER
SMART: WATER AND ENERGY EFFICIENCY GRANT APPLICATION

WHEREAS, the Municipal Water District of Orange County submitted an application to the Bureau of Reclamation requesting funding for a Water Efficient Landscape Transformation Program to promote water conservation in the Municipal Water District of Orange County service area through the transformation of high water using landscapes to landscapes utilizing a combination of California Friendly/Native installations, high efficiency irrigation, and alternatives to potable irrigation supply,

WHEREAS, the Municipal Water District of Orange County is committed to developing and implementing a comprehensive water use efficiency program designed to meet our local water supply reliability goals, comply with the Best Management Practices for urban water conservation in California, and exceed the Governor's call for a 20% reduction in urban per capita water use by 2020,

NOW, THEREFORE, BE IT RESOLVED, that the Municipal Water District of Orange County Board of Directors designates Robert J. Hunter, General Manager, as the official who has reviewed and supports the application submittal and the legal authority to enter into an agreement on behalf of the District, and designates Joseph M. Berg, Director of Water Use Efficiency, as the District's representative to sign the progress reports and approve reimbursement claims.

NOW, THEREFORE, BE IT FURTHER RESOLVED, that the Municipal Water District of Orange County Board of Directors assures its capability to provide the amount of funding and in-kind contributions specified in the funding plan.

NOW, THEREFORE, BE IT FURTHER RESOLVED, that the Municipal Water District of Orange County will work with Reclamation to meet established deadlines for entering into a cooperative agreement.

Said Resolution was adopted on May 16, 2018, by the following roll call vote:

AYES:
 NOES:
 ABSENT:
 ABSTAIN:

I HEREBY CERTIFY the foregoing is a full, true, and correct copy of Resolution No. _____ adopted by the Board of Directors of Municipal Water District of Orange County at its meeting held on May 16, 2018.

 Maribeth Goldsby, Secretary
 Municipal Water District of Orange County



ACTION ITEM

May 16, 2018

TO: Board of Directors

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

Robert Hunter
General Manager

Staff Contact: Joe Berg
Director of Water Use Efficiency

SUBJECT: Bureau of Reclamation CALFED Water Use Efficiency Grant Resolution

STAFF RECOMMENDATION

Staff recommends the Board of Directors adopt the attached resolution in support of MWD OC's 2018 CALFED Water Use Efficiency grant application submitted to the Bureau of Reclamation on March 14, 2018.

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

DETAILED REPORT

In January 2018, the Bureau of Reclamation released its "Bay-Delta Restoration Program: CALFED Water Use Efficiency Grants" Funding Opportunity Announcement. The objective of this announcement was to invite proposals to leverage investments and resources by cost sharing with Reclamation on projects emphasizing water use efficiency and conservation activities that result in benefits for the California-Bay Delta. A total of \$3 million is available for project awards within the CALFED Solution Area. The Bureau may award up to \$750,000 per agreement and estimates approximately 3 to 10 agreements will be awarded.

Staff has submitted an application for a Comprehensive Indoor and Outdoor Water Use Efficiency Program focused on reducing urban indoor and outdoor water consumption in residential, commercial, industrial, institutional, and public sectors through consumer

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

incentive programs. The proposed Program will facilitate the conversion of non-functional turfgrass to California Friendly landscapes with designs centered on a Watershed Approach, upgrade antiquated irrigation timers to weather-based or soil moisture-based self-adjusting irrigation timers, convert high-volume overhead spray irrigation to low-volume irrigation, and upgrade inefficient household devices and appliances to efficient low-water-use products. Additionally, applicable potable irrigation or industrial meters will be converted to non-potable sources, including recycled water.

The FOA requires all applications to include an official Board Resolution supporting the grant application. The proposed Resolution containing the required content is attached for your consideration.

RESOLUTION NO. _____
RESOLUTION OF THE BOARD OF DIRECTORS OF MUNICIPAL WATER DISTRICT OF
ORANGE COUNTY SUPPORTING A BUREAU OF RECLAMATION BAY-DELTA
RESTORATION PROGRAM: CALFED WATER USE EFFICIENCY GRANT
APPLICATION

WHEREAS, the Municipal Water District of Orange County submitted an application to the Bureau of Reclamation requesting funding for a Comprehensive Indoor and Outdoor Water Use Efficiency Program to reduce urban indoor and outdoor water consumption in residential, commercial, industrial, institutional, and public sectors through consumer incentive programs,

WHEREAS, the Municipal Water District of Orange County is committed to developing and implementing a comprehensive water use efficiency program designed to meet our local water supply reliability goals, comply with the Best Management Practices for urban water conservation in California, and exceed the Governor's call for a 20% reduction in urban per capita water use by 2020,

NOW, THEREFORE, BE IT RESOLVED, that the Municipal Water District of Orange County Board of Directors designates Robert J. Hunter, General Manager, as the official who has reviewed and supports the application submittal and the legal authority to enter into an agreement on behalf of the District, and designates Joseph M. Berg, Director of Water Use Efficiency, as the District's representative to sign the progress reports and approve reimbursement claims.

NOW, THEREFORE, BE IT FURTHER RESOLVED, that the Municipal Water District of Orange County Board of Directors assures its capability to provide the amount of funding and in-kind contributions specified in the funding plan.

NOW, THEREFORE, BE IT FURTHER RESOLVED, that the Municipal Water District of Orange County will work with Reclamation to meet established deadlines for entering into a cooperative agreement.

Said Resolution was adopted on May 16, 2018, by the following roll call vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

I HEREBY CERTIFY the foregoing is a full, true, and correct copy of Resolution No. _____ adopted by the Board of Directors of Municipal Water District of Orange County at its meeting held on May 16, 2018.

Maribeth Goldsby, Secretary
Municipal Water District of Orange County



ACTION ITEM

May 16, 2018

TO: Board of Directors

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

Robert Hunter, General Manager

Staff Contact: Karl Seckel

SUBJECT: Award of Consultant Contracts Based on the Statement of Qualification (SOQ) Submittals Regarding Water System Operations and Integration of NEW Supplies

STAFF RECOMMENDATION

Staff recommends the Board of Directors authorize the General Manager to enter into contracts with two of the consultants responding to MWDOC's SOQ, Black & Veatch and Hazen and Sawyer, to secure their participation in a scoping workshop on integration issues, as outlined below, at a cost not to exceed \$30,000.

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

SUMMARY

Staff is recommending small initial contracts be awarded to two of the consultants responding to the SOQ, Black & Veatch and Hazen and Sawyer, to secure their participation in a scoping workshop. The contract award is intended to cover their preparation time, participation time and workshop follow-up time to provide input and assistance to MWDOC in planning and scheduling future work activities related to the future integration of various water supply projects in pipelines and water systems in Orange County. The outcome of the workshop will be a set of recommendations to help guide planning related integration work by MWDOC.

Budgeted (Y/N): Y	Budgeted amount: \$30,000 this year	Core ✓	Choice __
Action item amount: \$30,000		Line item: Program 21 - 7010	
Fiscal Impact (explain if unbudgeted):			

DETAILED REPORT

Municipal Water District of Orange County (MWDOC) has identified a number of operational issues that could arise within the Orange County water system and issued an SOQ to a number of consultants with expertise in water quality, operations and facility design to provide assistance to MWDOC and the Orange County water community. The potential issues include:

- The impact of potentially low levels of imported water deliveries in certain pipelines at certain times leading to low chloramine residuals and water quality deterioration (e.g. nitrification). Chloramine loss due to reaction with low levels of bromide in seawater permeate could exacerbate this issue.
- Mixing of desalinated seawater with other sources of water of varying quality including:
 - MET water blend of Colorado River and State Water Project water
 - Groundwater from the OCWD basin
 - The above water could flow south in the Joint Transmission Main (JTM), which is connected to the EOCF#2, to blend with Doheny water flowing north in the same pipeline
 - Agencies receiving this water blend may further blend it with local water supplies from their 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 any of these projects going on-line.

- Understanding and developing approaches for dealing with unintended consequences to home plumbing systems
- Potential impacts on the Diemer Plant operations or stranding of assets, especially under conditions of unexpected outages of local supply systems
- Working out an acceptable resolution with MET for the water quality issues in the EOCF#2
- Control of hydraulic transients during loss of power

Staff prepared and issued the SOQ on March 29 and sent it to six consultants. Responses were due back by April 27 and were received from four consultants. All four consultants had very good proposals with wide-ranging expertise in water quality, operations, system design and new supply integration, including ocean water. The four firms were:

1. Black & Veatch
2. Carollo Engineers
3. Hazen and Sawyer, including assistance from Scott Foster Engineering for transient analyses

4. Stantec Consulting Services, including assistance from Arcadis with respect to ocean water integration assistance and Northwest Hydraulic Consultants for transient analyses.

In the SOQ, MWDOC requested input and suggestions from the various consultants regarding their recommendations as to how best to address the issues outlined above. In addition, their expertise in the following general areas was requested:

- Design and operation of large water systems
- Water quality and operational issues
- Flow control of water between systems
- Cost estimating of pipelines, pump stations, wells, chloramination stations, etc.

MWDOC's goal in this process is to have pre-identified consultants that can provide assistance to MWDOC to help us better understand these issues generally, and also to follow-up on specific requests. An example of an upcoming specific request will be the work associated with MET to gain approval for a pump-in of groundwater or Poseidon water into the EOCF#2. This could be for base-loaded situations or just emergency situations. Our expectations are that MET will ask many of the questions posed above and will want to turn over the responsibility for water quality to MWDOC or one of our agencies beginning at whatever point of connection we make for a NEW local source. This is based on prior discussions with MET from several years ago.

The first task recommended by staff under the SOQ process is to convene a workshop meeting involving two of the SOQ responders, Black & Veatch and Hazen and Sawyer, to help us identify what is needed to fully evaluate integration of these potential new supplies, and how to deal with future low flow situations in the imported water system. The two consultants would be asked to prepare for, attend and participate in the workshop, and to prepare follow-up recommendations. The end result of the workshop would be a set of recommendations for MWDOC and others to utilize. Some of the discussion points will include:

- What tools should be made available to help evaluate the integration of these projects? We assume a hydraulic model of the system will be needed (we are working with MET to see if they will share their model of the OC system). We also believe that water quality modules may be able to be added into the hydraulic model. Also determining which modules are the best for this situation, what data is needed, how the modules and data can best be used, and what the limitations are.
- Does sufficient basic research exist or will any new research be required within Orange County or for the Orange County projects? What can be inferred from prior research that has already been conducted?
- How do we deal with future low flow situations in the event that integration of local projects diminish the demand for imported water and create extended residence times for the water in the pipelines? What is the residence time threshold and does it change over the course of the year with water temperature and other factors? How can this be predicted in the future? Can MWDOC set a recommended threshold for the level of alternative water sources to be brought on line to eliminate impacts from low flow situations? If these events only occur during very wet winter months, what is needed to deal with them?

- What are the key constituents to examine when blending the various types of waters? How can the blending be approached in a manner to prevent unintended consequences?

In addition, MWDOC will be utilizing the services of Ed Means from Means Consulting LLC who is already under contract with MWDOC and has helped in prior efforts seeking pump-in of local sources to the EOCF#2. Ed, who has a strong background in water quality and in working with MET, will serve as the facilitator of the workshop discussions and will provide assistance to MWDOC staff.

Depending on the outcome of the Workshop, MWDOC will follow-up on the recommendations as appropriate. Additional tasks of work will be brought back to the MWDOC Board for approval, with selection of consultants from among any of the four consultants, as deemed appropriate. General discussions have been initiated with MET on a pump-in to the EOCF#2, but these discussions will be accelerated as a result of the work being completed in these study efforts.



ACTION ITEM
May 16, 2018

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

FROM: Robert Hunter, General Manager

Staff Contact: Heather Baez

SUBJECT: AB 3045 (Gallagher) – Natural Resources Agency: State Water Project Commission

STAFF RECOMMENDATION

Staff recommends the Board of Directors vote to adopt an oppose position on AB 3045 (Gallagher) and join the Metropolitan coalition letter.

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

BILL SUMMARY

AB 3045, as introduced, would remove the Division of Safety of Dams (DSOD) from under the Department of Water Resources (DWR) and transfer the division to the California Natural Resources Agency.

As amended on April 25, the bill would no longer move DSOD from DWR but would transfer the authority of the State Water Project (SWP) from DWR to a proposed, third-party SWP Commission. This commission would:

- Consist of nine gubernatorial appointees (all from the upstream watershed, none in the SWP service area)
- Require new staff including an Executive Director and any additional employees necessary to carry out the Commission's duties
- Administer the SWP, and have full charge and control of construction, operation and maintenance
- Set all rates, charges and revenues associated with the SWP

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

ARGUMENTS IN SUPPORT

In February 2017, approximately 200,000 residents were evacuated and displaced for up to five days by emergency mandate with the Oroville Dam Spillway damage. The author of AB 3045, Assembly Member Gallagher, expressed concern with the management of the emergency response efforts made by DWR. In particular, he questioned DWR staff on their timeliness and clear oversight in responding to inspection findings, as well as clarifying the general processes and procedures of the dam safety program.

AB 3045 was heard in the Assembly Water, Parks and Wildlife Committee on April 24, 2018. The committee consultants suggested that rather than moving DSOD out of DWR, where it functions as part of the state's water planning and regulatory function, the author's intent to remove conflict would be better served by creating an independent and separate organizational structure for the SWP. This was a recommendation from the August 2010 Little Hoover Commission Report titled, *Managing for Change: Modernizing California's Water Governance*, which stated, "The presence of the State Water Project within the Department of Water Resources and the administrative requirements it much fulfill, represent a conflict to important stakeholder groups and undermine the effectiveness of the department's management and planning activities."

Assembly Member Gallagher agreed to this recommendation and the bill unanimously moved out of committee. The bill was amended the next day to reflect these recommendations.

ARGUMENTS IN OPPOSITION

The amended version of AB 3045 presents specific concerns for the water community as a whole. The bill doesn't just apply to Oroville, but would have an effect on every dam and reservoir that is currently regulated by DWR statewide.

According to analysis done by staff at the Metropolitan Water District of Southern California, "While Metropolitan generally supports the concept of separating management of the SWP from other functions currently performed by DWR, much more study and coordination are needed before implementing major reforms. AB 3045 proposes sweeping changes in SWP governance without addressing the multitude of complex policy, legal and operational issues that are raised by this legislation.

Among other things this bill:

- Fails to address the original purpose of this legislation, which was to bolster dam safety, not just at Lake Oroville, but throughout the State;
- Does not required that the Commission include any representatives from the public water agencies that pay the majority of SWP costs;
- Would transfer only certain duties and powers relevant to the management and operation of the SWP to the Commission, potentially creating a fractured and unworkable governance structure;
- Would require the duties and expertise of DWR's current staff to be split into separate organizations and necessitate hiring additional staff to manage the SWP and non-SWP functions;

- Could delay critical time-sensitive decision-making and adversely impact day-to-day operations of the SWP by imposing an additional and unnecessary layer of bureaucracy;
- Could disrupt major ongoing initiatives such as capital improvement and refurbishment of SWP infrastructure, aqueduct subsidence repairs, and ecosystem improvements;
- Would likely increase costs for both SWP and non-SWP related activities, which would impact both public water agencies and the State as a whole, since costs associated with the latter must be paid from the General Fund;
- Could potentially impact existing water rights, coordinated operations with Federal agencies, and ongoing permitting processes; and
- Fails to provide the new Commission with adequate authority to contract, issue revenue bonds, cooperate with the federal government, acquire/condemn property, or to establish funds and accounts necessary to operate the SWP.

In short, AB 3045 focuses solely on the expertise and geographical representation of the governing body for the proposed Commission without addressing how this Commission would actually function or what benefits, if any, this new governance structure would provide. Accordingly, staff recommends opposing AB 3045 as detrimental to the stability of the SWP and as contrary to a balanced public discourse on options for future SWP governance.”

STAFF COMMENTS

MWDOC’s Legislative Policy Principles directly reflect opposition to legislation that could add additional barriers or impede water transfers. Specifically, *it is MWDOC’s policy to oppose legislation and regulation that: “Increases regulatory or procedural barriers to water transfers at the local or state level.”*

DETAILED REPORT

Met’s Board write-up, coalition letter and full text of AB 3045 is attached.



• **Board of Directors**
Communications and Legislation Committee

5/8/2018 Board Meeting

8-13

Subject

Adopt CEQA determination and express opposition to AB 3045 (Gallagher, R-Yuba City), regarding State Water Project Commission

Executive Summary

AB 3045, as amended in the Assembly on April, 25, 2018, (**Attachment 1**) would transfer control of the State Water Project (SWP) from the California Department of Water Resources to a new State Water Project Commission (Commission) under the California Natural Resources Agency (CNRA). The Commission would consist of nine members appointed by the Governor and subject to confirmation by the Senate. This bill requires Commission representation from the upstream watershed, but not the SWP's actual service area.

Details

Background

On February 16, 2018, Assembly Member James Gallagher, who represents the Oroville area, introduced AB 3045 proposing to establish the Division of Safety of Dams (DSOD) within the CNRA. The bill proposed to transfer authority over dams and reservoirs from DWR to the DSOD as a separate entity under the CNRA. AB 3045 was subsequently amended on April, 25, 2018, based on recommendations by the Assembly Water, Parks and Wildlife Committee consultant to strike language related to DSOD, and instead proposed creation of a Commission to oversee the entire SWP. Major provisions of the amended bill include:

- Creation of a nine-member board appointed by the Governor and confirmed by the Senate:
 - Members shall be from different regions of the state, to the extent possible;
 - Three members shall be registered engineers with experience in civil or hydrological engineering, at least one of whom shall have demonstrated experience in risk management, operations and human factors, and dam safety;
 - Two members shall have demonstrated experience in the fields of water rights, water conveyance, or water storage;
 - One member shall be nominated by the Butte County Board of Supervisors;
 - Three public members, one each representing agricultural interests, the environment and municipal water users; and
 - Commissioners would serve four-year terms.
- The Commission may employ an executive officer who shall hire employees necessary to carry out Commission functions;
- The Commission shall administer the SWP, and have full charge and control of construction, operation and maintenance of the SWP; and
- The Commission shall set all rates, charges and revenues associated with the SWP.

Staff Recommendation

While Metropolitan generally supports the concept of separating management of the SWP from other functions currently performed by DWR, much more study and coordination are needed before implementing major reforms. AB 3045 proposes sweeping changes in SWP governance without addressing the multitude of complex policy, legal and operational issues that are raised by this legislation. Among other things this bill:

- Fails to address the original purpose of this legislation, which was to bolster dam safety, not just at Lake Oroville, but throughout the State;
- Does not required that the Commission include any representatives from the public water agencies that pay the majority of SWP costs;
- Would transfer only certain duties and powers relevant to the management and operation of the SWP to the Commission, potentially creating a fractured and unworkable governance structure;
- Would require the duties and expertise of DWR's current staff to be split into separate organizations and necessitate hiring additional staff to manage the SWP and non-SWP functions;
- Could delay critical time-sensitive decision-making and adversely impact day-to-day operations of the SWP by imposing an additional and unnecessary layer of bureaucracy;
- Could disrupt major ongoing initiatives such as capital improvement and refurbishment of SWP infrastructure, aqueduct subsidence repairs, and ecosystem improvements;
- Would likely increase costs for both SWP and non-SWP related activities, which would impact both public water agencies and the State as a whole, since costs associated with the latter must be paid from the General Fund;
- Could potentially impact existing water rights, coordinated operations with Federal agencies, and ongoing permitting processes; and
- Fails to provide the new Commission with adequate authority to contract, issue revenue bonds, cooperate with the federal government, acquire/condemn property, or to establish funds and accounts necessary to operate the SWP.

In short, AB 3045 focuses solely on the expertise and geographical representation of the governing body for the proposed Commission without addressing how this Commission would actually function or what benefits, if any, this new governance structure would provide. Accordingly, staff recommends opposing AB 3045 as detrimental to the stability of the SWP and as contrary to a balanced public discourse on options for future SWP governance.

Policy

Minute Item 30007, October 9, 1973: Until the broader reorganization questions of land use, water resource management, and environmental controls were addressed, Metropolitan's Board found it untimely to support a proposal on separating SWP administration from DWR. The policy statement responds to the 1973 California Water Commission preliminary report on how to change DWR and establish the SWP as a separate state entity.

Minute Item 47135, dated June 12, 2007: Policy Principles on Delta Visioning (Delta Action Plan) regarding: governance of the State Water Project.

Information Board Letter 9-1, dated November 9, 2010: Summarizing Little Hoover Commission recommendations for reorganizing California state water agencies.

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The proposed action is not defined as a project under CEQA because it involves a legislative proposal that does not involve any commitment to any specific project which may result in a potentially significant physical impact on the environment (Public Resources Code Section 21065 and Section 15378(b)(1) of the State CEQA Guidelines).

The CEQA determination is: Determine that the proposed action is not defined as a project under Public Resources Code Section 21065 and State CEQA Guidelines Section 15378(b)(1).

Board Options

Option #1

Adopt the CEQA determination that the proposed action is not defined as a project under CEQA, and
 Authorize the General Manager to express opposition to AB 3045.

Fiscal Impact: No fiscal impacts to current practice if AB 3045 is not implemented.

Business Analysis: Status quo of State Water Project operations if AB 3045 is not implemented.

Option #2

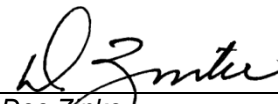
Take no action.

Fiscal Impact: Unknown fiscal impact at this time.

Business Analysis: Actions of Commission would determine if there would be cost savings or increases.

Staff Recommendation

Option # 1


 _____ 5/3/2018
 Dee Zinke Date
 Assistant General Manager and Chief
 External Affairs Manager


 _____ 5/3/2018
 Jeffrey Kightlinger Date
 General Manager

Attachment 1 – Assembly Bill No. 3045 Amended April 25, 2018

Ref# ea12659228

AMENDED IN ASSEMBLY APRIL 25, 2018

CALIFORNIA LEGISLATURE—2017–18 REGULAR SESSION

ASSEMBLY BILL

No. 3045

Introduced by Assembly Member Gallagher
(Principal coauthor: Senator Nielsen)

February 16, 2018

An act to amend Section 12805 of the Government Code, ~~and to amend and renumber Section 6025 of, to add Section 6021 to, and to add Article 5 (commencing with Section 195) 191) to Chapter 2 of Division 1 of, of the Water Code, relating to dams and reservoirs: water.~~

LEGISLATIVE COUNSEL'S DIGEST

AB 3045, as amended, Gallagher. Natural Resources Agency: ~~Division of Safety of Dams. State Water Project Commission.~~

Under existing law, the Department of Water Resources operates the State Water Resources Development System, known as the State Water Project, in accordance with the California Water Resources Development Bond Act to supply water to persons and entities in the state. Under existing law, the State Water Project is comprised of the State Water Facilities, as defined in the bond act, and additions determined by the department to be necessary and desirable.

This bill would establish within the Natural Resources Agency the State Water Project Commission, consisting of 9 members appointed by the Governor and subject to confirmation by the Senate, including one member nominated by the Butte County Board of Supervisors. By imposing a new duty on the Butte County Board of Supervisors, the bill would impose a state-mandated local program. The bill would transfer authority over and relating to the State Water Project from the department to the commission, as specified.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that, if the Commission on State Mandates determines that the bill contains costs mandated by the state, reimbursement for those costs shall be made pursuant to the statutory provisions noted above.

~~Existing law provides that all dams and reservoirs in the state are under the jurisdiction of the Department of Water Resources. Existing law requires the department to supervise the construction, enlargement, alteration, repair, maintenance, operation, and removal of dams and reservoirs for the protection of life and property. Existing law makes it unlawful to construct, enlarge, repair, alter, remove, maintain, or operate any dam or reservoir except upon approval by the department, as prescribed.~~

~~This bill would establish within the Natural Resources Agency the Division of Safety of Dams. The bill would transfer authority over dams and reservoirs from the department to the division.~~

Vote: majority. Appropriation: no. Fiscal committee: yes.
State-mandated local program: ~~no~~-yes.

The people of the State of California do enact as follows:

1 SECTION 1. Section 12805 of the Government Code is
2 amended to read:
3 12805. (a) The Resources Agency is hereby renamed the
4 Natural Resources Agency. The Natural Resources Agency consists
5 of the departments of Forestry and Fire Protection, Conservation,
6 Fish and Wildlife, Parks and Recreation, and Water Resources;
7 the State Lands Commission; the Colorado River Board; the San
8 Francisco Bay Conservation and Development Commission; the
9 Central Valley Flood Protection Board; the Energy Resources
10 Conservation and Development Commission; the Wildlife
11 Conservation Board; the Delta Protection Commission; the
12 California Science Center; the Native American Heritage
13 Commission; the California Conservation Corps; the California
14 Coastal Commission; the State Coastal Conservancy; the California
15 Tahoe Conservancy; the Santa Monica Mountains Conservancy;
16 the Coachella Valley Mountains Conservancy; the San Joaquin

1 River Conservancy; the San Gabriel and Lower Los Angeles Rivers
2 and Mountains Conservancy; the Baldwin Hills Conservancy; the
3 San Diego River Conservancy; the Sierra Nevada Conservancy;
4 and the ~~Division of Safety of Dams~~. *State Water Project*
5 *Commission*.

6 (b) Existing supplies, forms, insignias, signs, or logos shall not
7 be destroyed or changed as a result of changing the name of the
8 Resources Agency to the Natural Resources Agency, and those
9 materials shall continue to be used until exhausted or unserviceable.

10 SEC. 2. ~~Article 5 (commencing with Section 195) is added to~~
11 ~~Chapter 2 of Division 1 of the Water Code, to read:~~

12
13 ~~Article 5. Division of Safety of Dams~~

14
15 ~~195. There is in the Natural Resources Agency the Division~~
16 ~~of Safety of Dams.~~

17 SEC. 3. ~~Section 6025 of the Water Code is amended and~~
18 ~~renumbered to read:~~

19 ~~6020. It is the intent of the Legislature by this part to provide~~
20 ~~for the regulation and supervision of dams and reservoirs~~
21 ~~exclusively by the State.~~

22 SEC. 4. ~~Section 6021 is added to the Water Code, to read:~~

23 ~~6021. (a) The Division of Safety of Dams succeeds to and is~~
24 ~~vested with all of the authority, duties, powers, purposes, functions,~~
25 ~~responsibilities, and jurisdiction of the department and its~~
26 ~~predecessors for purposes of this division.~~

27 ~~(b) The Division of Safety of Dams shall maintain authority~~
28 ~~over the supervision of California's dams and reservoirs and carry~~
29 ~~out the duties, responsibilities, and functions described in this~~
30 ~~division. A statutory reference to "department" regarding a function~~
31 ~~transferred to the Division of Safety of Dams shall refer to the~~
32 ~~Division of Safety of Dams. A statutory reference to "director"~~
33 ~~regarding a function transferred to the Division of Safety of Dams~~
34 ~~shall refer to the Secretary of the Natural Resources Agency.~~

35 ~~(c) Regulations adopted, orders issued, and all other actions~~
36 ~~taken by the department or its predecessors pursuant to the~~
37 ~~authorities vested in the Division of Safety of Dams pursuant to~~
38 ~~this section and in effect immediately preceding the operative date~~
39 ~~of this section shall remain in effect and are fully enforceable until~~
40 ~~they expire by their own terms unless readopted, amended, or~~

1 ~~repealed. Regulations in the process of adoption pursuant to the~~
2 ~~authorities vested in the Division of Safety of Dams shall continue~~
3 ~~under the authority of the Division of Safety of Dams unless the~~
4 ~~Division of Safety of Dams determines otherwise. Any other action~~
5 ~~adopted, prescribed, taken, or performed by, or on behalf of, the~~
6 ~~department in the administration or performance of a duty,~~
7 ~~responsibility, or authorization transferred to the Division of Safety~~
8 ~~of Dams shall remain in effect and shall be deemed to be an action~~
9 ~~of the Division of Safety of Dams unless the Division of Safety~~
10 ~~of Dams determines otherwise.~~

11 ~~(d) Permits, licenses, and other formal approvals and~~
12 ~~authorizations issued by the department or any of its predecessors~~
13 ~~pursuant to authorities vested in the Division of Safety of Dams~~
14 ~~pursuant to this section are not affected by the transfer and remain~~
15 ~~in effect, in accordance with all applicable laws and regulations,~~
16 ~~unless renewed, reissued, revised, amended, suspended, or revoked~~
17 ~~by the Division of Safety of Dams.~~

18 ~~(e) Any decision or order by the department pursuant to~~
19 ~~authorities vested in the Division of Safety of Dams pursuant to~~
20 ~~this section remains in effect, in accordance with all applicable~~
21 ~~laws and regulations, and the Division of Safety of Dams shall~~
22 ~~implement the decision or order and treat it as administrative~~
23 ~~precedent unless it is renewed, reissued, revised, amended,~~
24 ~~suspended, or revoked by the Division of Safety of Dams.~~

25 ~~(f) Any action or proceeding by or against the department,~~
26 ~~including any officer or employee of the department named in an~~
27 ~~official capacity, or any of its predecessors, pertaining to matters~~
28 ~~vested in the Division of Safety of Dams by this section shall not~~
29 ~~abate, but shall continue in the name of the Division of Safety of~~
30 ~~Dams. The Division of Safety of Dams shall be substituted for the~~
31 ~~department, including any officer or employee of the department~~
32 ~~named in an official capacity, and any of its predecessors, by the~~
33 ~~court or agency where the action or proceeding is pending. The~~
34 ~~substitution shall not in any way affect the rights of the parties to~~
35 ~~the action or proceeding.~~

36 ~~(g) On and after January 1, 2019, the unexpended balance of~~
37 ~~all funds available for use by the department or any of its~~
38 ~~predecessors in carrying out any functions transferred to the~~
39 ~~Division of Safety of Dams are available for use by the Division~~
40 ~~of Safety of Dams.~~

1 ~~(h) The department shall transfer to the Division of Safety of~~
2 ~~Dams books, documents, data, records, and property of the~~
3 ~~department pertaining to functions transferred to the Division of~~
4 ~~Safety of Dams.~~

5 ~~(i) A contract, lease, license, or any other agreement to which~~
6 ~~the department or any of its predecessors is a party is not void or~~
7 ~~voidable by reason of this section, but shall continue in full force~~
8 ~~and effect, with the Division of Safety of Dams assuming all of~~
9 ~~the rights, obligations, liabilities, and duties of the department and~~
10 ~~any of its predecessors as it relates to the duties, powers, purposes,~~
11 ~~responsibilities, and jurisdiction vested in the Division of Safety~~
12 ~~of Dams pursuant to this section. This assumption does not affect~~
13 ~~the rights of the parties to the contract, lease, license, or agreement.~~

14 *SEC. 2. Article 5 (commencing with Section 191) is added to*
15 *Chapter 2 of Division 1 of the Water Code, to read:*

16
17 *Article 5. State Water Project Commission*
18

19 *191. (a) The State Water Project Commission is hereby*
20 *established within the Natural Resources Agency.*

21 *(b) The commission shall consist of nine members. To the extent*
22 *possible, the commission shall be composed of members from*
23 *different regions of the state. The members of the commission shall*
24 *be appointed by the Governor and subject to confirmation by the*
25 *Senate, as follows:*

26 *(1) Three members shall be registered engineers with experience*
27 *in civil or hydrological engineering, at least one of whom shall*
28 *have demonstrated experience in risk management, operations*
29 *and human factors, and dam safety.*

30 *(2) Two members shall have demonstrated experience in the*
31 *fields of water rights, water conveyance, or water storage.*

32 *(3) One member shall be nominated by the Butte County Board*
33 *of Supervisors. The Governor shall have discretion to appoint or*
34 *reject a nominee of the Butte County Board of Supervisors. If the*
35 *Governor rejects a nominee, the Butte County Board of Supervisors*
36 *shall select a new nominee.*

37 *(4) Three shall be public members, one representing each of*
38 *the following:*

39 *(A) Agricultural interests.*

40 *(B) The environment.*

1 (C) *Municipal water users.*

2 (c) *Refusal by or failure of the Senate to confirm an appointment*
3 *to the commission shall create a vacancy in the office to which the*
4 *appointment was made. Any vacancy shall be immediately filled*
5 *by the Governor, subject to confirmation by the Senate, for the*
6 *unexpired portion of the term in which the vacancy occurs.*

7 (d) (1) *The Governor shall determine the expiration of each*
8 *member's term at the time of appointment in accordance with the*
9 *following:*

10 (A) *The initial term of one of the members of the commission*
11 *shall expire on January 15, 2020.*

12 (B) *The initial term of two of the members of the commission*
13 *shall expire on January 15, 2021.*

14 (C) *The initial term of two of the members of the commission*
15 *shall expire on January 15, 2022.*

16 (D) *The initial term of two of the members of the commission*
17 *shall expire on January 15, 2023.*

18 (E) *The initial term of two of the members of the commission*
19 *shall expire on January 15, 2024.*

20 (2) *Upon the expiration of each term described in paragraph*
21 *(1), the term of each succeeding member shall be four years.*

22 (e) *The Legislature may remove a member of the commission*
23 *from office for dereliction of duty, corruption, or incompetency by*
24 *concurrent resolution adopted by a majority vote of the*
25 *membership in each house of the Legislature.*

26 192. (a) *The headquarters of the commission shall be in*
27 *Sacramento.*

28 (b) *The commission shall determine the times and places for its*
29 *meetings.*

30 (c) *All meetings of the commission shall be conducted in*
31 *accordance with the Bagley-Keene Open Meeting Act (Article 9*
32 *(commencing with Section 11120) of Chapter 1 of Part 1 of*
33 *Division 3 of Title 2 of the Government Code).*

34 (d) *The members of the commission shall select a chairperson*
35 *from among their members, who shall serve as chairperson at the*
36 *pleasure of the members of the commission.*

37 (e) (1) *Notwithstanding Section 11009 of the Government Code,*
38 *a member of the commission shall receive one hundred dollars*
39 *(\$100) for each day of actual service performed in carrying out*
40 *the member's duties. The amount of compensation shall not exceed*

1 *the sum of five hundred dollars (\$500) per member for any*
2 *calendar month.*

3 *(2) In addition to the compensation provided in paragraph (1),*
4 *a member of the commission shall receive his or her actual and*
5 *necessary expenses incurred in the performance of the member's*
6 *duties.*

7 *(3) Compensation and expenses provided in this subdivision*
8 *shall be paid from the rates, charges, and revenues assessed for*
9 *the State Water Project.*

10 *193. (a) The commission may employ an executive officer who*
11 *shall serve at the pleasure of the commission.*

12 *(b) The executive officer shall hire employees necessary to carry*
13 *out commission functions.*

14 *(c) The executive officer may purchase or rent necessary*
15 *supplies, instruments, tools, equipment, and conveniences.*

16 *(d) The department shall furnish to the commission, at its*
17 *request, assistance, including, but not limited to, legal and clerical*
18 *services, as may be required.*

19 *194. (a) The commission succeeds to and is vested with all of*
20 *the authority, duties, powers, purposes, functions, responsibilities,*
21 *and jurisdiction of the department, its predecessors, and its director*
22 *for purposes of all of the following:*

23 *(1) Chapter 8 (commencing with Section 12930) of Part 6 of*
24 *Division 6.*

25 *(2) Chapter 3 (commencing with Section 11419), Chapter 10*
26 *(commencing with Section 11900), and Article 3 (commencing*
27 *with Section 11970) of Chapter 11 of Part 3 of Division 6.*

28 *(3) Section 138.10.*

29 *(4) Part 2 (commencing with Section 10500) of Division 6.*

30 *(5) Section 11260.*

31 *(6) Section 147.5.*

32 *(b) The commission shall administer the State Water Project,*
33 *have full charge and control of the construction, operation, and*
34 *maintenance of the State Water Project, and shall set all rates,*
35 *charges, and revenues associated with the State Water Project.*
36 *The commission shall carry out the duties, responsibilities, and*
37 *functions described in this section. Statutory reference to*
38 *"department" or "director" regarding a function transferred to*
39 *the commission shall refer to the commission.*

1 (c) Regulations adopted, orders issued, and all other
2 administrative actions taken by the department, any of its
3 predecessors, or its director, pursuant to the authorities vested in
4 the commission and in effect immediately preceding the operative
5 date of this section shall remain in effect and are fully enforceable
6 until they expire by their own terms, unless readopted, amended,
7 or repealed. Regulations in the process of adoption pursuant to
8 the authorities vested in the commission shall continue under the
9 authority of the commission unless the commission determines
10 otherwise. Any other administrative action adopted, prescribed,
11 taken, or performed by, or on behalf of, the department, or its
12 director, in the administration of a program or the performance
13 of a duty, responsibility, or authorization transferred to the
14 commission shall remain in effect and shall be deemed to be an
15 action of the commission unless the commission determines
16 otherwise.

17 (d) Permits, licenses, accreditations, certificates, and other
18 formal approvals and authorizations issued by the department or
19 its director pursuant to authorities vested in the commission
20 pursuant to this section or permits, licenses, accreditations,
21 certificates, and other formal approvals and authorizations that
22 the department or its director are subject to pursuant to authorities
23 vested in the commission pursuant to this section, including State
24 Water Resources Control Board Decision No. 1641, are not
25 affected by the transfer and remain in effect, subject to all
26 applicable laws and regulations, unless renewed, reissued, revised,
27 amended, suspended, or revoked.

28 (e) Any action or proceeding by or against the department,
29 including any officer or employee of the department named in an
30 official capacity, pertaining to matters vested in the commission
31 by this section shall not abate, but shall continue in the name of
32 the commission. The commission shall be substituted for the
33 department, including any officer or employee of the department
34 named in an official capacity, by the court or agency where the
35 action or proceeding is pending. The substitution shall not in any
36 way affect the rights of the parties to the action or proceeding.

37 (f) On and after July 1, 2019, the unexpended balance of all
38 funds available for use by the department in carrying out any
39 functions transferred to the commission are available for use by
40 the commission.

1 (g) Books, documents, data, records, and property of the
2 department pertaining to functions transferred to the commission
3 shall be transferred to the commission.

4 (h) A contract, lease, license, or any other agreement, to which
5 the department, its director, or their agents, is a party, is not void
6 or voidable by reason of this section, but shall continue in full
7 force and effect, with the commission assuming all of the rights,
8 obligations, liabilities, and duties of the department as it relates
9 to the duties, powers, purposes, responsibilities, and jurisdiction
10 vested in the commission pursuant to this section. This assumption
11 does not affect the rights of the parties to the contract, lease,
12 license, or agreement.

13 195. (a) The commission may hold any hearings and conduct
14 any investigations in any part of the state necessary to carry out
15 the powers vested in it. For the purposes of this subdivision, the
16 commission shall have the powers of a head of a department as
17 set forth in Article 2 (commencing with Section 11180) of Chapter
18 2 of Part 1 of Division 3 of Title 2 of the Government Code.

19 (b) Except as provided in subdivision (c), any hearing or
20 investigation by the commission may be conducted by any member
21 of the commission or representative authorized by the commission
22 to exercise the powers of this section.

23 (c) Any final action in a hearing or investigation shall be taken
24 by a majority of the members of the commission at a meeting duly
25 called and held.

26 196. The commission shall conduct an annual review of the
27 progress of construction and operation of the State Water Project.
28 The commission shall report annually its findings and any
29 recommendations it deems appropriate to the department and to
30 the Legislature. A report submitted to the Legislature pursuant to
31 this section shall be submitted in compliance with Section 9795
32 of the Government Code.

33 197. The commission shall hold public hearings on all
34 additional facilities proposed to be added to the State Water
35 Project pursuant to the authority in Sections 12931 and 12938.

36 198. This article shall become operative on July 1, 2019.

37 SEC. 3. If the Commission on State Mandates determines that
38 this act contains costs mandated by the state, reimbursement to
39 local agencies and school districts for those costs shall be made

- 1 *pursuant to Part 7 (commencing with Section 17500) of Division*
- 2 *4 of Title 2 of the Government Code.*

O

May 9, 2018

Assembly Member Lorena Gonzalez Fletcher
California State Assembly
State Capitol, Room 2114
Sacramento, CA 95814

Re: AB 3045 (Gallagher): State Water Project Commission - **OPPOSE**
Assembly Appropriations Committee: May 16, 2018

Dear Assembly Member Gonzalez Fletcher:

On behalf of the signatories noted below, we regret to inform you of our opposition to AB 3045 by Assembly Member James Gallagher. AB 3045, as amended in the Assembly Water, Parks and Wildlife Committee on April 25 would transfer control of the State Water Project (SWP) from the California Department of Water Resources to a new State Water Project Commission (Commission) under the California Natural Resources Agency (CNRA). The Commission would consist of nine members appointed by the Governor and subject to confirmation by the Senate. This bill requires Commission representation from the upstream watershed, but not the SWP's actual service area.

Originally AB 3045 sought to transfer authority over dams and reservoirs from the Department of Water Resources (DWR) to the Division of Safety of Dams (DSOD) under the CNRA. AB 3045 was subsequently amended on April 25, based on recommendations by committee staff, to strike language related to DSOD, and instead proposed creation of a Commission to oversee the entire SWP. This action was taken without a full vetting of the impacts or consequences.

AB 3045 proposes sweeping changes in SWP governance without addressing the multitude of complex policy, legal and operational issues that are raised by this legislation. For example, the bill:

1. Does not include any representatives from the public water agencies that pay the majority of SWP costs;
2. Transfers only certain duties and powers relevant to SWP management and operation to the Commission;
3. Potentially creates a fractured and unworkable governance structure;
4. Requires the duties and expertise of DWR's current staff to be split into separate organizations thus requiring the hiring of additional staff to manage the SWP and non-SWP functions;
5. Could delay critical time-sensitive decision-making and adversely impact day-to-day operations of the SWP by imposing an additional and unnecessary layer of bureaucracy;
6. Could disrupt major ongoing initiatives such as capital improvement and refurbishment of SWP infrastructure, aqueduct subsidence repairs and ecosystem improvements;

7. Would likely increase costs for both SWP and non-SWP related activities, which would impact both public water agencies and the state as a whole, since costs associated with the latter must be paid from the General Fund;
8. Could potentially impact existing water rights, coordinated operations with federal agencies, and ongoing permitting processes; and
9. Fails to provide the new Commission with adequate authority to contract, issue revenue bonds, cooperate with the federal government, acquire/condemn property or to establish funds and accounts necessary to operate the SWP.

In short, AB 3045 focuses solely on the expertise and geographical representation of the governing body for the proposed Commission without addressing how this Commission would actually function or what benefits, if any, this new governance structure would provide. Accordingly, for all of the above reasons, we urge members of the Assembly Appropriations Committee to hold AB 3045 on suspense. AB 3045 threatens the stability of the SWP and is contrary to a balanced public discourse on options for future SWP governance.

If you have any questions regarding our collective concerns, please contact Kathleen Cole at (916) 650-2642. Thank you for your consideration.

Sincerely,



DISCUSSION ITEM
May 7, 2018

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

FROM: Robert Hunter, General Manager Staff Contact: Harvey De La Torre

SUBJECT: UPATE REGARDING THE LOCAL AGENCY FORMATION COMMISSION
(LAFCO) MUNICIPAL SERVICE REVIEW

STAFF RECOMMENDATION

Staff recommends the Planning & Operations Committee to receive and file.

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

REPORT

The Orange County Local Agency Formation Commission (LAFCO) is required to conduct Municipal Service Reviews (MSRs) in conjunction with Sphere of Influence updates for all cities and special districts located within the County of Orange. Since 2000, the state legislature has mandated MSRs, as a means to require LAFCOs to look at future growth and how local/regional agencies are planning for that growth over the next 15 to 20 years.

MSRs are conducted once every five years, and they address the following six "Determination Areas" on how a public agency provides its services:

Determination Area	Focus Points of Determination Area
1. Growth and population service impacts	How will Orange County's demographics change over next 10 to 20 years and what will be the impacts to service systems?
2. Present and planned capacity of public facilities	Do public facilities meet the physical demands and needs of the current population? Are there plans in place to address the adequacy of public facilities for future growth in population?
3. Infrastructure needs or deficiencies	What are the needs and deficiencies of Orange County's service systems?
4. Cost of providing public services	Can agencies fiscally maintain adequate level of services for the existing and future service population?
5. Existing and potential opportunities for shared facilities and services	Do opportunities exist for resources to be shared among providers to reduce costs and improve efficiencies? Are there best practice models involving the sharing of resources?
6. Accountability for community service needs	Do agencies support operational efficiencies and foster local accountability, transparency, and public engagement for the communities they serve?

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

Orange County LAFCO's vision in preparing MSRs has been to focus on how an agency has improved: efficiency and quality of public service; cooperative planning; opportunities for shared services; and implementation of best practices.

This MSR cycle for the five year period from 2018 to 2022, started with stakeholder input in the forms of six regional meetings with cities and smaller special districts to identify common issues related to growth, services, finance, infrastructure, and other challenges. LAFCO retained Management Partners, a local government consulting firm, to facilitate these meetings and manage the stakeholder input process. However, for regional agencies that provide services to multi-jurisdictions, like MWDOC, were asked to provide input through one-on-one meetings with LAFCO senior staff rather than through the regional meetings.

In February, MWDOC staff had its first one-on-one meeting with Carolyn Emery, Executive Officer, and Debra Kurita, Assistant Executive Officer, of Orange County LAFCO. Ms. Emery provided an overview of this upcoming MSR process along with Commission's objectives; which she identified as making these reports valuable and informative to the public and stakeholders. She also asked that we be forth coming in what MWDOC identifies as opportunities and best practices that support efficient and cost-effective deliveries of municipal services.

At this meeting, discussion focused on how this MSR could:

- Describe the collaborative efforts among the Orange County water agencies and MWDOC in water management (e.g. through the recent emergency drought)
- Regional services MWDOC currently provides in promoting water use efficiency throughout the County,
- Regional water resource planning efforts (i.e. OC Reliability Study)
- Legislative advocacy
- Emergency Planning (i.e. WEROC)
- The value MWDOC's services provide to the County

Next Steps

Currently, LAFCO staff and their consultant are collecting and compiling the initial input from these various stakeholder meetings, and are developing a work plan for preparation of the MSRs. They expected to present a recommended schedule to the LAFCO Board in June 2018.

Over the next six month, LAFCO staff expects to start collecting data from the various cities and special districts. For MWDOC, this would include estimated population growth, historic and projected water sales, along with MWDOC budget estimates and water rates/charges.

Towards the ends of the year, LAFCO and MWDOC staffs are expected to hold a second meeting to discuss the data provided, layout the structure of MWDOC's MSR, and its content. MWDOC staff feels this is great opportunity to report on all of the successes the District has had these past five years.

Attachment: *Orange County LAFCO Municipal Service Review & Sphere of Influence Study for Municipal Water District of Orange County, 2006*



Municipal Service Review & Sphere of Influence Study

Municipal Water District Of Orange County (MSR 06-38)



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Appendix G	Facilitated Process Minutes



LIST OF ACRONYMS

AF	Acre foot
AF/Yr	Acre feet per year
AMP	Allen-McColloch Pipeline
BPP	Basin Pumping Percentage
CDR	Center for Demographic Research
CFS	Cubic feet per second
CIP	Capital Improvement Plan (or Program)
CSUF	California State University, Fullerton
DWR	California Department of Water Resources
FAP	Flow Augmentation Project
GPD	Gallons per day
LAFCO	Local Agency Formation Commission
Metropolitan	Metropolitan Water District of Southern California
MG	Million gallons
MGD	Million gallons per day
MOU	Memorandum of Understanding
MSR	Municipal Service Review
MWDOC	Municipal Water District of Orange County
NA	Not Applicable
NP	Not Provided
OCCOG	Orange County Council of Governments
OCP-2004	Orange County Projections – 2004
OCWD	Orange County Water District
SCAG	Southern California Association of Governments
WEROC	Water Emergency Response Organization of Orange County
WFC	MWDOC Water Facilities Corporation



Section 1

EXECUTIVE SUMMARY



EXECUTIVE SUMMARY

OVERVIEW

This report provides a comprehensive review of the municipal services provided by the Municipal Water District of Orange County (MWDOC). To comply with the requirements of the Cortese-Knox-Hertzberg Act of 2000, the following report includes the municipal service review (MSR) and a sphere of influence (SOI) review/update for MWDOC.

This MSR report is a broad brush overview of MWDOC, its services and its operations. The Orange County LAFCO Commission is only required by the Government Code to receive and file the MSR report and adopt nine determinations. The Commission is not required to address any issue comprehensively or to implement any of the government structure options discussed in this report.

MWDOC was formed in 1951 to import wholesale water from the Metropolitan Water District of Southern California. In 1951 northern Orange County was largely developed and water was provided primarily by cities; South County was mostly undeveloped and was generally served by small water districts. Most of the retail water providers could not provide regional services or representation therefore, MWDOC was formed. In 2001, MWDOC consolidated with the Coastal Municipal Water District. The purpose of the reorganization was to streamline local government, provide more cost-efficient services, and permit MWDOC to provide wholesale water services at a lower cost.

Currently there are two wholesale imported water providers in Orange County – MWDOC and the East Orange County Water District.

MWDOC sells wholesale water to retail water agencies in Orange County but it does not own or operate any facilities. It provides a range of services to member agencies including (but not limited to): representation at Metropolitan; water operations/administration; water use efficiency programs; emergency preparedness and coordination; reliability studies and project development; public information and school programs; and legislative advocacy.

MSR PROCESS

Orange County's MSR process typically includes preparation of a report and stakeholder involvement in the process. The draft MSR report is prepared with data supplied by the agency (ies); subsequently, LAFCO staff and the stakeholders meet to



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discuss the draft report and address issues specific to the area or agency (ies). This process has been successful largely due to the effort of stakeholders in providing data, participating in the stakeholder process and reviewing the draft MSR report.

In June of 2006, MWDOC convened a group of staff from member agencies and began a six-month stakeholder process, facilitated by MWDOC staff, to address issues in anticipation of the LAFCO MSR process and report. Concerns were raised by some member agencies, in particular six South County water districts, during the process. The issues appeared to have simmered for five years since MWDOC reorganized with the Coastal MWD. Upon the completion of the stakeholder process, the MWDOC Board unanimously approved a set of policy and procedural changes at its December 20th, 2006 meeting to address concerns raised.

Following the conclusion of the MWDOC process, LAFCO prepared a draft MSR report and facilitated two meetings with staff from MWDOC's member agencies. At the first meeting LAFCO's facilitator asked the group to list issues of concern and to note whether or not those issues had been resolved during MWDOC's process. At the second meeting the stakeholders reviewed and commented on the MSR report.

After the conclusion of the second LAFCO meeting, MWDOC and the six South County water districts continued discussions. The six South County agencies wrote to LAFCO asking that the Commission continue the MWDOC MSR/SOI report, scheduled for June 2007, and that LAFCO facilitate additional meetings with both staff and elected officials from MWDOC and the six South County agencies.

The draft MWDOC MSR/SOI report was heard by the Commission on June 13, 2007. At that meeting the Commission directed staff to facilitate additional meetings between elected officials and staff from MWDOC and six Southern Orange County agencies to try to resolve remaining differences. After seven meetings, a tentative agreement was reached addressing the terms of the agreement, a cap on MWDOC's budget, a rate study and allowing MWDOC's member agencies to choose to opt out of some services. In addition, the agreement noted that all parties agreed not to pursue additional studies with LAFCO although those studies could be undertaken by interested agencies on their own.

The MWDOC considered the proposed agreement but continued the item to their November 5th meeting as a result of input from member agencies not involved in the facilitated discussions. As of the printing of this report, the Moulton Niguel Water District Board had approved the agreement.



ISSUES

The overarching topics of discussion addressed throughout all the three stakeholder processes can be summarized as MWDOC's budget and services and the basic governance structure of MWDOC. How the issues are framed has been the primary source of friction. It is LAFCO staff's opinion that too much time has been spent on framing the issues and disputing other versions.

The different land use patterns, development, water demand, sources of water, governmental structure, geography and location between Northern and Southern Orange County create divergent interests. The common ground between MWDOC and its member agencies is that they all serve the same people and that all the agencies want the best service at the lowest cost for their customers.

In the tentative agreement between MWDOC and the six South County agencies, MWDOC and the Six Agencies concluded that they have genuine and honest differences of opinion. All the agencies noted that the facilitated meetings were useful but that key differences still exist. The following are excerpts from the agreement which can be found in Appendix E.

1. The Six Agencies have requested a budget reduction from MWDOC based upon their belief that MWDOC's budget and scope of services have grown disproportionately since FY 2000-01 as a result of MWDOC Board's and management's strategic vision for the agency. During the facilitated process, MWDOC has consistently indicated its willingness to discuss the level of its budget and the effectiveness of its services if it can be approached in a systematic manner that includes benchmarking and comparative analysis.
2. During the facilitated process, the Six Agencies requested MWDOC provide a description of the services it could make available under a reduced budget. MWDOC provided information that it considered supportive of the appropriateness of its current budget and services, and of its belief that the services are effectively and efficiently provided. MWDOC also expressed that the vast majority of its current services are "core", or essential to member agencies' needs, and that a reduction in these services would negatively impact its member agencies.
3. The Six Agencies have requested "choice" of selected services they feel could be provided on an "elective basis". They believe a substantial portion of MWDOC's budget can be structured in this manner and that some of the services provided by MWDOC are duplicative of member agencies' efforts, or that these services



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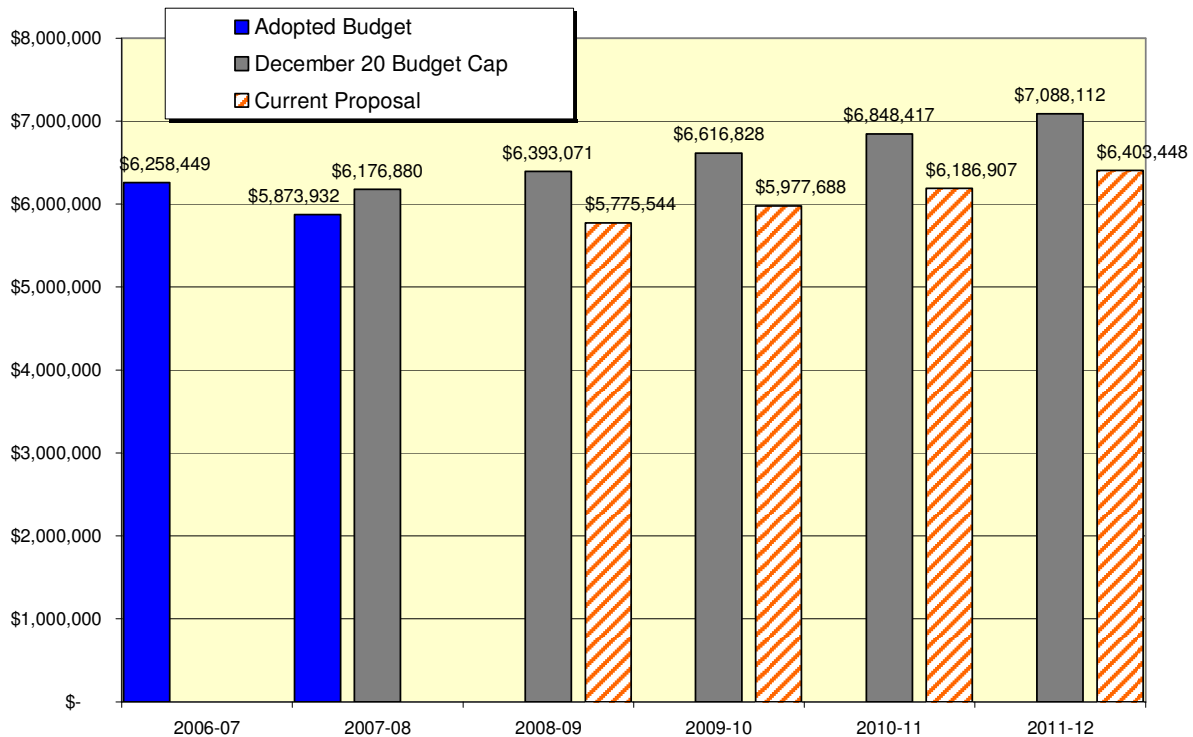
are adequately provided by others. MWDOC does not agree that a substantial portion of its budget can be structured in this manner based upon its belief that almost all of the services provided have a regional benefit, fit within MWDOC's Mission Statement, utilize economies of scale, and provide unified regional direction and coordination.

4. Related to the previous item, the Six Agencies indicated an on-going concern that MWDOC's member agencies may not be paying equitably for the services they receive under MWDOC's current rate structure. MWDOC has indicated a willingness to address this issue and believes it would be productive to examine alternative revenue recovery methods to achieve equity in its rates and charges.
5. The Six Agencies have also requested a process whereby MWDOC's member agencies could have approval of MWDOC's budget. The agencies have requested this based upon their belief that the services provided by MWDOC are paid for and used by the member agencies, and MWDOC does not obtain revenue directly from the public. MWDOC has indicated that it has two legal opinions indicating member agencies cannot ratify its budget under the current statutory governance structure, and have further indicated that such a discretionary approval by the member agencies would be an abdication of Board responsibilities and inappropriate. The Six Agencies' request is based upon their desire to have greater control over MWDOC's expenses that are paid for by the agencies, and over the type and scale of services they receive.
6. In summary, the Six Agencies believe the two fundamental disagreements between MWDOC and the Six Agencies are the scale of MWDOC's services and associated costs, and the inability of the agencies paying MWDOC's surcharges to influence MWDOC to provide the service model the agencies desire.
7. In summary, MWDOC believes it provides appropriate regional services at a reasonable cost.

The tentative agreement would remain in place for two years with an option to extend it for another two years. MWDOC would agree to cap its budget according to the following chart and agreed to allow member agencies to opt out of services they don't believe their agency needs/wants.



Budget Cap Proposal - Inflation Assumed at 3.5%



LAFCO staff hopes that the tentative agreement will be approved by all seven agencies and that it will be honored in both its spirit and letter allowing all the agencies to restore harmony and trust. However the fundamental question for LAFCO staff is:

Is the government structure of MWDOC, as a Municipal Water District, the appropriate government structure to serve Orange County?

In absence of consensual solutions, the options that involve changing the government structure of MWDOC would require extensive study to fully analyze the potential benefits and impacts to all residents and public agencies of Orange County.



Section 2

AGENCY PROFILE



AGENCY PROFILE

Introduction

Orange County was settled around water. San Juan Creek supplied the mission at San Juan Capistrano and the Santa Ana River supplied the cities of Anaheim and Santa Ana. The Santa Ana River also provided water to a large aquifer underlying the northern half of the county, enabling settlers to move away from the river's edge and still obtain water by drilling wells. By the early 1900s, Orange County residents understood that their water supply was limited since the rivers and creeks didn't flow all year long and the aquifer would eventually dry up if the water wasn't replenished on a regular basis.

In 1928, 13 cities in Southern California formed the Metropolitan Water District of Southern California (Metropolitan). Their objective was to build an aqueduct to the Colorado River to provide additional water. A severe drought in the late 1940s emphasized the need for coastal communities from Newport Beach to San Clemente to find additional water supplies. In 1948, coastal communities from Newport Beach south to the San Diego county line formed the Coastal Municipal Water District to import water from Metropolitan.

The Municipal Water District of Orange County (MWDOC) was then formed in 1951 to address the growing need for more water. As a member agency of the Metropolitan, MWDOC is entitled to purchase a share of that agency's contractual allotment for deliveries from the State Water Project and the Colorado River Aqueduct. In 2001, MWDOC consolidated with the Coastal Municipal Water District. The purpose of the reorganization was to streamline local government, provide more cost-efficient services, and permit MWDOC to provide wholesale water services at a lower cost.

Since the formation of MWDOC, Orange County has changed dramatically. Growth and development, especially in southern Orange County, has changed the needs and provision of water service.

MWDOC's current services include: representation at Metropolitan, water use efficiency programs, emergency preparedness, reliability studies, project development, water awareness/public information, school programs and legislative advocacy. MWDOC's current mission statement is as follows:



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To provide reliable, high quality supplies from the Metropolitan Water District of Southern California and other sources to meet present and future needs, at an equitable and economical cost for all Orange County, and to promote water use efficiency.

MWDOC is the second or third largest Metropolitan member agency in terms of water purchases, depending on the purchases of the City of Los Angeles. At 16.92%, MWDOC's voting share at Metropolitan, which is based on assessed valuation, is also the third largest. MWDOC's primary focus is on importing water, representing its member agencies at Metropolitan, and facilitating a regional approach to water reliability and water use efficiency. Although MWDOC participates in planning efforts with retail agencies, cities, groundwater management agencies, sanitation agencies and the County of Orange, and serves as a trustee in some financial agreements, MWDOC itself does not own or operate any water system infrastructure.

MWDOC's service area encompasses approximately 600 square miles. The Cities of Anaheim, Fullerton, and Santa Ana are excluded because they are direct Metropolitan member agencies. In addition, areas along the eastern edge of the county that have not annexed to Metropolitan or MWDOC and thus are not eligible to receive imported water are also excluded (primarily the Cleveland National Forest). The following are the MWDOC member agencies:

Cities:

- | | | |
|--------------------|-----------------|-----------------------|
| • Brea | • La Habra | • San Juan Capistrano |
| • Buena Park | • La Palma | • Tustin |
| • Fountain Valley | • Newport Beach | • Westminster |
| • Garden Grove | • Orange | • Seal Beach |
| • Huntington Beach | • San Clemente | |

Water Agencies / Private Water Companies:

- | | |
|--------------------------------------|--|
| • East Orange County Water District | • Santa Margarita Water District |
| • El Toro Water District | • Serrano Water District |
| • Emerald Bay Community Svcs. Dist. | • South Coast Water District |
| • Irvine Ranch Water District | • Trabuco Canyon Water District |
| • Laguna Beach County Water District | • Yorba Linda Water District |
| • Mesa Consolidated Water District | • Golden State Water Company |
| • Moulton Niguel Water District | • Orange Park Acres Mutual Water Company |
| • Orange County Water District | |



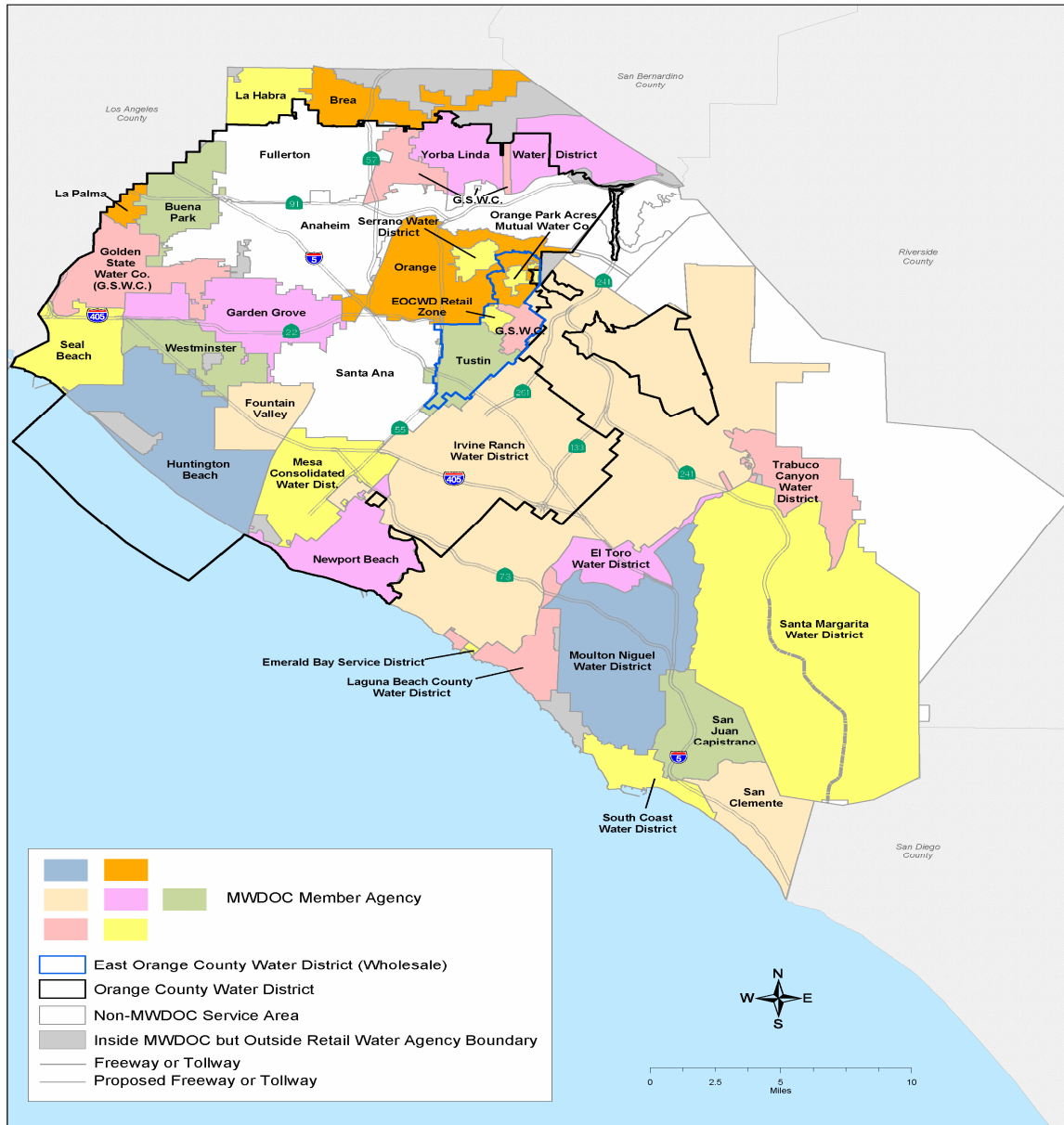
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A map of MWDOC's service area (see Figure 2.1), a District profile, and a schematic depicting the water supply system in Orange County can be found on subsequent pages.



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Figure 2.1: MWDOC Service Area



MWDOC Service Area and Member Agencies

Center for Demographic Research, CSUF
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Print Date: July 31, 2006



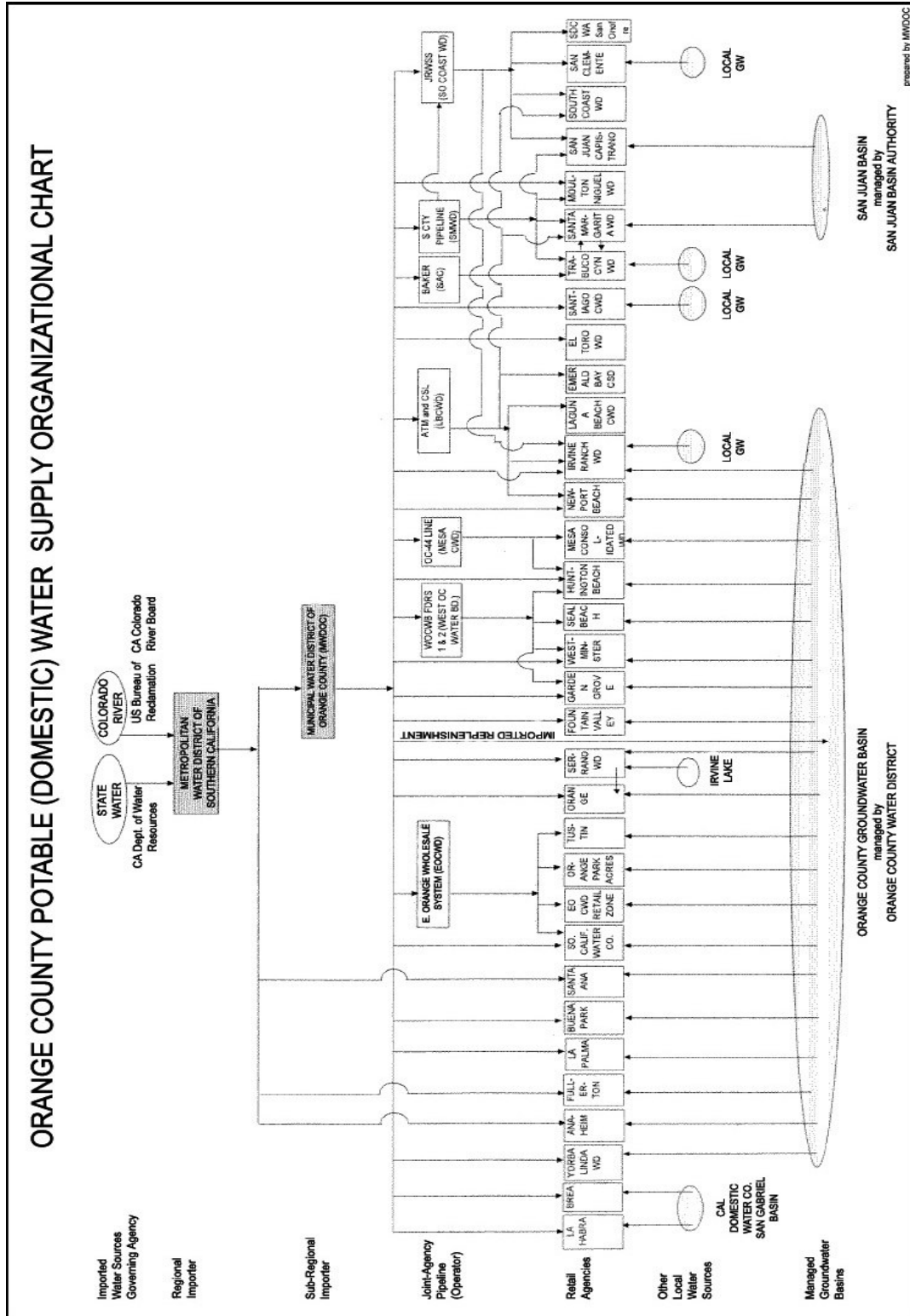
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Municipal Water District of Orange County							
Agency Information				Service Area Information			
Address:	10500 Ellis Avenue Fountain Valley, CA 92708			Service Area: 2005 Population: Projected Population:	600 sq miles 2,240,000		
Contact:	Kevin Hunt, General Manager						
Phone:	(714) 963-3058 (714) 964-9389 fax						
Website:	www.mwdoc.com				2010	2,410,000	
					2015	2,480,000	
				2020	2,540,000		
				2025	2,590,000		
				2030	2,640,000		
Financial Information (FY 2006-2007 budget) (in millions)							
Revenues:	\$138.8	Expenses:	\$138.6	Capital Improvement Budget:	\$0.15	Total Reserves at Year End:	\$12.0*
Service Summary							
Water Demand and Supply within MWDOC Service Area:*							
	Year 2005 (AFY)		Year 2030 (AFY)		Change		
Demand:							
Municipal + Industrial	504,997		611,757		21%		
Agriculture	16,781		4,801		(71%)		
Consumptive Demands	521,778		616,558		18%		
Groundwater Replenishment	311,080		372,479		20%		
Total Ground Water Replenishment	846,858		1,025,037		21%		
Direct Use	521,778		616,558		18%		
Indirect Use	325,080		408,479		26%		
Sources –Direct Consumption							
Imported –Metropolitan	245,232		246,981		1%		
Groundwater	234,019		296,434		27%		
Surface Water	10,908		10,525		(4%)		
Recycled Water	31,619		62,618		98%		
Total Supply – Direct Use	521,778		616,558		18%		
Sources –Indirect Consumption							
Imported – Metropolitan	63,181		50,700		(20%)		
Purchased from Others	4,000		4,000		--		
Recycled	4,000		72,000		1,700%		
Santa Ana River	217,116		235,913		9%		
Incidental Recharge	99,389		41,826		(58%)		
To/From Basin Storage	(62,606)		4,041		106%		
Total Supply – Indirect	325,080		408,479		26%		
Total Imported Water - Metropolitan	308,413		297,681		(4%)		

Source: MWDOC 2005 Urban Water Management Plan, Adopted FY 2006-07 Budget.* Includes restricted reserves of approximately \$6 million and unrestricted reserves of approximately \$6 million



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Section 3

STAKEHOLDER WORKING GROUP



STAKEHOLDER WORKING GROUP

A. LAFCO's Stakeholder Process

In June of 2006, LAFCO staff began the Municipal Service Review (MSR) process by attending meetings at MWDOC to explain the service review process and answer questions. As part of its typical MSR process, LAFCO staff also contacted each member agency in MWDOC and offered a confidential meeting with LAFCO's facilitator, Sharon Browning, or with LAFCO staff.

Ten (10) out of the 29 member agencies of MWDOC responded to LAFCO's email and met with the facilitator. Based on those interviews, an initial summary of the findings/issues was developed (*Appendix A*) and presented to the MWDOC staff and their stakeholders.

After LAFCO staff presented the summary of issues, several agencies asked for an additional opportunity to provide input to LAFCO. LAFCO staff gave the agencies three options: (1) speak directly with the facilitator; (2) speak with to LAFCO staff; or (3) write a letter to LAFCO. Six (6) agencies called LAFCO staff and all expressed support for MWDOC and its activities. Two of the six agencies noted concerns over the increases in the budget but felt that the MWDOC staff was addressing that concern.

When the MWDOC process ended, LAFCO started its stakeholder process with Sharon Browning as facilitator. An administrative draft copy of the MSR report was sent to stakeholders. Two meetings were held—one on February 27 and a second on March 19. The minutes of both meetings, which were approved by those attending, can be found in *Appendix B* along with those agencies participating. The first meeting clarified the list of issues identified during the MWDOC process and participants commented on the MSR report in the second meeting. A majority of those comments have been integrated into the draft MSR report.

The issues identified during the first LAFCO meeting are summarized below (Refer to *Appendix B* for complete minutes of the meeting):

1. MWDOC's Mission and Services

There was disagreement among the agencies about MWDOC's mission and what services are provided and/or should be provided. The issue arises out of an inconsistent need among member agencies for MWDOC's services and out of changes which have resulted in different needs among North and South Orange County and among cities and special districts. This issue was considered part of an on-going discussion.



2. How MWDOC's Services are Funded

Some member agencies believe they are funding some services they don't need/want. The MWDOC process did not resolve this issue to the satisfaction of all agencies.

3. MWDOC's Constituents

There was disagreement among the member agencies about to whom the MWDOC Board reports and is accountable—the public or the member agencies. The MWDOC process did not resolve this issue to the satisfaction of all agencies.

4. Input into MWDOC's Activities

It was stated that the MWDOC Board takes some actions without broad member agency support. The MWDOC process achieved a compromise consensus of all member agencies on this issue.

5. Coordination of Lobbying Efforts

Some member agencies believe they are funding lobbyists they don't need or want. Although the MWDOC process did not resolve this issue to the satisfaction of all agencies, this is a service issue.

6. Budget Process

Member agencies have input into MWDOC's budget but this does not mean the input is always listened to. There was no agreement on the baseline budget that came out of the MWDOC stakeholder process.

7. Reserves

There was disagreement on the amount of reserves MWDOC should have. The MWDOC process did not resolve this issue to the satisfaction of all agencies.

The following section includes a summary of the MWDOC stakeholder meetings and subsequent MWDOC Board actions.

B. MWDOC's Stakeholder Process

MWDOC staff acted as facilitator for a series of eight meetings with the member agencies from June to December, 2006. This included three meetings that involved both the General Managers and elected officials and five meetings with the General Managers of 24 of the member agencies. The meeting notes from each of the MWDOC Stakeholder meetings as



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prepared by MWDOC staff are included in *Appendix C*. A brief summary of the eight MWDOC Stakeholder meetings and subsequent MWDOC Board action to address the issues is presented in the following chart:

Summary of MWDOC Stakeholder Meetings with Member Agencies			
Mtg	Date	Type	Summary of Discussions
1	6-8-06	Ad Hoc MWDOC (Elected Officials & Managers)	The discussion addressed MWDOC's costs or activities that were not fully supported by member agencies, MWDOC's budget and water rate increases, reserves and use of reserves. MWDOC's pending rate increase was discussed and member agencies recommended that MWDOC not adopt the proposed \$0.50 increase on retail meters but use existing reserves for any budget shortfall. The member agency request was subsequently approved at the June 21 MWDOC Board meeting; MWDOC's rates for 2006-07 remained equal to 2005-06 rates.
2	8-3-06	Ad Hoc MWDOC with Elected Officials & Managers	Member agencies developed a list of issues, which included MWDOC's mission, core vs. non-core activities, who are MWDOC's constituents, process for input into MWDOC's activities, need for more collaboration with the member agencies before initiating projects, coordination of lobbying efforts, budget process and reserve levels.
3	9-28-06	Member Agency Managers	The group reviewed MWDOC's mission and a detailed list of services, which were grouped into eight categories. Questions were raised on some studies and projects and how they get initiated and how costs are shared among member agencies. Questions were raised on the use and coordination of lobbyists. A ninth service, research, was not supported. A menu approach, where agencies can pay for only the services they want, was not supported by a majority of member agencies. The group requested input into the cost of each of the services.
4	10-18-06	Member Agency Managers	Joyce Crosthwaite (LAFCO) distributed and discussed the LAFCO MSR "Summary of Findings & Issues". There was some confusion about the interview process and Joyce agreed that any other agencies wishing to participate in a confidential interview could call her or



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Summary of MWDOC Stakeholder Meetings with Member Agencies			
Mtg	Date	Type	Summary of Discussions
			<p>her facilitator, Sharon Browning. The discussion centered on the "Cost of Service" breakdown MWDOC had prepared which estimated the costs of each of the eight major services.</p> <p>Kevin Hunt (MWDOC) proposed ways MWDOC could address the agencies' concerns, including five year budget certainty, budget process, project initiation process, federal lobbying, rate equity and Board/Member Agency relations.</p>
5	10-30-06	Member Agency Managers	<p>Don Chadd (Trabuco CWD), representing five agencies in South Orange County, presented a proposal to adopt a base year budget and thereafter to limit the MWDOC budget increases to no more than the Consumer Price Index (CPI). Increases for staff and for ancillary services (as defined during the annual budget process) would be funded from reserves without increases in rates to cover decreases in reserves.</p> <p>A budget ratification process was also proposed with approval by a majority vote and/or by a weighted vote by the % of revenue contributed to MWDOC. Studies were to be funded by agreement with the agencies or out of MWDOC's reserves. An "opt out" process was also proposed. A meeting forum was requested for improved interaction between the member agencies, the MWDOC Board and the Metropolitan Directors. These issues were discussed and refined through discussions and carried over to the next meeting.</p> <p>Other items discussed at the meeting included core vs. non-core services and the process for project initiation.</p>
6	11-13-06	Member Agency Managers	<p>The main discussion centered on the proposed policy to limit budget increases over the next five years to a base budget and CPI increases and whether the budget would be formally ratified by member agencies or if the process of approval would be advisory. It was agreed that the opinions of member agencies on the budget would be</p>



Summary of MWDOC Stakeholder Meetings with Member Agencies			
Mtg	Date	Type	Summary of Discussions
			reported both on a weighted revenue basis and a count by agency. No consensus was reached as to whether approval for MWDOC's budget would be formal or advisory. Kevin Hunt (MWDOC) agreed to discuss both concepts at the upcoming Ad Hoc meeting but noted he would only recommend the advisory process.
7	11-20-06	Ad Hoc MWDOC with Elected Officials & Managers	Proposed policy and procedural changes in response to member agency concerns were discussed. Kevin Hunt (MWDOC) agreed that he would not propose a budget to the MWDOC Board that was outside of the base budget and CPI cap unless he had a majority of member agency support.
8	12-18-06	Member Agency Managers	The purpose of the meeting was to review rate equity issues and discuss whether to proceed with further study of MWDOC rate alternatives, such as a "per agency" charge or other options. The group reached the conclusion that, for now, there was no interest in studying the rate equity issue further. However, MWDOC has budgeted \$50,000 in FY 2007-2008 to study rate equity as a result, according to MWDOC staff, of the LAFCO MSR process.

Upon the completion of the stakeholder process, the MWDOC Board unanimously approved a set of policy and procedural changes at its December 20th, 2006 meeting. The Board also adopted a policy statement that noted its desire to work cooperatively with member agencies to serve the public. A copy of the December 20th Board letter is included in *Appendix D*.

C. Seven Agency Facilitated Process

After the conclusion of the second LAFCO meeting, MWDOC and the six South County water districts continued discussions. The six South County agencies wrote to LAFCO asking that the Commission continue the MWDOC MSR/SOI report, scheduled for June 2007, and that LAFCO facilitate additional meetings with both staff and elected officials from MWDOC and the six South County agencies.



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The draft MWDOC MSR/SOI report was heard by the Commission on June 13, 2007. At that meeting the Commission directed staff to facilitate additional meetings between elected officials and staff from MWDOC and six Southern Orange County agencies to try to resolve remaining differences.

The group met six times with the LAFCO facilitator, Sharon Browning. Minutes from all six meetings can be found in *Appendix F*. A seventh meeting was held without the facilitator. The purpose of the first six meetings was to discuss three issues as noted in the letter to LAFCO—MWDOC’s baseline budget, the amount of MWDOC’s reserves and the budget approval process. It was agreed at the first meeting that any agreement achieved was only a recommendation and that any agreement would have to be approved by each agency’s Board and MWDOC’s other member agencies. LAFCO staff was present at all meetings to monitor them for the Commission, to act as a resource and to provide logistic support.

The issues noted at the first meeting were: (1) that the baseline budget established by MWDOC as a result of the previous stakeholder process was too large and that the rate of increase in the budget and services had been too high in the past; (2) that the reserves were too high, were used to cover operating deficits and that there was a clear lack of rationale for the size of the reserves; and (3) that the budget process did not allow for meaningful input by member agencies and that the input provided did not appear to have an impact.

The discussion at each meeting centered on those issues. At the second meeting the group identified the data required to discuss the budget. MWDOC staff presented detailed information about the difference between their 2001-2002 (\$3.8 million) and 2007-2008 (\$5.8 million) budgets including how services had changed or fixed costs had increased. MWDOC staff also outlined the conceptual budget cuts needed to reach a \$4.8 million budget.

At the third meeting the group agreed for discussion purposes to try to classify the ten services provided by MWDOC as “core” (essential), non-core (discretionary) and hybrid (both core and non-core) as an effort to determine if there were services that could be “unbundled” from the MWDOC function as a means of reducing the budget and keeping future MWDOC budget increases lower. There was not agreement among the agencies as noted in the following chart.

Service Category	Six-Agencies	MWDOC	Comments
1. Metropolitan Representation and Advocacy	Core	Core	
2. Water Operations and Administration	Core	Core	



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3. Water Use Efficiency Programs	Hybrid	Core	
4. Emergency Preparedness (WEROC)	Core	Core	
5. Water Reliability Planning and Project Development	Hybrid	Hybrid	
6. Water Reliability MWDOC Desal Contribution	N/A	N/A	Not budgeted
7. Water Awareness and Public Information	Non-Core	Core	
8. School Education	Hybrid	Hybrid	
9. Legislative Tracking, Advocacy and Coordination	Non-Core	Core	One agency member undecided between core and non-core
10. MWDOC Mgmt. And Support Functions	N/A	N/A	Not classified because cost is spread over all nine categories

The six agencies requested that MWDOC prepare a “zero-based” budget for discussion at the next meeting and provide specific information on other topics as well.

The next two meetings continued with similar discussions, requests for information and presentation of data. At the end of the fifth meeting the agencies agreed to form a sub-committee to work on possible ways to un-bundle services and to recover costs. At the September 22nd meeting the six South County agencies requested that MWDOC return with a proposal that:

1. Provides the agencies with a “choice” of selected MWDOC services
2. Includes a study to examine alternative revenue recovery methods to achieve equity in MWDOC’s rates and charges
3. Develops more stringent control on MWDOC’s budget increases moving forward
4. Offers a budget reduction for the 2008-2009 budget year and moving forward



5. Develops a budget member-agency approval process based on 50% revenue contribution and 50% of the number of agencies supporting the budget

MWDOC provided a response to the six agencies at the last facilitated meeting on September 26th. The six agencies requested more time to review MWDOC's offer and to provide a response and a seventh meeting was scheduled on October 10, 2007.

At the final meeting the six agencies presented an alternative proposal which was discussed extensively. A compromise was reached and the general contents of the final agreement were developed. A copy of the final agreement can be found in Appendix E.

It was agreed by MWDOC and the six agencies that any agreement that came out of the facilitated process would only be considered as a recommendation and would have to be taken back to all MWDOC member agencies and their respective boards, including the MWDOC Board, for final decision-making. The MWDOC Board considered the agreement at their October 17th meeting but agreed to continue the item to their November 5th meeting to allow more time by member agencies to review it. Of the six agencies who had the item scheduled for their Board's consideration, all of them except the Moulton Niguel Water District also continued their final approval based on the MWDOC Board's continuance and the possibility that the agreement might be changed. However, the Moulton Niguel Water District approved the compromise agreement at their October 18th Board meeting.



Section 4

GROWTH & PROJECTED POPULATION



GROWTH & PROJECTED POPULATION

A. Regional Summary

MWDOC's service area is generally characterized by established communities with a few areas of significant growth. The last major developments in MWDOC's service area will be in East Orange, the two former military bases in Tustin and Irvine and Rancho Mission Viejo in the southern portion of the County. Most of the growth is expected to occur within the current decade, with an average annual growth rate of 1.9% from 2005 to 2010, tapering off to 0.4% by 2030.

The modest population growth projected over the next 25 years will primarily be a result of natural increase or births; once the developments noted above are complete, future increases in the number of housing units will be primarily due to infill and redevelopment. While the majority of residential land use is single-family, within the more urbanized areas there is a noticeable trend for redevelopment that incorporates mixed use and multi-family housing. Depending on the previous land uses, this may result in increased local water demand. However, landscapes are generally smaller and building standards have changed in that they require improved water use efficiency. Therefore, while growth within the MWDOC boundaries will result in increased water demand and a greater need to develop and maximize the use of local resources, imported water demands are not expected to increase at historic rates.

B. Existing & Projected Population

The population projections used in this analysis are based on data from the Southern California Association of Governments (SCAG) used for the 2004 Regional Transportation Plan, the Center for Demographic Research (CDR) at California State University, Fullerton (CSUF) and the California Department of Finance.

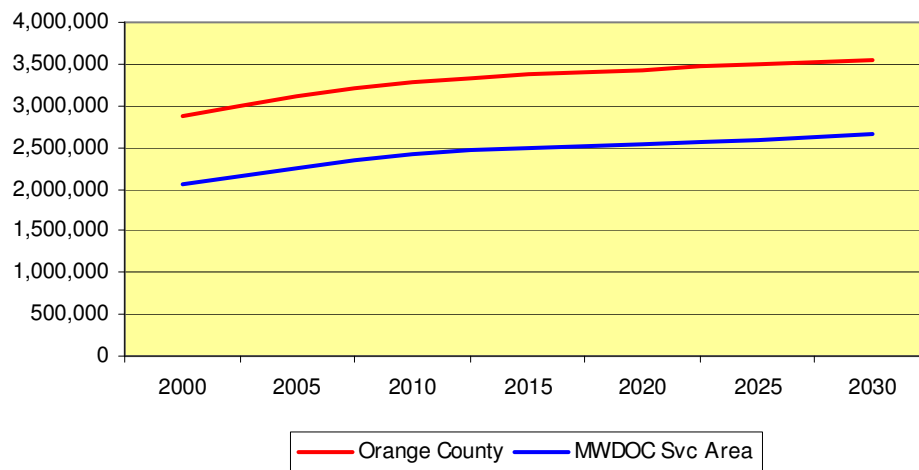
The cities with the highest projected increases in population are Irvine, Anaheim, Huntington Beach, Santa Ana and Orange. The cities with the largest anticipated increase in number of housing units are Irvine (15,723), Anaheim (6,269), Huntington Beach (5,082), and Newport Beach (5,023).¹ These two growth projections do not

¹ The growth projections for certain cities are anticipated to change as the projections were prepared prior to recent major annexations and related development approvals for Irvine and Orange.



directly correlate due to differences in the estimated number of persons per household; for example, Santa Ana and Orange have much higher rates (4.691 and 3.109, respectively) than Newport Beach (2.184).² The following *Figure 4.1, Estimated Population Growth* shows the estimated population growth rates within the MWDOC service area and countywide.

Figure 4.1: Estimated Population Growth



The Orange County Projections 2004 (OCP-2004) were adopted in 2004 by the Orange County Council of Governments (OCCOG) and the County Board of Supervisors. *Table 4.1, OCP-2004 Projections for Orange County* presents the projections for population, housing and employment within the MWDOC service area and countywide.

Table 4.1: OCP-2004 Projections for Orange County, 2005–2030								
		2005	2010	2015	2020	2025	2030	Overall Increase
Population	MWDOC Svc Area	2,263,086	2,425,797	2,490,751	2,544,328	2,595,432	2,649,162	386,076
	Countywide	3,094,461	3,291,628	3,402,964	3,485,179	3,537,559	3,552,742	458,281
Households	MWDOC Svc Area	761,485	810,821	822,270	838,008	853,757	870,120	108,635
	Countywide	978,423	1,034,027	1,043,473	1,063,976	1,081,421	1,098,474	120,051
Employment	MWDOC Svc Area	1,161,013	1,312,227	1,355,704	1,395,048	1,428,522	1,458,887	297,874
	Countywide	1,554,271	1,749,985	1,816,387	1,858,579	1,896,752	1,921,800	367,529

Source: OCP-2004, SCAG

² California Department of Finance, Demographic Research Unit. City/County Population and Housing Estimates, 1/1/2006



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Table 4.2, Existing and Projected Population by Jurisdiction, presents growth data for the incorporated cities within the study area. The most significant projected increase is in the City of Irvine, with the addition of 60,000 residents by 2030. The 5-year period with the highest growth rate for the cities was from 2000 to 2005.

Table 4.2: Existing and Projected Population by Jurisdiction								
City	2000	2005	2010	2015	2020	2025	2030	Overall Increase
Aliso Viejo	42,081	49,020	55,965	56,864	57,450	57,965	58,240	16,159
Brea	35,566	39,397	42,281	43,948	45,215	46,408	46,947	11,381
Buena Park	78,934	83,031	85,855	88,134	89,960	91,697	92,481	13,547
Costa Mesa	109,402	113,874	117,492	121,166	124,070	126,802	129,098	19,696
Cypress	46,521	48,992	50,284	51,462	52,421	53,327	53,752	7,231
Dana Point	35,325	37,352	38,482	39,191	39,745	40,255	40,437	5,112
Fountain Valley	55,321	59,250	61,758	63,257	64,458	65,586	66,107	10,786
Garden Grove	166,339	173,417	178,457	182,276	185,122	187,732	189,445	23,106
Huntington Beach	190,786	204,297	212,893	216,565	219,601	222,457	223,992	33,206
Irvine	143,965	169,600	192,186	195,740	198,689	201,491	203,965	60,000
La Habra	59,407	63,350	65,773	66,717	67,482	68,210	68,576	9,169
La Palma	15,504	16,248	16,600	16,874	17,086	17,286	17,368	1,864
Laguna Beach	23,874	25,028	25,582	25,977	26,279	26,564	26,675	2,801
Laguna Hills	32,275	33,516	34,150	34,734	35,200	35,637	35,833	3,558
Laguna Niguel	62,277	67,134	70,376	71,372	72,133	72,834	73,067	10,790
Laguna Woods	17,842	18,534	18,782	19,046	19,261	19,470	19,590	1,748
Lake Forest	76,512	79,077	80,604	81,401	82,044	82,645	82,943	6,431
Los Alamitos	11,608	12,224	12,545	12,743	12,912	13,079	13,190	1,582
Mission Viejo	93,689	98,042	100,945	102,323	103,381	104,360	104,706	11,017
Newport Beach	76,170	83,585	89,527	91,147	92,365	93,488	94,167	17,997
Orange	129,637	139,859	146,899	149,208	151,032	152,760	153,522	23,885
Placentia	46,801	50,182	52,352	53,267	54,030	54,753	55,164	8,363
Rancho Santa Margarita	47,511	50,263	51,808	52,556	53,182	53,793	54,175	6,664
San Clemente	50,252	57,966	64,760	66,131	67,175	68,151	68,454	18,202
San Juan Capistrano	34,049	36,900	38,877	39,373	39,750	40,105	40,233	6,184
Seal Beach	24,309	25,628	26,335	26,709	27,015	27,311	27,471	3,162



Table 4.2: Existing and Projected Population by Jurisdiction

City	2000	2005	2010	2015	2020	2025	2030	Overall Increase
Stanton	37,819	40,295	41,805	45,104	47,738	50,252	51,077	13,258
Tustin	68,032	76,164	82,470	84,774	86,580	88,270	88,788	20,756
Villa Park	6,036	6,359	6,530	6,646	6,746	6,839	6,892	856
Westminster	88,648	92,549	94,226	95,956	97,341	98,661	99,291	10,643
Yorba Linda	59,604	66,286	71,463	73,280	74,753	76,153	76,811	17,207
Unincorporated	103,401	145,667	197,735	216,810	234,112	251,091	286,705	183,304
Total	2,069,497	2,263,086	2,425,797	2,490,751	2,544,328	2,595,432	2,649,162	579,665
Avg Annual Growth Rate		1.87%	1.44%	0.54%	0.43%	0.40%	0.41%	

Source: SCAG 2004 projections

C. Summary

On a regional basis, water supply in California, especially in Southern California, should be considered a limited resource due to cutbacks from the Colorado River, drought, environmental issues, climate changes and the fragility of the Bay-Delta system infrastructure, which supports the State Water Project.

Growth and redevelopment within the MWDOC service area will also impact water demand over the next 25 years. Agencies in Central and Northern Orange County will continue to rely on less expensive groundwater for a significant portion of their water supply with less of a need for imported water. Much of the growth in these areas is expected to occur from infill and redevelopment. Other agencies, primarily those in South County—where additional new development as well as substantial infill is occurring—are developing recycled and other local supplies to the extent possible but will continue to rely on imported water for the balance necessary to meet demand.

The projected growth within Orange County has been considered in the 2005 Urban Water Management Plan prepared by MWDOC and other water agencies in the area, as well as water supply assessments that are prepared for individual projects. The anticipated growth is used as a basis to determine if the water supply is adequate, reliable and affordable.



Section 5

INFRASTRUCTURE NEEDS & DEFICIENCIES



INFRASTRUCTURE NEEDS & DEFICIENCIES

A. Overview

Water resources within Orange County include both local and imported supplies. Local supplies include: (1) groundwater (2) recycled water and (3) surface water. Each source is described in the following sections.

Although MWDOC does not own or operate any water system infrastructure and does not have jurisdiction over local supplies, it does offer programs that are designed to improve the reliability of the regional system. The current MWDOC services include but are not limited to:

1) Metropolitan Advocacy

MWDOC has four directors seated on the 37-member Metropolitan Board. Policy issues include: system reliability, integrated resource planning, return on \$130 million annual investment in Metropolitan, rate design and budget, growth charges, drought planning, transfer/wheeling policy, conservation programs, Bay Delta issues, Colorado River issues, and the local resource incentive program.

2) Water Operations and Administration

MWDOC staff provides billing, coordination of discounted water programs, operations and maintenance shutdowns, water quality issues and requests for assistance including annual operating plans, water use projections for Metropolitan and coordination of Metropolitan/OCWD/MWDOC storage programs and agreements.

3) Water Use Efficiency

MWDOC operates a countywide water use efficiency program. This program provides a regional rebate format for consumers to receive incentives for installing water saving devices such as ultra low flow or high efficiency toilets, high efficiency clothes washers, and “smart” irrigation controllers. MWDOC secures funding for rebates and program implementation from various sources. MWDOC administers, advertises and promotes the programs. MWDOC also participates in efforts to develop consensus through the



California Urban Water Conservation Council and through participation in workgroups such as the AB 2717 Landscape Water Use Efficiency task force. MWDOC also operates a monthly Water Use Efficiency Coordinator Workgroup meeting with its member agencies. MWDOC also assists member agencies in securing federal and state grants.

4) Emergency Preparedness

MWDOC operates the Water Emergency Response of Orange County (WEROC), which functions with one full-time MWDOC staff and a combination of local water agency and local technical/consultant volunteer staff. In an emergency, one of two water emergency operations centers in Central/North or South Orange County are activated to gather damage information, evaluate assistance needs and coordinate responses to service disruptions. WEROC's activities include training and emergency exercises, participation in the Orange County Emergency Management Organization (OCOMO), preparation of an Orange County Regional Water/Wastewater Multi-Hazard Mitigation Plan, development of GIS based emergency base maps, participation in Metropolitan's emergency management coordination group (MARS), and providing federally mandated training for the National Incident Management System and Standardized Emergency Management System. Preparation, shared tools and well rehearsed coordination among water and wastewater agencies in the County can result in better performance in emergencies.

5) Reliability Studies and Project Development

MWDOC conducts, initiates or participates in a number regional water system and water supply reliability studies.

6) Water Awareness/Public Information

MWDOC's water awareness and public information programs promote public and intergovernmental awareness of water issues, and build support for water reliability investments as well as water use efficiency. MWDOC's activities in this area include a monthly Public Affairs Workgroup for its member agencies, preparation of state mandated Annual Water Quality Reports for 22 member agencies, development of communications tools and messages, input into Metropolitan regional advertising campaigns, periodic *Currents* newsletters, quarterly Water Policy Forum Dinners, MWDOC website updates and coordination of Metropolitan facility inspection tours.

7) School Program

MWDOC implements a water educational program for children in grades K-5 in partnership with the Discovery Science Center, although the original school program



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had been operated by MWDOC for over 30 years. The partnership with DSC has allowed the program to continue with the added benefit that DSC's marketing and administration capacity can be applied to allow more students to be reached. In 2005, the program reached 76,000 students. The Cities of Anaheim, Fullerton and Santa Ana contract with MWDOC so that this program is provided in their areas as well. The Irvine Ranch Water District (IRWD) provides its own school program and does not participate in MWDOC's school programs.

8) Legislative Advocacy

MWDOC provides a number of legislative advocacy functions, which include the use of a state lobbyist, a federal lobbyist and MWDOC staff who work on legislative issues. Legislative advocacy activities include a Member Agency Legislative Coordination Workgroup, participation in Metropolitan's Legislative Workgroup and with the Association of California Water Agencies (ACWA), an annual Orange County water issues briefing in Washington DC (cooperative effort with MWDOC, OCWD, IRWD, SMWD, County of Orange, and others) and staff support for WACO (legislative reports, meeting coordination).



ISSUE: SERVICES

During the first MWDOC stakeholder process a detailed list of MWDOC's services and activities was reviewed. Questions were raised on some studies and projects, the process of initiation and how those services were funded. Questions were also raised on the use and coordination of lobbyists. One service, research, was not supported by the group. A menu approach, where agencies can pay for only the services they want, was not supported by a majority of member agencies at that time.

The issue of what services agencies need/want arises out of an inconsistent need among member agencies for MWDOC's services, the process of input into how the services are adopted and out of the perception that MWDOC has initiated some projects without broad member agency support. While there are economies of scale associated with some services being provided on a regional basis, the value of MWDOC's services to member agencies varies, depending on each agency's budget staffing, service area characteristics, and service goals and objectives. Ultimately, the services and programs that are included in MWDOC's annual adopted budget are supported through the Retail Meter and Water Increment charges, costs which the member agencies must include into their budgets and pass on to their ratepayers with the potential for higher water rates. Growth in services and programs without some form of consensus and consent will, over time, exacerbate current tensions.

As an example, MWDOC had been in the process of completing a feasibility study for a potential seawater desalination plant in Dana Point. This project was opposed by several member agencies, due to their concerns over the cost and limited potential benefit. Those agencies did not want to be required to share in the cost should the project proceed to a next phase. Other member agencies have expressed interest in and support for the project. In 2005 at the recommendation of a number of member agencies, MWDOC committed to wrapping up the feasibility study using remaining grants and budgeted reserve funds during the FY 2006 budget process and to transition the project to a JPA comprised of interested member agencies.

MWDOC has also authorized lobbying efforts to seek funding for this project. This has not always been coordinated with some member agencies that also have lobbying efforts for other programs. This further exacerbates existing problems. With the adoption of policy changes in December 2006, MWDOC will seek funding partners and share costs on any projects and lobbying when fewer than five agencies will directly benefit. This change will limit the situations in which member agencies are required to share equally in the cost of all of MWDOC's activities irrespective of benefits.

During the LAFCO stakeholder process, there was still disagreement among the agencies about what services are provided and/or should be provided. Some agencies wanted the discussion regarding services to resume after a year to determine if the changes implemented by MWDOC will address the concerns; other agencies wanted the discussion of the issue to continue immediately.

The facilitated discussions re-visited the idea of allowing agencies to "opt-out" of some services. The tentative agreement included a provision that MWDOC will allow, if requested by any member agency, "choice for services" for in Water Use Efficiency Programs, Planning Studies, Public Affairs and outside State Lobbying, where appropriate, and when it can be demonstrated by the member agency that the services can be reasonably segregated under MWDOC's regional service approach.



B. Water Sources

Local Supplies

Groundwater

Local supplies are important and are used to meet approximately 53% of direct-use water demand within the MWDOC service area. These local supplies are becoming increasingly important and valuable not just in Orange County but throughout the Southern California region.

In the mid 1990s, Metropolitan prepared its first Integrated Resources Plan (IRP) for its service area. The IRP was adopted in 1995 and updated in 2004. A key element of the Plan was to rely on not just imported water supplies and agricultural to urban water transfers but also to diversify the supply portfolio to include additional investments in conservation, water recycling, groundwater cleanup, conjunctive water storage programs with local groundwater basins and seawater desalination. The success of the IRP over the next 25 years depends on local agencies developing these supplies.

Metropolitan has also adopted a policy requiring that imported water be considered a secondary source to encourage its member agencies to develop local resources. To help implement this policy, Metropolitan offers a financial incentive up to \$195 per acre foot for new water conservation devices, and up to \$250 per acre foot for the development of local resources (recycled water, groundwater cleanup and seawater desalination) that will directly offset the demand for imported water.

There are three sources of local water supply in Orange County: groundwater, surface water, and recycled water. Groundwater comprises almost half (45%) of direct-use local water supplies, with the overwhelming majority coming from the Orange County Groundwater Basin that underlies the northern and central portions of the county. The Orange County Water District (OCWD) manages the Orange County Groundwater Basin. Major groundwater recharge sources for this basin include the Santa Ana River, imported water, and in the near future, wastewater treated with advanced technologies through the Groundwater Replenishment System. Other local groundwater sources include the San Juan Basin in South County and the La Habra Basin in the north.

Although MWDOC has no jurisdiction over local supplies, including groundwater, it does have a role in groundwater programs. For example, in 2003 the Orange County Water District (OCWD), MWDOC and Metropolitan entered into a 25-year agreement for the Orange County Basin Groundwater Conjunctive Use Program. Under the program, Metropolitan, in cooperation with MWDOC and the OCWD, will store as



much as 66,000 AF of imported water in Orange County's groundwater basin during wet periods. During dry years, droughts or emergencies, up to 22,000 AF/yr can be withdrawn for use. OCWD's benefits under this program included capital funding for eight new production wells, partial funding of the seawater intrusion barrier injection well system, and funding of the Diemer Bypass project, which provides the ability to receive lower salinity imported water for groundwater replenishment (total value approximately \$30 million plus ongoing water quality benefits).

Surface Water

Surface water, another local source, is limited in Orange County and comprises only 2% of direct-use local water supplies. Most of the supply is captured from Santiago Creek and stored in the Santiago Reservoir (Irvine Lake). Some is reclaimed from local streams and urban runoff within the Santa Margarita Water District service area.

Recycled Water

Recycled water is becoming an increasingly essential local source. In 2005, recycled water met an estimated 6% of direct-use demand in Orange County; this will increase to 10% by 2030. For indirect reuse, it met 23% of demand in 2005 and will increase to 37% by 2030. A new source of recycled water under development is the Groundwater Replenishment System project, a joint effort of OCWD and the Orange County Sanitation District. This new source will be used for groundwater recharge and for seawater intrusion barrier purposes in the Orange County Groundwater Basin. MWDOC worked with OCWD to gain Metropolitan funding assistance for this project. However, most of the agencies currently developing recycled water, besides OCWD are in South County, where imported water is the biggest source of supply.

Imported Water

Imported water is the other major source of water in Orange County; 47% of the direct use water in MWDOC's service area is imported. Approximately 87% of water delivered to Orange County is treated at the Diemer Filtration Plant in Yorba Linda, which is owned and operated by Metropolitan. In addition, a significant amount of imported water is used to supplement the groundwater basin and is sold as non firm "replenishment" water at discounted rates to OCWD. This water is used "indirectly" once it is pumped from the groundwater basin using local wells.

To determine how much water Orange County will need, MWDOC provides Metropolitan with an annual projection, which Metropolitan uses to forecast water sales and prepare annual operations plans (including the timing of major facility shutdowns to make repairs, reservoir operating plans, etc). In order to prepare an accurate



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projection, MWDOC asks member agencies to annually update their five-year forecast of expected water demand.

MWDOC entered into a ten-year purchase agreement with Metropolitan, which began in 2003. Under the terms of this agreement, MWDOC committed to purchase water equal to 60% of its historic maximum annual purchase for ten years. This water can be purchased at any time over the ten-year period. In return for this purchase commitment, MWDOC can buy up to 222,924 acre feet of water annually from Metropolitan at the Tier 1 supply rate. Purchases above this annual calendar year limit are made at the higher Tier 2 rate (currently about 20% higher). As shown in *Table 5.1, Projection of Metropolitan Water Supplies*, MWDOC's relatively stable demand on Metropolitan in normal weather should be near or below the Tier 1 limit.

Demands can fluctuate and MWDOC could experience higher demands in dry years that exceed these amounts and require purchases of Tier 2 water. In these years, the balance of water needed for the current year is acquired at the higher Tier 2 rate and MWDOC draws from the restricted Tier 2 Contingency Fund to purchase the additional water.

The Tier 2 Contingency Fund was established in 2003 with an initial balance of \$0 and a plan to build reserves over a two to three year period. The initial targeted minimum fund balance was \$2 million, based on 25,000 acre feet at a rate of \$81/AF. The Tier 2 to Tier 1 rate differential increased to \$96 per acre foot in 2005 and the fund minimum would therefore need to be \$2.5 million to cover the same 25,000 acre feet amount today. MWDOC worked with its agencies to update this policy; the reserves had built up to about \$6 million. A concept was worked out whereby minimum and maximum reserve levels were identified. In 2007, MWDOC returned about \$3 million to the member agencies because the reserve fund exceeded the necessary maximum amount established.

The size of the reserves accumulated by MWDOC to buy Tier 2 water is an issue with some member agencies although the reserves accumulated in the Tier 2 Contingency Fund are only used by MWDOC for purchase of water used by member agencies. The Tier 2 Contingency Fund is not used for the MWDOC General Fund. MWDOC's five-year water demand projections, as shown in the FY 2006–2007 budget, are expected to remain relatively stable or to slightly decrease through 2012.

MWDOC reviews the fund balance with the member agency managers and Board each spring as part of the rate setting process. A range of weather, political, legal and demand forecast scenarios are projected for the next 18 months and the rates and ending Tier 2 Fund balances are evaluated. The MWDOC Board could reduce the Melded Supply rate so that the fund will decrease accordingly. The annual review of



the Tier 2 Contingency Fund balance with the member agency managers is scheduled for February 2008.

Table 5.1: Projection of Metropolitan Water Purchases						
Type	06-07	07-08	08-09	09-10	10-11	11-12
MWDOC Import - Total	291,440	271,142	270,649	274,903	258,701	260,640
MWDOC Import - Firm	233,612	213,314	213,521	218,975	204,201	206,250
% of Firm Commitment	80%	79%	79%	80%	79%	79%

C. Member Agency Water Supplies

The water supply portfolio is different for North and South County agencies. The northern and central portions of the County overlie the Orange County Groundwater Basin and most of their supplies come from groundwater. Agencies in central and northern Orange County have no surface water and have developed little recycled supplies to meet needs, however, they have invested nearly half a billion dollars in the GWRS system to create an additional 70,000 AF of new supplies.

Approximately 95% of the South County's potable water supply is imported, treated at the Diemer Filtration Plant and delivered via two pipelines. Only three agencies, all in Central Orange County, have surface water (IRWD, Serrano Water District and the City of Orange). The recycled water being developed in Southern Orange County will become increasingly important. Additional recycling in central and southern Orange County will target landscape uses. *Table 5.2, Retail Agency Water Sources* summarizes reported water sources by agency for FY 2005.

Table 5.2: Retail Agency Water Sources FY 2005				
Agency	Imported	Ground-water	Surface	Recycled/ Non-potable
Laguna Beach CWD	100%			
Emerald Bay CSD	100%			
El Toro Water District	95%			5%
San Clemente, City of	94%	5%		1%
South Coast WD	88%			12%
Santa Margarita WD	84%			16%
Moulton Niguel WD	83%			17%
Trabuco Canyon WD	75%	5%		20%
San Juan Capistrano, City of	68%	28%		4%
Yorba Linda WD*	55%	45%		



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Table 5.2: Retail Agency Water Sources FY 2005

Agency	Imported	Ground-water	Surface	Recycled/ Non-potable
Huntington Beach, City of*	54%	46%		
Mesa Consolidated WD*	52%	44%		4%
Brea, City of	40%	60%		
Anaheim, City of**	39%	61%		
East Orange County WD, Retail	37%	63%		
Golden State Water Company	36%	64%		
Garden Grove, City of	35%	65%		
Buena Park, City of	34%	66%		
Fullerton, City of**	34%	66%		
Seal Beach, City of	34%	66%		
Newport Beach, City of	33%	67%		
Santa Ana, City of**	33%	67%		
Westminster, City of	33%	67%		
Orange, City of	32%	66%	2%	
La Habra, City of	30%	70%		
Fountain Valley, City of	28%	66%		6%
La Palma, City of	24%	76%		
Irvine Ranch Water District	21%	41%	8%	30%
Tustin, City of	16%	84%		
Orange Park Acres Mutual WC	14%	86%		
Serrano WD	0%	53%	47%	

Source: Orange County Water Agencies Water Rates Study (2005)

*While the figures for these three agencies accurately reflects their actual physical groundwater vs. import for water year 2005, all three agencies participated in OCWD's in lieu program that year. Through the program, the agencies use import water "in lieu" of pumping groundwater but at no additional cost to the agency. This is one of the tools OCWD employs to better manage the demands placed on the groundwater basin. The percentages for 2005, adjusted for this program were:

Agency	Imported	Ground-water	Surface	Recycled/ Non-potable
Yorba Linda WD*	34%	66%		
Huntington Beach, City of*	34%	66%		
Mesa Consolidated WD*	6%	90%		4%

** Not a MWDOC Member Agency



D. Water Supply Reliability

MWDOC participates in planning efforts with its member agencies, OCWD, Metropolitan, and other regional state agencies that can improve reliability of the water supply. Those efforts included:

- ❖ Participated with Metropolitan on three reliability efforts (Diemer Filtration Plant Reliability Assessment, Distribution System Reliability Assessment for Orange County and the Infrastructure Reliability and Protection Plan Project Management Plan). MWDOC also completed the *Orange County Water System Reliability Study*, which consists of separate planning documents for the North and South County areas. In addition, MWDOC participated in the *South Orange County Water Reliability Study – Phase 2 System Reliability Plan*. This study was used to identify risks to regional water treatment and distribution infrastructure.
- ❖ Worked with IRWD, Santa Margarita Water District (SMWD) and Moulton Niguel Water District (MNWD) to develop a system for conveying water from the IRWD system to South Orange County during planned shutdowns and emergency situations.
- ❖ Prepared and submitted a successful grant application to secure \$8 million from Proposition 50 for South Orange County Projects. The funds will benefit agencies and ratepayers in South Orange County through reduced costs for needed reliability improvements.
- ❖ Worked with 20 agencies in Orange County to prepare the Orange County Regional Water and Wastewater Multi-Hazard Mitigation Plan. The plan, which has been approved, opens the way to potential funding from FEMA for pre- and post-mitigation disaster projects.
- ❖ Hired a consultant to prepare earthquake scenario ground motion maps to better understand the shaking intensity and to estimate the potential damage to water systems in Orange County from the various earthquake events.
- ❖ With the County of Orange as the lead, MWDOC participated with 24 water and wastewater agencies in the development of the *South Orange County Integrated Regional Water Management Plan*, which identifies and prioritizes nearly 100 short- and long-term projects. This plan (and the related Prop. 50 Grant application) was one of the few selected to receive funding from the Department of Water Resources.
- ❖ MWDOC, along with a majority of its member agencies, is signatory to the *California Urban Water Conservation Council Memorandum of Understanding Regarding Urban*



Water Conservation in California (MOU). The Water Use Efficiency Programs are regional and implemented on behalf of MWDOC's member agencies.

- ❖ MWDOC and OCWD have adopted an MOU to coordinate mutual water resources planning, supply availability, and water use efficiency programs. The agencies conduct a monthly joint planning meeting with their Boards.
- ❖ As a member of the Project Advisory Committee for Metropolitan, MWDOC participated in the second phase of a regional study, which examined recycled water opportunities from a regional perspective in order to develop a long-term planning strategy that includes projects through Year 2040.
- ❖ MWDOC developed a preliminary feasibility study and submitted a successful application to Metropolitan resulting in funding for up to 28,000 acre feet under the Metropolitan Seawater Desalination Program. MWDOC had been conducting a feasibility study for a potential 15 million gallon per day desalination facility at Dana Point with the first phase of hydrogeology and water quality testing completed. A conceptual investigation had also been initiated for a potential plant at Camp Pendleton in conjunction with the San Diego County Water Authority. Based on the results of the feasibility study, which were published in 2007, MWDOC has committed to working with the local agencies that would benefit from such a project to form a Joint Powers Authority to continue efforts.

E. Facilities

MWDOC does not own or operate any water system infrastructure. MWDOC's agencies receive imported water supply through approximately 60 service connections to the Metropolitan system. *Figure 5.1, Orange County Water System*, shows the Metropolitan infrastructure within Orange County. MWDOC holds capacity rights in the Santiago Aqueduct Pipeline (also known as the Baker Pipeline); these rights are leased to three retail water agencies for a 30-year period (beginning in 1977) with an indefinite number of 10-year extensions at the option of the lessees.



Figure 5.1: Orange County Water System



F. Summary

Due to topography and geology, there are differences in water sources and supplies throughout Orange County. Imported supply reliance varies from that of the Serrano Water District, which normally does not use imported water, to Laguna Beach, which uses 100% imported water. In the far northern section of Orange County, the Cities of La Habra and Brea do not overlie the Orange County Groundwater Basin, but they purchase some water from the San Gabriel Basin and the rest from MWDOC. Most agencies in the OCWD basin pump from 60% to 75% of their water from the basin and purchase the rest from MWDOC. A few of these agencies also treat groundwater and pump more than the basin wide pumping percentage as a result.

South County agencies are typically a mix of special districts (El Toro Water District, Moulton Niguel Water District, South Coast Water District, Trabuco Canyon Water District, and Santa Margarita Water District) as well as cities (Laguna Beach County Water District as a subsidiary district of the City, San Juan Capistrano and San Clemente). South County agencies tend to rely more on imported water, and many are developing more recycled water. San Juan Capistrano has developed local groundwater through their groundwater desalter project. The South Coast Water District is nearing completion of a groundwater desalter. The Laguna Beach County Water District has expressed interest in diversifying its supply portfolio as well.



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MWDOC must balance the varying needs, goals and governmental structures of these agencies and try to forge regional unity on issues.

Since MWDOC does not own or operate any water system infrastructure, no significant issues with infrastructure needs and deficiencies were noted. However, there are some related concerns which were discussed during MWDOC's stakeholder process.

Member agencies pay for MWDOC's services and programs through imported water purchases and retail meter charges. Therefore, agencies with more retail meters and/or those purchasing more imported water pay a larger share of MWDOC's costs. During MWDOC's stakeholder process, representatives of some agencies expressed the view that they are in effect subsidizing the costs for smaller agencies.

MWDOC staff indicated willingness to study rates during the MWDOC stakeholder process and the tentative agreement included a time-certain commitment for completion of a rate study. MWDOC has already included \$50,000 in the 2007–2008 budget for a rate study.

The facilitated discussions re-visited the idea of allowing agencies to "opt-out" of some services. The tentative agreement included a provision that MWDOC will allow, if requested by any member agency, "choice for services" for Water Use Efficiency Programs, Planning Studies, Public Affairs and outside State Lobbying, where appropriate, and when it can be demonstrated by the member agency that the services can be reasonably segregated under MWDOC's regional service approach. This approach is consistent with the December 20, 2006 action of the MWDOC Board directing the General Manager to resolve the issue.

Another area of duplication was the use of lobbyists. The MWDOC Board approved a policy requiring recovery from member agencies of a portion of only Federal lobbyists' costs if the lobbying is a significant sustained effort that benefits fewer than five agencies. According to the tentative agreement federal lobbying costs will be cost-shared beginning in 2008-09. Any costs related to securing funding for Water Use Efficiency will remain within MWDOC's rates and charges; any federal lobbying costs for direct projects will be apportioned directly to the project beneficiaries. Costs for State and local lobbyists, if used, were not mentioned in the MWDOC changes or the tentative agreement.



Section 6

FINANCING OPPORTUNITIES & CONSTRAINTS



FINANCING OPPORTUNITIES & CONSTRAINTS

A. Overview

This section includes a brief review of MWDOC's current and projected budgets, including revenues and expenses, as well as an analysis of some of the issues discussed during MWDOC's stakeholder meetings. The District has adopted a \$138.6 million budget for FY 2006–2007, which includes \$122.7 million for water purchases, \$2.58 million for water use efficiency programs, and \$6.3 million for MWDOC operations. The following *Table 6.1, MWDOC Financial History* summarizes the District's financial history for the past 4 years.

Table 6.1: MWDOC Recent Financial History (in thousands)					
Finances	FY 03-04 Actual	FY 04-05 Actual	FY 05-06 Actual	FY 06-07 Actual	FY 07-08 Budget
Revenue:					
Operating Revenues	146,960	116,166	126,375	138,958	126,842
Non-Operating Rev.	1,539	1,443	1,475	1,670	862
TOTAL REVENUES:	148,499	117,609	127,850	140,628	127,704
Expenses:					
Depreciation Expense	129	118	122	138	(2) 35
Operating Expense	143,555	117,048	126,355	139,184	127,166
Non-operating Exp.	1,208	930	635	(1) 8,556	0
TOTAL EXPENSES:	144,892	118,096	127,112	147,878	127,201
Net Assets:					
Change in Net Assets	3,607	(487)	738	(7,250)	503
Beginning Net Assets	14,210	17,817	17,330	18,068	10,818
ENDING NET ASSETS:	17,817	17,330	18,068	10,818	11,321
Capital Assets	1,670	1,591	1,557	1,520	1,531
Restricted for Debt Service	5,304	5,248	5,117	0	0
Restricted for Trustee Activities (Tier 2, Capacity Charges)	2,945	4,523	5,823	3,705	4,462



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Table 6.1: MWDOC Recent Financial History (in thousands)					
Finances	FY 03-04 Actual	FY 04-05 Actual	FY 05-06 Actual	FY 06-07 Actual	FY 07-08 Budget
Unrestricted	7,898	5,969	5,571	5,593	5,328
Employees*	25.75	28.57	31.21	31.39	31.41

**Data requested during LAFCO stakeholder process; represents full-time equivalent positions*

(1) Includes the use of Bond Reserve of \$5.1M towards final bond payment and the distribution of Tier 2 and Capacity Charge of \$3.4M to member agencies.

(2) Budgeted partial depreciation expense for rate making purpose.

B. Financial Review

Table 6.2, MWDOC General Fund Financial Projections includes projections through FY 2012. It should be noted that the MWDOC Board recently adopted a policy to limit increases in its annual General Fund budget to no more than the CPI for the next 5 years. The projections shown in Table 6.2, MWDOC General Fund Financial Projections, may be outdated as a result.

Table 6.2: MWDOC General Fund Financial Projections (in thousands)						
Finances	FY 06-07 Actual	FY 07-08 Projection	FY 08-09 Projection	FY 09-10 Projection	FY 10-11 Projection	FY 11-12 Projection
Revenue:						
Retail Meter Fees	3,285	3,312	3,639	3,797	4,037	4,230
Water Rate Increment	1,909	1,740	1,915	2,022	2,065	2,164
Inter Fund Transfer	193	0	0	0	0	0
Interest Earnings	755	570	567	569	571	573
Misc./Reimbursement	161	58	58	58	58	58
TOTAL REVENUES:	6,303	5,680	6,179	6,446	6,731	7,025
Expenses:						
General Expenses	5,568	5,725	5,983	6,252	6,533	6,827
Capital Acquisitions	128	149	30	30	30	30
MWDOC Contribution to Desalination	177	0	0	0	0	0
Election Expense	150	0	150	150	150	150
TOTAL EXPENSES:	6,023	5,874	6,163	6,432	6,713	7,007
Reserve Balance, beginning of year	5,479	5,365	5,171	5,187	5,201	5,219



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Table 6.2: MWDOC General Fund Financial Projections (in thousands)

Finances	FY 06-07 Actual	FY 07-08 Projection	FY 08-09 Projection	FY 09-10 Projection	FY 10-11 Projection	FY 11-12 Projection
RESERVE BALANCE, END OF YEAR:	(1) 5,365	5,171	5,187	5,201	5,219	5,237

Note: projections based on 4.5% annual inflation factor

(1) Includes Payoff of Coastal Unfunded Liability of \$394K to CalPERS.

(2) General Expenses and Revenue do not reflect terms of Tentative Agreement with Six Agencies to limit within CPI.

Revenues

MWDOC's revenue is generated through water sales, incremental water charges, retail meter charges and interest on investments.

Water Sales

MWDOC purchases water from Metropolitan and then recovers the cost of these purchases from its member agencies. Since 1998, Metropolitan has twice restructured its water rates to deal with rate stability, wheeling access and cost of service allocation issues. MWDOC passes these rates through to its member agencies. Given the recent court decisions regarding movement of water from Northern California, Metropolitan has informed members that reductions in water usage and subsequent higher rates are likely in the future.

MWDOC uses a melded rate structure for water sales to its member agencies. The MWDOC rate incorporates the Tier 1 and Tier 2 charges from Metropolitan and blends them into a melded rate. Tier 2 rates are 20% higher than Tier 1 rates and 17% higher than the MWDOC melded rate. All net revenue from the Melded Supply Rate is applied to the restricted Tier 2 Contingency Fund, as described in MWDOC's Administrative Code. Through the end of Calendar Year 2006, MWDOC had accumulated approximately \$5.52 million in the Tier 2 Contingency Fund. This amount would purchase approximately 57,500 acre feet of Tier 2 water at the current rate differential. MWDOC's estimated Tier 2 exposure in successive dry years, such as 2006 and 2007, was approximately 64,800 acre feet. MWDOC staff has indicated they plan to review the Tier 2 risk analysis and Tier 2 Fund balance projections for 2007 and 2008 with the member agencies and Board this spring as part of the rate setting process. A reduction of the Melded Rate and reduction in the Tier 2 fund balance may occur as a result.

Incremental Water Charges: MWDOC charges an incremental water charge of \$6.50 per acre foot of water delivered. This charge accounts for approximately 31% of General Fund revenues.



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Retail Meter Charges: MWDOC assesses an annual charge of \$5.50 on each retail water meter served by a MWDOC member agency as of January 1st of each year. The retail meter charge is billed to the member agencies on or after July 1st of each year. Agencies report their retail meter count to MWDOC annually. This charge is the primary source of revenue for operations (excluding water purchases), comprising approximately 56% of General Fund revenues.

Interest Revenue: Interest revenue is received from the cash reserves held by MWDOC. The majority of cash reserves are held in short-term securities, with a budgeted annual yield of 4.5%. For FY 2007, the budgeted interest revenue includes \$525,000 generated by General Fund reserves, \$235,000 by Water Fund reserves, and \$1,000 by Water Use Efficiency funds. Interest revenues on the restricted Capacity Charge reserve and Tier 2 Contingency Fund are held in those accounts for the benefit of the member agencies.

Other Sources of Revenue: MWDOC receives revenue from participating agencies to cover expenses for the Water Emergency Response Organization of Orange County (WEROC) as well as the School Program (Anaheim, Santa Ana and Fullerton participate). MWDOC has successfully pursued grant funding for its water use efficiency programs and has budgeted \$2.8 million in revenue from outside funding for this purpose in FY 2007. The District has also budgeted \$310,000 in outside funding for the desalination feasibility study discussed in *Section 5, Infrastructure Needs & Deficiencies*.

Expenses

MWDOC's General Fund is used for District operations; water sales and purchases and Metropolitan charges are accounted for in the Water Fund. *Table 6.3, MWDOC General Fund Budget by Program*, outlines the General Fund budgeted expenses by program type. This is also depicted graphically in *Figure 6.1, MWDOC General Fund Budget 4-Year Comparison*.

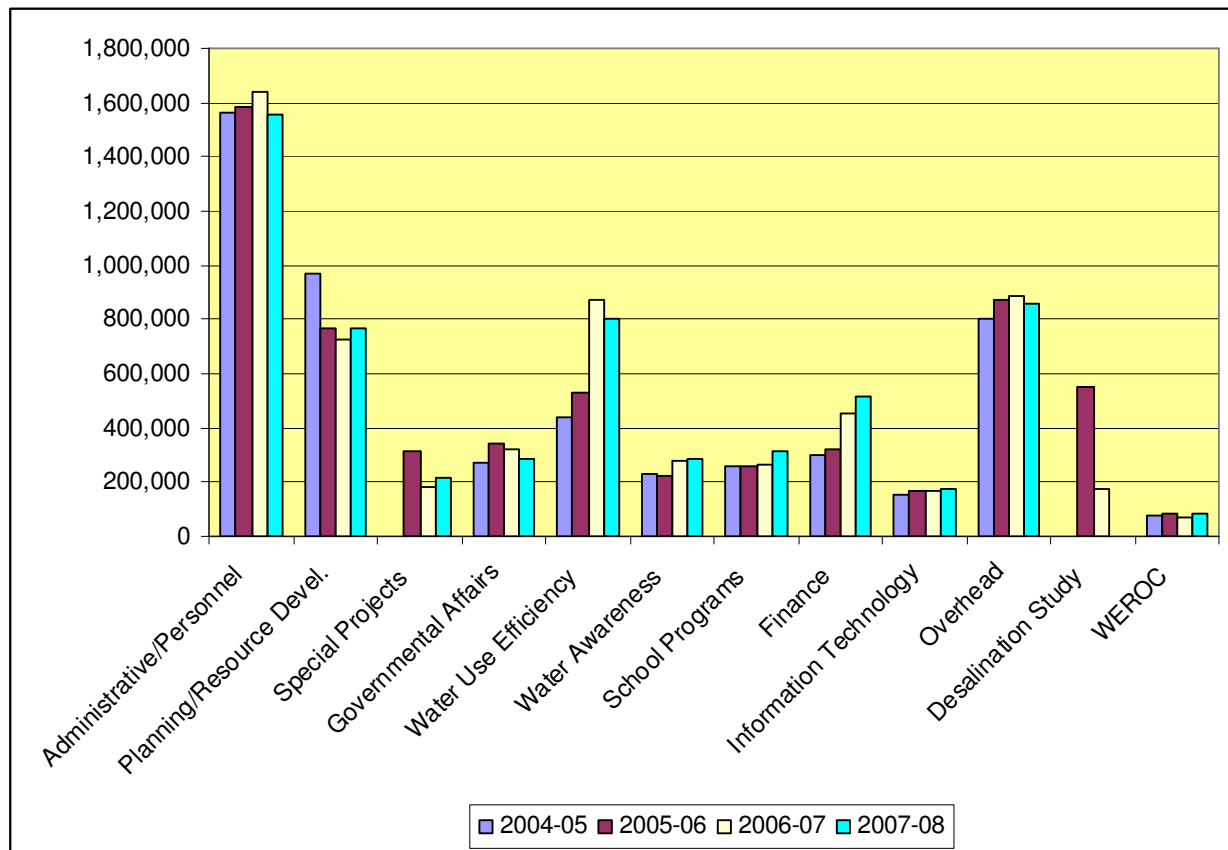
Table 6.3: MWDOC General Fund Budget by Program								
Finances	FY 04-05 Projected Actual	%	FY 05-06 Projected Actual	%	FY 06-07 Projected Actual	%	FY 07-08 Budgeted	%
<i>Expenditures by Program:</i>								
Administrative/ Personnel	1,560,635	31%	1,583,783	26%	1,639,219	27%	1,557,027	26%
Planning/Resource Devel.	973,234	19%	768,061	13%	722,153	12%	769,459	13%
Special Projects	0	0%	311,120	5%	182,138	3%	218,159	4%
Governmental Affairs	273,557	5%	344,747	6%	317,988	5%	287,846	5%



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Water Use Efficiency	440,204	9%	528,734	9%	870,773	14%	803,013	14%
Water Awareness	232,190	4%	223,531	4%	281,316	5%	288,557	5%
School Programs	257,824	5%	259,959	4%	263,495	4%	312,957	5%
Finance	300,219	6%	317,874	5%	451,784	8%	513,342	9%
Information Technology	156,745	3%	169,679	3%	166,977	3%	177,374	3%
Overhead	799,722	16%	871,924	15%	883,376	15%	860,384	15%
Desalination Study	0	0%	553,900	9%	176,708	3%	0	0%
WEROC – MWDOC Contribution	80,000	2%	81,362	1%	67,478	1%	85,815	1%
TOTAL EXPENDITURES:	5,074,331	100%	6,014,674	100%	6,023,405	100%	5,873,933	100%
% Increase – Prior Year			18.5%		0.15%		-2.48%	

**Figure 6.1: MWDOC General Fund Budget
4-Year Comparison**





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As of August 2006, the District retired its remaining debt associated with Certificates of Participation for the Allen McColloch Pipeline issued in 1996 by the Water Facilities Corporation and a \$121,444 arbitrage liability. The District has no long-term debt and did not issue new debt in FY 2007.

The District's capital assets include \$438,000 for furniture and fixtures and \$2.6 million in leasehold improvements. Budgeted expenditures for FY 2007 include a new financial management system, computer equipment, phone system update and office remodeling.



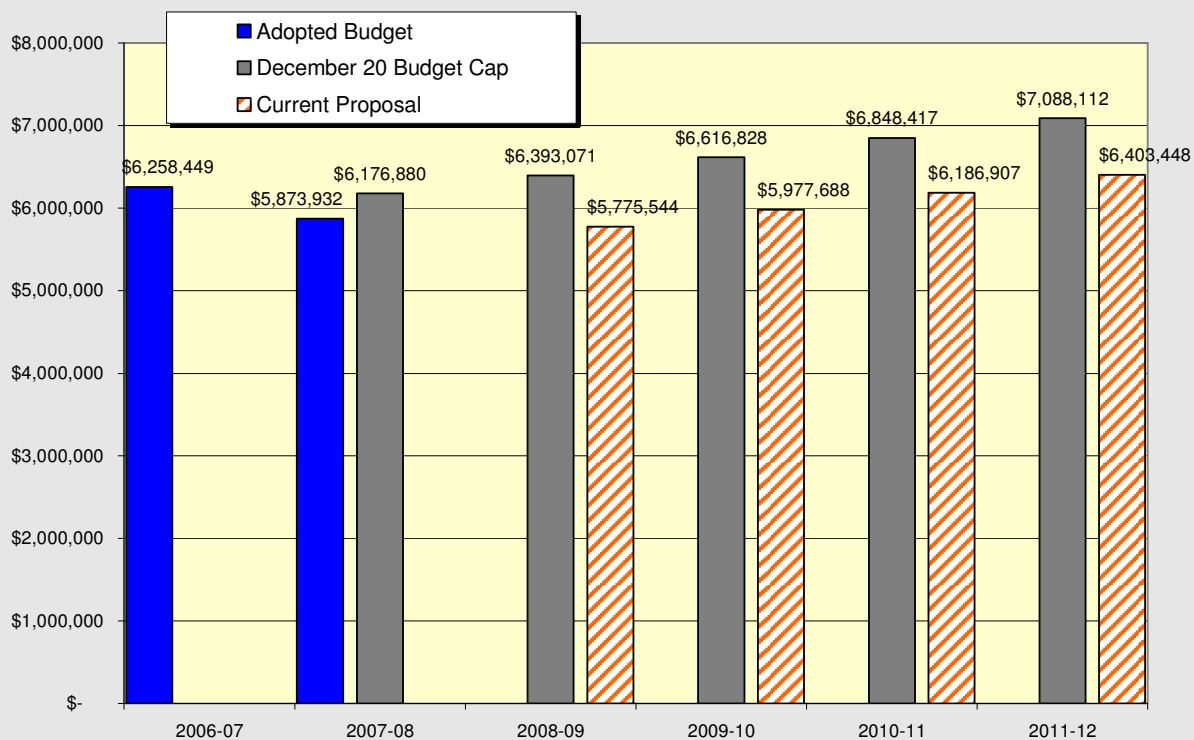
ISSUE: GENERAL FUND EXPANSION

MWDOC's General Fund budget has increased at an average rate of 6.2% per year since FY 1997-98, while MWDOC's water rates have increased at 4.0% and retail meter charges at 6.6%. Some expenditures, such as federal and state lobbyists and Board member travel expenses, have been considered excessive by some of the agencies. For example, the projected actual expenditures for the MWDOC Board (FY2006-07) included \$148,000 for Board compensation, \$57,187 for Board benefits, \$18,739 for Board travel and \$10,678 for Board conferences. Expenditures for professional fees, including lobbyists, are projected to be \$831,000.

Appendix E includes a comparison prepared by MWDOC staff of the agency's budget from 2000-2001 through 2007-08. The comparison notes that major increases in the budget came from adding staff for the water efficiency program and for additional lobbyists. While the overall budget only increased by 57% from 2000-01, costs for professional services increased by 214% and for director's compensation by 83%. The CPI over this same period increased 24%.

In December 2006 the MWDOC Board adopted a policy limiting the General Fund budget growth to a baseline budget with increases capped at the annual rate of inflation for the next five years. The tentative agreement capped the MWDOC according to the following chart:

Budget Cap Proposal - Inflation Assumed at 3.5%

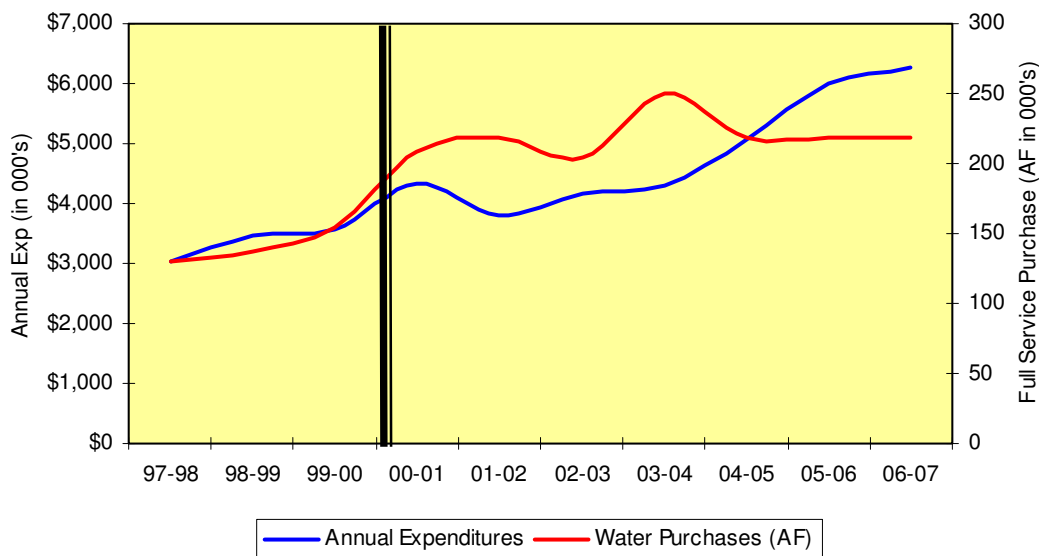


Some member agencies have stated that MWDOC has not always taken actions suggested by the member agencies on proposed programs and projects. In some cases,



input from the member agencies is conflicting. Some of the member agencies believe their input has been ignored and that MWDOC has adopted budgets that expand services and programs regardless of their concerns. *Figure 6.2, MWDOC General Fund Budget and Water Purchases*, shows the change in MWDOC's annual budget since FY 1998-99, along with annual water purchases. The dark line represents the timing of the merger of MWDOC and the Coastal WD.

Figure 6.2: MWDOC General Fund Budget and Water Purchases



MWDOC's revenues are derived from two uniform charges, a retail meter charge and an incremental water rate on imported water. Revenues increase through higher rates and an increase in the number of meters or volume of imported water sold. Increased revenues based on growth are fundamentally important to agencies' managing infrastructure. Although Orange County's interests in imported water supply and local programs become more essential with growth, there is not a direct correlation for MWDOC budget expansion. In December 2006, the MWDOC Board approved changes to the budget process as described previously. The tentative agreement further limited the budget as follows:

❖ 2008-09 Budget

MWDOC and the Six Agencies agree to a 5% reduction in the budget for 2008-09, adjusted for inflation.



The calculation is as follows:

- Current budget is \$5,873,932 for 2007-08
- For 2008-09, MWDOC's budget including any contributions to reserves will be set at 95% or \$5,580,235 plus the CPI inflation for the March to March LA/OC.
- For 2009-10 and thereafter, the budget will be developed within the guideline formula provided below.

❖ Budget and Project Participation Policy Moving Forward

In December 20, 2006, MWDOC adopted a policy, process and criteria for developing its budget, implementing new projects, and for receiving input from the member agencies. MWDOC will continue working within that policy framework with the following modifications to the policy on the guideline limitation for future budgets, project participation and the use of reserves:

- In 2008-09 the budget guideline (maximum amount) will be set at \$5,580,235 plus the CPI inflation for the March to March LA/OC. It is understood that CPI component of the budget increase will not be applied to non-recurring costs.
- Each year the guideline will be increased by the March to March LA/OC CPI. The CPI increase to the guideline will not be applied to unforeseen or uncontrollable costs funded from reserves.
- It is acknowledged that any unforeseen or uncontrollable costs above CPI that might occur over the term of the agreement or subsequent extensions would be funded from MWDOC's existing General Fund reserves.
- The project participation policy will be modified to clarify that projects directly benefiting five or less member agencies, and costing more than \$100,000, will be funded by the participating agencies through formation of a Joint Powers Agency or through a project participation agreement.

The following was approved by the MWDOC in December 20, 2006 and remain in effect:

- ❖ **Project Initiation:** Agencies will be asked to provide input on potential projects during the budget process. For projects exceeding \$25,000 that are not part of the budget, MWDOC's General Manager will be required to seek input from member agencies and inform the Board of the input of member agencies. Furthermore, the total budget cap may not be exceeded.



- ❖ **Project Participation:** In the past, the cost of major initiatives has been shared equally by all member agencies. Now, if a study or project is projected to cost over \$100,000 and directly benefit fewer than five agencies, MWDOC is obligated to seek funding partners. If the project is over \$100,000 and directly benefits five or more agencies, MWDOC may fund the entire cost. However, the total budget cap may not be exceeded.
- ❖ **Federal Lobbying Cost Sharing:** MWDOC must recover the costs of federal lobbying for a significant sustained effort that benefits fewer than five agencies. (No change was proposed for state lobbying expenses.)

ISSUE: RESERVES

The MWDOC Board of Directors has reserves for operations, Capacity Charges, and Tier 2 water purchases. Estimated reserve levels are as follows:

Operating Reserve - \$5.571 million
(*level adopted by MWDOC Board policy = \$5 to \$6 million*)
Capacity Charges and Tier 2 Water Purchases – \$5.823 million
(*no adopted policy on reserve levels*)

Operating Reserves

Given that the District currently has no financial responsibility for system infrastructure, operating reserve levels are high; the current reserve levels are approximately 90% of the General Fund budget. In 2006, ten member agencies wrote a letter to the Board of MWDOC in which they requested a review of MWDOC's reserve policies. In the letter they noted that some reserve categories were arbitrarily high and could be safely reduced. It was also noted that MWDOC had, in some instances, used reserves to cover operational expenses. Then in the following fiscal year the Board replenished the reserves through increased rates. The MWDOC Board has not adopted any revisions to its April 2006 adopted reserve policy.

Tier 2 Contingency Fund/ Metropolitan Capacity Charge

For the Tier 2 reserves, any net revenue from the melded supply rate is placed in the Tier 2 Contingency Fund reserve account. During MWDOC's stakeholder process, there seemed to be general agreement that establishing a reserve fund for Tier 2 water purchases was prudent. The discussion that occurred focused on the amount of the Tier 2 Contingency Fund.

This reserve fund is intended to be enough to purchase a minimum of 25,000 acre feet of Tier 2 water and is restricted and cannot be used for general operating expenses. The cost estimated, at current Metropolitan rates, is about \$2.5 million. As of December 31, 2006 the balance in the Tier 2 Contingency Fund had been \$5.52.

MWDOC cut its Melded Supply rate in each of the last two rate setting cycles as a means of reducing the amount of the Tier 2 reserves. Also, as noted in the policy changes adopted in December 2006, the MWDOC staff noted that reserves for Tier 2 purchases are more than



adequate and “can likely be reduced in 2007 given the water demand conditions forecasted.”³ Based on this recommendation, MWDOC refunded approximately \$3 million to member agencies in 2007. Reducing the Tier 2 Contingency Reserves benefits ratepayers in Orange County while still maintaining prudent reserves. However, the MWDOC Board should adopt a clear policy for the limits of and process for reducing Tier 2 reserves.

Effective January 2007, MWDOC changed their method of charging member agencies the cost of Metropolitan’s Capacity Charge. With this change, MWDOC has stated that the remaining funds in the Capacity Charge reserve, which are approximately \$500,000, could be returned or credited to the member agencies in 2007.⁴

Conclusion

The issue of reserve levels was not resolved during the MWDOC stakeholder process. The accumulated \$11.4 million (approximate) in both restricted and unrestricted reserves need to be considered since it adds to the water costs that the member agencies, and ultimately the customers, must pay. MWDOC’s budget increases compound the impact of rising water supply costs. This situation is particularly important for those agencies where imported water is a major source of supply.

C. Summary of Financing Opportunities and Constraints Issues

MWDOC’s revenues are derived through water sales, retail meter charges and incremental water charges as well as miscellaneous revenue. The retail meter charges and incremental water charges fund the District’s activities, with water sales revenue used solely for water purchases.

MWDOC has typically increased water charge rates and retail meter charges, and in some cases, utilized reserve funds in order to balance the budget. The District has implemented a reserve policy for unrestricted reserves. However, accumulated General Fund reserves were \$5.57 million at the end of Fiscal Year 2005/06 and are now approximately 90% of the annual budget, a level few public agencies maintain.

Given that MWDOC does not own or operate any water system infrastructure, the General Fund reserve levels could be considered excessive. The Government Finance Officers Association (GFOA) recommends that the level of operating fund accumulated surplus be kept between 5% and 15% per cent of regular general fund operating revenues or no less than one to two months of regular general fund operating expenditures.

³ MWDOC Action Item 8-3, December 20, 2006

⁴ Ibid.



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Restricted reserves have been accumulated for Metropolitan's capacity charges and for Tier 2 water purchases. There is no cap on those reserves, although levels are reviewed with the member agency managers and Board annually. The Capacity Charge was reduced in 2005 and 2006 and the Melded Supply Rate was reduced in 2005 and 2006 to moderate the potential growth in the Tier 2 Contingency Fund levels. MWDOC staff has noted that reserves for capacity charges are no longer needed and the remaining funds may be credited back to the member agencies during 2007 if the MWDOC Board approves the action. Tier 2 water purchases reserves are adequate and, if the MWDOC Board approves the action, could be reduced through a decrease in the melded supply rate, a credit to the member agencies, or a combination of the two. However in light of the uncertainty regarding Metropolitan's future rates, MWDOC has not yet taken action on reducing Tier 2 reserves.

In December 2006, MWDOC adopted changes to several policies pertaining to the annual budget process, limits on the General Fund, guidelines for project initiation and participation, and cost sharing for federal lobbying expenses. These policy changes were made in response to concerns raised each year during the budget process by some of the member agencies as well as the discussions during the MWDOC stakeholder process.

However the issue of MWDOC's budget increases funding services that some member agencies don't need/want and the level of reserves was not resolved to the satisfaction of all agencies during either MWDOC or LAFCO's stakeholder process. However during the facilitated discussions, MWDOC staff agreed, subject to approval by the MWDOC Board, to allow member agencies choice in some services if the costs for those services can be reasonably segregated.



Section 7

ECONOMIES OF SERVICE



ECONOMIES OF SERVICE

This section combines the required determinations of Rate Restructuring, Cost Avoidance Opportunities, Shared Facilities and Evaluation of Management Efficiencies.

A. Rate Restructuring

MWDOC reviews its rates annually, factoring in changes to Metropolitan's water rates and its budgetary needs. The rates are set through a public process with new rates effective July 1st. MWDOC's rate structure includes a retail meter charge and the incremental water charge. The retail meter charge is assessed on each retail meter served by a member agency. The incremental water charge is assessed on each acre foot of water delivered to a member agency.

MWDOC charges a melded or blended rate for imported water that is based on Metropolitan's tiered rate structure. *Table 7.1, Imported Water Rates*, summarizes the current underlying Metropolitan rate structure and the MWDOC structure.

Table 7.1: Imported Water Rates (Per Acre Foot, Full-Service, Non-Interruptible)				
Rates and Charges	Metropolitan Eff 01/01/2006	MWDOC 7/1 – 12/31/2006	Metropolitan Eff 01/01/2007	MWDOC Beginning 01/01/2007
System Access Rate	\$152	\$152	\$143	\$143
Capacity Charge*	\$6,800 /cfs	\$14	\$6,800 /cfs	NA
System Power Rate	\$81	\$81	\$90	\$90
Water Stewardship Rate	\$25	\$25	\$25	\$25
Tier 1 Supply Rate	\$73	NA	\$73	NA
Tier 2 Supply Rate	\$169	NA	\$169	NA
MWDOC Supply Rate	NA	\$78	NA	\$78
MWDOC Incremental Water Charge	NA	\$6.50	NA	\$6.50
Subtotal: Untreated Full Service	\$331	\$356.50	\$331	\$342.50
Treatment Surcharge	\$122	\$122	\$147	\$147
Total Treated Full Service	Tier 1: \$453 Tier 2: \$549	\$478.50	Tier 1: \$478 Tier 2: \$574	\$489.50
Long-Term Seasonal	Untreated:\$238	U: \$244.50	Untreated:\$238	U: \$244.50



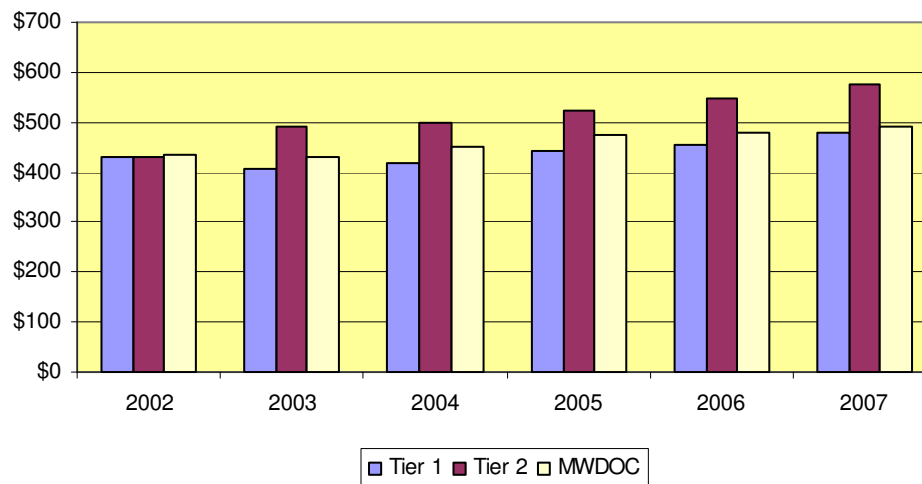
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Table 7.1: Imported Water Rates (Per Acre Foot, Full-Service, Non-Interruptible)				
Rates and Charges	Metropolitan Eff 01/01/2006	MWDOC 7/1 – 12/31/2006	Metropolitan Eff 01/01/2007	MWDOC Beginning 01/01/2007
Storage outside OCWD boundaries	Treated: \$335	T: \$341.50	Treated:\$360	T: \$366.50
Long-Term Seasonal Storage inside OCWD boundaries	Untreated:\$238	U: \$238	Untreated:\$238	U: \$238
	Treated: \$335	T: \$335	Treated:\$360	T: \$360

* Effective January 1, 2007, MWDOC is assessing a flat annual Capacity Charge, rather than a commodity rate.

The historic water rates for both MWDOC and Metropolitan are depicted in the following *Figure 7.1, Water Rate History*. MWDOC's rate includes the incremental water charge. As part of a planned transition when Metropolitan's rate structure changed in 2003, MWDOC collected the capacity charge as a commodity rate up through December 31, 2006, when it was changed to a fixed charge that was based on each agency's proportional share of system peaking (consistent with Metropolitan's method for charging MWDOC). The Metropolitan rates are for full service, treated water.

Figure 7.1: Water Rate History (*per Acre Foot*)



Note: Metropolitan instituted Tier 2 rates in 2003.

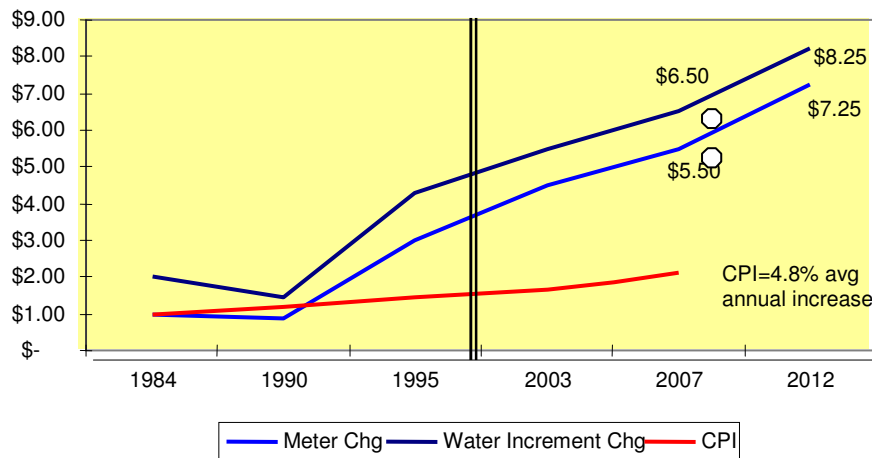
Under Metropolitan's 2003 rate restructuring, MWDOC made a ten-year firm purchase commitment to Metropolitan for 60% of its highest recent firm demand. In return, MWDOC has access to purchase Metropolitan water supply at the Tier 1 rate for up to 222,924 acre feet annually. Purchases above this level pay the higher Tier 2 rate. This purchase commitment enables the District to maximize the benefit of the Tier 1 rate, which is 20% lower than the Tier 2 rate.



Rate History

Up until 1967, MWDOC's general operating expenses were paid from reserves accumulated through ad valorem taxes. From 1967 until 1984, MWDOC's sole source of revenue was interest accrued on reserves. With declining interest rates and cost increases, MWDOC sought alternative revenue sources to augment the interest income. In July 1984, the District adopted the two-component water rate. *Figure 7.2, MWDOC Rates*, shows the rate history and projections through FY 2012. The line in the middle of *Figure 7.2* represents when MWDOC and the Coastal WD merged.

Figure 7.2: MWDOC Rates



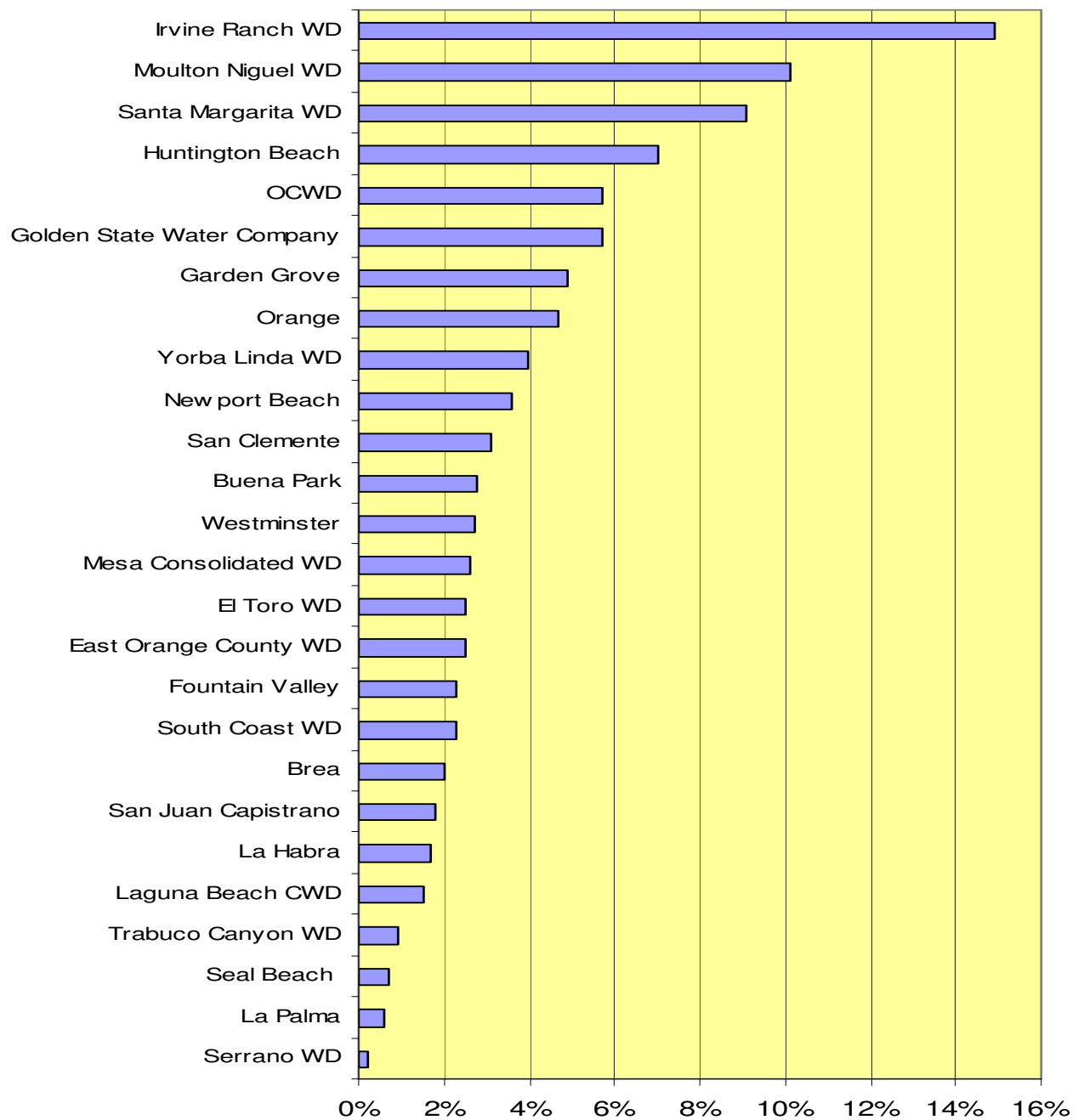
The increase in MWDOC's rates not only reflects cost increases for imported water but also the expansion in programs and services offered. The fact that MWDOC's rates increased faster than the CPI was one of the issues raised during stakeholder meetings. MWDOC charges are based on a combination of water sales and retail connection charges. Currently, the incremental water rate collects 31% of General Fund revenues and the retail connection charge collects 56% of General Fund revenues. Therefore, the rate structure is somewhat weighted towards the retail connection charges. Because the incremental water charge is a commodity rate, the extent to which an agency uses imported supply determines the level to which that agency pays or financially supports MWDOC's activities. Since most the growth is in South County, where imported water is the primary source of supply, agencies there are funding the growth in MWDOC's services. Because the North County area typically relies on 65% to 75% groundwater, the agencies providing the largest portion of MWDOC's revenue are located in the South County. As shown in *Figure 7.3, MWDOC Revenue by Member Agency*, the top three revenue contributions are from South County agencies. The six South County agencies provide over 39% of MWDOC's General Fund revenue, they have also paid for



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43% of the increased charges assessed by MWDOC since 2000-01 and have noted that they believe that this is a disproportionate share.

Figure 7.3: MWDOC Revenue, by Member Agency





ISSUE: RATE EQUITY

The retail meter and incremental water charges are the primary source of revenue for MWDOC's General Fund. Therefore as agencies add service connections and/or increase or decrease their use of imported water, their relative contribution to MWDOC's budget will change. Some member agencies, particularly those with high growth rates, contribute more relatively to MWDOC's budget.

Some member agencies, particularly those that are larger and/or in South County with high growth rates and a higher reliance on imported water, believe that the growth in MWDOC's services and administrative costs falls unfairly on them.

During the stakeholder process, MWDOC agreed to work with the member agencies on the equity of the current structure or a modified structure. In June of 2006 the Ad Hoc MWDOC (Elected Officials & Managers) discussed MWDOC's pending rate increase; member agencies recommended that MWDOC not adopt the proposed \$0.50 increase on retail meters but use existing reserves for any budget shortfall. The member agency request was subsequently approved at the June 21 MWDOC Board meeting.

At a stakeholder meeting held on December 18, the group reviewed rate equity issues and discussed whether to proceed with further study of MWDOC rate alternatives such as a "per agency" charge or other options. The group reached the conclusion that, for now, there was not interest in studying the rate equity issue further. MWDOC included \$50,000 as a contingency in the 2007-2008 budget to study rates.

While there are economies of scale associated with some services being provided on a regional rather than selective basis, the value of MWDOC's services to member agencies varies, depending on each agency's budget staffing, service area characteristics, and service goals and objectives. Some of the MWDOC services need broad financial support to ensure their affordability and the concept of "beneficiary pays" or allowing a choice for some services was included in the tentative agreement that was the result of the facilitated discussions.

Ultimately, the services and programs that are included in MWDOC's annual adopted budget are supported through the Retail Meter and Water Increment charges, costs which the member agencies must include into their budgets and pass on to their ratepayers. Growth in services and programs without some form of consensus and consent will, over time, exacerbate tensions. To address this concern the tentative agreement included a condition that MWDOC would complete a rate study by February 2008.

B. Cost Avoidance, Shared Facilities and Management Efficiencies

MWDOC and OCWD share facilities and some services. Those include, but are not limited to, the following:

- ❖ MWDOC leases land from OCWD for \$1/year and pays the proportionate share of the costs of their office building maintenance and overhead costs
- ❖ Shared janitorial/carpet cleaning services
- ❖ Shared receptionist
- ❖ Coordinated phone systems
- ❖ OCWD completes copying jobs for MWDOC



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- ❖ Coordinated mail delivery and postage machine
- ❖ OCWD provides MWDOC with information systems (IS) assistance
- ❖ MWDOC assists OCWD in administering/negotiating storage agreements/programs with MWD
- ❖ OCWD provides some GIS work for MWDOC
- ❖ MWDOC administers the MWD replenishment program for OCWD
- ❖ MWDOC and OCWD hold monthly Joint Planning meetings with Board members
- ❖ Share data, demand modeling information, the Water Balance Model and basin operations information
- ❖ Coordinate on Water Use Efficiency efforts
- ❖ OCWD assists in the funding of WEROC and the staffing of the Emergency Operations Centers
- ❖ Coordinate on positions at ACWA
- ❖ Use the same State Legislative Advocate
- ❖ Cooperate on annual briefing of Federal Legislative delegation for Orange County
- ❖ Cooperate on the Annual Water Quality Consumer Confidence Reports
- ❖ MWDOC and OCWD both participate in the Cal State Fullerton Center for Demographics.
- ❖ OCWD provides water quality support for MWDOC
- ❖ Coordinated public outreach activities and tours
- ❖ OCWD previously participated in the MWDOC low flow toilet program.
- ❖ MWDOC is lead for OCWD on school education programs and conservation activities.

MWDOC has worked closely with OCWD to develop a water balance model that is used to project the groundwater production for each producer in the basin, which is then used as a basis for projecting imported water demands. The model enables MWDOC to purchase a majority of the supply at Tier 1 rates. MWDOC also collaborates on studies and planning efforts with other Metropolitan member agencies. MWDOC has also worked with the Orange County Business Council to document the economic impacts on businesses and residential customers from outages of the water system. Other instances of shared facilities and management efficiencies can be found in *Section 5, Infrastructure Needs*.



Section 8

GOVERNMENT STRUCTURE OPTIONS



GOVERNMENT STRUCTURE OPTIONS

A. Introduction

Since MWDOC's formation in 1951, the service area and member agency needs have changed dramatically. In the early fifties, the Northern Orange County area had larger developed communities primarily served by municipal water departments while the South County was mostly undeveloped except for San Juan Capistrano, Laguna Beach, and San Clemente. The southern portion of the County was generally served by small agriculturally based water districts and other community water agencies. In general, Orange County water purveyors were minimally staffed at that time and not positioned to provide regional water programs or representation on Southern California water policy issues. Thus MWDOC was formed.

Orange County has changed dramatically over the last 50 years and water agencies, especially those in Southern Orange County, have also changed to meet new service needs. While some agencies have found it beneficial to increase their range of services, others have relied on MWDOC to provide programs and services that help them ensure supply reliability and achieve service economies for their customers. There are now important differences in size, services provided, service approach, governmental structure and in-house capabilities among Orange County's water agencies.

MWDOC has also changed to meet the evolving policies of the State, Metropolitan and changing needs of its member agencies, which now focus on regional collaboration across traditional agency boundaries. However, based on all the stakeholder meetings and discussions, it is clear that there are fundamental differences between MWDOC and some of the member agencies with regards to appropriate service levels, approach and policies. Key issues were discussed related to: (1) MWDOC's role and its core functions, (2) reserves, budgeting and rates, (3) equitable cost sharing among member agencies, and (4) accountability to the member agencies as constituents. Each of these issues points to a fundamental question:

Is the government structure of MWDOC, as a Municipal Water District, the appropriate government structure to serve Orange County?



MWDOC is a Municipal Water District (MWD) under Water Code 71000 et seq., which is also known as its principal act. The principal act of a district authorizes it as a public agency and establishes the powers it may exercise. There are more than two dozen principal acts for the different types of special districts—each with a unique combination of functions and powers. Principal acts define the services that may be provided, delineates the territory that may be served, stipulates the characteristics of the governing board, specifies the basis of voter representation and identifies the range and limits of governance in which each special district must operate.

A special district may engage only in those activities outlined in its principal act. MWDOC is a municipal water district which is, by its principal act, authorized to supply water for beneficial purposes, construct and maintain recreational facilities, provide fire protection and emergency medical services, including ambulance and paramedic service, acquire waterworks systems or water rights and acquire and operate sanitation facilities. MWDs may also provide other miscellaneous services, such as hydroelectric and electric power. Governing bodies are composed of five-, seven- or nine-member boards of directors elected from divisions.

The range of services that a MWD may provide is further restricted by LAFCO's responsibility to regulate latent powers—the services or functions authorized by the principal act, but not currently exercised by the district. Typically, when an agency is formed, certain services from the menu of services allowed are selected. Subsequently, if that agency wants to add additional services, it must return to LAFCO for approval.

Since MWDOC was formed in 1951, 12 years prior to the formation of LAFCO, LAFCO staff has assumed that the original formation of MWDOC authorized all the services it currently provides. But the range of services, and growth in them, was one of the issues identified during the MWDOC stakeholder process. Some discussions focused what the “core” services of MWDOC are and what the “ancillary” services are.

Core services are those which are crucial for all member agencies, i.e. representation at Metropolitan and importing water. Ancillary services were defined as those services which may not be valued equally by all member agencies. As mentioned, these issues have arisen, in part, due to the growth and resources of some southern Orange County agencies. With their critical dependence on imported water, some of the South County agencies have developed in-house planning programs and resources, and have initiated their own lobbying efforts; this has ultimately reduced the value for them of some services that MWDOC provides. Their belief in their limited ability to affect MWDOC decisions coupled with the extent to which they financially support MWDOC and other agencies (through rates and charges) has heightened the importance of evaluating the government structure issue for them.



In considering MWDOC's role in providing imported water and the needs of the water agencies, six government structure options have been identified:

1. Maintain the status quo.
2. Maintain the status quo with periodic updates to LAFCO.
3. Dissolve MWDOC and form a new entity permitted by Metropolitan.
4. Reorganize the South County agencies by detaching from MWDOC and forming a new entity.
5. Merge MWDOC and OCWD. This could also include detachment of South County agencies to form a new entity.
6. Reorganize with East Orange Water District.

B. Options

1. Maintain the Status Quo

This option would maintain MWDOC's current boundary and SOI. MWDOC would continue to serve all of Orange County (except Santa Ana, Anaheim, and Fullerton). Operations would continue based on the MWDOC Board's direction, and member agencies would continue to share in the cost of MWDOC programs and initiatives through the current MWDOC rate structure. MWDOC would proceed with implementation of its December 20, 2006, policy changes.

There would be little impact to the North County agencies since they contribute 54% of the General Fund revenue, buy 47% of the imported water and have 58% of the retail meters. The South County agencies would continue to support MWDOC financially (they currently contribute approximately 46% of General Fund revenues, buy 53% of the imported water and have 42% of the retail meters). MWDOC and the member agencies could continue to work on issues through MWDOC's meetings with member agencies.

The advantage of this alternative is that it would build on the work done by MWDOC and its member agencies over the past six months, and allow for implementation of the Board's action of December 20th, 2006 and the tentative agreement, if approved by MWDOC and the six South County agencies.

The disadvantage to this option is that the tentative agreement and previous actions by MWDOC may not resolve all of the issues. These issues have been an area of concern



for several years. The policy changes in December 2006 and the tentative agreement were significant efforts by MWDOC to respond to member agency concerns; the extent to which these changes resolve the issues will need to be assessed over time. Recognizing this, the term of the tentative agreement was two (2) years with an option to extend it for an additional two (2) years. Maintaining the status quo without continuing to address long-standing issues would not serve the long-term interests of the member agencies or the ratepayers since the issues would remain.

2. Maintain the status quo with periodic updates to LAFCO

This option would maintain the status quo as outlined above in Option 1. However, LAFCO would require that MWDOC report back within specified time periods on the progress being made on resolving the key issues noted above. This would require that MWDOC adopt policies and/or implement practices that specifically respond to the issues raised during stakeholder discussions. It would also require that MWDOC demonstrate measurable progress on integrating the December 2006 policy changes and the tentative agreement into its processes and procedures. Since LAFCO has the statutory authority to dissolve a special district, the periodic updates would be an important means of noting progress.

Some member agencies expressed satisfaction with the outcome of the first MWDOC Stakeholder process, LAFCO's stakeholder process and the facilitated discussions. However, some member agencies did not have confidence that changes proposed by MWDOC during the stakeholder process would result in substantive changes. One of the advantages of this option might be that MWDOC could develop and implement policies and procedures that would help to instill confidence in those member agencies.

If approved, the tentative agreement may lead to the elimination of some services that are no longer financially viable even though they are considered essential to smaller agencies. A periodic update back to LAFCO would provide an additional forum to discuss impacts.

The success of this option would be dependent upon MWDOC's ability to equitably and economically address the diverse service needs of its member agencies and the willingness of all member agencies to work cooperatively.

The policy changes adopted in December 2006 and the tentative agreement, if approved, are an important step forward in resolving some of the issues, and would serve as one of the factors for LAFCO to use in evaluating progress under this option. However, as mentioned previously, there may be a fundamental issue with the structure of MWDOC as a municipal water district serving agencies with diverse service areas and needs.



3. Dissolve MWDOC and form a new entity

Under this option, MWDOC would be dissolved as a Municipal Water District and reformed as one of the four out of five entities permitted by the Metropolitan enabling legislation. The issues regarding the best form of governmental structure at Metropolitan are complex and need additional research. A brief explanation of the procedures for forming a County Water Authority (Water Code App. 45-1 et seq.) is described below:

The procedures for forming a new County Water Authority include the following steps:

1. Each agency must adopt a resolution declaring their intent to form a County Water Authority and identifying all proposed member agencies, and petition the County Board of Supervisors to hold an election in the prospective service area.
2. Upon certifying the resolutions/petitions of the prospective member agencies, the Board of Supervisors shall call an election to determine whether the Authority shall be created.
3. The election may take place in conjunction with any State, county or city election at County expense or in a special election. The Authority will be comprised of agencies wherein a majority of those who voted approved the proposal (the total number of electors in the approving agencies must be not less than 2/3 the total of the number of electors for the Authority as originally proposed.)

It is not clear what the representation would be for agencies that do not opt for a Water Authority model or that fail to gain the requisite voter majority in the election. LAFCO approval would be required for the reorganization of MWDOC's boundaries.

A Water Authority would have an appointed Board representing each public member agency and voting by single vote, weighted by financial contribution or by some combination.

The Board of Directors of the new Water Authority could evaluate the services and programs and make adjustments accordingly. The advantages to this government structure are that it provides appointed representation rather than voter elected representatives. As discussed in *Section 3.0, Stakeholder Process*, MWDOC has two types of constituents: voters and the member agencies. The general public is mostly unaware of the role MWDOC has and how they are paying for its services. In contrast, the member agencies are directly affected by MWDOC's decisions and must either pass rate increases on to the ratepayers or absorb them in their existing budgets.



Forming a County Water Authority could also include the three cities that are not MWDOC members – Fullerton, Santa Ana and Anaheim – providing for a more unified representation at Metropolitan. However, the three cities would have to agree to be part of the new organization.

One disadvantage might be that small agencies could be disenfranchised, especially if voting is simply by financial contribution. However, it should be noted that there are voting provisions in the County Water Authority Act that prevent domination by a large agency. The representation at Metropolitan would transfer to the County Water Authority, with representatives elected by the Board. With an increase in the Board from 7 elected to as few as 28 or as many as 30 to 35 appointed members, the costs of administration and support for the agency would likely increase substantially.

The Water Authority would need to go through the process of evaluating and organizing its policies, procedures and budget and then establish an equitable rate structure for the services provided. This could include all the services as currently offered by MWDOC, i.e. bundled services, or unbundled services where member agencies could choose to opt out of services they do not need. A water rate based on unbundled services might result in rate increases for some agencies. The Authority would need to identify services that were appropriate to be “un-bundled.” On the other hand, agencies that do not need and would not use all of the Authority’s services could benefit from unbundled rates that allow for some service selection. (It should be noted that MWDOC could also go through the process of “un-bundling” services to provide a service approach more tailored to the unique needs of its diverse agencies.)

There could be more advantages and disadvantages to forming a County Water Authority than those noted in this brief overview. Water Authorities have different service and taxation powers, which may prove advantageous. Additional research and analysis would be needed to analyze the impacts of this governmental structure option.

4. Reorganize the South County agencies by detaching from MWDOC and forming a new entity

This option would include some or all of the South County agencies detaching from MWDOC and forming a new entity, which would be a Metropolitan member agency.

Per the Metropolitan Water District Act, the new entity would have to be formed under one of the following principal acts: Municipal Water District Act, Municipal Utility District Act, County Water District Act, or the County Water Authority Act.

The structure would need to ensure that it does not replicate the issues currently found with the MWDOC structure. If the entity were formed as a Municipal Water District,



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Municipal Utility District or County Water District, the Directors would be elected by division by the voters with specific limitations on the scope of powers and formation.

If formed as a County Water Authority the key attributes of the new entity might include:

- Appointed Board representing up to 10 member agencies
- One Board member per agency plus an additional Board member for each 5% of assessed valuation
- Voting weighted by financial contribution and conducted in accordance with the limitations of the County Water Authority Act.

The Board of Directors of the new Water Authority would determine the services and programs of the new agency. Project committees could be formed for projects and programs not utilized by all member agencies with Project Committee votes weighted by financial contribution if appropriate under the County Water Authority Act.

The advantages to this government structure include the establishment of a Board which would directly represent the interests of the South County agencies who choose to join in the formation of the Authority. Secondly, it would allow for improved accountability to the agencies, equitable cost recovery and budgeting that is consistent with member agency needs. Third, it could provide an appropriate administrative and cost allocation structure for cooperative projects through the use of Project Committees or a similar structure.

The disadvantages of this option include the following: 1) it might divide Orange County representation at Metropolitan by possibly creating a fifth Metropolitan member agency for this County 2) it may inhibit further access to the Orange County Groundwater Basin by South County agencies as they would not be part of an agency that overlies the basin, and 3) it may cause the elimination of some services and programs, resulting in a negative impact on MWDOC's financial condition and service levels as well as higher costs to the North County member agencies.

There are a number of benefits and liabilities held by MWDOC due to its membership in the Metropolitan Water District, which would need to be fairly distributed between the two successor entities. These include (but are not limited to):

1. Disposition of Preferential Rights under Section 132 of the Metropolitan Water District Act (pertains to potential rights to water based on past financial contributions to Metropolitan for property taxes and certain non rate revenue.)



2. Obligations under the Water Purchase Agreement
3. Rights to purchase Tier 1 water under the Water Purchase Agreement
4. Base demand levels for determination of future growth, facility expansion or capacity expansion charges

It is unclear what the exact impact would be on the number of Orange County representatives to Metropolitan. The number of representatives is determined by a formula, which allows for at least one representative from each member agency, plus an additional representative based on assessed valuation.⁵ While it may be possible that Orange County could increase the number of representatives to Metropolitan, it is unclear at this time. This option could potentially financially impact North County agencies and their services, as well as the services MWDOC provides. Additional research would be needed to determine the exact impacts before this option moves forward.

5. Merge MWDOC and the Orange County Water District

This government structure reorganization option has not been considered in the past due to the differing missions of these agencies. MWDOC is a wholesaler of imported water, whereas OCWD is a groundwater basin management agency. OCWD's current sphere of influence extends to the County's eastern boundary, south to the cities of Irvine and Lake Forest and west to the Pacific Ocean generally encompassing the watershed boundaries. The Cities of Brea and La Habra are not part of OCWD.

As the Metropolitan Water District wholesale water provider for Orange County, MWDOC's sphere of influence and service area covers Orange County in its entirety but excludes the cities of Anaheim, Santa Ana and Fullerton, which are direct Metropolitan member agencies. Its SOI also excludes the eastern portions of Orange County that are outside the Metropolitan service area.

This option could potentially include the detachment of the South County agencies as described in Option 4. However, there would be issues with those agencies that overlie a portion of the groundwater basin. The issue of the three cities would also have to be resolved as they utilize the groundwater resources, but not the services of MWDOC. One option would be to combine the Metropolitan functions of the three cities into the new combined OCWD/MWDOC agency – either as a countywide entity or as a basin wide entity. Implementing this option would take an act of legislation because it

⁵ Metropolitan Water District Act, Section 52. Additional Directors: Any member public agency may designate and approve several representatives not exceeding one additional representative for each full 5 percent of the assessed valuation of property taxable for district purposes within the entire district that is within such member agency.



involves changing OCWD's principal act. As noted under Option 3 above, a countywide entity including the three Cities would represent the largest voting block at the Metropolitan Water District with 20.37%. Assuming unity in voting, this could result in increased influence at Metropolitan.

This option would be similar to other options but the scope of water resources under management would be expanded to include groundwater. Depending on the principal act of the merged organization, the Directors would be elected by the voters, or in the case of a County Water Authority, appointed by the member agencies. The current governance structure of OCWD would likely change from the hybrid of 7 elected districts and three city appointed seats to better represent the new constituency.

The advantages of this option are that it would eliminate the governmental layer between Metropolitan and the agency managing the groundwater basin. This might result in water cost savings as OCWD is currently the sixth highest revenue payer to MWDOC; however, the full financial impacts are uncertain. By agreement, MWDOC and OCWD work closely together on planning and demand projections and share administrative facilities, so major economies and efficiencies in those areas would not be anticipated. A merger, however, might reduce overhead and administrative costs.

The disadvantage is the potential for increased costs to those agencies that do not benefit from the groundwater basin. If the South County agencies were still part of the district, the costs to manage the groundwater basin and its infrastructure, including capital costs, could be imbedded in the water rates. This would result in the same issue regarding equitable cost sharing. The Orange County Groundwater Basin is a valuable storage resource; however, the groundwater producers have expressed concern over additional use that will limit the amount they can extract without paying higher rates. An initiative to use groundwater to serve the South County would require a complete restructuring of the groundwater management policies and rates. The cities of La Habra and Brea are neither in South County nor overlie the OCWD basin and thus may pose other issues of equity and representation.

A number of issues related to Metropolitan membership would need to be quantified and apportioned equitably. Most of these issues can probably be solved technically but may be politically contentious and result in uncertain financial benefits.

6. Reorganize with East Orange Water District

The East Orange County Water District (CWD) provides both wholesale and retail water services. In the LAFCO MSR, staff recommended exploring the reorganization of the District to determine if any efficiencies and economies of scale could be achieved.



The East Orange CWD conducted an organizational study in 1999 to assess the existing condition of water service within their boundary, review the relationships between water providers and identify organizational possibilities for further study. The agencies included in the study were the Cities of Orange and Tustin, the Irvine Ranch Water District, the Orange Park Acres Mutual Water Company, the Serrano Water District, the Southern California Water Company (a private water company) and the Carpenter Irrigation District (subsequently dissolved as an independent district by LAFCO in 1998 and its service area was included in IRWD district).

The 1999 study reviewed a number of reorganization options for the wholesale district. Each option involved dissolution of the district. The seven alternative options identified for further exploration in that study included:

- Formation of a Joint Powers Agency (JPA) to replace East Orange CWD
- Development of a Joint Powers contract among the East Orange CWD sub-agencies and subsequent dissolution of the district
- Dissolution of the East Orange CWD and division of its assets and service responsibility between the Cities of Orange and Tustin
- Dissolution of the East Orange CWD and division of its assets and service responsibility between the Cities of Orange and Tustin and the Southern California Water Company
- Reorganization of East Orange CWD and Municipal Water District of Orange County (MWDOC) with MWDOC assuming the assets and responsibility of the East Orange CWD
- Dissolution of the East Orange CWD with MWDOC serving as an interim agency until final disposition of assets is completed
- Privatization of wholesale services.

No alternative was singled out for further study at that time. A phase two study of alternatives was recommended but has not been commissioned to date. In addition to the reorganization options identified in the East Orange CWD study, LAFCO identified the following options:

- Reorganization with Orange Park Acres Mutual Water Company—although the Orange Park Acres MWC is a mutual water company and not subject to LAFCO review, it participated in the MSR process and had a representative on the stakeholder working group



- Reorganization with the Irvine Ranch Water District—IRWD is adjacent to the East Orange CWD and has some facilities located within its territory.

C. Summary

Key issues have been raised during the stakeholder process related to the following: 1) MWDOC's role and services 2) reserves, budgeting and rates 3) equitable cost sharing among member agencies, and 4) accountability to the member agencies as constituents. The appropriate government structure to serve the member agencies of all of Orange County in the future needs to be evaluated in greater depth.

Because of their necessary dependency on imported water, the South County agencies have a different service approach than the agencies in the northern and central portions of the County that have groundwater resources. The growth patterns of Orange County and the service delivery of all of the agencies are well established and unlikely to change significantly. These differences will not disappear nor will they be resolved through rhetoric and emotionally charged debates.

The options that involve changing the government structure of MWDOC will require extensive study to fully analyze the potential benefits and impacts to all of the member agencies. Since LAFCO has the authority to initiate and make studies of existing governmental agencies (Government Code Section 56378), a study of the options and all the possible impacts could be initiated. However the tentative agreement included a condition that neither MWDOC nor the six agencies would not undertake any advocacy, introduce any legislation or file any LAFCO reorganization actions during the term to affect these agreement principles. However the six agencies noted that they believe alternative governmental structure may exist and the tentative agreement acknowledged that the six South County agencies, at their expense and with their staff and consultant resources, may conduct a study of potential alternative governance structures. While LAFCO is not a signatory to the tentative agreement, staff would recommend that the Commission honor the agreement during its term.



Section 9

LOCAL ACCOUNTABILITY & GOVERNANCE



LOCAL ACCOUNTABILITY & GOVERNANCE

A. Overview

MWDOC's service area is geographically divided into seven divisions or regions, as shown below in *Figure 9.1, District Divisions*. The District is governed by a seven-member board of Directors. Directors are elected by voters within that division and must be residents of the divisions they represent. All directors serve four-year terms. In the November 2006 elections, the three Directors of MWDOC whose terms were ending ran unopposed. However, in the November 2004 elections, there were multiple candidates for each of three Directors' slots.

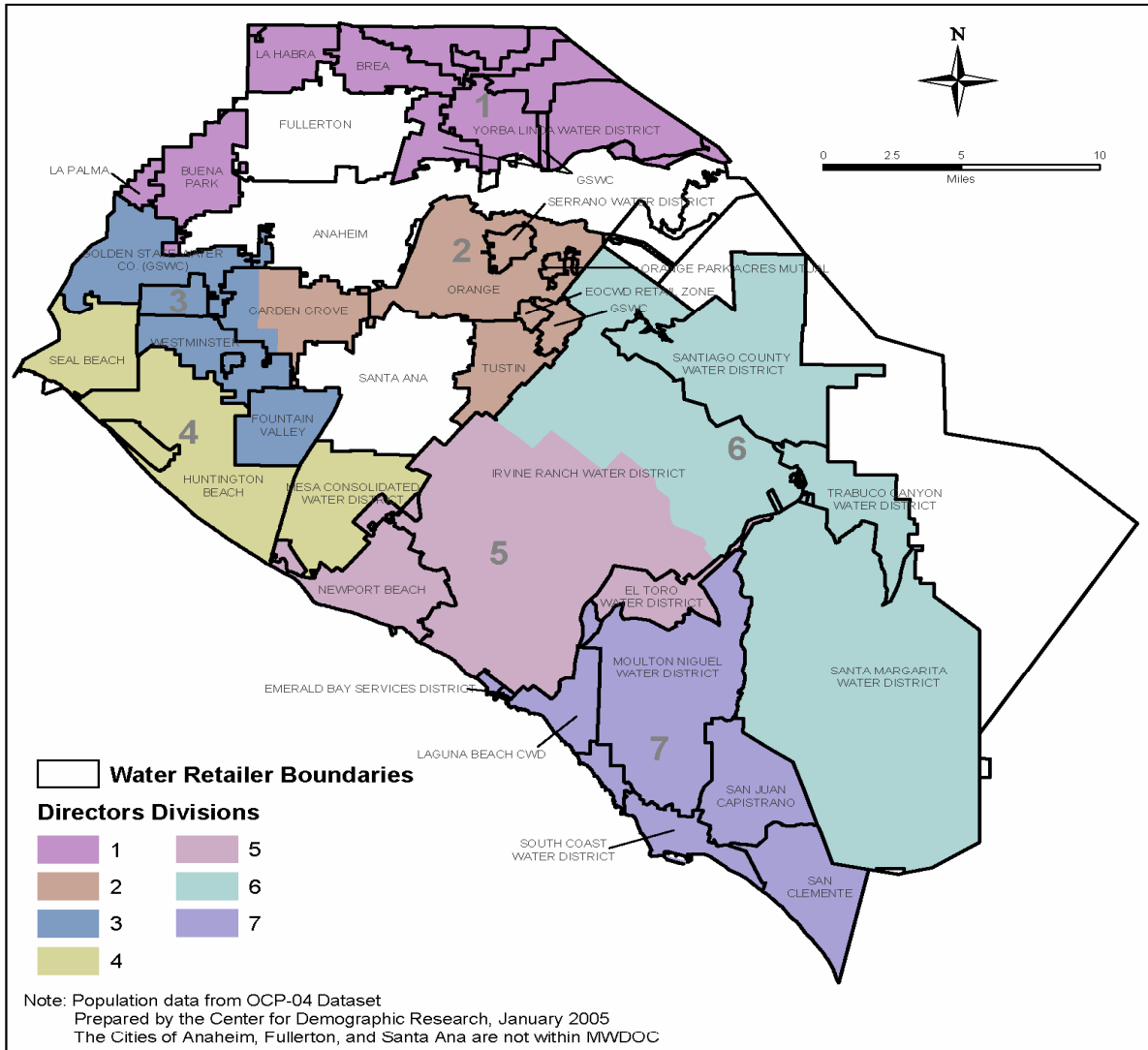
The following summarizes the governance and local accountability of the District:

Municipal Water District of Orange County			
Date formed:		January 11, 1951	
Statutory Authorization:		Municipal Water District Act of 1911	
Board Meetings:		Monthly on 1 st and 3 rd Wednesday, 8:30 a.m.	
Board of Directors	Title	Term Expiration	Compensation
Susan Hinman	President, Division 7	2008	\$191.45/meeting (for up to 10 meetings/month) Benefits: health, vision, dental and pension plan
Brett Barbre	Division 1	2010	
Larry Dick	Division 2	2010	
Ed Royce, Sr.	Division 3	2008	
Joan Finnegan	Division 4	2008	
Wayne Clark	Division 5	2010	
Ergun Bakall	Division 6	2008	
Metropolitan Directors			
Larry Dick	Vice Chair	Representatives appointed by MWDOC do not serve fixed terms.	\$191.45/Met meeting (for up to 10 meetings/month)
Ergun Bakall	Director		
Jack Foley (GM, Moulton Niguel WD)	Director		
Steve Anderson	Director		



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Figure 9.1: MWDOC District Divisions



MWDOC NEW DIRECTORS DIVISIONS POPULATION



Div	2005 Population	2005 Pct of Mean	2010 Population	2010 Pct of Mean
1	321,303	-1%	339,874	-2%
2	331,784	+3%	349,876	+1%
3	337,385	+4%	354,332	+2%
4	338,171	+5%	356,539	+3%
5	306,753	-5%	324,059	-6%
6	298,673	-8%	352,183	+2%
7	328,841	+2%	345,198	-0%
TOTAL	2,262,910		2,422,061	

**FIG.
B**



The District's website (www.mwdoc.com) offers a wide range of information including meeting notices, agendas and minutes, District services, conservation and education, public documents and project information. District board meetings are held at the District's main office and are open and accessible to the public. However, the morning meeting time limits public participation, although it is more practical for member agencies. On items of special interest to the public, MWDOC has held evening public workshops. Recent examples are the public workshops held during the scoping and review of the 2005 MWDOC Urban Water Management Plan.

ISSUE: MWDOC's CONSTITUENTS AND ACCOUNTABILITY

One of the key issues identified in the stakeholder process is the question of MWDOC's constituents and the Board's accountability. Per its principal act, the MWDOC directors are elected by the voters within each region and are responsible to those voters to provide efficient, reliable service. Although MWDOC Directors are elected by the voters, MWDOC's budget is financed by member agencies.

The voters are also served by their respective retail water agencies and, as ratepayers, have a direct connection to those agencies. Many ratepayers may be unaware of the service MWDOC provides, other than water use efficiency and education, and are equally unaware of how they are paying for MWDOC's services.

This issue is heightened by the limited influence some of the member agencies believe they have had on MWDOC's budgeting process, long-range planning efforts, and approach to rate structure equity and cost sharing.

The MWDOC Board appoints the four representatives to Metropolitan. The selection may be done directly by the Board or may include member agency input. In the most recent Metropolitan Director appointment, MWDOC sent a letter to each member agency asking it to submit names of potential candidates for consideration. A significant number of candidates were identified. All were interviewed by a selection committee, and finalists were recommended to the Board. A final selection was made by the Board. For the previous two Metropolitan appointments, the MWDOC Board appointed the Metropolitan Directors without solicitation of agency input.

As noted above, in the most recent Metropolitan Director selection process, the Board established a special committee to consider nominees for Metropolitan Director, inviting member agencies to submit their recommendations for consideration. However, this does not ensure that the member agencies recommendations will be accepted.

The MWDOC Board of Directors could consider a policy that allows for member agency input; for example, the member agencies could select two of the Directors or the



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MWDOC Board could propose the nominated Metropolitan Directors to the member agencies, which could then have the option to vote as a group to accept the nominees. If the member agencies did not accept a nominee, MWDOC would then nominate the next suitable candidate.

It was suggested during stakeholder meetings that each of the MWDOC Directors meet quarterly with the member agencies within their district. Five of the seven MWDOC Directors already do this as a standard practice. This helps to improve the opportunity to share ideas and information and should be added as a standard operating practice for the two remaining divisions. While this might address the issues regarding MWDOC's attention to member agency concerns and input, it is dependent on the will of the MWDOC Board to implement. The underlying issue is the degree of trust between the MWDOC Board and some member agencies. To improve accountability, the input of the member agencies on key issues should be specifically noted during board meeting discussions and included as part of the public record.

As part of the policy changes considered by the MWDOC Board in December 2006, the following policy statement was formally adopted:

MWDOC works through its Member Agencies to provide reliable and high quality water for the benefit of Orange County residents in its service area. The Board maintains a responsibility to both the Member Agencies and the people as their customers and constituents. Orange County's public can best be served by a cooperative and collaborative partnership between MWDOC and its Member Agencies. MWDOC pledges to work in such a manner.

MWDOC's commitment to integrating this policy into its procedures and processes will be evidenced during budget processes and planning efforts; its success and continued commitment to improved relations will be assessed by all of its member agencies.

In addition, the tentative agreement included provisions for getting the six agency group together at least once per year to evaluate progress. The provisions also call for putting into place an improved method for keeping the directors and staff from MWDOC and the agencies fully informed on important issues and to allow additional member agency input and interaction with MWDOC on the development of its budget, and the scope and magnitude of its activities. This should help to ensure and improved working relationship between MWDOC and its agencies if approved.



Section 10

SPHERE OF INFLUENCE STUDY

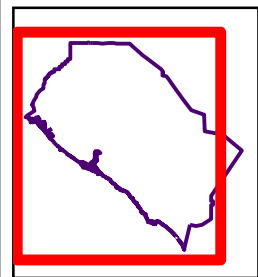
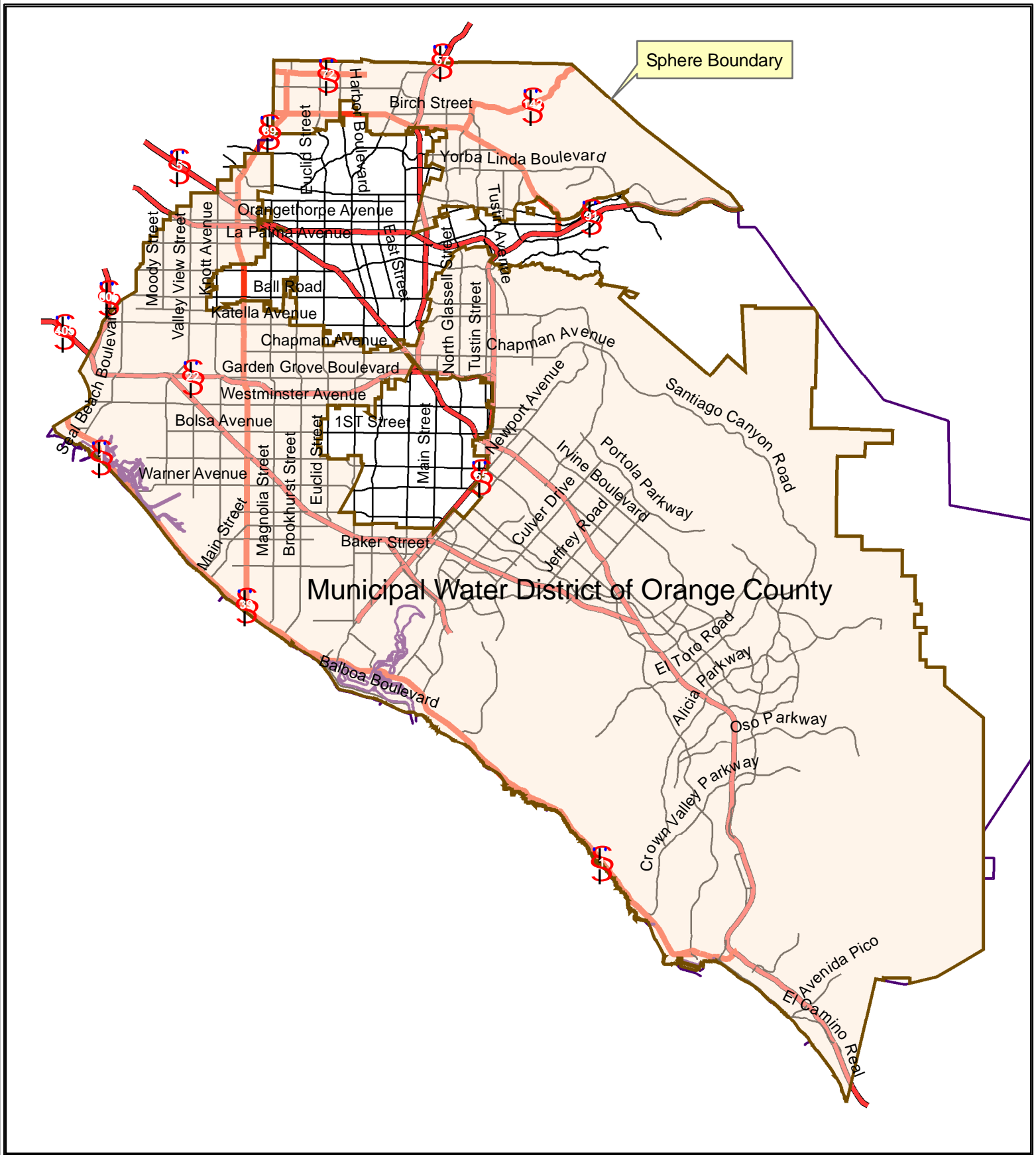


A. Overview of Sphere of Influence (SOI) Law – Government Code § 56425

LAFCO is also charged with adopting a sphere of influence for each city and special district within the county. A sphere of influence is a planning boundary that designates the agency's probable future boundary and service area. Spheres are planning tools used by LAFCO to provide guidance for individual proposals involving jurisdictional changes. Spheres ensure the provision of efficient services while discouraging urban sprawl and the premature conversion of agricultural and open space lands. The Cortese-Knox-Hertzberg (CKH) Act requires LAFCO to develop and determine the sphere of influence of each local governmental agency within the County, and to review and update the SOI every five years. In determining the SOI, LAFCO must address the following:

1. Present and planned land uses in the area, including agricultural and open-space lands
2. Present and probable need for public facilities and services in the area
3. Present capacity of public facilities and adequacy of public service that the agency provides or is authorized to provide
4. Existence of any social or economic communities of interest in the area if LAFCO determines that they are relevant to the agency.

MWDOC's SOI includes a majority of Orange County with the exceptions of the Cities of Anaheim, Fullerton and Santa Ana and open space areas located in the southeastern areas of the County. The SOI for MWDOC was last reviewed when LAFCO considered the consolidation with the Coastal Municipal Water District in 1997.



5 2.5 0 Miles



Municipal Water District of Orange County Sphere of Influence Map

Legend

- Sphere Boundary
- District Boundary

SOI Originally Adopted: 12/05/84
Last Reviewed: 05/12/04



B. STATEMENT OF DETERMINATIONS – MWDOC

The present and planned land uses in the area, including agricultural and open-space lands.

MWDOC's service territory includes a majority of Orange County with the exceptions of the Cities of Anaheim, Fullerton and Santa Ana and open space areas located in the southeastern areas of the County. Land use throughout the County is varied and includes residential (single- and multi-family), commercial, industrial, public/semi-public, park and recreation and open space.

The present and probable need for public facilities and services in the area.

As Orange County's population grows by nearly a half-million people by 2020, there will be increased demand for water including imported, recycled and groundwater. The projected growth within Orange County has been considered in the 2005 Urban Water Management Plan prepared by MWDOC and other water agencies in the area, as well as water supply assessments that are prepared for individual projects. The anticipated growth is used as a basis to determine if the water supply is adequate, reliable and affordable.

The present capacity of public facilities and adequacy of public services that the agency provides or is authorized to provide.

On a regional basis, water supply in California, especially in Southern California, should be considered a limited resource due to cutbacks from the Colorado River, to drought, to environmental issues, to climate changes and to the fragility of the Bay-Delta system infrastructure that supports the State Water Project. Since MWDOC does not own or operate any water system infrastructure, no significant issues with the capacity of its facilities were noted. However, there are some related concerns about services which were discussed during MWDOC's stakeholder process.

The existence of any social or economic communities of interest in the area if the commission determines that they are relevant to the agency.

There is a community of interest countywide for ensuring that water is available concurrent with need.



Appendix A

LAFCO SUMMARY OF ISSUES



Appendix B

MINUTES FROM LAFCO'S STAKEHOLDER PROCESS



Appendix C

MINUTES FROM MWDOC'S STAKEHOLDER PROCESS



Appendix D

MWDOC STAFF REPORT to BOARD (12/20/06)



Appendix E

Other Documents



Appendix F

Final Agreement from Facilitated Process



Appendix G

Facilitated Process Minutes

ENGINEERING & PLANNING	
Orange County Reliability Study	MWDOC staff and consultant CDM Smith continue to work on the 2018 OC Reliability Study update which looks at both supply (drought supply) reliability and system (emergency) reliability. Currently, we are working with MET both on their estimates of future water rates including the “Full” California WaterFix cost estimates and understanding what portion of the additional supplies will accrue directly to MET for the purpose of the reliability modeling work. This has delayed the completion of the Water Reliability Study by about a month or so.
South Orange County Emergency Service Program	The current Emergency Services Program Agreement “guaranteed” flows are in effect through 2029, however the Agreement includes a “best efforts” provision for IRWD to share resources thereafter. The MWDOC Board just approved the consultant contract for this work with IRWD and the study kick-off meeting will be held on May 14.
SOQ’s Requested by MWDOC	MWDOC issues Statements of Qualifications to a number of consultants to provide input to MWDOC regarding the integration of potential local projects such as Poseidon, Doheny or the groundwater pump-in project. The concern is that these local projects may be implemented by others and without fully accounting for the water quality considerations and other issues, there could be unintended consequences. MWDOC’s goal is to try to understand the associated issues fully prior to any of these projects going on-line.
Strand Ranch Project	Ad Hoc Committees of MWDOC and IRWD met to discuss the potential for MWDOC to provide assistance in advancing the Strand Ranch Project to open it up to others in Orange County. The Committees directed their respective staff to continue working on the terms and conditions for such an effort.
Upcoming Issues with MET	<p>MWDOC and MET staff have been working on a number of items together, including:</p> <ul style="list-style-type: none"> • Resolution of Service Connection CM-1 flow issues to Laguna Beach CWD • Conduct of a flow test at the EOCWD OC-70 to test the meter accuracy • Access, water quality sampling and the responsibility for an emergency generator at the OC-70 Service Connection • Use of East Orange County Feeder No. 2 for Conveyance of Groundwater or Poseidon Water • Replacement of Service Connection OC-13A to monitor low flows into Irvine Lake • Ownership/maintenance responsibilities between SMWD and MET regarding the South County Pipeline

	<ul style="list-style-type: none"> • Installation of NEW Mag Meters at Service Connections CM-10 and CM-12 • Storage of Emergency Water within the MET system
Poseidon Resources	Work is still proceeding by the Santa Ana Regional Water Quality Control Board (“RWQCB”) to consider the NPDES permit and Ocean Plan Amendment compliance for the Poseidon Project. It is anticipated that the Project will be considered sometime later this summer.
SMWD Rubber Dams Project	The Draft Program Environmental Impact Report (PEIR) was circulated for a 65-day public review period, which ended February 23, 2017. The EIR was originally scheduled for adoption in March 2018. Due to the complexity of some of the issues associated with the steelhead trout, SMWD Board adoption of the EIR has been moved to the May Board meeting.
Doheny Ocean Desalination Project	<p>GHD is developing a Scope of Work for a 3rd party legal firm to assist with Design-Build-Operate (DBO) contract development. A Request For Proposals (RFP) for 3rd party legal firms is anticipated to be released in May 2018.</p> <p>The release of the draft South Coast Water District EIR for public comments is anticipated in May 2018 with the final adoption scheduled for July or August.</p>
Meetings	
	Rob, Harvey & Melissa met with Gary Breau and Deven Upadhyay to discuss an approach for modeling of the future MET water rates and yield from the SWP with MET’s participation in the 6,000 cfs first tunnel.
	Several MWDOC staff were in attendance at the OCWA Presentation by Deven Upadhyay who discussed Avoiding Day Zero: Why Southern California is Different from Cape Town. Hint: Planning, the diversity of supplies and storage capacity.
	Rob Hunter and Karl Seckel met with Scott Maloni and Andy Kingman to discuss the release of updated cost information for the Huntington Beach project and to discuss the project schedule.
	Harvey De La Torre and Charles Busslinger attended the first in a series of meetings with MET on emergency storage.
	Karl Seckel was interviewed by SAWPA staff as part of a “community water ethnography” to determine the qualitative strengths and needs of communities in the Santa Ana River watershed. The study, being conducted by a team of UCI anthropology researchers, strives to gain a better understanding of how water is thought of, used and conserved by people living and working within the watershed.

Status of Ongoing WEROC Projects
April 2018

Description	Comments
Coordination with WEROC Member Agencies	<p><i>Ongoing: WEROC, with Michal 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 Committee final planning meeting was held on April 11, 2018 to review the first draft of the plan. Additional drafts will be reviewed and coordinated through email and phone. Next steps include: required public outreach meetings (tentatively in June 2018); submitting a Final Draft to CalOES around July; once approved by CalOES, it will then be submitted to FEMA; and once approved by CalOES and FEMA, each participating agency will submit the plans to their elected boards for adoption. The complete process is expected to be completed by December 2018.</i></p> <p><i>WEROC Radio Replacement Update: Francisco Soto continues to work with member agencies, Motorola, and the Sheriff's Communications staff to implement the OC 800 MHz radio system for WEROC. It took several months for the radio equipment to be ordered, delivered and programed by the County Communications staff. Francisco is now working with all parties to coordinate the distribution and installation of the 800 MHz Radios. The next step will be for the County to program any existing City Water/Wastewater Department radios with the WEROC channels. Staff hopes to complete the process in June 2018.</i></p> <p>Kelly Hubbard met with Mesa Water District to assist them in the development of their disaster exercise support materials for their participation in the WEROC May 15th exercise based on an unknown contamination of a water system.</p> <p>The WEROC Quarterly Emergency Coordination meeting was on May 1st. The group primarily discussed what their exercise/training goals and needs are for 2018/2019 and about the Southern CA Catastrophic Response Plan (CAT Plan). (More on the CAT plan is below.)</p>
Training and Programs	<p>Kelly provided AlertOC training for member agencies to familiarize them with the system, its functions, and learn how to prepare and disperse public notifications. This is the first training WEROC has hosted since AlertOC has switched to Everbridge as its system software/platform.</p>

	<p>Janine Schunk and Leah Frazier supported the WEROC 2018 Spring Trainings by logging hours for all attendees in the WEROC Training Database, preparing attendance certificates (includes Water Operator Certification Hours), providing attendee updates and other general support.</p>
<p>Coordination with the County of Orange</p>	<p>Francisco attended the April Orange County Emergency Management Organization (OCEMO) meeting that took place in Santa Ana. Brevyn Mettler, Emergency Manager for the City of Huntington Beach, presented on “ICS and the Event Planning Process.”</p> <p>Kelly called in to the OCEMO AlertOC Workgroup and attended the WebEOC Meeting. The County is working on updating the AlertOC Standard Operating Procedures and Policies with input from this group. For WebEOC the group provided feedback on continuing updates to the system.</p> <p>Kelly called in to the Orange County Recovery Functional Exercise Planning Meeting. The meeting provided an opportunity for private sector partners and local, state, and federal government representatives to review scope and objectives, discuss scenario, and review timeline and logistics for a Recovery Exercise that will be held in October. WEROC will be participating in that exercise.</p>
<p>EOC Readiness</p>	<p>Janine continued preparation of South Emergency Operation Center for the WEROC EOC Exercise taking place on May 15, 2018.</p> <p>Janine attended the “Building Incidents and Scenarios” webinar hosted by Everbridge (AlertOC System Software/Platform). Incidents and Scenarios are ways to group and categorize public messaging within the software for an ongoing incident to ensure coordinated messaging and follow-up with the public and staff.</p> <p>Janine is facilitating an update of the WEROC/MWDOC Staff Emergency Responder ID Cards. All WEROC/MWDOC staff will be receiving an updated Emergency Responder ID Card with their picture, agency name, and information identifying them as a First Responder. These ID Cards will be needed during a disaster to get to the WEROC EOC or the MWDOC COOP.</p> <p>Francisco worked with the Center for Demographic Research to complete an update of the WEROC Member Agency Standardized Wall Maps and WEROC Atlases. Agencies submitted updates and corrections to the WEROC maps which depict water and wastewater critical infrastructure and are used regularly for response. Michelle</p>

	<p>DeCasas (MWDOC Administration Assistant) assisted with sorted, labeling and storing the new maps.</p> <p>Janine is continuing to update our staff and member agency contact information in the Safety Center App and in AlertOC.</p> <p>Staff participated in the MET MARS radio test and the OA Radio Test.</p>
WEROC Emergency Plans	<p>Francisco is currently working on updating the EOC position binders for use at the May 15 WEROC exercise.</p> <p>Francisco completed the Emergency Operations Plan. The plan was approved by the MWDOC Board of Directors at the April Board meeting. Updated copies will be posted to the MWDOC website and distributed to our Member Agencies and planning partners.</p>
Coordination with Outside Agencies	<p>Kelly attended the California Office of Emergency Services (CalOES) Southern California Catastrophic Earthquake Plan – Critical Lifelines meeting in Chino Hills. The CalOES is updating the 2011 Plan and is asking for local government involvement in the process. It is important that WEROC participate in this planning process, as the State plans on using this document as a pre-scripted playbook for responding to a major event.</p> <p>Kelly attended the Cal OES Mutual Aid Regional Agency Coordination (MARAC) meeting in Rancho Cucamonga. The Operational Area Emergency Manager for the County of Santa Barbara spoke about their response to the Thomas Fire and the Montecito Mudslides. The County of Santa Barbara initially activated on December 4 and continues to be activated to this day.</p> <p>Francisco attended the Orange County Water Association April 2018 Luncheon Presentation. Deven Upadhyay, Assistant General Manager/Chief Operating Officer for the Metropolitan Water District of Southern California, presented on Avoiding Day Zero: Why Southern California is Different from Cape Town.</p>

Status of Water Use Efficiency Projects

May 2018

Description	Lead Agency	Status % Complete	Scheduled Completion or Renewal Date	Comments
Smart Timer Rebate Program	MWDSC	Ongoing	Ongoing	In April 2018, 37 residential and 44 commercial smart timers were installed in Orange County. For program water savings and implementation information, see MWDOC Water Use Efficiency Program Savings and Implementation Report.
Rotating Nozzles Rebate Program	MWDSC	Ongoing	Ongoing	In April 2018, 94 rotating nozzles were installed in Orange County. For program savings and implementation information, please see MWDOC Water Use Efficiency Program Savings and Implementation Report.
SoCal Water\$mart Residential Indoor Rebate Program	MWDSC	Ongoing	Ongoing	In April 2018, 116 high efficiency clothes washers and 24 premium high efficiency toilets were installed through this program. For program savings and implementation information, please see MWDOC Water Use Efficiency Program Savings and Implementation Report.
SoCal Water\$mart Commercial Rebate Program	MWDSC	Ongoing	Ongoing	In April 2018, 173 premium high efficiency toilets were installed through this program. For program savings and implementation information, please see MWDOC Water Use Efficiency Program Savings and Implementation Report.
Industrial Process/ Water Savings Incentive	MWDSC	50%	June 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

Description	Lead Agency	Status % Complete	Scheduled Completion or Renewal Date	Comments
Program (WSIP)				<p>custom water-saving projects. This fiscal year, two projects have been completed, saving over 57 AFY.</p> <p>Total water savings to date for the entire program is 640 AFY and 2,828 AF cumulatively.</p>
Turf Removal Program	MWDOC	Ongoing	Ongoing	<p>In April 2018, 59 rebates were paid, representing \$20,470.50 in rebates paid this month in Orange County. To date, the Turf Removal Program has removed approximately 21.4 million square feet of turf.</p> <p>For program savings and implementation information, please see MWDOC Water Use Efficiency Program Savings and Implementation Report.</p>
Spray to Drip Conversion Program	MWDOC	Ongoing	Ongoing	<p>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.</p> <p>To date, 221 residential sites and 55 commercial sites have completed spray to drip conversion projects.</p>
Landscape Design Assistance Program (LDAP)	MWDOC	100%	April 2018	<p>This is a pilot program designed to offer free front yard landscape design assistance to customers who are participating in MWDOC's Turf Removal Rebate Program.</p> <p>To date, MWDOC has received and approved 105 questionnaires, and 98 site consultations have been performed. Of the 98 sites, 98 have received their custom designs and have been sent their Letters To Proceed to begin their projects. MWDOC will be visiting these sites to take photos once each project is complete. Photos will also be taken at six and twelve months after installation.</p>

Description	Lead Agency	Status % Complete	Scheduled Completion or Renewal Date	Comments
Recycled Water Retrofit Program	MWDSC	50%	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 \$145,596.85 in funding to 21 sites irrigating over 60 acres of landscape, and MWDSC has paid a total of \$41,483.00 in grant funding to 15 of those sites. The total potable water savings achieved by these projects is over 149 AFY.

Orange County

Water Use Efficiency Programs Savings and Implementation Report

Retrofits and Acre-Feet Water Savings for Program Activity

Program	Program Start Date	Retrofits Installed in	Month Indicated		Current Fiscal Year		Overall Program		
			Interventions	Water Savings	Interventions	Water Savings	Interventions	Annual Water Savings[4]	Cumulative Water Savings[4]
High Efficiency Clothes Washer Program	2001	April-18	116	0.33	2,967	53.40	115,879	3,998	26,970
Smart Timer Program - Irrigation Timers	2004	April-18	81	2.53	1,977	188.17	22,462	8,032	46,482
Rotating Nozzles Rebate Program	2007	April-18	94	0.38	902	3.61	563,720	2,761	18,323
Commercial Plumbing Fixture Rebate Program	2002	April-18	173	0.53	4,182	86.61	89,461	4,833	44,267
Industrial Process/Water Savings Incentive Program (WSIP)	2006	April-18	0	4.80	2	4.80	30	640	2,892
Turf Removal Program ^[3]	2010	April-18	68,235	0.80	522,547	34.42	21,428,148	3,001	10,258
High Efficiency Toilet (HET) Program	2005	April-18	24	0.09	387	13.86	60,034	2,219	16,726
Water Smart Landscape Program ^[1]	1997						12,677	10,621	72,668
Home Water Certification Program	2013						312	7,339	15,266
Synthetic Turf Rebate Program	2007						685,438	96	469
Ultra-Low-Flush-Toilet Programs ^[2]	1992						363,926	13,452	162,561
Home Water Surveys ^[2]	1995						11,867	160	1,708
Showerhead Replacements ^[2]	1991						270,604	1,667	19,083
Total Water Savings All Programs			9		532,964	385	23,624,558	51,486	422,422

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

148 ^[2] Cumulative Water Savings Program To Date totals are from a previous Water Use Efficiency Program Effort.

149 ^[3] Turf Removal Interventions are listed as square feet.

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

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

Agency	FY 11/12	FY 12/13	FY13/14	FY14/15	FY15/16	FY16/17	FY17/18	Total	Current FY Water Savings Ac/Ft (Cumulative)	Cumulative Water Savings across all Fiscal Years	15 yr. Lifecycle Savings Ac/Ft
Brea	144	93	115	114	76	57	43	1,910	0.65	450.01	988
Buena Park	145	105	106	91	76	54	46	1,564	0.77	352.12	809
East Orange CWD RZ	10	10	8	8	8	3	1	193	0.01	48.58	100
El Toro WD	112	134	121	111	65	47	43	1,564	0.67	354.39	809
Fountain Valley	158	115	102	110	76	65	36	2,436	0.69	598.18	1,260
Garden Grove	236	190	162	165	251	127	67	3,630	1.18	846.12	1,878
Golden State WC	485	265	283	359	260	138	134	5,149	2.30	1,197.40	2,664
Huntington Beach	582	334	295	319	225	180	114	8,360	2.01	2,089.07	4,326
Invine Ranch WD	2,170	1,763	1,664	1,882	1,521	1,373	981	25,647	18.37	5,644.19	13,270
La Habra	128	82	114	87	66	53	42	1,369	0.77	308.02	708
La Palma	46	34	25	34	29	10	11	469	0.22	106.45	243
Laguna Beach CWD	57	38	37	39	32	19	15	947	0.32	229.00	490
Mesa Water	176	114	86	89	113	80	40	2,558	0.74	637.86	1,324
Moulton Niguel WD	679	442	421	790	688	575	407	10,328	7.36	2,257.99	5,344
Newport Beach	142	116	92	95	66	61	44	2,668	0.77	679.46	1,380
Orange	262	218	163	160	124	80	63	3,961	1.07	993.92	2,050
Orange Park Acres	-	-	-	-	-	-	-	12	0.00	3.76	6
San Juan Capistrano	110	76	73	92	63	33	29	1,488	0.50	351.50	770
San Clemente	206	140	94	141	75	70	70	2,690	1.30	636.87	1,392
Santa Margarita WD	679	553	662	792	466	367	226	9,742	4.09	2,200.59	5,041
Seal Beach	51	31	29	38	23	9	14	616	0.29	146.16	319
Serrano WD	20	13	10	26	8	11	7	364	0.10	90.57	188
South Coast WD	112	89	79	68	43	44	32	1,616	0.61	381.09	836
Trabuco Canyon WD	62	30	45	47	34	28	17	815	0.32	189.86	422
Tustin	97	78	59	80	66	44	37	1,649	0.65	402.65	853
Westminster	208	121	82	109	149	84	50	2,636	0.91	624.20	1,364
Yorba Linda	273	181	167	156	123	56	48	3,800	0.80	952.98	1,966
MWDOC Totals	7,350	5,365	5,094	6,002	4,726	3,668	2,617	98,181	47.47	22,772.97	18,968

Anaheim	477	331	285	295	266	213	157	10,839	2.72	2,607.27	5,608
Fullerton	270	200	186	211	165	107	78	3,773	1.42	810.88	1,952
Santa Ana	190	163	131	132	259	141	115	3,086	1.80	778.70	1,597
Non-MWDOC Totals	937	694	602	638	690	461	350	17,698	5.93	4,196.86	3,419

Orange County Totals	8,287	6,059	5,696	6,640	5,416	4,129	2,967	115,879	53.40	26,969.83	22,387
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SMART TIMERS INSTALLED BY AGENCY

through MWDOC and Local Agency Conservation Programs

Agency	FY 11/12		FY 12/13		FY 13/14		FY 14/15		FY 15/16		FY 16/17		FY 17/18		Total Program		Cumulative Water Savings across all Fiscal Years
	Res	Comm	Res	Comm	Res	Comm	Res	Comm	Res	Comm	Res	Comm	Res	Comm	Res	Comm.	
Brea	8	0	9	8	4	0	43	6	20	4	31	4	30	0	161	80	521.72
Buena Park	4	19	3	0	0	0	4	10	7	4	10	7	13	3	44	44	147.67
East Orange CWD RZ	5	0	2	0	0	0	2	0	1	0	11	1	6	0	31	1	18.80
El Toro WD	26	2	7	2	11	0	8	9	9	17	33	8	21	4	136	359	2,476.50
Fountain Valley	8	2	3	2	4	0	7	10	13	1	33	12	22	12	113	52	178.65
Garden Grove	7	0	5	2	9	0	10	14	13	11	28	0	22	0	123	38	173.20
Golden State WC	13	3	9	49	9	25	39	12	35	16	56	37	72	6	297	198	812.43
Huntington Beach	15	4	18	33	20	35	19	2	42	12	88	94	44	30	316	298	1,061.60
Irvine Ranch WD	267	71	414	135	71	59	67	310	239	207	344	420	371	76	2,140	2,362	11,330.93
La Habra	3	0	4	7	2	0	4	7	3	1	12	7	6	0	42	44	203.18
La Palma	1	0	1	0	2	0	2	0	3	2	1	0	4	0	14	2	5.98
Laguna Beach CWD	109	2	76	2	71	0	86	0	86	1	27	0	9	0	506	20	235.04
Mesa Water	21	0	10	2	15	2	17	28	36	12	149	41	41	0	359	154	733.07
Moulton Niguel WD	179	31	51	74	40	45	46	95	163	100	236	129	250	33	1,164	834	3,577.28
Newport Beach	275	12	242	26	168	75	11	9	28	43	30	12	22	0	1,060	409	2,615.40
Orange	25	0	20	24	13	9	18	31	51	13	69	10	50	13	335	178	936.09
San Juan Capistrano	103	2	14	18	6	11	6	19	20	8	22	8	22	5	244	130	642.45
San Clemente	212	17	26	7	28	2	28	24	26	3	37	13	30	41	1,081	415	2,655.49
Santa Margarita WD	262	7	53	171	64	93	53	321	189	136	326	221	249	218	1,403	1,590	5,671.10
Santiago CWD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
Seal Beach	0	3	1	0	1	36	1	12	2	2,446	2	4	5	0	12	2,502	5,119.58
Serrano WD	3	0	1	0	0	0	4	0	11	2	4	0	6	0	44	2	13.96
South Coast WD	78	10	13	16	8	4	104	73	9	11	7	0	13	2	291	214	1,147.62
Trabuco Canyon WD	12	0	6	0	2	0	6	1	16	50	13	3	17	0	120	157	950.38
Tustin	11	0	8	4	9	1	18	14	33	8	33	23	23	1	166	81	339.47
Westminster	2	0	1	1	2	0	13	17	7	1	17	12	17	0	82	44	197.20
Yorba Linda	22	0	20	0	12	5	32	2	61	27	72	71	57	10	395	193	827.01
MWDOC Totals	1,671	185	1,017	583	571	402	648	1,026	1,123	3,136	1,691	1,137	1,422	454	10,679	10,401	42,591.78

Anaheim	23	60	19	10	9	26	7	52	30	34	87	10	47	0	291	457	2,606.44
Fullerton	22	51	9	29	8	0	40	26	32	12	53	7	43	0	242	199	933.90
Santa Ana	6	5	8	19	7	8	9	27	22	26	15	3	11	0	93	100	350.07
Non-MWDOC Totals	51	116	36	58	24	34	56	105	84	72	155	20	101	0	626	756	3,890.41
Orange County Totals	1,722	301	1,053	641	595	436	704	1,131	1,207	3,208	1,846	1,157	1,523	454	11,305	11,157	46,482

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

Agency	FY 13/14			FY 14/15			FY 15/16			FY 16/17			FY 17/18			Total Program			Cumulative Water Savings across all Fiscal Years
	Small		Large	Small		Large	Small		Large	Small		Large	Small		Large	Comm.	Comm.		
	Res	Comm.		Res	Comm.		Res	Comm.		Res	Comm.		Res	Comm.				Res	
Brea	84	0	0	157	45	0	74	2,484	0	0	0	0	0	0	0	572	2,749	0	49.46
Buena Park	53	0	0	248	0	0	45	98	0	0	0	0	0	0	0	509	173	2,535	813.11
East Orange	30	0	0	221	0	0	0	0	0	0	0	0	0	30	0	781	0	0	19.29
El Toro	56	3,288	0	1,741	28,714	0	730	4,457	0	55	242	0	36	0	0	3,405	46,222	890	1,191.68
Fountain Valley	0	0	0	107	0	0	222	0	0	0	0	0	35	0	0	745	0	0	17.35
Garden Grove	80	0	0	88	50	0	110	0	0	55	98	0	0	0	0	933	299	0	32.52
Golden State	192	0	0	583	1,741	0	1,088	0	0	207	6,008	0	161	-495	0	3,609	10,821	0	240.44
Huntington Beach	120	0	0	798	1,419	0	1,345	2,836	0	149	3,362	0	-37	0	0	3,760	12,526	2,681	1,310.80
Irvine Ranch	11,010	4,257	0	1,421	632	0	1,989	5,047	0	335	9,511	0	286	-215	0	47,423	94,346	2,004	4,744.76
La Habra	15	0	0	109	338	0	300	0	0	0	0	0	0	0	0	481	1,236	900	365.97
La Palma	0	0	0	0	0	0	46	505	0	0	2,385	0	0	0	0	56	2,890	0	26.08
Laguna Beach	2,948	878	0	2,879	1,971	0	1,390	0	0	0	0	0	0	0	0	12,139	2,896	0	301.19
Mesa Water	361	227	0	229	0	0	166	0	0	113	0	0	36	0	0	2,066	385	343	195.29
Moulton Niguel	361	227	0	1,596	4,587	0	5,492	1,441	0	153	5,872	0	511	0	0	12,385	20,515	2,945	1,690.45
Newport Beach	19,349	6,835	0	460	3,857	0	348	670	0	0	0	0	45	0	0	46,723	21,413	0	1,584.28
Orange	245	120	0	304	668	0	631	91	0	0	0	0	0	0	0	3,170	1,072	0	109.25
San Juan Capistrano	370	0	0	495	737	0	310	593	0	75	123	0	59	0	0	5,554	8,852	0	445.73
San Clemente	415	5,074	0	326	0	0	426	0	0	0	0	0	146	0	0	10,135	7,538	1,343	800.17
Santa Margarita	389	0	0	1,207	1,513	0	1,820	837	0	15	0	0	224	0	0	16,389	6,921	611	824.85
Seal Beach	0	0	0	40	5,261	0	0	2,300	0	0	0	0	0	0	0	155	7,852	0	127.44
Serrano	105	0	0	377	0	0	695	0	0	0	0	0	0	0	0	3,405	0	0	93.29
South Coast	70	0	0	4,993	13,717	0	1,421	2,889	0	16	0	0	0	0	0	8,130	18,870	0	472.75
Trabuco Canyon	0	0	0	56	0	0	130	0	0	0	4,339	0	0	0	0	2,086	5,130	0	131.59
Tustin	329	0	0	408	0	0	317	386	0	65	-341	0	30	0	0	3,401	1,058	0	120.83
Westminster	0	0	0	54	0	0	73	0	0	105	0	0	50	0	0	514	0	0	11.18
Yorba Linda	40	990	0	921	0	0	1,715	0	0	213	0	0	0	0	0	6,081	4,359	500	460.06
MWDOC Totals	36,622	21,669	0	19,818	65,250	0	20,883	24,634	0	1,556	31,599	0	1,612	-710	0	194,607	278,123	14,752	16,179.80
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Anaheim	338	0	0	498	712	0	794	5,221	0	147	3,953	0	0	0	0	4,020	49,799	105	1,350.45
Fountain	107	0	0	684	1,196	0	521	7,015	0	65	3,034	0	0	0	0	2,910	11,309	1,484	668.74
Santa Ana	86	2,533	0	310	0	0	0	1,420	0	0	1,106	0	0	0	0	859	5,752	0	124.46
Non-MWDOC Totals	531	2,533	0	1,492	1,908	0	1,315	13,656	0	212	8,093	0	0	0	0	7,789	66,860	1,589	2,143.65
Orange County Totals	37,153	24,202	0	21,310	67,158	0	22,198	38,290	0	1,768	39,692	0	1,612	-710	0	202,396	344,983	16,341	18,323.45

COMMERCIAL PLUMBING FIXTURES REBATE PROGRAM^[1]
INSTALLED BY AGENCY
 through MWD OC and Local Agency Conservation Programs

Agency	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	Totals	Cumulative Water Savings across all Fiscal Years
Brea	1	234	0	10	91	734	76	1,441	497
Buena Park	290	5	23	56	591	133	49	2,538	1,219
East Orange CWD RZ	0	0	0	0	0	0	0	0	0
El Toro WD	137	0	212	6	268	35	0	1,062	655
Fountain Valley	314	0	0	1	249	0	621	1,493	667
Garden Grove	0	4	1	167	676	410	0	2,451	1,644
Golden State WC	135	0	1	0	1,008	53	93	2,958	2,087
Huntington Beach	156	104	144	7	783	641	10	2,964	1,753
Irvine Ranch WD	646	1,090	451	725	11,100	5,958	1,445	29,311	8,554
La Habra	0	0	0	0	340	42	0	925	605
La Palma	0	0	0	0	0	509	0	675	131
Laguna Beach CWD	0	0	27	0	0	0	0	446	342
Mesa Water	41	6	0	79	661	782	0	4,254	2,307
Moulton Niguel WD	0	0	0	3	413	281	0	1,277	908
Newport Beach	35	0	0	566	0	0	0	1,834	1,414
Orange	73	1	271	81	275	2,851	0	5,030	2,035
San Juan Capistrano	0	0	14	0	0	0	0	260	427
San Clemente	19	0	0	1	0	0	0	432	412
Santa Margarita WD	0	0	0	2	90	743	0	950	283
Santiago CWD	0	0	0	0	0	0	0	0	0
Seal Beach	0	0	0	0	0	184	0	538	471
Serrano WD	0	0	0	0	0	0	0	0	0
South Coast WD	84	148	0	382	0	0	0	1,320	577
Trabuco Canyon WD	0	0	0	0	0	0	0	11	16
Tustin	0	0	0	75	358	212	2	1,404	913
Westminster	35	1	28	0	146	177	25	1,163	1,094
Yorba Linda	0	1	0	0	226	84	0	595	616
MWD OC Totals	1,966	1,594	1,172	2,161	17,275	13,829	2,321	65,332	29,629
Anaheim	48	165	342	463	3,072	309	1,005	14,758	7,665
Fullerton	0	94	0	178	476	621	274	3,052	1,821
Santa Ana	12	16	17	5	1,293	238	582	6,319	5,153
Non-MWD OC Totals	60	275	359	646	4,841	1,168	1,861	24,129	14,638
Orange County Totals	2,026	1,869	1,531	2,807	22,116	14,997	4,182	89,461	44,267

[1] Retrofit devices include ULF Toilets and Urinals, High Efficiency Toilets and Urinals, Multi-Family and Multi-Family 4-Liter HETs, Zero Water Urinals, High Efficiency Clothes Washers, Cooling Tower Conductivity Controllers, Ph Cooling Tower Conductivity Controllers, Flush Valve Retrofit Kits, Pre-rinse Spray heads, Hospital X-Ray Processor Recirculating Systems, Steam Sterilizers, Food Steamers, Water Pressurized Brooms, Laminar Flow Restrictors, and Ice Making Machines.

INDUSTRIAL PROCESS/WATER SAVINGS INCENTIVE PROGRAM

Number of Projects by Agency

Agency	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	Overall Program Interventions	Annual Water Savings[1]
Brea	0	0	0	0	0	0	0	0	0
Buena Park	0	0	0	0	1	0	0	2	54
East Orange	0	0	0	0	0	0	0	0	0
El Toro	0	0	0	0	0	0	0	0	0
Fountain Valley	0	0	0	0	0	1	0	1	23
Garden Grove	0	0	0	0	1	0	0	1	0
Golden State	0	0	0	0	0	0	0	1	3
Huntington Beach	0	2	0	1	2	0	1	6	180
Irvine Ranch	1	1	1	0	2	1	0	9	115
La Habra	0	0	0	0	1	0	0	1	0
La Palma	0	0	0	0	0	0	0	0	0
Laguna Beach	0	0	0	0	0	0	0	0	0
Mesa Water	0	0	0	0	0	0	0	0	0
Moulton Niguel	0	0	0	0	0	0	0	0	0
Newport Beach	0	0	0	1	0	0	0	1	21
Orange	0	0	0	0	1	2	1	5	97
San Juan Capistrano	0	0	0	0	0	0	0	0	0
San Clemente	0	0	0	0	0	0	0	0	0
Santa Margarita	0	0	0	0	0	0	0	0	0
Seal Beach	0	0	0	0	0	0	0	0	0
Serrano	0	0	0	0	0	0	0	0	0
South Coast	0	0	0	0	1	1	0	2	134
Trabuco Canyon	0	0	0	0	0	0	0	0	0
Tustin	0	0	0	0	0	0	0	0	0
Westminster	0	0	0	0	0	0	0	0	0
Yorba Linda	0	0	0	0	0	0	0	0	0
MWDOC Totals	1	3	1	2	9	5	2	29	628
Anaheim	0	0	0	0	0	0	0	0	0
Fullerton	0	0	0	0	0	0	0	0	0
Santa Ana	0	0	0	0	1	0	0	1	11
OC Totals	1	3	1	2	10	5	2	30	640

[1] Acre feet of savings determined during a one year monitoring period.
If monitoring data is not available, the savings estimated in agreement is used.

TURF REMOVAL BY AGENCY⁽¹⁾
through MWDOC and Local Agency Conservation Programs

Agency	FY 13/14		FY 14/15		FY 15/16		FY 16/17		FY 17/18		Total Program		Cumulative Water Savings across all Fiscal Years
	Res	Comm.	Res	Comm.	Res	Comm.	Res	Comm.	Res	Comm.	Res	Comm.	
Brea	5,997	0	71,981	30,617	118,930	404,411	8,354	479	7,139	26,214	223,103	471,187	307.38
Buena Park	0	0	11,670	1,626	77,127	16,490	3,741	0	4,108	0	96,646	18,116	48.39
East Orange	1,964	0	18,312	0	27,844	0	0	0	0	0	48,120	0	23.32
El Toro	4,582	0	27,046	221,612	63,546	162,548	13,139	48,019	6,924	30,578	124,640	535,475	329.43
Fountain Valley	4,252	0	45,583	5,279	65,232	0	3,679	0	8,631	0	129,359	12,803	69.26
Garden Grove	8,274	0	67,701	22,000	177,408	49,226	11,504	0	4,487	0	287,921	117,403	224.31
Golden State	32,725	8,424	164,507	190,738	310,264	112,937	0	0	0	0	581,902	346,272	506.98
Huntington Beach	20,642	0	165,600	58,942	305,420	270,303	9,560	21,534	13,105	6,032	551,977	421,737	491.49
Invine Ranch	36,584	76,400	234,905	317,999	782,844	2,675,629	231,483	46,725	71,233	47,467	1,401,806	3,211,064	2,018.93
La Habra	0	0	14,014	1,818	49,691	72,164	0	0	1,450	0	65,155	90,019	77.05
La Palma	0	0	4,884	0	10,257	59,760	0	0	0	0	15,141	59,760	32.14
Laguna Beach	4,586	226	13,647	46,850	47,614	0	3,059	0	589	0	75,670	48,788	65.44
Mesa Water	22,246	0	131,675	33,620	220,815	106,896	4,173	77,033	12,329	10,490	408,682	228,039	287.30
Moulton Niguel	14,739	40,741	314,250	1,612,845	889,748	1,059,279	220,749	0	79,261	0	1,535,724	2,840,054	2,139.74
Newport Beach	894	0	33,995	65,277	76,675	375,404	2,924	0	1,999	6,499	123,489	449,526	256.43
Orange	11,244	0	120,093	281,402	289,990	106,487	12,847	2,366	11,956	0	475,052	398,978	438.59
San Clemente	18,471	13,908	90,349	1,137	215,249	438,963	4,267	0	30,010	0	395,910	467,173	399.68
San Juan Capistrano	12,106	0	101,195	32,366	197,290	143,315	2,624	40,748	0	0	365,415	347,277	409.91
Santa Margarita	17,778	48,180	211,198	514,198	534,048	550,420	17,010	28,094	57,124	25,000	853,756	1,194,453	974.59
Santiago	0	0	0	0	0	0	0	0	0	0	0	0	-
Seal Beach	0	0	15,178	504	17,349	15,911	1,234	0	752	0	38,124	16,415	26.23
Serrano	2,971	0	41,247	0	127,877	4,403	5,450	0	555	0	178,100	4,403	82.34
South Coast	15,162	116,719	84,282	191,853	181,102	128,290	14,967	0	12,774	7,806	324,522	465,387	420.52
Trabuco Canyon	2,651	0	14,771	0	42,510	88,272	1,465	0	3,243	0	66,454	110,712	86.33
Tustin	1,410	0	71,285	14,137	232,697	33,362	11,173	0	14,926	0	341,471	47,499	174.17
Westminster	0	0	14,040	34,631	71,833	23,902	11,112	0	7,921	0	104,906	58,533	71.68
Yorba Linda	0	0	112,136	12,702	360,279	116,985	19,420	0	8,249	3,696	511,433	133,383	290.17
MWDOC Totals	238,978	304,598	2,195,544	3,692,153	5,493,639	7,015,357	613,934	264,998	358,765	163,782	9,324,478	12,094,456	10,251.80

Angelsheim	0	0	0	0	0	0	0	0	0	0	0	0	-
Rederton	0	9,214	0	0	0	0	0	0	0	0	0	9,214	6.45
Shasta Ana	0	0	0	0	0	0	0	0	0	0	0	0	-
Non-MWDOC Totals	0	9,214	0	0	0	0	0	0	0	0	0	9,214	6.45

Orange County Totals	238,978	313,812	2,195,544	3,692,153	5,493,639	7,015,357	613,934	264,998	358,765	163,782	9,324,478	12,103,670	10,258
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[1] Installed device numbers are listed as square feet

HIGH EFFICIENCY TOILETS (HETs) INSTALLED BY AGENCY

through MWDOC and Local Agency Conservation Programs

Agency	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	Total	Cumulative Water Savings across all Fiscal Years
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Brea	0	0	38	146	154	4	3	453	96.91
Buena Park	0	0	96	153	112	13	2	686	186.07
East Orange CWD RZ	0	0	13	26	24	0	0	86	20.43
El Toro WD	0	133	218	869	264	12	5	2,042	524.67
Fountain Valley	0	0	41	132	220	7	8	831	243.61
Garden Grove	0	0	63	350	363	7	4	1,488	411.72
Golden State WC	80	2	142	794	512	9	11	2,801	758.74
Huntington Beach	0	0	163	1,190	628	4	3	2,904	698.52
Irvine Ranch WD	0	1,449	810	1,777	2,798	638	207	17,116	5,301.37
Laguna Beach CWD	0	0	45	112	81	1	4	392	101.59
La Habra	0	0	37	94	83	5	1	591	190.75
La Palma	0	0	21	59	52	4	2	224	56.56
Mesa Water	0	0	147	162	162	7	3	1,621	581.23
Moulton Niguel WD	0	0	400	2,497	1,939	49	32	5,722	1,101.47
Newport Beach	0	0	49	168	243	11	5	730	177.34
Orange	0	1	142	978	416	17	3	2,182	515.48
San Juan Capistrano	0	0	35	140	202	3	2	525	116.91
San Clemente	0	0	72	225	246	11	6	878	218.75
Santa Margarita WD	0	0	528	997	1,152	114	29	3,338	652.64
Seal Beach	0	2	17	50	69	-1	0	857	385.24
Serrano WD	0	0	2	40	55	3	0	121	23.54
South Coast WD	23	64	102	398	235	11	7	1,028	223.09
Trabuco Canyon WD	0	0	10	108	169	2	3	342	62.99
Tustin	0	0	64	132	201	12	9	1,515	525.60
Westminster	0	0	35	161	359	3	4	1,335	403.72
Yorba Linda WD	0	0	40	280	379	12	6	1,257	335.28
MWDOC Totals	103	1,651	3,330	12,038	11,118	958	359	51,065	13,914.22

Anaheim	0	0	156	1,188	614	70	19	5,884	1,941.76
Fullerton	0	0	61	293	286	14	9	1,064	268.25
Santa Ana	0	0	33	602	293	20	0	2,021	601.53
Non-MWDOC Totals	0	0	250	2,083	1,193	104	28	8,969	2,811.54

Orange County Totals	103	1,651	3,580	14,121	12,311	1,062	387	60,034	16,725.76
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