

WORKSHOP MEETING OF THE
BOARD OF DIRECTORS WITH MET DIRECTORS
MUNICIPAL WATER DISTRICT OF ORANGE COUNTY
18700 Ward Street, Board Room, Fountain Valley, California
June 1, 2016, 8:30 a.m.

AGENDA

PLEDGE OF ALLEGIANCE

ROLL CALL

PUBLIC PARTICIPATION/COMMENTS

At this time members of the public will be given an opportunity to address the Board concerning items within the subject matter jurisdiction of the Board. Members of the public may also address the Board about a particular Agenda item at the time it is considered by the Board and before action is taken.

The Board requests, but does not require, that members of the public who want to address the Board complete a voluntary "Request to be Heard" form available from the Board Secretary prior to the meeting.

ITEMS RECEIVED TOO LATE TO BE AGENDIZED

Determine need and take action to agendize item(s), which arose subsequent to the posting of the Agenda. (ROLL CALL VOTE: Adoption of this recommendation requires a two-thirds vote of the Board members present or, if less than two-thirds of the Board members are present, a unanimous vote.)

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>.

(NEXT RESOLUTION NO. 2033)

PRESENTATION/DISCUSSION/INFORMATION ITEMS

1. OTHER INPUT OR QUESTIONS ON MET ISSUES FROM THE MEMBER AGENCIES/MET DIRECTOR REPORTS REGARDING MET COMMITTEE PARTICIPATION

Recommendation: Receive input and discuss the information.

2. ORANGE COUNTY'S DROUGHT PERFORMANCE – MARCH 2016 REPORT

Recommendation: Review and discuss the information presented.

3. EXTENDED EMERGENCY REGULATIONS AND STATE WATER RESOURCES CONTROL BOARD'S CONSERVATION STANDARD MODIFICATIONS

Recommendation: Review and discuss the information presented.

4. MET BOARD RETREAT HIGHLIGHTS

Recommendation: Review and discuss the information presented.

5. MET ITEMS CRITICAL TO ORANGE COUNTY (The following items are for informational purposes only – a write up on each item is included in the packet. Discussion is not necessary unless requested by a Director)

- a. MET's Water Supply Conditions
- b. MET's Finance and Rate Issues
- c. Colorado River Issues
- d. Bay Delta/State Water Project Issues
- e. MET's Ocean Desalination Policy and Potential Participation by MET in the Doheny Desalination Project and in the Huntington Beach Ocean Desalination Project (Poseidon Desalination Project)
- f. Orange County Reliability Projects
- g. East Orange County Feeder No. 2
- h. South County Projects

Recommendation: Discuss and provide input on information relative to the MET items of critical interest to Orange County.

6. METROPOLITAN (MET) BOARD AND COMMITTEE AGENDA DISCUSSION ITEMS

- a. Summary regarding May MET Board Meeting
- b. Review items of significance for MET Board and Committee Agendas

Recommendation: Review and discuss the information presented.

ADJOURNMENT

Note: 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.



Item No. 1

DISCUSSION ITEM

June 1, 2016

TO: Board of Directors

FROM: Robert Hunter,
General Manager

SUBJECT: OTHER INPUT OR QUESTIONS ON MET ISSUES FROM THE MEMBER AGENCIES/MET DIRECTOR REPORTS REGARDING MET COMMITTEE PARTICIPATION

STAFF RECOMMENDATION

Staff recommends the Board of Directors: Receive input and questions as well as report on MET issues.

DETAILED REPORT

Pursuant to discussion with the member agencies, this item is available to the agencies to provide input and ask questions, as well as provide a time for the MWDOC MET Directors to report on MET issues.

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



DISCUSSION ITEM

June 1, 2016

TO: Board of Directors

FROM: Robert Hunter
General Manager

Staff Contact: Kevin Hostert/
Harvey De La Torre

**SUBJECT: ORANGE COUNTY'S DROUGHT PERFORMANCE – MARCH 2016
REPORT**

STAFF RECOMMENDATION

Staff recommends the Board of Directors review and discuss this information

BACKGROUND

Last year Governor Brown issued an Executive Order calling for statewide mandatory water reductions for all urban water retail agencies. The purpose was to reduce water consumption in response to the record-breaking drought throughout the state of California. Although each Orange County retail agency was assigned a conservation target by the State Water Resource Control Board (State Board) that ranges between 8% and 36%, the aggregated water savings target among all of the retail agencies in Orange County is approximately 21.73%.

In March of 2016 Orange County's conservation target was lowered to 19.55% due to revisions by the State Board that allow credits for OCWD's Groundwater Replenishment System (GWRS) for those retail agencies that pump from the Orange County Basin. And then in May, as a result of improved conditions in Northern California, State Board modified the statewide reduction-based water conservation standard with a localized "self-certification" approach that requires retail water agencies to demonstrate their available supplies under three continuous drought years to their average potable demand of CY 2013 and CY 2014.

At the same time the State Board modified their conservation standard, the Metropolitan Board on May 10th rescind its water supply allocation plan and called for a "Condition 2 -

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

Water Supply Alert". Similar to the reasons of the State Board, MET's action to lift allocations was due to improved water supply conditions.

With the conclusion of the State Board's Mandatory Conservation Target and MET's imported water supply allocation targets, this report below summarized Orange County's performance and briefly describe the State Board's modified conservation standards.

Report

Orange County's Performance under the SWRCB Mandatory Reduction Targets **(June 2015 to March 2016)**

Orange County monthly % Savings vs. SWRCB Target

(As of May 25, 2016)

	June	July	August	Sept.	Oct.	Nov.	Dec.	Jan	Feb	Mar
Orange County SWRCB Savings Target	21.73% - Monthly Saving Target									19.55 % Monthly Savings Target*
Orange County Actual Savings	23.86%	29.18%	25.12%	28.45%	23.47%	15.58%	17.67%	18.00%	9.11%	26.63%
Savings beyond the Target	2.13%	7.43%	3.39%	6.72%	1.74%	-6.15%	-4.06%	-3.73%	-12.62%	7.08%

* **NOTE:** The O.C. conservation goal was lowered from 21.73% to 19.55% in March due to GWRS credits for OCWD basin agencies. Each OCWD groundwater producer water reduction percentage was lowered by 7%.

For the month of March 2016, Orange County retail water agencies reported a total water saving of 26.63% (note this is compared to March 2013 water usage). This **exceeded** our Orange County month conservation target of 19.55% by 7.08%.

The cumulative savings for the ten months into the State Board's mandatory regulations total 22.66% for Orange County, exceeding the target by 3.11% (If compared to the modified March 2016 conservation target).

MWDOC's performance under the MET's Water Supply Allocation Plan

MWDOC Actual Imported Water Usage vs. Imported Allocation Target

(As of May 25, 2016)

(In Acre-Feet)

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	Mar	Apr	Total
Allocation Monthly Target*	22,815	23,121	20,877	16,810	13,986	11,646	10,846	9,812	12,051	14,609	156,573 AF
Actual Imported Usage**	15,951	15,792	12,476	14,132	17,966	12,545	7,651	8,206	8,049	20,333	133,101 AF

[*] Estimated monthly imported water allocation targets per the MWDOC's WSAP model.

[**] This includes all MWDOC imported water purchases – Full Service Treated and Full Service untreated (Replenishment purchases are included)

Note: These targets are subject to change based on actual local supply production and WSAP calculations.

As of May 25, the total actual imported water usage for July through April total 133,101 AF, this is 23,472 AF below our estimated allocation target (this includes OCWD purchases). On May 10th the MET Board voted unanimously to rescind water supply allocations for FY 2015-16. Therefore ending allocations as of May and avoiding the need to track import water usage to an allocation target.

For the ten months, MWDOC performed well-below our MET allocation targets. This is mainly due to retail agencies responding to the State Board's mandatory reduction targets. As a result of these savings, the MWDOC Board authorized the General Manager to offer our member agencies a "secondary assignment" of unused imported water from our MET's Allocation with appropriate conditions. In the WSAP period from July 2015 to April 2016, MWDOC offered 53,000 AF, where by only 29,875 AF was purchased for groundwater replenishment. This left 23,125 AF of unused assigned allocation water.

State Control Board's Modified Conservation Standard Reduction Targets **(June 2016 to January 2017)**

Starting in June 2016, Orange County retail water agencies will be required to demonstrate that they have enough water supplies to meet their average water demands of Calendar Year (CY) 2013 and CY 2014 over the next three water years. As shown below, there are three steps to calculate their new conservation standard. For example, if an agency had a potable water demand of 35 AF but shows only a potable water supply of 32 AF at the end of the third year their new conservation standard would be 9%.

Step 1: Determine Total Potable Water Demand (used in Step 3)			
Potable Water Production in Calendar Year 2013	40 thousand acre-feet		
Potable Water Production in Calendar Year 2014	30 thousand acre-feet		
Total Potable Water Demand = $[(40 \text{ thousand acre-feet}] + [30 \text{ thousand acre-feet}] / 2$	35 thousand acre-feet		
Step 2: Calculate Total Potable Water Supply			
Potable Water Supply	Water Yr 2017	Water Yr 2018	Water Yr 2019
Local Surface Water (thousand acre-feet)	10	9	8
Imported Water (thousand acre-feet)	10	9	8
Groundwater (thousand acre-feet)	20	18	16
Total Potable Water Supply (thousand acre-feet) = $[Local \text{ Surface Water}] + [Imported \text{ Water}] + [Groundwater]$	40	36	32
Step 3: Calculate Conservation Standard			
Total Potable Water Demand (from Step 1)	35	thousand acre-feet	
Total Potable Water Supply in Year 3 (from Step 2)	32	thousand acre-feet	
Supply Shortfall in Year 3 (negative amount indicates a surplus) = $[35 \text{ thousand acre feet}] - [32 \text{ thousand acre feet}]$	3	thousand acre-feet	
Conservation Standard with Self-Certification of Supply Reliability		0.09 or 9%	
$[Shortfall \text{ in Year 3}] / [Total \text{ Potable Water Demand}] = [3] / [35 \text{ thousand acre feet}]$			

Currently MWDOC is working with its retail agencies and Metropolitan to calculate their conservation standard via the self-certification approach.

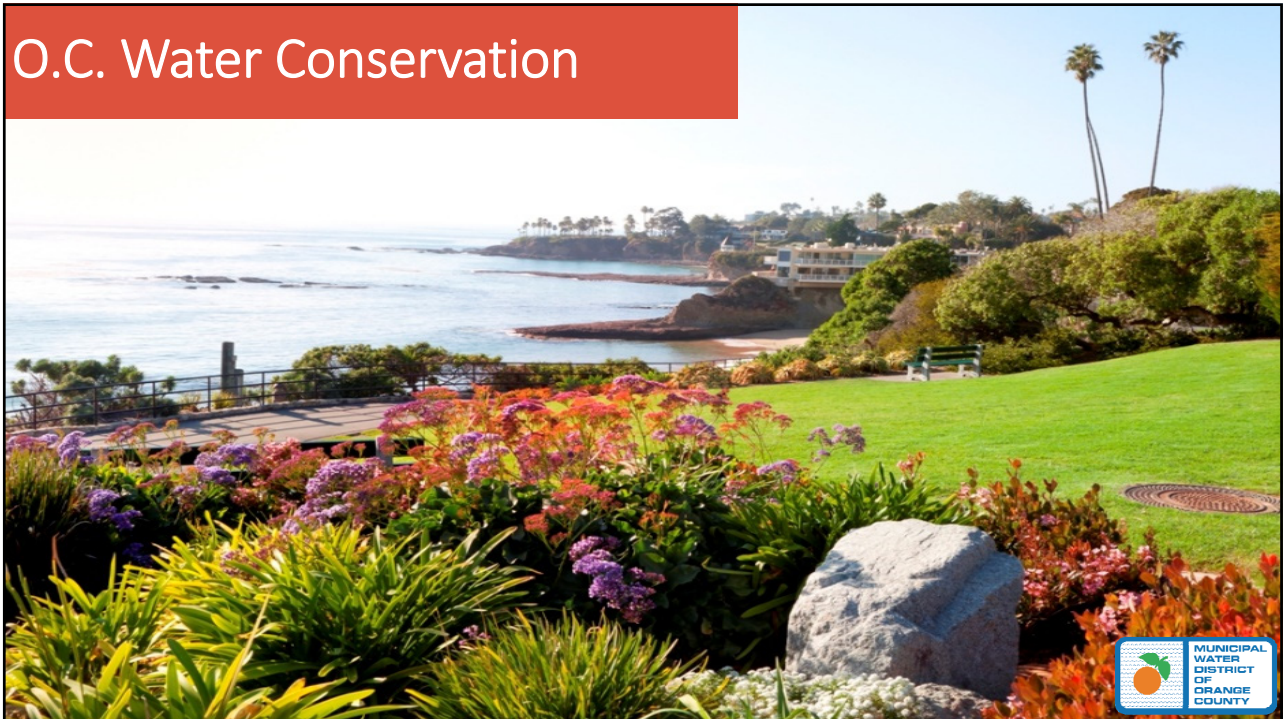


Orange County Drought Performance & Water Supply Report

June 1, 2016

Municipal Water District of Orange County

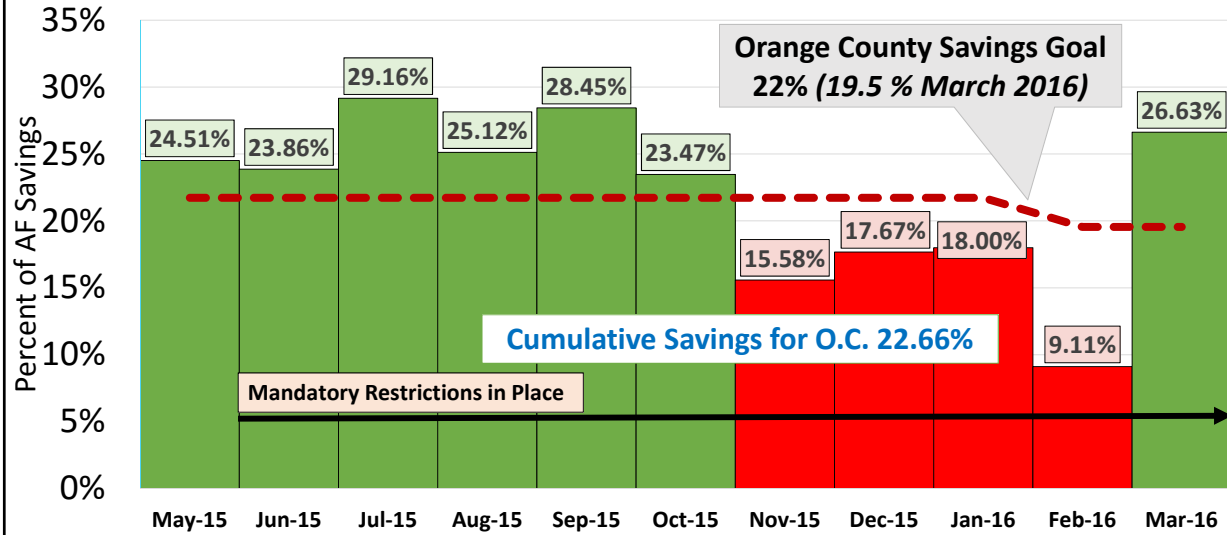
O.C. Water Conservation



O.C. Water Savings Reported to SWRCB

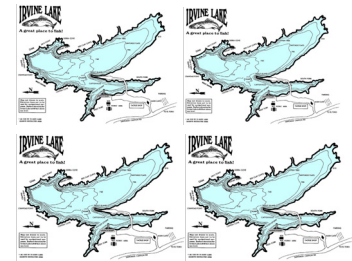
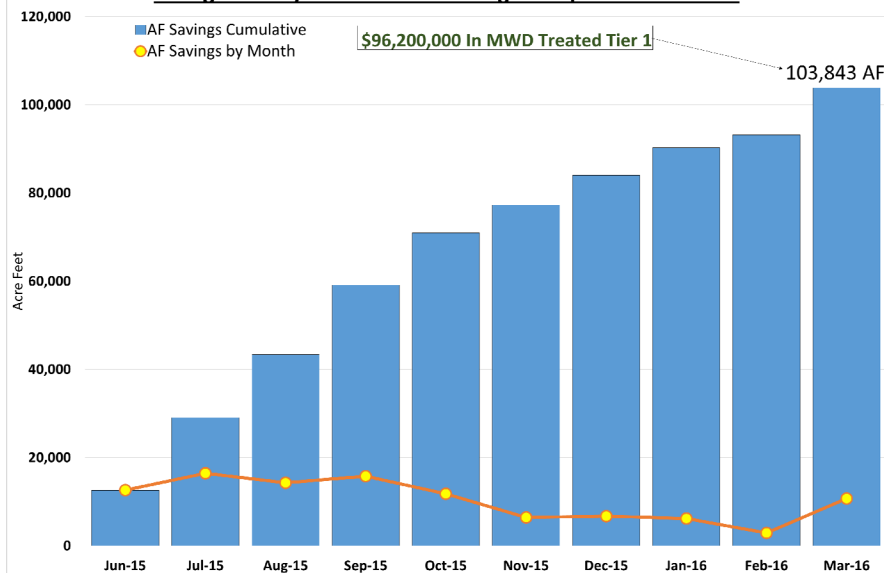


Average Monthly Water Savings for Orange County (2014-15 Vs CY 2013)



O.C. Water Saving (Cumulative)

Orange County's Total Water Savings Compared to CY 2013

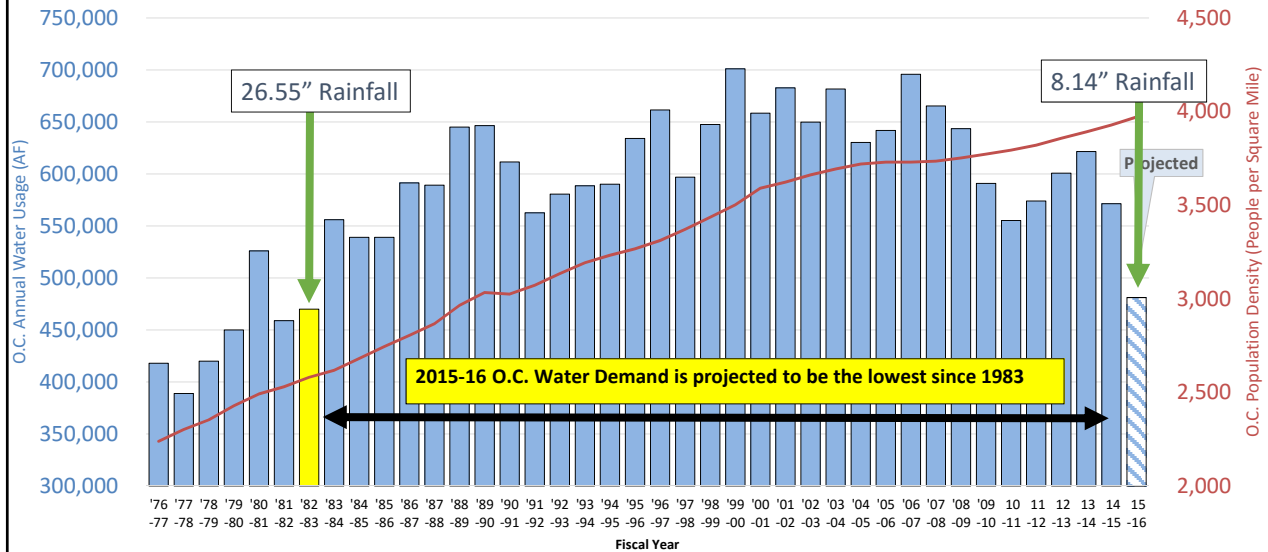


= 4 Irvine Lakes

= \$96 Million MWD
Treated Imported



O.C. Historical Water Usage



Local Weather Conditions



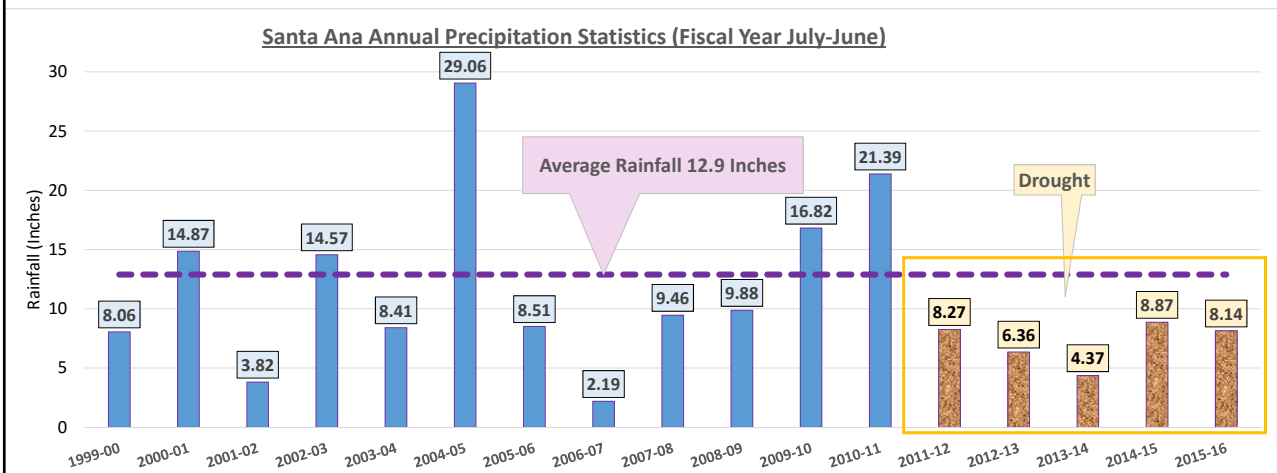
FY Annual Precipitation (Santa Ana)



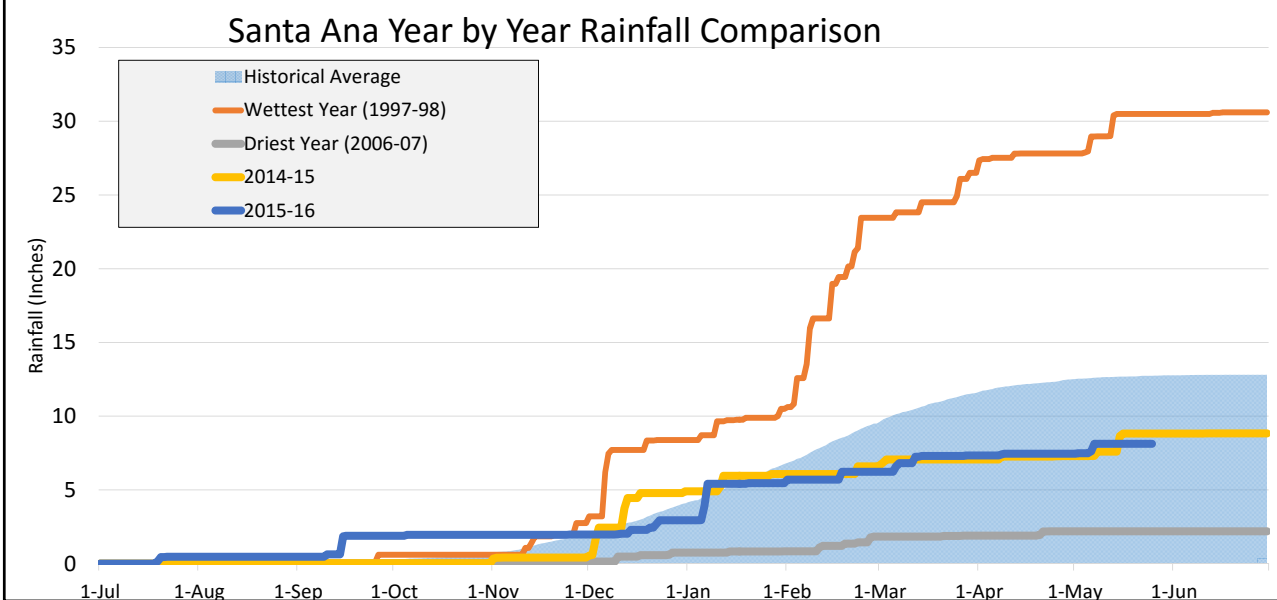
Cumulative Year-to-Date

Average Rainfall to Date: **12.88"**

2015-16 Rainfall to Date: **8.11"** **5-Year Deficit: 28.47" (2011-12 to Present)**



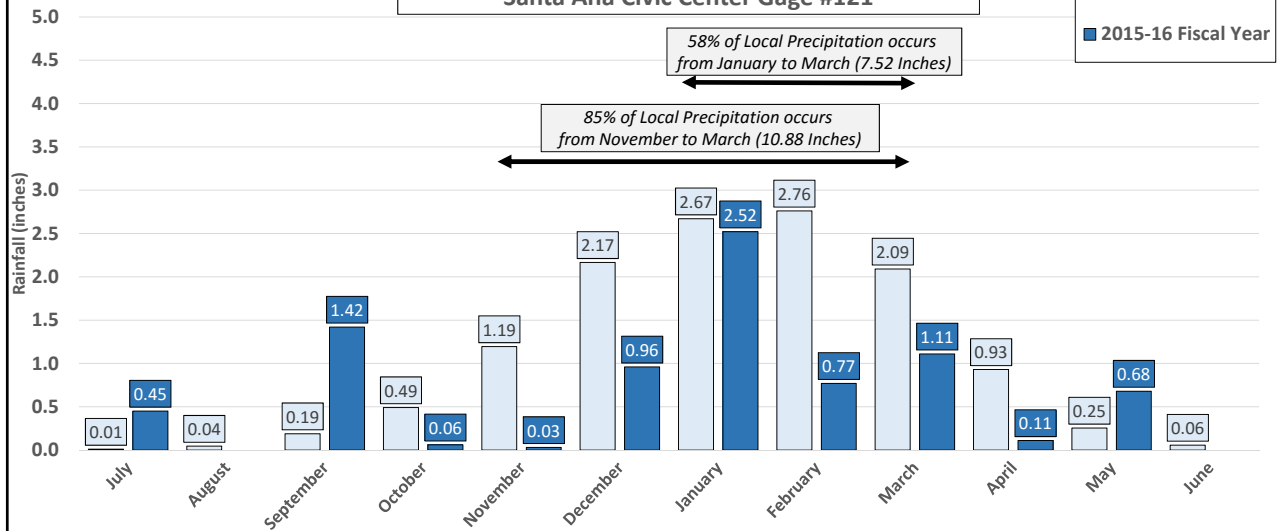
FYD Rainfall Compared to Past



2015-16 FY Rainfall



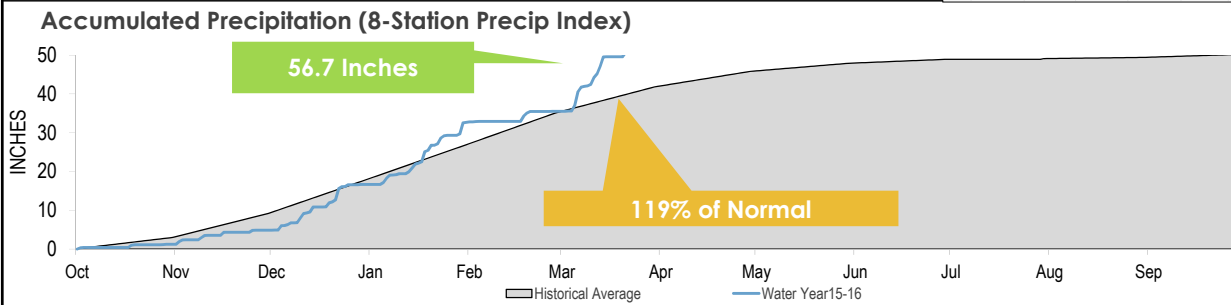
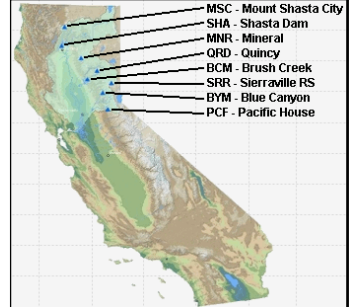
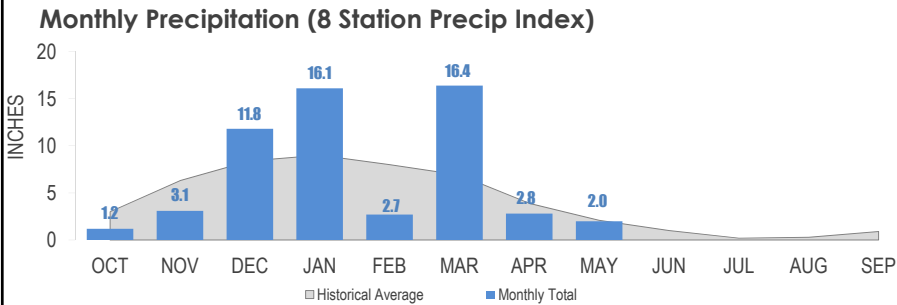
Average Monthly Precipitation in Orange County, Ca
Santa Ana Civic Center Gage #121



Regional Weather and Water Supply Conditions



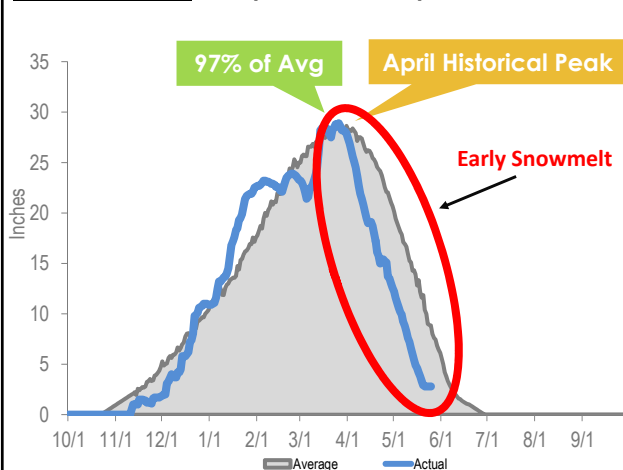
Northern California Accumulated Precipitation



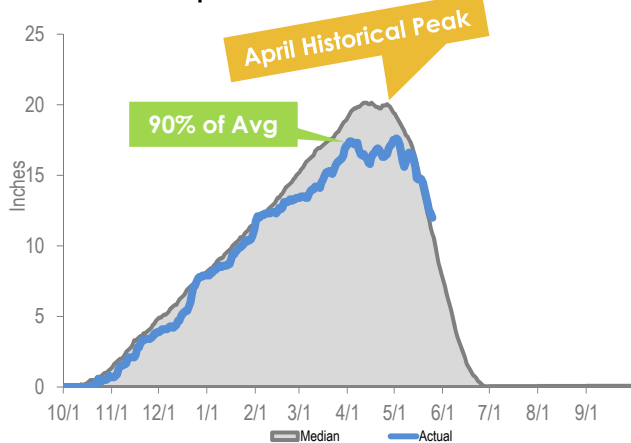
Snowpack



Northern Sierra Snowpack Water Equivalent



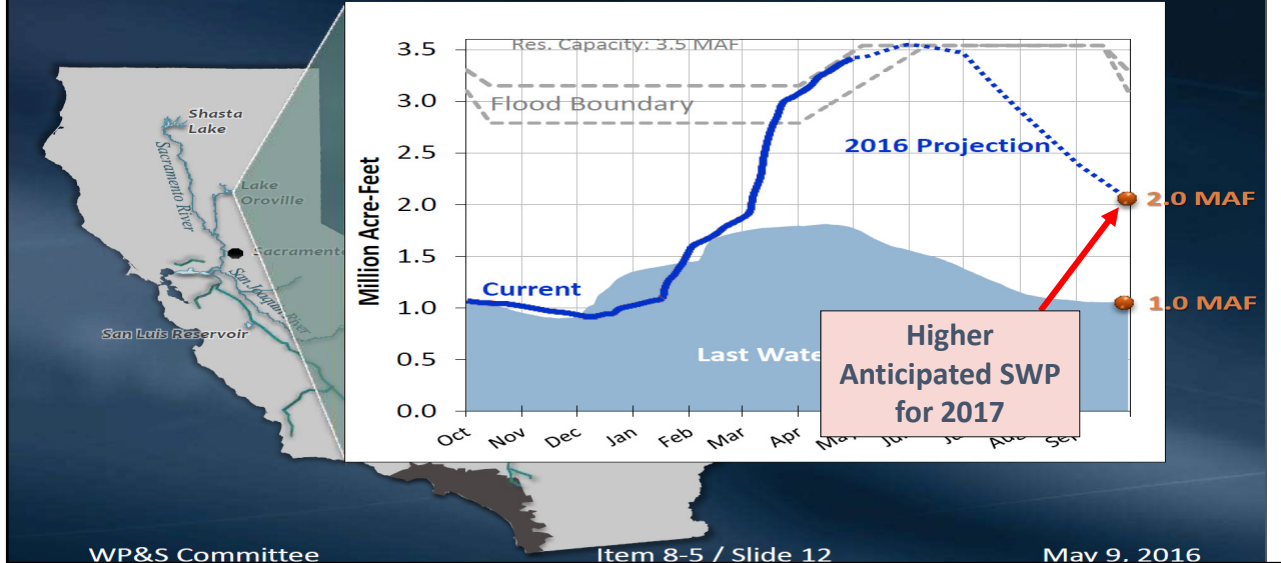
Colorado River Basin Snowpack Water Equivalent



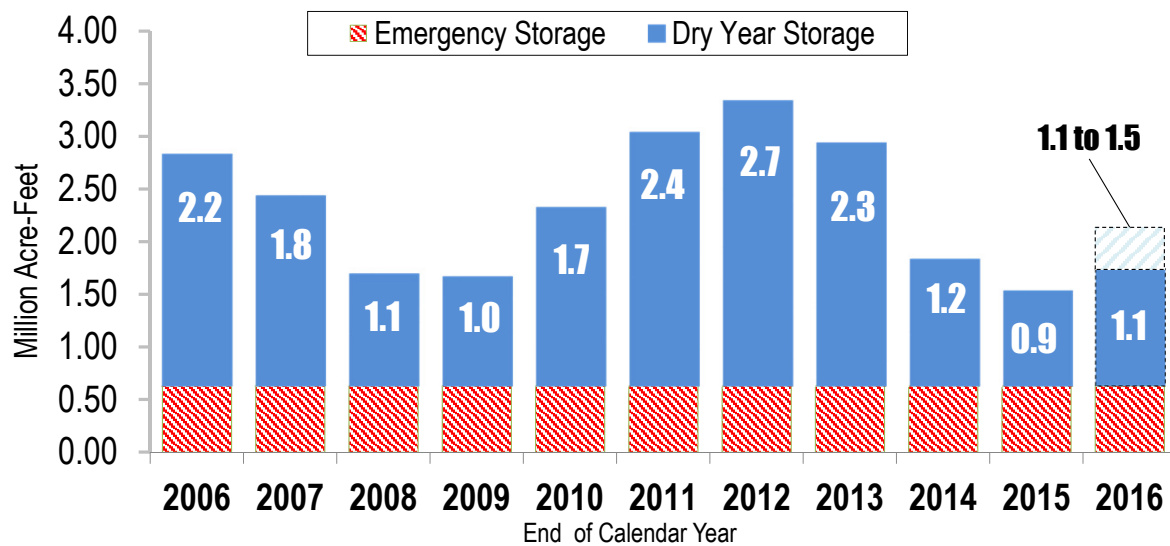
Reservoir Storage



Improved Oroville Starting Conditions Projected



MWD Projected End of Year Storage



MWD Storage

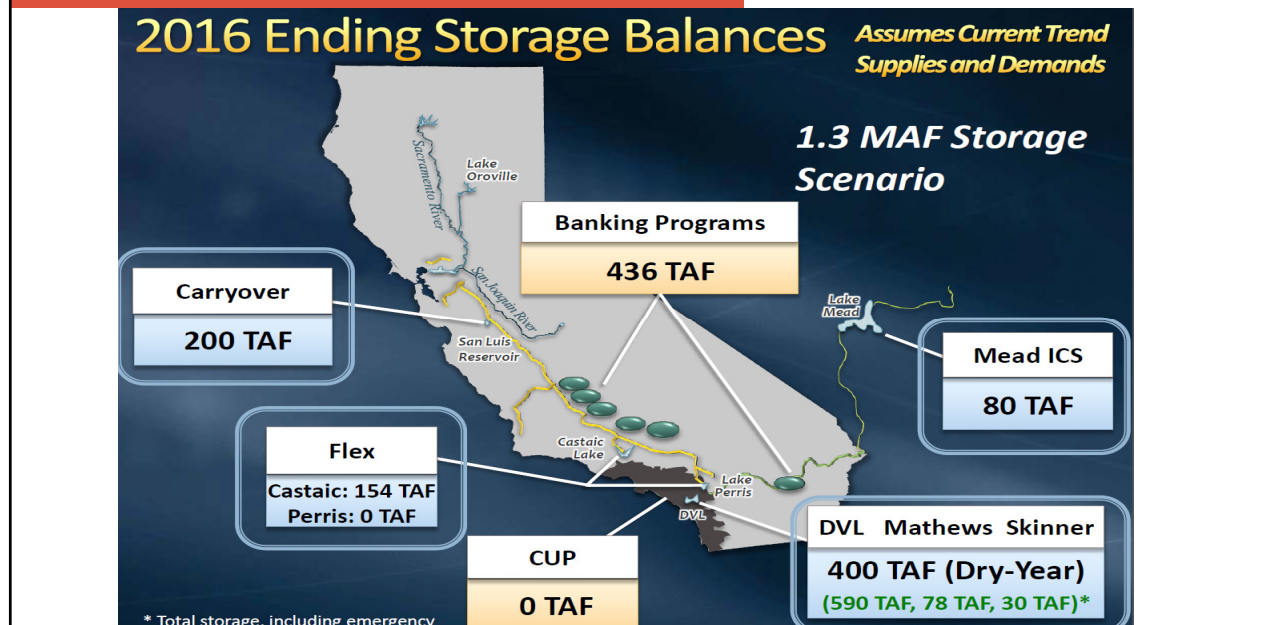
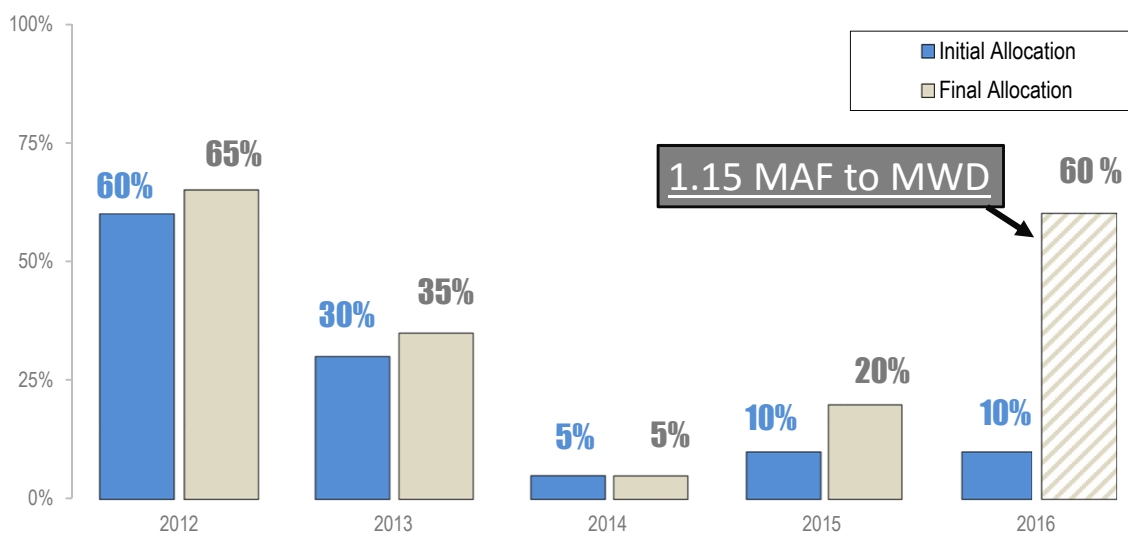


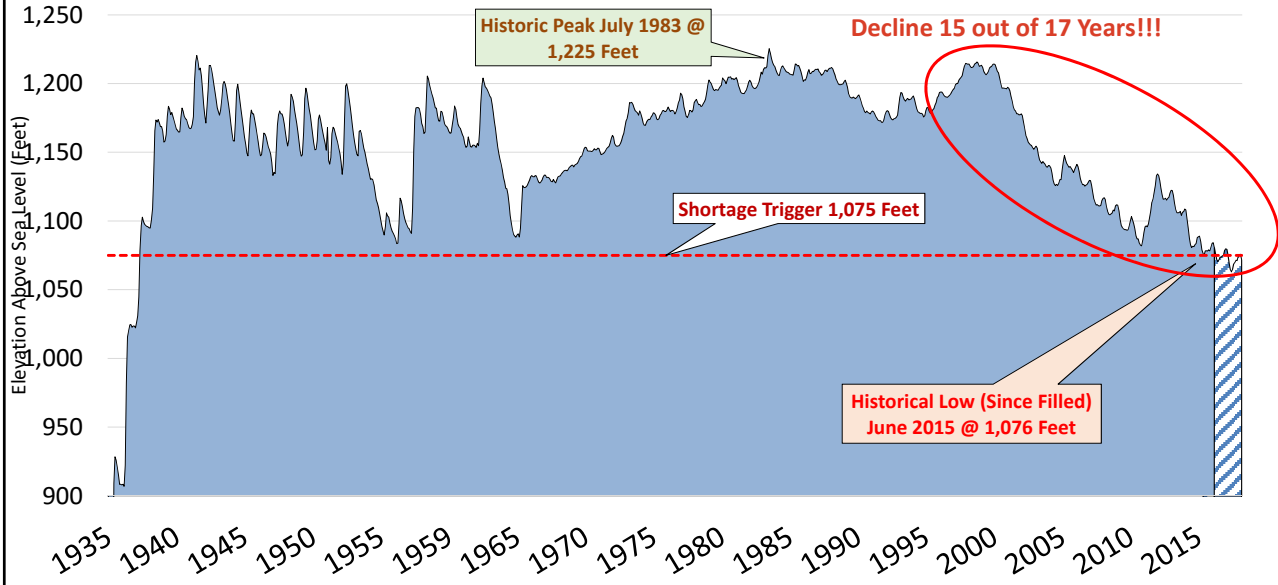
Table A SWP Allocation



CRA Storage



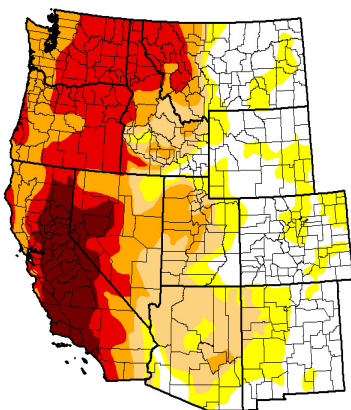
Lake Mead Historical Water Elevation Level



Drought Improvement in 2016

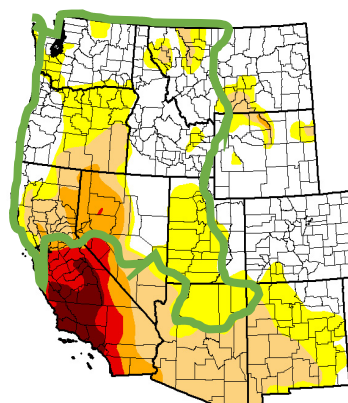
U.S. Drought Monitor West

October 6, 2015
(Released Thursday, Oct. 8, 2015)
Valid 8 a.m. EDT



U.S. Drought Monitor West

May 17, 2016
(Released Thursday, May 19, 2016)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D1	D1-D2	D2-D3	D3-D4	D4
Current	45.83	54.17	31.19	12.13	6.23	2.01
Last Week 5/10/2016	46.20	53.80	32.73	13.41	8.95	2.01
3 Months Ago 2/16/2016	38.69	61.32	36.57	19.60	10.35	5.95
Start of Calendar Year 1/1/2016	33.17	66.83	45.07	29.30	15.92	6.95
Start of Water Year 9/1/2015	22.77	77.23	57.81	42.42	26.50	7.62
One Year Ago 5/16/2015	23.49	76.51	60.69	36.57	17.59	7.95

Water Supply Conclusions

- Water Supply Conditions are normal to slightly above normal in Northern California resulting large increase in reservoirs storage.
- Water Supply conditions in Southern California are below normal for the 5th straight year.
- Table A allocation is now at 60 %, which is about 1.2 MAF of water to MWD. With the large amount of storage it is anticipated that the initial Table A allocation for 2017 will be favorable.
- MWD is projecting a supply of 2.2 MAF resulting in 0.5 MAF being put into storage. Allocations have been lifted for 2016-17.
- The Colorado River system continues to be in decline and there is a possibility of a shortage in CY 2018.
- The majority of California is still in a drought and these conditions will continue until next winter (Hopefully it is wet next year).





DISCUSSION ITEM

June 1, 2016

TO: Board of Directors

FROM: Robert Hunter
General Manager

Staff Contact: Harvey De La Torre
Joe Berg
Melissa Baum-Haley

SUBJECT: Extended Emergency Regulations and State Water Resources Control Board's Conservation Standard Modifications

STAFF RECOMMENDATION

Staff recommends the Board of Directors review and discuss this information

SUMMARY

On May 9, Governor Brown issued an Executive Order that extends the Emergency Regulations to January 31, 2017. In response to this Executive Order, on May 18 the State Water Resources Control Board (State Board) adopted a localized "self-certification" approach that replaces the prior state developed Conservation Standard. This new approach mandates each retail agency to ensure they have at least a three year supply under severe drought conditions. In addition, the State Board has asked wholesale agencies (i.e. Metropolitan and MWD OC) to publicly disclose the availability of their regional water supplies they provide to their retail agencies.

As part of this report, we will provide highlights of the Governor's recent Executive Order; describe the requirements for self-certification as adopted by the State Board at the retail agency and wholesale agency levels; illustrate how MET, MWD OC, and our retail agencies are coordinating data; and provide a brief synopsis of the issues raised at our May 19 MWD OC manager meeting.

REPORT

EXECUTIVE ORDER

Governor Brown issued Executive Order B-37-16 "Making Water Conservation a Way of Life" that extends the Emergency Regulations an additional 2 months until January 31, 2017. In response to this new Executive Order, the State Board adopted a revised

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

emergency regulation, with a June 1 effective date. Below is a description of the highlights of the Executive Order.

The Executive Order transitions a number of temporary emergency water restrictions into permanent restrictions, and long-term improvements in water use by taking actions to: use water more wisely, eliminate water waste, strengthen local drought resilience, and improve agricultural water use efficiency and drought planning.

In efforts to prioritize the California Water Action Plan, which calls for measurable actions that “Make Conservation a Way of Life” and “Manage and Prepare for Dry Periods”, a number of measures have been made permanent. These include specific prohibitions targeted against wasteful water use activities, such as:

- Washing down a sidewalk, driveway, or other hardscape
- Washing automobiles with a hose not equipped with a positive shut-off nozzle
- Using non-recirculated water in a fountain or other decorative water feature
- Irrigating ornamental turfgrass on public street medians
- Watering landscapes in a manner that causes runoff, or within 48 hours after measurable precipitation

Local drought resilience will be improved through updated requirements to Urban Water Shortage Contingency Plans, such as the inclusion of adequate actions to respond to droughts lasting at least five years, as well as more frequent and severe periods of drought.

Lastly, to improve agricultural water use efficiency and drought planning, the completion of Agricultural Water Management Plans by water suppliers with over 10,000 irrigated acres of land will be permanently required.

STATE BOARD SELF-CERTIFICATION REQUIREMENTS

The previous emergency water conservation regulation utilized specific water percentage-based Conservation Standards set by the State for each retail water agency. The new self-certification process will replace those state-developed mandatory Conservation Standards with a more localized approach.

Through the self-certification supply and demand analysis, each water agencies will demonstrate how they will meet demands assuming three more years of severe drought, resulting in locally developed Conservation Standards based upon each agency’s specific supply and demand circumstances.

The hydrology for the three year “stress-test” will mirror that of water years ending 2013 thru 2015. The demands are to be based on the average annual demands of calendar years 2013 and 2014. However the projected sources of supply are to be adjusted to current and projected quantities. From this supply and demand analysis, an agency’s revised Conservation Standard is calculated according to any shortfall in projected supply at the end of the third year. The State Board considers this to be a very conservative hydrological and demand framework.

Water agencies that would face shortages under three additional dry years will be required to meet a Conservation Standard equal to the amount of shortage at the end of the third year. For example, if a water agency projects it would have a 10 percent supply shortfall, their mandatory Conservation Standard would be 10 percent, beginning June 1.

Retail Agency Requirements

The regulation requires each retail agency to certify their available water supplies assuming the continuation of three additional dry years through a Certification Form (these forms will be provided by the State Board by June 1). Supplies a retail agency should include are imported water, recycled water, groundwater, stormwater, and desalinated water. Projected supplies that may increase over the three year period, such as increases to recycled water or groundwater supplies, are also to be included.

Retail agencies are required to submit the results of this water reliability certification analysis along with supporting information to the State Board by June 22. Each month, the State Board will reassess compliance based on the agency's revised Conservation Standard. Regardless of an agency's Conservation Standard, the regulation requires urban water suppliers to continue their monthly conservation reporting on their water usage, amount of conservation achieved, and any enforcement efforts.

However, retail agencies have the option not to submit their self-certification results. In which case the retail agency will retain their current state-developed Conservation Standard, and compliance will be measured on a cumulative basis in comparison to the 2013 baseline.

Wholesale Agency Requirements

The regulation also calls upon wholesale agencies (i.e. Metropolitan and MWDOC) to publicly disclose the availability of their wholesale water supplies over next three years (2017 thru 2019) provided the hydrology remains the same as that of the 2013 thru 2015 water years. Wholesale agencies are required to post these projections on their websites, and provide to this information to their retail agencies by June 15.

DATA COORDINATION

MWDOC staff is currently coordinating with its retail agencies to confirm consistency between the data they will be listing on their State Board Certification Form and what MWDOC will provide to Metropolitan. The following data has been requested of the MWDOC retail agencies:

- Confirmation of Calendar year 2013 and 2014 potable water demands
- Projected local supplies, including any additional supplies that offset potable water e.g. additional recycled water
- Imported water request as calculated by their State Board Certification Form

MWDOC staff is working in coordination with its retail agencies to ensure the data remain consistent between the retail agencies, MWDOC, and Metropolitan. For example, the MWDOC demands should equal the sum of retailers' requests of imported water within the MWDOC service area.

Figure 1 illustrates the data coordination between the retail agencies, MWDOC, and Metropolitan. To determine the imported water need from Metropolitan, MWDOC will provide Metropolitan with the following information collected from our retail agencies:

- Local supplies for the three year period

- Any additional Recycled water
- Imported replenishment need for groundwater basins




Figure 1. Mid-level wholesale agency data coordination.

MWDOC MEMBER AGENCY ISSUES

At the May 19 MWDOC Agency Managers Meeting, the following issues were raised by the managers relating to public perception and optics, regarding this regional reliability “stress-test”:







- How to communicate the continued need for conservation with a 0% Conservation Standard
- How this stress-test differs from actual supply management
- How this differs or coincides with Metropolitan’s voluntary or mandatory Allocation Plan decisions
- Whether a regional (Orange County or Metropolitan) message should be developed to alleviate public confusion





Extended Emergency Regulations and State Water Resources Control Board's Conservation Standard Modifications

Municipal Water District of Orange County
June 1, 2016

Governor's Executive Order

-  May 9, 2016, Governor Brown issued a new Executive Order extending the Emergency Regulations to Jan. 31, 2017
-  Transitions temporary emergency water restrictions into permanent, long-term improvements in water use to:
 -  Use water more wisely
 -  Eliminate water waste
 -  Strengthen local drought resilience
 -  Improve agricultural water use efficiency and drought planning

State Board's Conservation Standard Modifications

- 💧 The Executive Order called for the State Board to adjust current emergency regulations with individual agency's supply and demand conditions
 - 💧 "Self-certification" stress-test
- 💧 Self-certification Conservation Standards will replaces the previous state-developed mandatory conservation targets
- 💧 Takes effect June 1, 2016



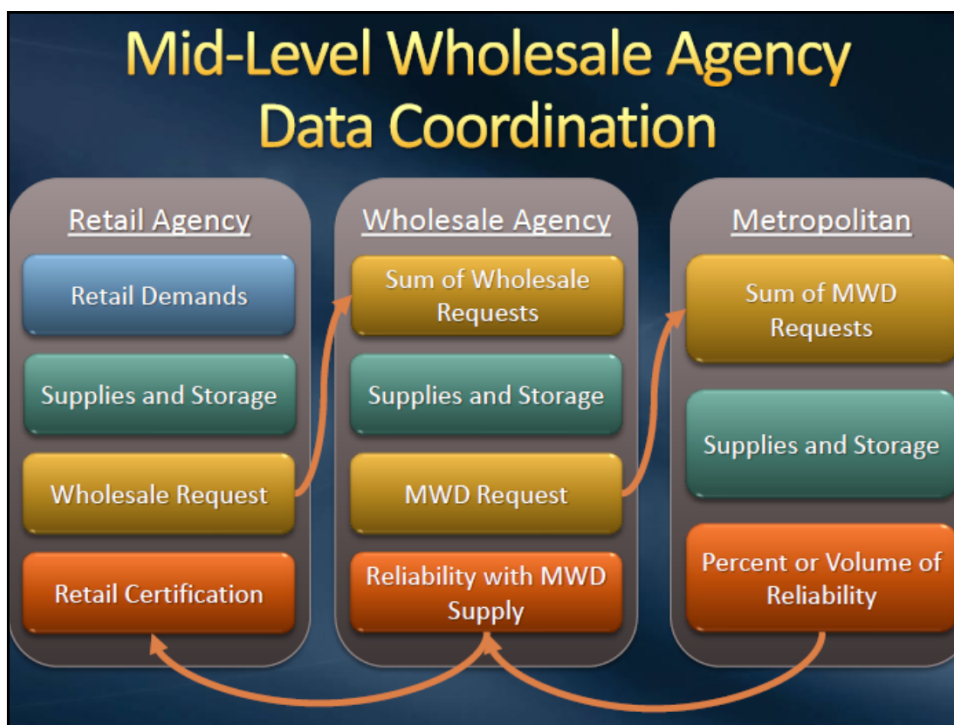
Retail Agency Requirements

- 💧 Each retail agency will "self-certify" their available water supplies assuming the continuation of severe drought for three additional years
- 💧 "Stress-test" parameters:
 - 💧 Precipitation is the same as water years 2013 thru 2015
 - 💧 Demands are based on average annual CY 2013/2014
 - 💧 Supplies are projected for 2017 thru 2019
- 💧 Revised Conservation Standard = shortfall at the end of the third year
- 💧 Need to submit to the State Board by June 22



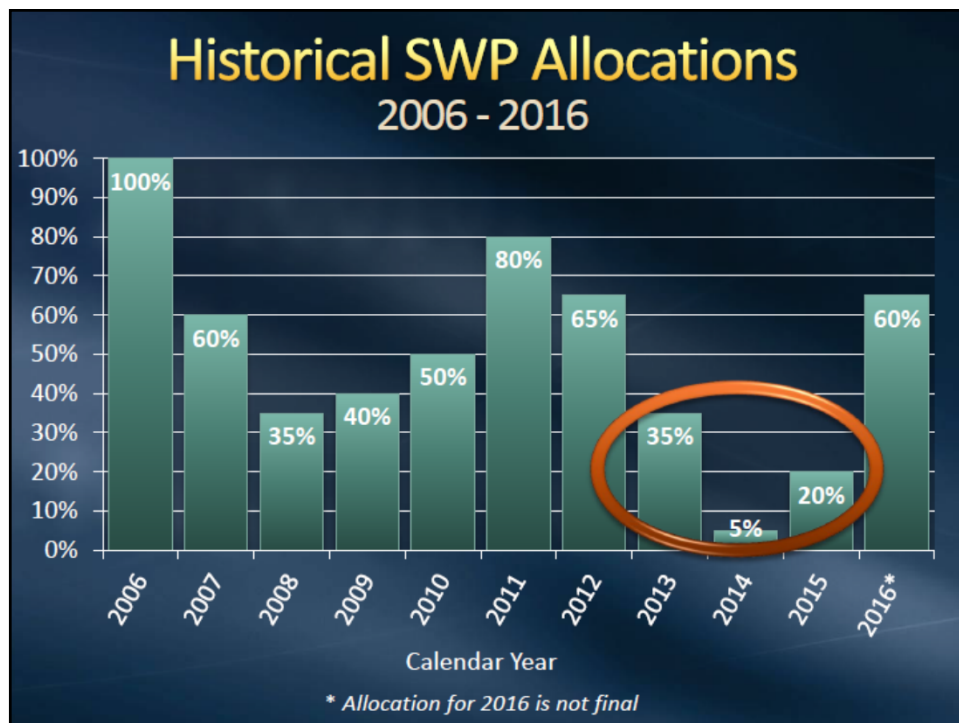
Wholesale Requirements

- 💧 Wholesale Agencies (e.g. MET and MWDOC) are to publicly disclose availability of regional supplies over the next three years – 2017 thru 2019
- 💧 To determine the need of imported water from MET, we need to provide them with:
 - 💧 Local supplies for the three year period
 - 💧 Any additional Recycled water
 - 💧 Imported replenishment need for groundwater basins
- 💧 Important that the data is consistent, meaning MWDOC demands should equal the sum of retailers' request of imported water

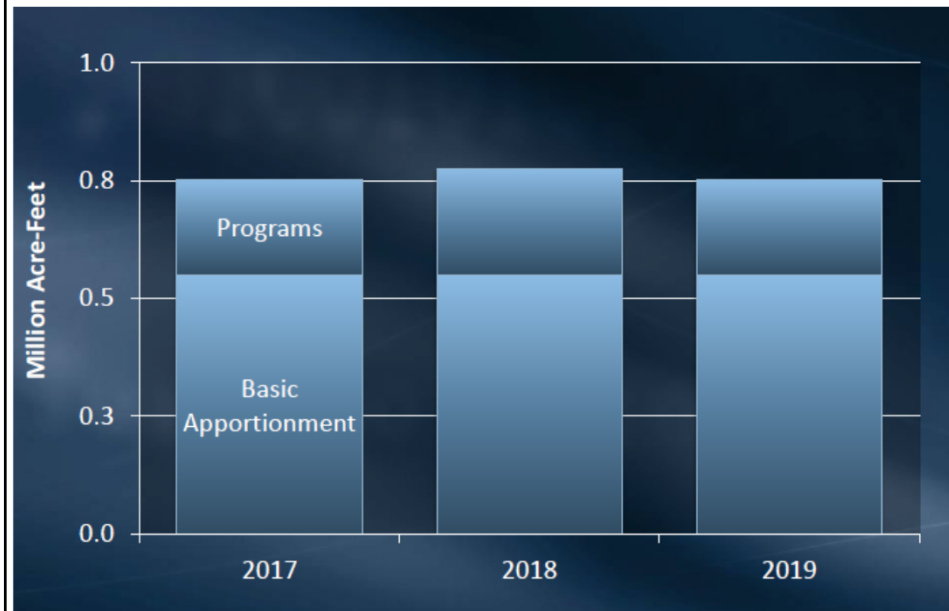


MET Analysis

- 💧 State Water Project supplies assuming precipitation equal to 2013, 2014, 2015
- 💧 Colorado River Aqueduct supplies assuming precipitation equal to 2013, 2014, 2015
- 💧 Storage balances and availability
- 💧 Demands
 - 💧 Sum of member agency wholesale requests
 - 💧 New/changed local supplies should be included for consistency

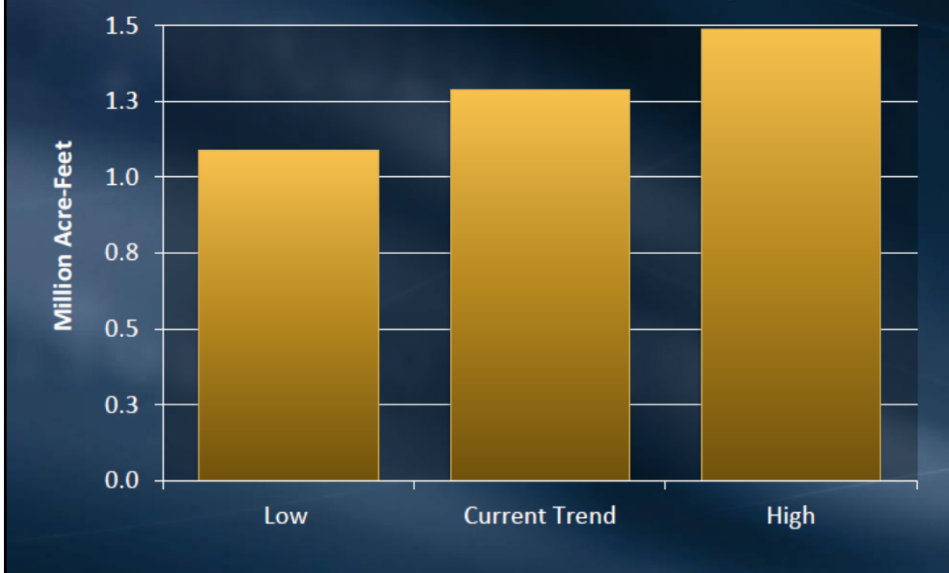


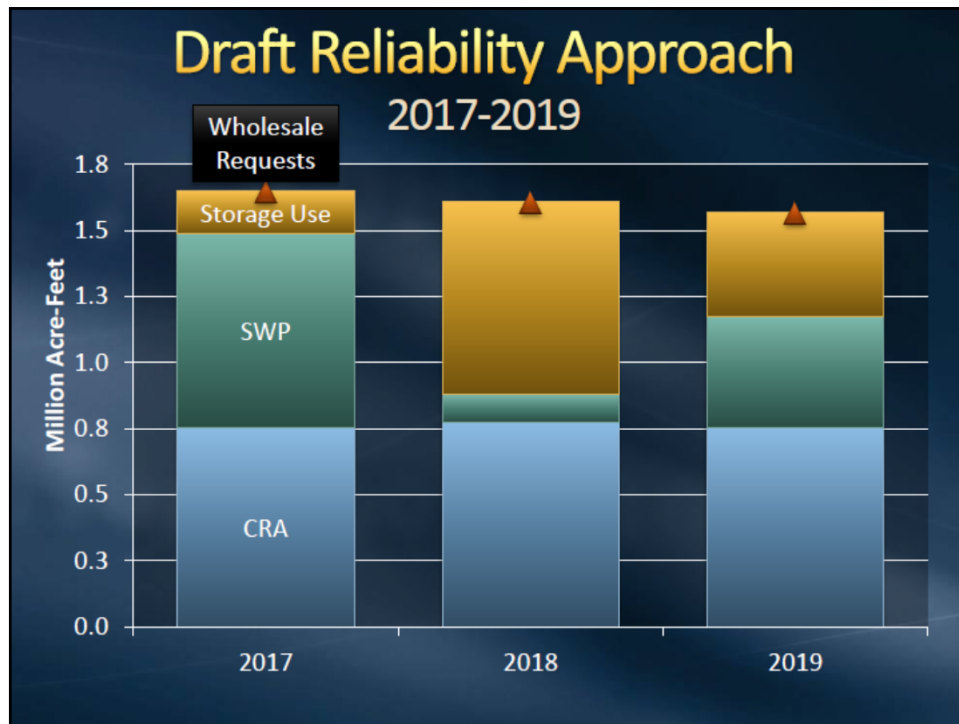
Projected CRA Base Supplies



2017 Beginning Dry-Year Storage

Based on WSDM Scenarios as of May 9, 2016





Issues & Discussion

- 💧 How to communicate the continued need for conservation with a 0% Conservation Standard?
- 💧 How this stress-test differs from actual supply management?
- 💧 How this differs or coincides with Metropolitan's voluntary or mandatory Allocation Plan decisions?
- 💧 Should a regional (Orange County or Metropolitan) message should be developed to alleviate public confusion?



Questions





DISCUSSION ITEM

June 1, 2016

TO: Board of Directors

FROM: Robert Hunter
General Manager

Staff Contact: Harvey De La Torre

SUBJECT: METROPOLITAN BOARD RETREAT HIGHLIGHTS

STAFF RECOMMENDATION

Staff recommends the Board of Directors review and discuss this information

REPORT

On April 26 & 27, the Metropolitan Board of Directors held a retreat to spend time learning, discussing, and strategizing the two key issues facing Metropolitan (MET) today. The focus of the first day was on the Laguna Declaration and MET's role in Integrated Resource Plan (IRP) Implementation; while the second day was focused on the Bay-Delta, the California WaterFix, and California Eco-Restore planning efforts. Although no ultimate decisions were made or actions taken at this retreat, there was a productive and candid dialogue among the Board members on these two issues.

Chairman Randy Record stated that both the IRP and Bay-Delta subcommittees will continue to discuss these issue over the coming months. There was even a suggestion that the Board should hold a similar retreat once the California WaterFix's Record of Decision (ROD) and the Notice of Determination (NOD) are finalized.

Below are some of the key highlights from the Board Retreat:

DAY 1 – Laguna Declaration & IRP Implementation

General Manager Jeff Kightlinger started off the retreat with a brief background on the Laguna Declaration and MET's historic and evolving role in local resource development. Below is the Laguna Declaration (1952) as described in MET's Administrative Code:

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

§ 4202. Avoidance in District Service Area of Overlapping or Paralleling Governmental Authorities (Laguna Declaration).

(a) The District is prepared, with its existing governmental powers and its present and projected distribution facilities, to provide its service area with adequate supplies of water to meet expanding and increasing needs in the years ahead. When and as additional water resources are required to meet increasing needs for domestic, industrial and municipal water, the District will be prepared to deliver such supplies.

The Board deliberated on the application of the Laguna Declaration as it relates to MET today, and whether MET should be responsible for meeting the “increasing needs in the years ahead”. It was acknowledged that times have changed since 1952; therefore:

- Should it be MET’s sole responsibility to ensure the service area’s reliability?
- Should local agencies carry some of the burden of ensuring their own reliability?
- Should they be able choose the level of reliability they need from MET, because many agencies rely on MET differently?

Through the discussion there appeared to be a general agreement that MET is the regional provider, and there are advantages of managing projects on a regional basis. Examples of MET’s regional water conservation program and the Local Resources Program (LRP) were described as successful models. It was also emphasized that we all benefit from the collective whole.

The benefits that MET provides in developing or investing in a regional project in one location of the service area benefits agencies in other locations. Therefore, the role of MET should continue as stated in the Laguna Declaration; however, MET cannot be successful without the partnership of the member agencies and other key stakeholders e.g. LA County Sanitation Districts.

Similarly, it was pointed out that the IRP is not exclusively a MET reliability Plan, rather it is a regional reliability plan. It considers and evaluates the region’s resources and demands collectively. Meaning “we are all in this together”; we share the risks and the benefits.

In addition, there was a healthy discussion on how MET further develop local resource; through a facilitator role, owner and operator, or equity partner with local agencies. Regardless of MET role the model needs to encourage resource development where both the local agency and the region benefits.

DAY 2 – Bay-Delta and California WaterFix

General Manager Kightlinger started the second day by describing MET’s involvement in the Bay-Delta for the past 10 years and the progress MET and the State has done thus far. However, we are coming to a decision point for the Board. He finds there to be three essential items of the California Water Fix for the Board to make a decision on:

- Clearly defined project
- Operating criteria
- Cost sharing plan

The ROD and NOD are expected this fall; which will establish the preferred project and necessary permits to build the project. However, General Manager Kightlinger pointed out the ROD and NOD does not commit MET to build the project, we still need to work with the fishery regulatory entities to better understand the operating criteria i.e. how much water can we expect to receive from project. In addition, we need to know the cost share among the State Contractors.

During this discussion the Board conversed about the project benefits, liabilities, cost allocations, and financial commitments from other State Contractors. In addition, they compared the cost of other alternative resources (i.e. Recycled water projects, Ocean Desalination, and Indirect Potable Reuse projects). It was noted that there are also uncertainties with developing these alternative resource projects; it not just the Delta that has risks.

General Manager Kightlinger added that MET plans to be engaged in the science and adaptive management of the Delta. He pointed out that having the best available science is key in the decision-making of managing and operating the Delta.

Overall the Board found the discussion helpful and asked MET staff to provided additional material and information on the Delta and California WaterFix in the coming months. It was understood that it is important MET move forward on a decision under the current federal and State administrations. Thus the Board would like more information on the California WaterFix physical facilities and operating requirements, cost allocation plan, likely risks, and “Plan B” – Alternative projects in order to make a well informed decision when the time comes.

Chairman Record concluded the retreat by thanking all of the Board members for their participation, comments and suggestions, and emphasized that Board dialogue will continue in both the IRP and Bay-Delta subcommittees.



Item No. 5

DISCUSSION ITEM

June 1, 2016

TO: Board of Directors & MET Directors

FROM: Robert J. Hunter
General Manager

Staff Contact: Harvey De La Torre

SUBJECT: Metropolitan Water District (MET) Items Critical To Orange County

STAFF RECOMMENDATION

Staff recommends the Board of Directors to review and discuss this information.

SUMMARY

This report provides a brief update on the current status of the following key MET issues that may affect Orange County:

- a) MET's Water Supply Conditions
- b) MET's Finance and Rate Issues
- c) Colorado River Issues
- d) Bay Delta/State Water Project Issues
- e) MET's Ocean Desalination Policy and Potential Participation in the Doheny and Huntington Beach Ocean (Poseidon) Desalination Projects
- f) Orange County Reliability Projects
- g) East Orange County Feeder No. 2
- h) South Orange County Projects (a NEW category of briefing, requested by the SOC agencies)

ISSUE BRIEF # A

SUBJECT: MET's Water Supply Conditions

RECENT ACTIVITY

DWR increased the State Water Contractor's "Table A" Allocation from 45% to 60%

On April 21, the California Department of Water Resource (DWR) increased its water delivery allocation for State Water Contractors (SWC) to 60% of requested State Water Project water for 2016. This will provide MET with close to 1,200,000 AF for 2016. The SWC "Table A" Allocation increased from 45% to 60% as a result of significant precipitation and snowpack levels from the March storms, boosting key State reservoir levels.

The March storms nearly filled key northern reservoirs, including Lake Shasta, Oroville, and Folsom. Unfortunately, it did not help areas in the Central Valley and Southern California where precipitation is still below normal.

Lake Oroville is holding over 3.3 million AF, 94% of its 3.5 million AF capacity and 118% of its historical average for the date. Shasta Lake is holding 4.2 million AF, 92% of its 4.5 million AF capacity and 109% of its historical average. But San Luis Reservoir, a critical south-of-Delta pool for both the SWP and CVP, was holding only 1.01 million AF, 50% of its 2.0 million AF capacity and just 55% of average storage for the date. In fact, the gains in Lake Oroville have resulted in releases of water from its spillway for flood control.

In addition, Delta pumping restrictions during the recent storm events have resulted in significant losses to the ocean. According to MET staff, losses totaled over 1.0 MAF for both SWP and CVP.

MET Rescinds Water Supply Allocation for FY 2015-2016

On May 10, the MET Board voted unanimously to rescind water supply allocations for FY 2015-2016. Based on improved conditions in Northern California, with a 60% SWP "Table A" allocation, and strong conservation responses from the public, MET will be adding water to its dry-year storage accounts this year, therefore, avoiding the need to continue with allocations this year and next year.

However, although MET is moving out of allocations, they still plan to promote the importance of water awareness and conservation. Therefore, as part of the Board action, MET will downgrade from a "Condition 3 – Implement Water Supply Allocations" to a "Condition 2 – Water Supply Alert", which calls for continued awareness and heightened conservation within MET's service area.

ISSUE BRIEF # B

SUBJECT: MET's Finance and Rate Issues

RECENT ACTIVITY

MET Financial Report

Last month, the MET Board approved and adopted the Biennial Budget and Rates for FY 2016/17 and FY 2017/18. Included in this decision the proposed Fixed Treatment Charge was deferred so the status quo on collecting all treatment costs via the volumetric treatment surcharge will continue, and a workgroup among the member agencies' staffs will be formed to present a Fixed Treatment Charge before the end of CY 2016.

At the May MET Finance and Insurance Committee, MET staff reported that water sales through April were 108.3 TAF less than budget. Resulting in \$108.5 million less revenue.

ISSUE BRIEF # C

SUBJECT: Colorado River Issues

RECENT ACTIVITY

QSA 2015 Review

On April 6, staff from Imperial Irrigation District, Coachella Valley Water District, San Diego County Water Authority, the Bureau of Reclamation (Reclamation), and MET convened to review conservation data from 2015 water conservation activities. As a result of the meeting, the parties were satisfied that Imperial met all of its 2015 water transfer commitments to Coachella, SDCWA, and MET. Also, Imperial conserved additional water that is being stored with MET under the terms of the 2015 amendment to the California Intentionally Created Surplus Agreement. The exact volumes of water stored are still under review, but will be finalized by May 15, 2016 when Reclamation issues its 2015 Water Use Accounting Report.

Reclamation Receives System Conservation Pilot Project Proposals

During April, Reclamation received a number of system conservation pilot project proposals in response to its March 2016 request for proposals from entities holding entitlements to use of Colorado River water in Arizona, California, and Nevada. The proposals will be evaluated later this month, and if all proposals were selected, would conserve over 73,000 acre-feet. Also, Reclamation is preparing a grant to the Upper Colorado River Commission to contribute funds for Upper Colorado River Basin system conservation pilot projects approved by the municipal funding agencies, including MET. Agreements with a number of Upper Basin entities for conserving water in 2016 continue to be negotiated.

Bard Water District Farmers Fallowing Program

Following execution of fallowing agreements with a number of farmers in Bard Water District, on April 1 the gates providing water to lands enrolled in the seasonal fallowing program were locked, and will remain that way until August 1, 2016. MET staff inspected the fields in April to ensure compliance with the fallowing agreements, and confirmed that all agreed upon fields were actually fallowed. The first payment to farmers will be made on May 15, 2016.

ISSUE BRIEF # D

SUBJECT: Bay Delta/State Water Project Issues

RECENT ACTIVITY

Bay Delta Conservation Plan/California WaterFix

As part of the state and federal Endangered Species Act compliance that Reclamation and DWR are undertaking with the U.S. Fish and Wildlife Service, National Marine Fisheries Service and the California Department of Fish and Wildlife (CDFW) for the California WaterFix, the Delta Science Program convened a scientific panel to review the draft Biological Assessment (BA). The purpose of the California WaterFix Aquatic Science Peer Review is to provide an independent scientific evaluation of the methods and approaches for developing the joint Biological Opinion requirements and analyses prepared for the CDFW 2081 (b) Incidental Take Permit application. The results of the panel review are scheduled to be released in May 2016. MET staff worked with the State Water Contractors to submit a letter that includes several areas of comment regarding the scope and focus of the Peer Review and relevant scientific studies that the panel should consider in its evaluation of the draft BA. MET Staff attended the two-day workshop and will monitor the forthcoming recommendations and further development of the BA and Biological Opinion/2081 permit.

State Water Resources Control Board (SWRCB)

On March 28, 2016, the SWRCB hearing officers for the California WaterFix water right change petition hearing regarding additional points of diversion received a letter from DWR and USBR (collectively Petitioners) requesting a 60-day continuance of all dates and deadlines associated with the hearing. The hearing officers also received additional requests from other interested parties to delay and stay the hearing pending resolution of several matters. In response to the various requests, on April 25, the SWRCB granted a 60-day continuance of the proceedings. The proceedings are now scheduled to begin with the first hearing date on July 26.

MET staff continues to provide input to the SWRCB enforcement actions related to SWRCB- issued curtailment notices. On March 21, the SWRCB commenced a consolidated hearing phase for the enforcement actions against two in-Delta water users – Byron-Bethany and Westside Irrigation Districts. On March 23, the hearing officers provided an opportunity for further redirect testimony and re-cross-examination of the witnesses of the prosecution team. After considering the testimony and evidence received, the first and subsequent phases of the hearing were suspended. A further written ruling or order of the SWRCB will follow.

Delta Flood Emergency Management Plan

DWR has updated the scope for enhancing the Emergency Management Tool to estimate time and resources to repair multiple island failures in the Delta. Model enhancements are expected to be completed by September 2016; however, simulation runs can be made as early as June 2016. Model limitations for larger island breach scenarios are being corrected and calibrated, and real time barrier installation timelines and Sacramento and San Joaquin reservoir operations and related Delta flow regimes are being integrated.

DWR has advised that the DWR/U. S. Army Corps of Engineers (USACE) Delta Emergency Operations Integration Plan is being upgraded to form a “hands on” Users Guide for use during actual emergencies, and has received executive level DWR and USACE coordination. DWR is planning a field exercise to test the readiness of enhanced Delta communications tools developed over the last several years, including use of common federal, state, and local radio communication frequencies, a new radio communication tower on Twitchell Island, and a USACE Mobile Information Collection System data collection tool.

ISSUE BRIEF # E

SUBJECT: MET's Ocean Desalination Policy and Potential Participation in the Doheny and Huntington Beach Ocean (Poseidon) Desalination Projects

RECENT ACTIVITY

MET is working on the Phase 2 of its Integrated Resources Plan for 2015; part of that work will consider changes in MET's Local Resources Plan (LRP) under which MET provides financial incentives to local agencies that develop new supplies that cost more than the cost of MET water. MET will be considering alternative ways of participating in local projects, including ocean desalination projects.

Doheny Desal

The details of this have been moved to briefing issue H as it pertains only to South Orange County.

Poseidon Huntington Beach

The Orange County Water District (OCWD) is continuing to work on evaluating the integration options for the product water from the Poseidon Project. OCWD is also just now completing the engineering report for the Final Expansion of its GWRS facilities up to 130 mgd. The GWRS final expansion report is key in that the expansion has been determined to be feasible, which means the GWRS pipeline conveyance up the Santa Ana River will be fully committed by the GWRS project and will not be available to convey Poseidon water unless it is expanded. It is anticipated that a workshop will be held by OCWD in the next several months to fully discuss these issues.

Poseidon anticipates consideration of their project permit by the Coastal Commission in September or October of this year. The Coastal Commission meeting is key to clearing the way for additional work in Orange County on the integration of the Poseidon Project and ultimately execution of contracts committing to purchase the water.

ISSUE BRIEF # F

SUBJECT: Orange County Reliability Projects

RECENT ACTIVITY

Central Pool Augmentation Program

There are no updates to report.

Orange County Water Reliability Study

In April, the MWDOC staff and our consultant from CDM-Smith met with agencies in the three key areas of OC analyzed under the study (1) Brea/La Habra (included Cal Domestic Water Company), (2) OCWD staff, and (3) South Orange County agencies, to review the near final results of the study and seek input on sensitivity analyses to be added to the study. Karl Seckel prepared and presented an overview of the Study Findings at the May 14 WACO meeting and included an elite panel consisting of Mike Markus from OCWD, Paul Weghorst from IRWD, Matt Collings from MNWD and Lisa Ohlund from EOCWD, to seek various positions and input from their participation in the study effort.

Key findings included:

- Water will cost more in the future
- Planning in OC cannot occur in a vacuum – we are dependent on what else occurs under MET’s Integrated Resources Plan, both based on what MET does and based on what MET’s other Member Agencies do with respect to NEW supply development
- If successful, the California Water Fix carries with it what is expected to be a relatively low cost high level reliability improvement
- There are multiple paths to reliability that do not necessarily include the California Water Fix
 - **Plan A includes the California Water Fix**
 - **Plan B does not include the Fix, but it includes many local projects**
 - **However, we should support the California Water Fix as the likely most cost effective supply reliability improvement to Southern California**
- A number of “high impact” issues will likely get to closure in the next several years – this means Adaptive Management will be key!
 - California Water Fix Go/Nogo under Governor Brown’s Term
 - MET’s Carson IPR Project, Go/Nogo
 - MET Member Agency Projects, Go/Nogo
 - What happens at the Lake Mead Trigger Elevation?
 - Policy issues at MET (later in the presentation)
- Brea/La Habra supply reliability looks ok

- The OCWD basin area supply reliability looks ok
- SOC reliability requires additional investments
- A sensitivity analysis using higher demands will result in a **lower** reliability
- A number of charts and graphs were developed in coming to these conclusions and explaining what “supply reliability looks ok” means, including charts on the future probability of shortages under various scenarios.

CDM-Smith is preparing the last of the sensitivity and financial spreadsheets and has begun drafting of the report. It is anticipated that the DRAFT Report will be circulated by June 10; we will give folks about a month to submit comments, which will be incorporated into the final report in July.

The WACO Presentation is posted on the MWDOC website.

ISSUE BRIEF # G

SUBJECT: East Orange County Feeder No. 2

RECENT ACTIVITY

Use of East Orange County Feeder No. 2 for Conveyance of Groundwater and Poseidon Water

MWDOC awarded an engineering contract to Black & Veatch (B&V) Engineers pursuant to an **Invitation to Submit an SOQ and Input on Engineering and Operations of Pipelines in Orange County**. The purpose of the award is utilize the expertise of B&V Engineers with respect to MET's large diameter pipeline design (30" to 78" in diameter, mostly steel), and MET's pipeline specifications, operations, water quality issues, maintenance issues and hydraulic control and hydraulic transients control.

Overall, this work would help with the following projects:

1. Integration of the Poseidon Water using the EOCF#2
2. Use of the EOCF#2 to move Groundwater in Orange County
3. Use of other pipelines to move Groundwater in Orange County (West Orange County Wellfield Project water conveyance)
4. Expansion of the Emergency Services Project to move emergency water to South Orange County

ISSUE BRIEF # H

SUBJECT: South Orange County Projects

RECENT ACTIVITY

The purpose of this issue brief is to list and highlight activities towards completion of projects providing new supplies or improving system reliability for South Orange County (SOC). The following projects are highlighted:

Expansion of Water Recycling in South Orange County

The table below provides projections on an agency by agency basis for purple pipe recycling. Indirect Potable Reuse (IPR) and Direct Potable Reuse (DPR) projects will be discussed separately. Virtually every agency in SOC is looking at opportunities for expansions to their recycled water systems.

Purple Pipe Recycling Water Projections for SOC (acre-feet per year)		
	Current	Future
SMWD	5,600	13,400
Trabuco	800	1,000
San Clemente	500	1,500
San Juan Capistrano	700	2,500
South Coast	1,000	2,000
MNWD	7,000	9,500
ETWD	500	1,700
Total Purple Pipe Recycling	16,100	31,600

Trampas Recycled Reservoir Project

Seasonal storage capacity to capture recycled water in the winter when it is available to carry it over into the summer is typically a limiting factor when looking at expansions to existing recycled water systems. The Trampas project, spearheaded by SMWD will add much needed regional recycled water storage capacity in SOC.

The Trampas reservoir is an existing reservoir constructed between 1973 and 1975 and is an earth fill dam. The reservoir is located south of Ortega Highway off of Cristianitos Road and has been used as a tailing retention facility for a quarry. SMWD is preparing plans to rebuild the dam and increase the reservoir capacity to 5,000 AF (Santa Margarita Water District, Final Initial Study and Mitigated Negative Declaration for Califia Recycled Water Project, June 2015). The reservoir will be used to store recycled water from the Chiquita Water Reclamation Plant approximately 1.5 miles north of the reservoir site and will allow for expansion of the SMWD recycled water system as well as potential expansion of other local recycled water systems (San Juan Capistrano,

Moulton Niguel Water District, City of San Clemente). The design of the dam will be completed later in 2016.

SMWD Lake Mission Viejo Advanced Purified Water (APW) Project

The Santa Margarita Water District (SMWD) is proposing to construct a recycled water treatment facility that would intake SMWD disinfected tertiary effluent and produce an advanced purified effluent for direct discharge and use in Lake Mission Viejo (LMV), in addition to other existing uses within SMWD's existing service area.

The project site is located within the northern portion of the City of Mission Viejo, approximately 0.10 mile south of LMV and directly southeast of the intersection of Alicia Parkway and Marguerite Parkway. The proposed project involves construction and operation of a recycled water treatment facility that would intake SMWD recycled water tertiary effluent and produce a purified effluent for direct discharge and use in LMV, in addition to providing for other existing uses within SMWD's service area. The APW facility would consist of a variety of interconnected treatment processes located within a single-story, prefabricated metal structure to be constructed immediately adjacent to the existing Finisterra Pump Station. This structure, which would encompass approximately 5,000 square feet, would house the APW treatment processes, consisting of micro- or ultra- filtration, reverse osmosis, and ultraviolet light disinfection of recycled water influent provided by SMWD from its existing recycled water system. The project is being submitted to MET under the LRP program to seek financing assistance.

Lower San Juan Creek Groundwater Management

The project would involve construction of rubber dams on San Juan Creek to capture additional stormflow for percolation into the groundwater basin. A second phase would involve streamflow recharge with polished tertiary treated recycled water into the San Juan Creek for capture and percolation into the groundwater basin for replenishment purposes (this is considered to be Indirect Potable Reuse (IPR)). The water would blend and commingle with native groundwater and then be fully treated by RO and Advanced Oxidation Processes (AOP) when it is pumped out for beneficial uses; the project will likely be implemented in phases with a potential of up to 7,000 AF of increased supply, in addition to the natural yield of the basin (ranges between 4,000 and 10,000 AF per year based on hydrology). The feasibility study for these efforts was just recently completed. SMWD has begun the preliminary design and CEQA work and is seeking participation from SOC agencies.

The Project includes the following primary elements:

- Design and build rubber dams - approximately \$33.6 million, which includes dams plus wells and treatment when water is pumped from the groundwater basin; with an anticipated yield of 1,120 AF per year. (Note, for this purpose yield is defined as water recharged, pumped out, treated and delivered for potable consumption, so it has treatment recovery losses included of about 20%; this statement applies to components below as well). The treatment capacity already

exists for this level of production out of the groundwater basin, although some AOP elements may need to be added).

- Instream recharge of recycled water Phase 1 - approximately \$119.1 million; increases yield by 3,800 AF per year; this includes additional wells and treatment (existing treatment plus new treatment facilities).
- Instream recharge of recycled water Phase 2 - approximately \$160.9 million; increases yield by another 2,440 AF per year; this includes additional wells and treatment.

Production in San Mateo Groundwater Basin

Currently, the City of San Clemente pumps between 500 and 1000 AF from this source. Issues with wells and high chloride levels have hampered additional production. A project was considered in the 1990's that would have required a joint venture with the Marine Corps Base Camp Pendleton; the 1990's project anticipated a potential groundwater basin yield of about 2,000 AF \pm and also considered storage of imported water for use for emergency purposes in an arrangement with the Marine Base. No current discussions or contacts have been made with the Marine Base involving this expanded opportunity. Environmentalists consider this the last pristine basin in or nearby to OC and want to protect it from outside influences.

Other Water Banking Projects (e.g., Semi-Tropic)

Semi-Tropic Water Storage District has several rate schedules for storing and retrieving water from their Groundwater Storage Bank in the Central Valley, when needed. Their rate schedules do not include the actual cost of water, which needs to be secured independent from the Banking operations. Semi-Tropic has both a program with a capital payment and another program without a capital payment. Without any costs included for the cost of water in the Central Valley, the program cost for storing and retrieving water runs about on the order of \$600 to \$800 per AF; the water must then be wheeled to get it into the MET service area. Considering the cost of central valley water at \$350 per AF, the all in costs of this source for dry year supply from this source to Southern California is about \$1700 to \$1800 per AF for years in which drought protection would be needed.

South Coast WD Capistrano Beach Groundwater Recovery Facility Expansion

South Coast WD constructed a 1 MGD Groundwater Recovery Facility (GRF) that came online in FY 2007-08 in Dana Point. SCWD plans to expand the GRF with the addition of new wells. Treatment will be provided up to 1,300 AFY which will require expansion of the GRF and agreement with SJBA or confirmation of water rights from the SWRCB. The expansion of this facility may not be possible, depending on the approach and size of the Doheny Ocean Desalination facility being pursued by South Coast.

San Juan Desalter Groundwater Recovery Plant Expansion

The City of San Juan Capistrano has operated the GWRP since about 2005. Shortly thereafter, a number of issues impacted the reliability of production from the facility including iron bacteria in the wells, the discovery of a plume of Methyl Tert-Butyl Ether (MTBE) that required a reduction in production in half to about 2 MGD or less since the

spring of 2008 until the responsible party contributed to provide Granular Activated Carbon Filter (GAC) for removal of the MTBE to allow increased production. The city then expanded other elements of the project to improve the production capacity up to 4 or 5 mgd. The drought then struck, reducing the amount of water that could be pumped from the San Juan groundwater basin, requiring a large reduction in production in 2015 and now in 2016. The treatment capacity of this plant is being considered for treating water captured and percolated into the groundwater basin from the rubber dams project.

Doheny Desalination Project

The South Coast Water District Board approved the Final Doheny Desal Foundational Action Report in March 2016. This culminates two years of additional study effort on the project and paves the way for preparation of the CEQA documents and the preliminary design, which are both underway.

The main tasks detailed in the documents include a number of important elements, including:

- Advancement of Slant Well Technology
- Geologic, Seismic and Ocean Risk Analysis for Siting Slant Wells
- Prediction of Coastal/Ocean Groundwater Flow and Water Quality
- Modeling of Slant Well Feed Water Supply, Impacts and Mitigation Approaches
- Coastal Environmental Drawdown Issues and Regulatory Strategies

The report recommends a phased approach for the Doheny Ocean Desalination Project. The feedwater supply for Phase I Doheny Ocean Desalination Project should be 8.6 MGD (i.e., Scenario 2a), which includes the drilling of three slant wells (two operating wells and one standby well) and would result in a production of potable water in the amount of 4.3 MGD. The project would be operated to collect data on the performance before being expanded to as much as 15 MGD.

South Coast Water District has provided a Notice of Preparation (NOP) and completed a scoping meeting. They are continuing work on:

- A preliminary design report
- An updated cost estimate
- Offshore geophysical mapping
- Evaluating project delivery and financing options
- Looking for participation from other local agencies, possibly up to the capacity of the 15 mgd project

Camp Pendleton Seawater Desalination Project

San Diego County Water Authority (SDCWA) is studying a desalination project to be located at the southwest corner of Camp Pendleton Marine Corps Base adjacent to the Santa Margarita River. The initial project would be a 50 (56,000 AFY) or 100 (112,100) MGD plant with expansions in 50 MGD increments to a maximum capacity of 150 MGD (168,100 AFY), making this the largest proposed desalination plant in the US. Work on

various types of intake facilities is still being studied. Work completed in 2009 indicated the cost of water at \$1,400 to \$1,500 per AF at that time. MWDOC staff estimated an additional cost of about \$500 per AF to get the water integrated into SOC.

The project is currently in the feasibility study stage and SDCWA is conducting geological surveys, analyzing intake options, and studying the effect on ocean life and routes to bring desalinated water to SDCWA's delivery system. MWDOC and south Orange County agencies are maintaining a general interest in the project.

Santa Margarita Water District Cadiz Water Storage Project

SMWD has actively pursued additional water supply reliability through water transfers. They are currently involved in the analysis and evaluation of the Cadiz water storage project. The Cadiz Project includes a total yield of 50,000 AF per year that could be produced and mined from the Fenner Valley groundwater basin. The water would require treatment for Chromium VI and would be conveyed via a pump station and pipeline about 40 miles to MET's Colorado River Aqueduct. SMWD has an option for 5,000 AF per year, expandable to 15,000 AF per year; OCWD is considering the water supply. Work is underway to develop the terms and conditions for conveying the water via the Colorado River Aqueduct into Southern California. The cost of water at the Aqueduct is \$960 per AF. The water would have to be wheeled through the Metropolitan system. This appears to be a project obstacle at this time with MET planning on using the full capability of the system, thus being unable to commit to unused capacity on an on-going basis to fulfill the needs of the project.

System Reliability Only Projects (to improve emergency response efforts)

System reliability projects do not necessarily produce any NEW water but help to meet demands during emergency outages due to earthquakes or other risks. Projects that are being discussed at this time include:

Addition of Generators & Back-up Power

This program would involve working with various retail agencies around the county to improve emergency power to local production facilities for emergency events.

Expansion of the Irvine Interconnection Project to SOC

An agreement completed in 2006 resulted in an investment by SOC agencies in the IRWD system to allow exchanges of water to be delivered by IRWD into SOC under emergency situations. Capacity was provided to move up to 30 cfs; the agreement allows moving up to 50 cfs, not to exceed 3,000 AF per emergency event. The ability of IRWD was projected to decline over time and go to zero by 2030. IRWD is examining their ability to increase the exchange and conveyance of water under this arrangement or extend to extend the end date of the agreement and the capacity thereunder. Other options could also be implemented if arrangements can be worked out with OCWD and the groundwater producers.

Additional Reservoir Projects in SOC

SMWD led an effort to construct Upper Chiquita Reservoir at a capacity of 750 AF at a cost of \$50 million in 2008 to provide emergency storage water in SOC. Other reservoir sites in SOC offer the ability to expand storage by an additional 1,000 to 4,000 AF. Another project that could be considered is to increase the storage capacity at Irvine Lake to allow more storage for emergency purposes. None of these projects are in the active development phase at this time.

Baker Water Treatment Plant

The Baker Water Treatment Plant is a joint regional project by five South Orange County water districts to build a 28.1 million gallon per day (mgd) [43.5 cubic feet per second (cfs)] drinking water treatment plant at the site of the former Baker Filtration Plant in the City of Lake Forest. The project will provide increased water supply reliability to South Orange County by increasing local treatment capability from multiple water supply sources, including imported untreated water from the Metropolitan Water District of Southern California (MET) through the Santiago Lateral and local surface water from Irvine Lake. The project will provide a reliable local drinking water supply during emergencies or extended facility shutdowns on the MET delivery system. It will also increase operational flexibility by creating redundancy within the water conveyance system. The advanced treatment processes - microfiltration treatment and ultraviolet disinfection technologies – will produce water that meets standards stricter than current regulatory requirements, resulting in a consistent, high quality source of drinking water for South Orange County. The project is expected to start up in October 2016.

Direct Potable Reuse (DPR) in South Orange County

Agencies in SOC are awaiting regulations to be put forth by the State in September of 2016 pertaining to future DPR Projects. For example, it is conceivable that over the next 10 years or so, work in the San Juan Basin result in DPR projects, treatment of recycled water at Trampas Reservoir for introduction into the drinking water systems or DPR associated with the Doheny project may make sense. The regulatory and treatment barriers will need to be developed to allow these type of projects to move forward.

Item No. 6a

**Summary Report for
The Metropolitan Water District of Southern California
Board Meeting
May 10, 2016**

COMMITTEE ASSIGNMENTS

Director Gold was assigned to the Communications and Legislation Committee and the Integrated Resources Planning Committee. **(Agenda Item 5C)**

FINANCE AND INSURANCE COMMITTEE

Adopted the resolution to continue collecting the Standby Charge for fiscal year 2016/17.
(Agenda Item 8-1)

ENGINEERING AND OPERATIONS COMMITTEE

Appropriated \$6.7 million; authorized preconstruction activities for seismic upgrades and preliminary design of building improvements for Metropolitan's Headquarters Building; and authorized increase of \$3.5 million to an agreement with ABSG Consulting, Inc. for a new not-to-exceed total of \$5.3 million.
(Approp. 15473) (Agenda Item 8-2)

Appropriated \$2.12 million; awarded \$708,000 contract to Pacific Winds Building, Inc. for electrical upgrades at the Diamond Valley Lake (DVL) East Dam area; authorized \$540,000 agreement with Southern California Edison (SCE) to extend electrical service to the East Dam area; authorized the General Manager to grant permanent easements to SCE; and authorized construction of a sanitation facility at the DVL East Marina. (Approps. 15334 and 15480)
(Agenda Item 8-3)

WATER PLANNING AND STEWARDSHIP COMMITTEE

Authorized the General Manager to continue to participate in the pilot program for funding the creation of Colorado River System water through voluntary reductions in use; and approved payment of up to an additional \$1 million for partially funding the pilot program. **(Agenda Item 8-4)**

Declared a "Condition 2 – Water Supply Alert" and rescinded the "Condition 3 – Water Supply Allocation"; and decided not to implement the Water Supply Allocation Plan for 2016/17.
(Agenda Item 8-5)

Adopted the 2015 Urban Water Management Plan and the resolution for submittal to the state of California in order to comply with the Urban Water Management Planning Act in the California Water Code. **(Agenda Item 8-6)**

ORGANIZATION, PERSONNEL AND TECHNOLOGY COMMITTEE

Approved Metropolitan Water District of Southern California's Salary Schedule pursuant to CalPERS regulations. **(Agenda Item 8-7)**

LEGAL AND CLAIMS COMMITTEE

Received a report on *Bradley Wayne Nutt v. Metropolitan Water District of Southern California*, Los Angeles Superior Court Case No. BC550863; and authorized an increase in the maximum amount payable under contract with Atkinson, Andelson, Loya, Ruud & Romo for legal services by \$250,000 to an amount not to exceed \$800,000. (Report heard in closed session) **(Agenda Item 8-8)**

CONSENT CALENDAR

In other action, the Board:

Appropriated \$800,000; and authorized design of chlorination system upgrades at the F. E. Weymouth Water Treatment Plant. (Approp. 15477). **(Agenda Item 7-1)**

Appropriated \$400,000; and awarded \$268,000 contract to First Responder Fire Protection Corp. to install a fire protection system at the La Verne Shops. (Approp. 15395) **(Agenda Item 7-2)**

Appropriated \$600,000; and authorized design of drainage and erosion control improvements at Garvey Reservoir. (Approp. 15480) **(Agenda Item 7-3)**

Authorized the General Manager to grant a permanent easement to the city of San Jacinto on Metropolitan-owned property located in Riverside County. **(Agenda Item 7-4)**

Approved the changes to the Administrative Code set forth in Attachments to the Board letter to establish the Real Property and Asset Management Committee as a board standing committee. **(Agenda Item 7-5)**

OTHER MATTERS:

In other action, the Board:

Approved 30-day leave of absence for Director Larry Dick commencing May 5, 2016. **(Agenda Item 5E)**

THIS INFORMATION SHOULD NOT BE CONSIDERED THE OFFICIAL MINUTES OF THE MEETING.

Board letters related to the items in this summary are generally posted in the Board Letter Archive approximately one week after the board meeting. In order to view them and their attachments, please copy and paste the following into your browser <http://edmsidm.mwdh2o.com/idmweb/home.asp>.



DRAFT AGENDA

Regular Board Meeting

June 14, 2016

12:00 p.m. – Board Room

Tuesday, June 14, 2016 Meeting Schedule		
9:00 a.m.	Rm. 2-145	L&C
10:00 a.m.	Rm. 2-456	OP&T
11:00 a.m.	Rm. 2-145	IRP
12:00 p.m.	Board Room	Board Meeting

MWD Headquarters Building

• 700 N. Alameda Street •

Los Angeles, CA 90012

1. Call to Order

- (a) Invocation: _____
- (b) Pledge of Allegiance: Director _____

2. Roll Call

3. Determination of a Quorum

- 4.** Opportunity for members of the public to address the Board on matters within the Board's jurisdiction. (As required by Gov. Code § 54954.3(a))

5. OTHER MATTERS

- A. Approval of the Minutes of the Meeting for May 10, 2016. (A copy has been mailed to each Director)
Any additions, corrections, or omissions
- B. Report on Directors' events attended at Metropolitan expense for month of May

- C. Approve committee assignments
- D. Chairman's Monthly Activity Report

6. DEPARTMENT HEADS' REPORTS

- A. General Manager's summary of Metropolitan's activities for the month of May
- B. General Counsel's summary of Legal Department activities for the month of May
- C. General Auditor's summary of activities for the month of May
- D. Ethics Officer's summary of activities for the month of May

7. CONSENT CALENDAR ITEMS — ACTION

- 7-1 Approve up to \$1.153 million to purchase insurance for Metropolitan's Property and Casualty Insurance Program. (F&I)

Recommendation:

Option #:

Adopt the CEQA determination that _____, and

- a. ; and
- b. .

- 7-2 Appropriate \$310,000; and authorize design and valve procurement to relocate piping for Service Connection OC-76 on the Allen-McColloch Pipeline (Approp. 15480). (E&O)

Recommendation:

Option #:

Adopt the CEQA determination that _____, and

- a. Appropriate \$____; and
- b. .

- 7-3 Appropriate \$700,000; and award \$343,625 contract to Environmental Construction, Inc. to replace blow-off valves on the Middle Feeder (Approp. 15480). (E&O)

Recommendation:

Option #:

Adopt the CEQA determination that _____, and

- a. Appropriate \$____; and
- b. .

- 7-4 Approve amendments to the Metropolitan Water District Administrative Code to conform to current laws, practices and regulations. (L&C)

Recommendation:

Option #:

Adopt the CEQA determination that _____, and

Approve _____.

(END OF CONSENT CALENDAR)

8. OTHER BOARD ITEMS — ACTION

- 8-1 Annual approval of Metropolitan's Statement of Investment Policy and delegation of authority to the Treasurer to invest Metropolitan's funds. (F&I)

Recommendation:

Option #:

Adopt the CEQA determination that _____, and

Approve _____.

- 8-2 Approve and authorize the distribution of Appendix A for use in the issuance and remarketing of Metropolitan's bonds. (F&I)

Recommendation:

Option #:

**Adopt the CEQA determination that _____, and
Authorize _____.**

- 8-3** Adopt the Second Supplemental Subordinate Resolution to the Master Subordinate Resolution. (F&I)

Recommendation:

Option #:

**Adopt the CEQA determination that _____, and
Authorize _____.**

- 8-4** Appropriate \$10 million; and authorize capital program for projects costing less than \$250,000 for fiscal years 2016/17 and 2017/18 (Approp. 15498). (E&O)

Recommendation:

Option #:

**Adopt the CEQA determination that _____, and
a. Appropriate _____;
b. ; and
c. .**

- 8-5** Appropriate \$2.7 million; and award \$1,885,150 contract to Abhe & Svoboda, Inc. to replace fish screens on the Inlet/Outlet Tower at Diamond Valley Lake (Approp. 15441). (E&O)

Recommendation:

Option #:

**Adopt the CEQA determination that _____, and
a.; and
b. .**

- 8-6** Authorize payment of \$655,400 for support of the CRB/CRAC fiscal year 2016/17. (WP&S)

Recommendation:

Option #:

**Adopt the CEQA determination that _____, and
Authorize_____.**

9. BOARD INFORMATION ITEMS

9-1 Department Head Performance Evaluation Schedule

10. FOLLOW-UP ITEMS

11. FUTURE AGENDA ITEMS

12. ADJOURNMENT

NOTE: At the discretion of the Board, all items appearing on this agenda and all committee agendas, whether or not expressly listed for action, may be deliberated and may be subject to action by the Board.

Each agenda item with a committee designation will be considered and a recommendation may be made by one or more committees prior to consideration and final action by the full Board of Directors. The committee designation appears in parentheses at the end of the description of the agenda item e.g., (E&O, F&I). Committee agendas may be obtained from the Board Executive Secretary.

Writings relating to open session agenda items distributed to Directors less than 72 hours prior to a regular meeting are available for public inspection at Metropolitan's Headquarters Building and on Metropolitan's Web site <http://www.mwdh2o.com>.

Requests for a disability related modification or accommodation, including auxiliary aids or services, in order to attend or participate in a meeting should be made to the Board Executive Secretary in advance of the meeting to ensure availability of the requested service or accommodation.