

WORKSHOP MEETING OF THE
BOARD OF DIRECTORS WITH MET DIRECTORS
MUNICIPAL WATER DISTRICT OF ORANGE COUNTY
18700 Ward Street, Board Room, Fountain Valley, California
February 4, 2015, 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. 2005)

PRESENTATION/DISCUSSION/INFORMATION ITEMS

1. BAY DELTA CONSERVATION PLAN (BDGP) UPDATE ON FISH AND WILDLIFE REGULATORY ACTIVITIES

Recommendation: Review and discuss the information presented.

2. 2015 WATER SUPPLY REPORT

Recommendation: Review and discuss the information presented..

3. MET ITEMS CRITICAL TO 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 by MET in the Doheny Desalination Project and in the Huntington Beach Ocean Desalination Project (Poseidon Desalination Project)
- f. Orange County Reliability Projects

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

4. OTHER INPUT OR QUESTIONS ON MET ISSUES FROM THE MEMBER AGENCIES**5. METROPOLITAN (MET) BOARD AND COMMITTEE AGENDA DISCUSSION ITEMS**

- a. Summary regarding January 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.



DISCUSSION ITEM

February 4, 2015

TO: Board of Directors

FROM: Robert Hunter
General Manager

Staff Contact: Harvey De La Torre

SUBJECT: BAY DELTA CONSERVATION PLAN (BDCP) UPDATE ON FISH AND WILDLIFE REGULATORY ACTIVITIES

STAFF RECOMMENDATION

Staff recommends the Board of Directors review and discuss this information

REPORT

MWDOC staff has asked Randall Neudeck of Metropolitan to give us an update on the following issues regarding the Bay-Delta:

- Status of the BDCP – Recent changes
- Recent U.S. Supreme Court denial of MWD and State Water Contractors' appeal
- Brief review of the various Fishery Restrictions i.e. "Take" limit of smelt, how the limit is determined
- Recent State Financial Report on the cost of the BDCP

Budgeted (Y/N): n/a	Budgeted amount: n/a	Core <input checked="" type="checkbox"/> Choice <input type="checkbox"/>
Action item amount: n/a	Line item:	
Fiscal Impact (explain if unbudgeted):		



DISCUSSION ITEM

February 4, 2015

TO: Board of Directors

FROM: Robert Hunter
General Manager

Staff Contact: Harvey De La Torre

SUBJECT: Updated Water Supply Report

STAFF RECOMMENDATION

Staff recommends the Board of Directors review and discuss this information

REPORT

MWDOC staff will provide an update on the current water supply conditions in Northern California and in the Colorado River Basin, its impact to Metropolitan's total water supplies, and its effect on whether the Metropolitan Board will need to implement its Water Supply Allocation Plan later this year.

Budgeted (Y/N): n/a	Budgeted amount: n/a	Core _X_	Choice ____
Action item amount: n/a	Line item:		
Fiscal Impact (explain if unbudgeted):			



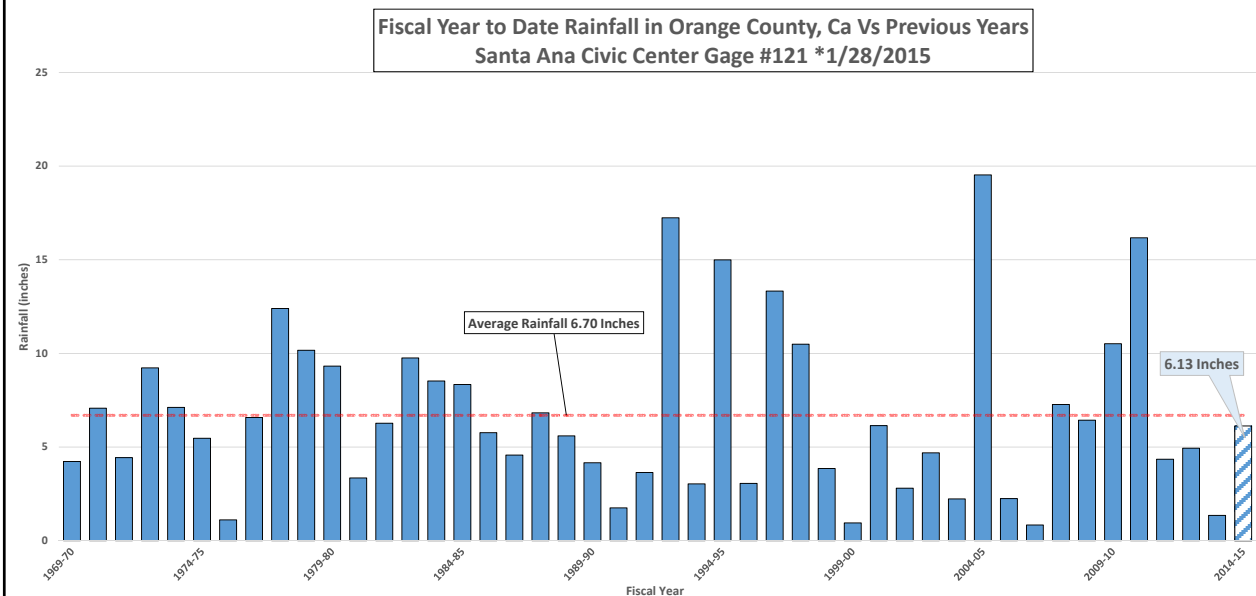
2015 Water Supply Report

MWDOC Board Workshop
February 4, 2014

Municipal Water District of Orange County

Local Precipitation – FY to Date

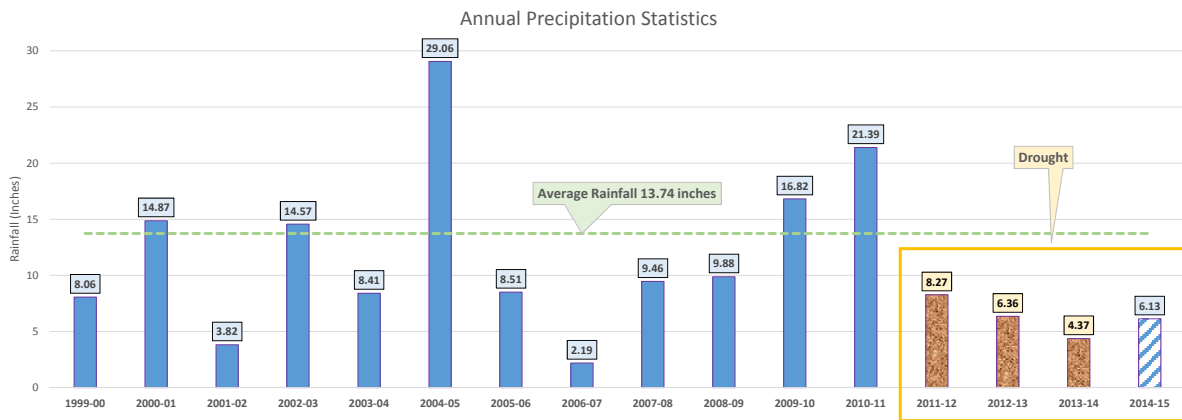
*As of 1/28/2015 Precipitation was .57 inches below our average



Annual Precipitation

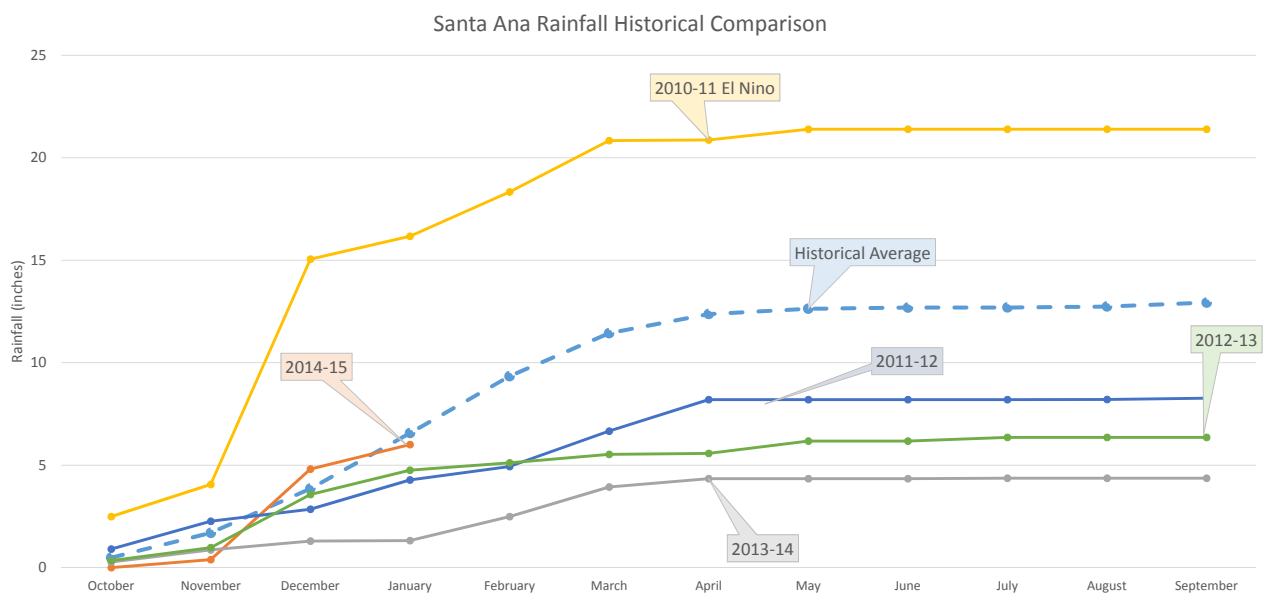
Cumulative Year-to-Date
Average: 6.70"
2014-15: 6.13"

15 yr. Average Annual Rainfall: 13.74"
3.5-Year Deficit: 22.79" (2011-12 to Present)

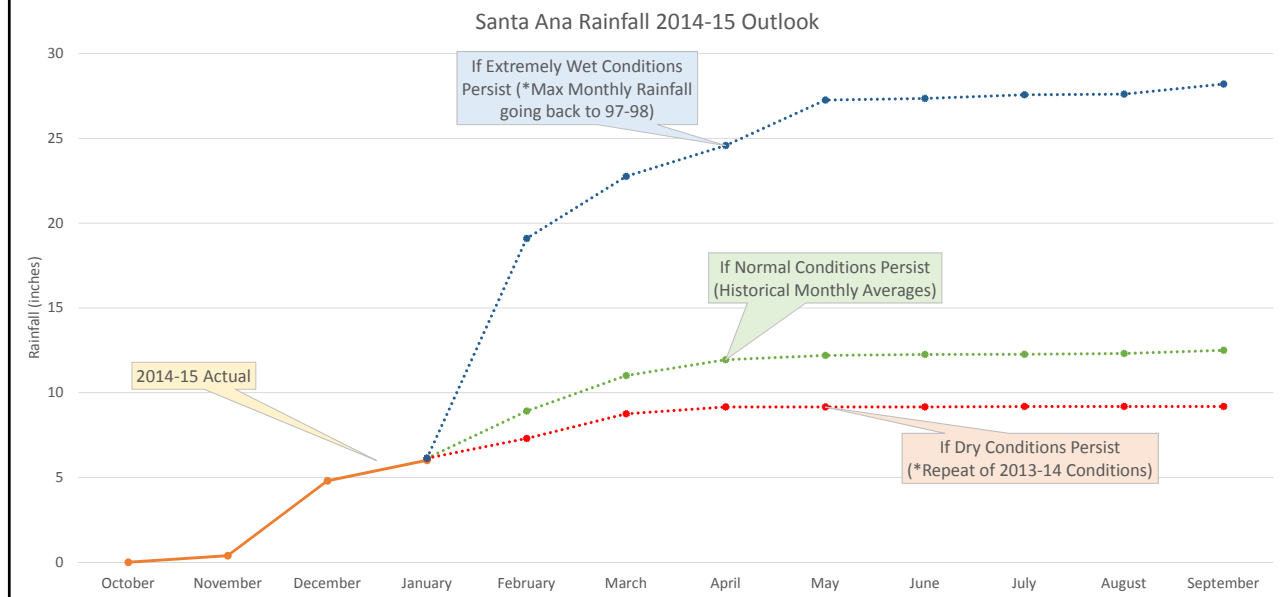


Rainfall Comparison (5 Years)

* Overall December rainfall was above average but January has been very dry so far resulting in slightly below average precipitation for the year.

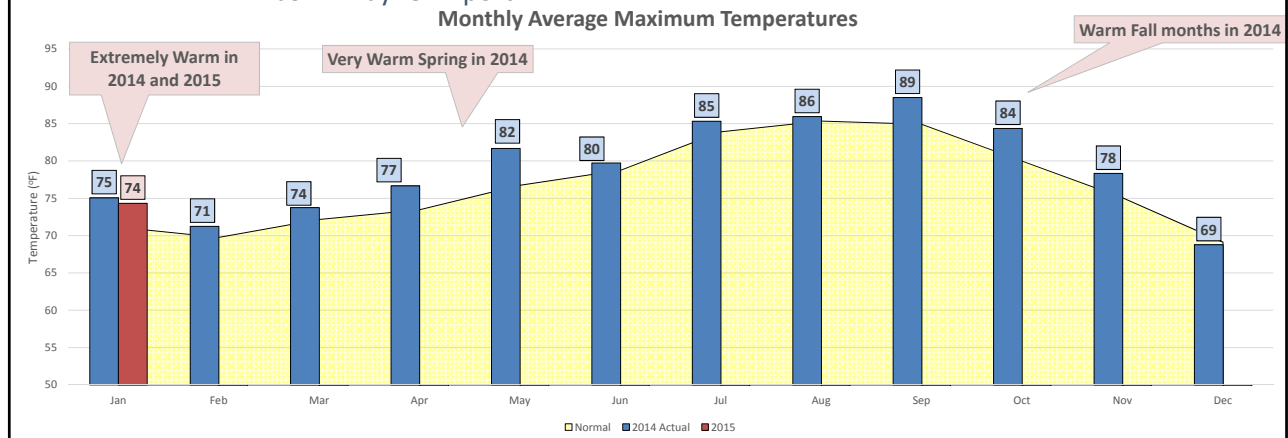


Rainfall Outlook (As of End of January)



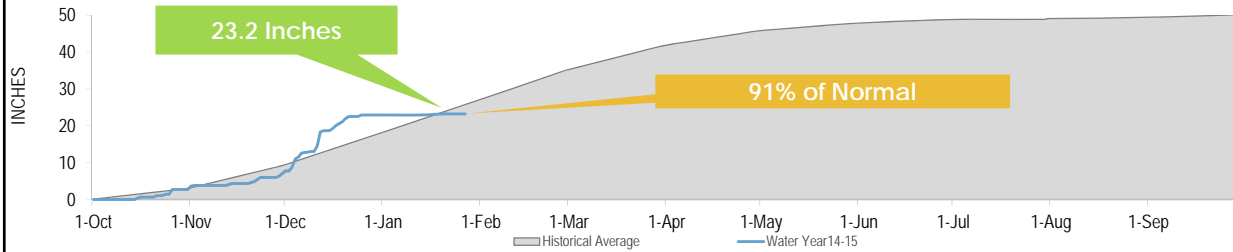
2015 vs. 2014 Temperatures

- Monthly temperatures in 2014 were **hotter** than average with January, May, September and October being the highest. **~2015 has started off very warm.**
 - Orange County in 2014: 2.4 degrees above 15 year average at John Wayne Airport

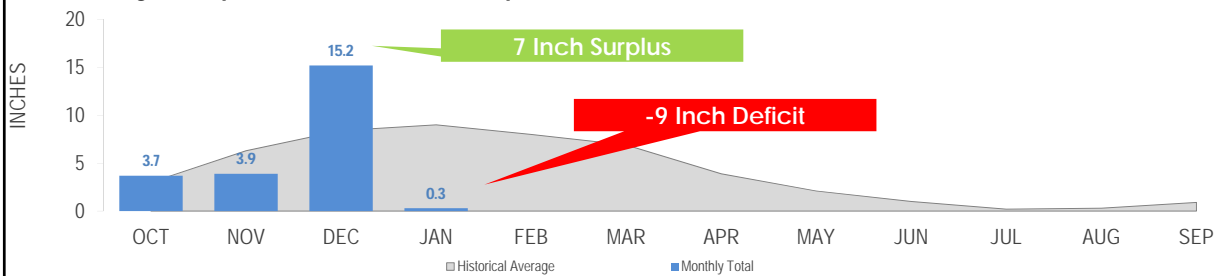


Sierra Nevada Accumulated Precipitation

Accumulated Precipitation (8-Station Precip Index)



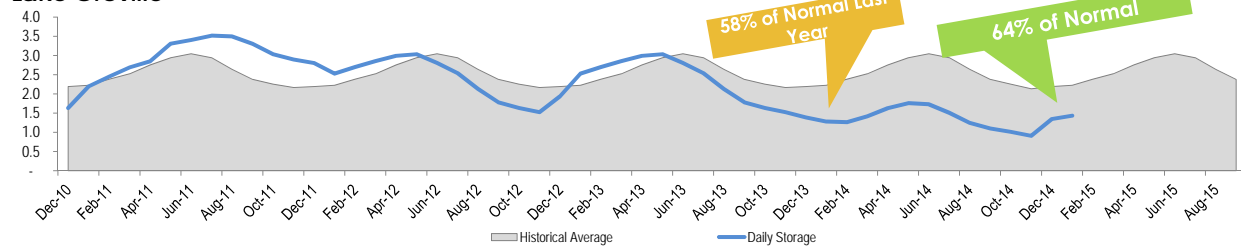
Monthly Precipitation (8 Station Precip Index)



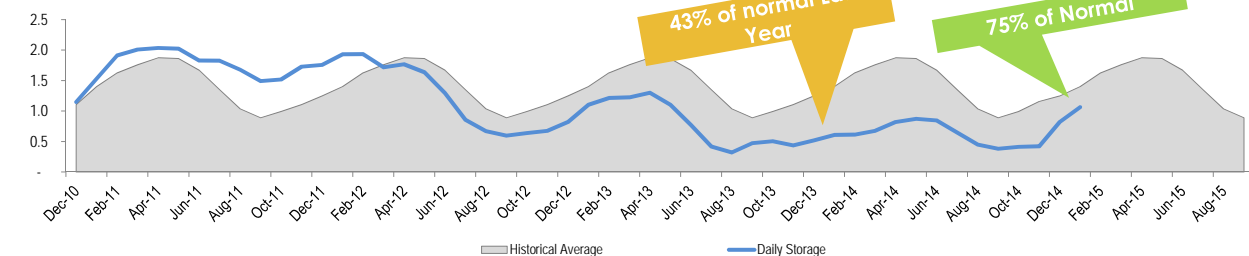
Statewide Reservoir Elevations As of January 27, 2015

~Both Oroville and San Luis Reservoirs have more water this time of year compared to last year at the same time.

Lake Oroville

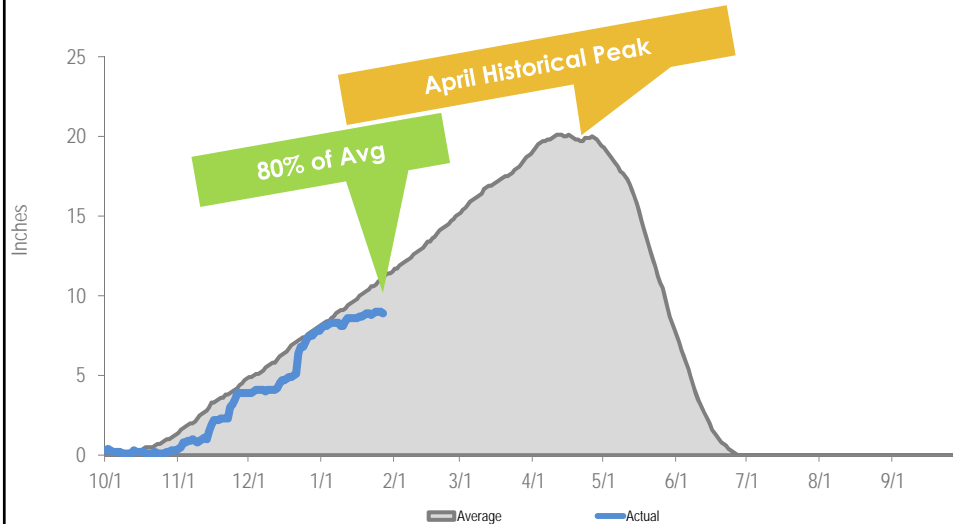


San Luis Reservoir



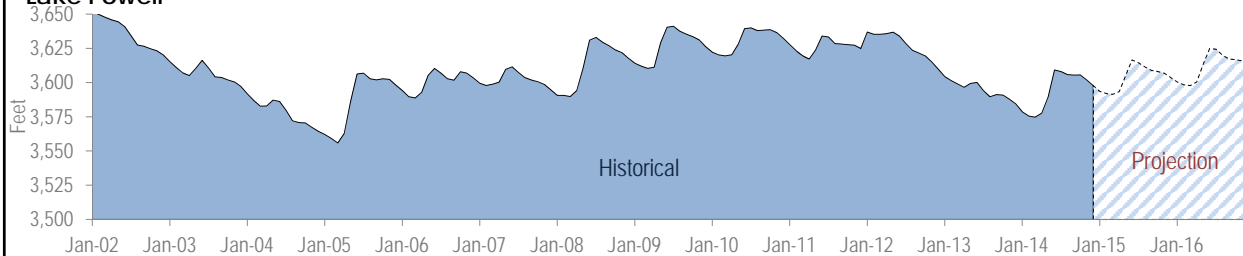
Colorado River Basin Snowpack

Snowpack Water Equivalent

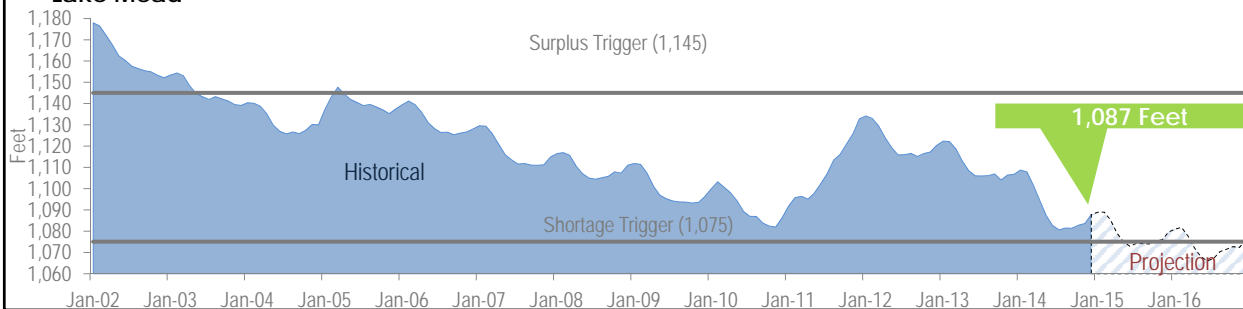


Colorado River Reservoir Elevations As of Late January 2015

Lake Powell



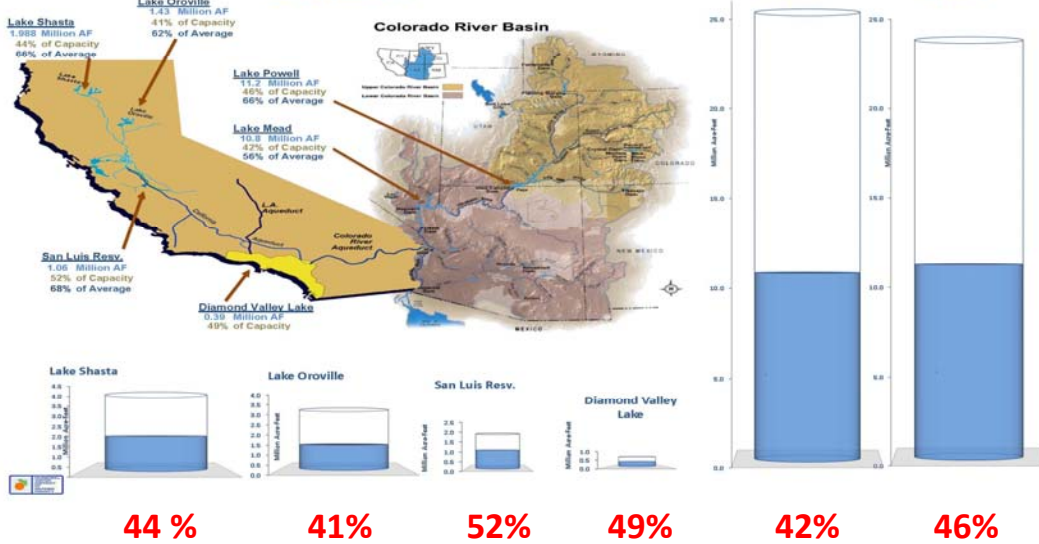
Lake Mead



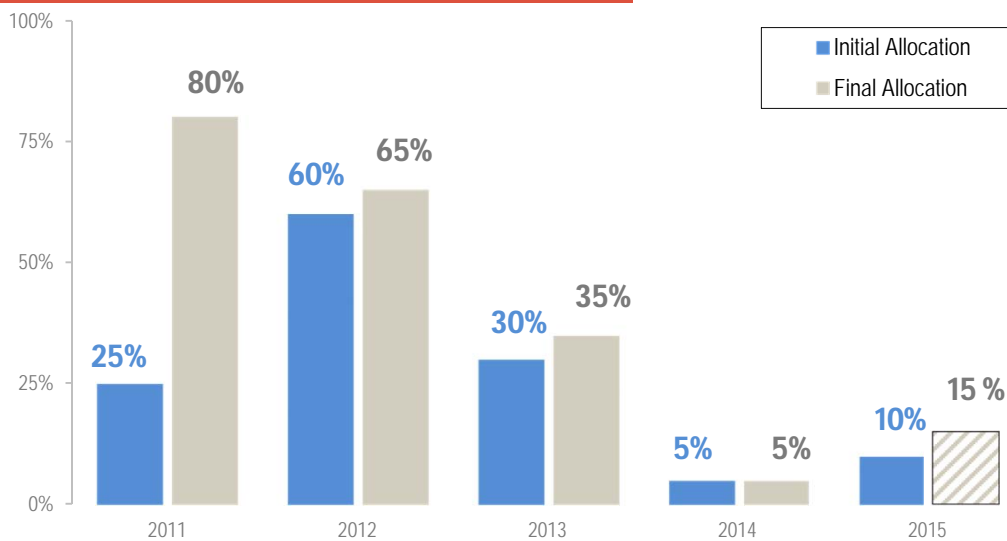
RESERVOIR STORAGE – January 2015

California, Colorado R., and MET Reservoir Storage

as of End of January 2015

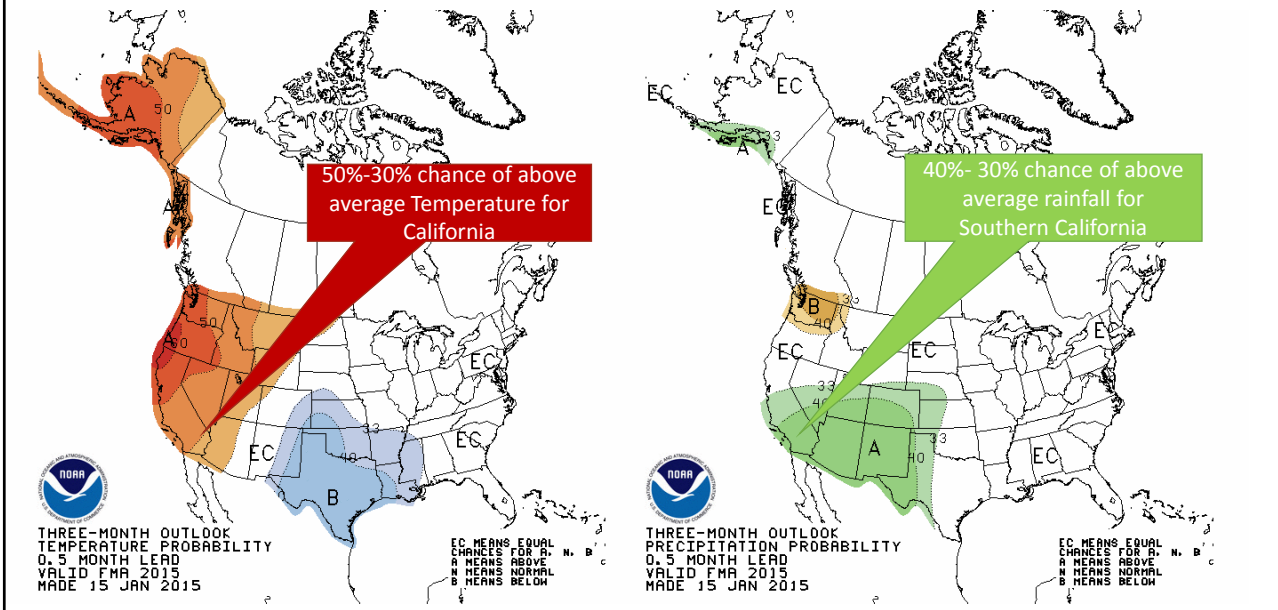


State Water Project "Table A" Allocation



National Weather Service 3 Month Weather Outlook (Feb-Apr)

* NOAA is predicting greater chances of warm and wet weather for the rest of the 2015 winter



Current Drought Conditions

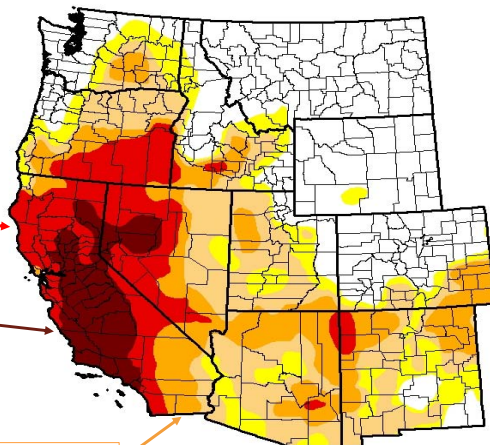
U.S. Drought Monitor West

*As of Late January 2015
Extreme and Exceptional
Drought Condition remain
through most of California

Extreme Drought

Exceptional Drought

Severe Drought



January 20, 2015

(Released Thursday, Jan. 22, 2015)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	35.52	64.48	53.08	33.62	18.52	6.35
Last Week 1/13/2015	34.29	65.71	53.21	33.18	18.52	6.35
3 Months Ago 10/21/2014	31.95	68.05	55.56	34.82	19.08	8.90
Start of Calendar Year 1/1/2015	34.76	65.24	54.48	33.50	18.68	5.40
Start of Water Year 9/26/2014	31.48	68.52	55.57	35.65	19.95	8.90
One Year Ago 1/21/2014	18.74	81.26	60.81	36.99	13.78	0.63

Intensity:
D0 Abnormally Dry
D1 Moderate Drought
D2 Severe Drought
D3 Extreme Drought
D4 Exceptional Drought

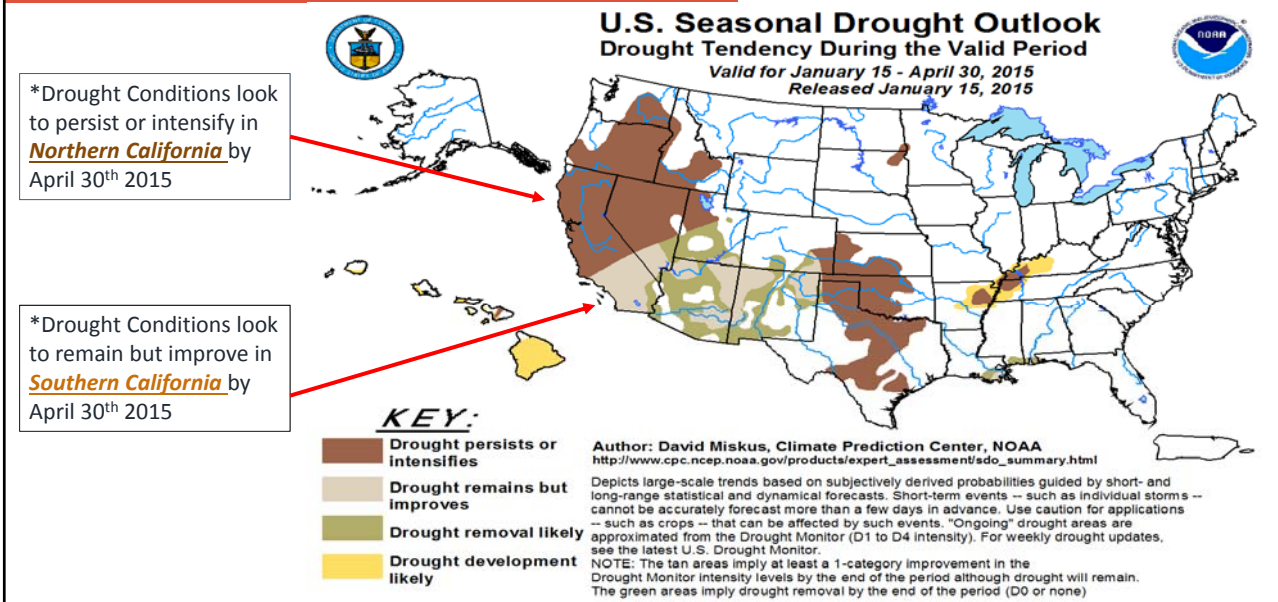
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
Richard Tinker
CPC/NOAA/NWS/NCEP

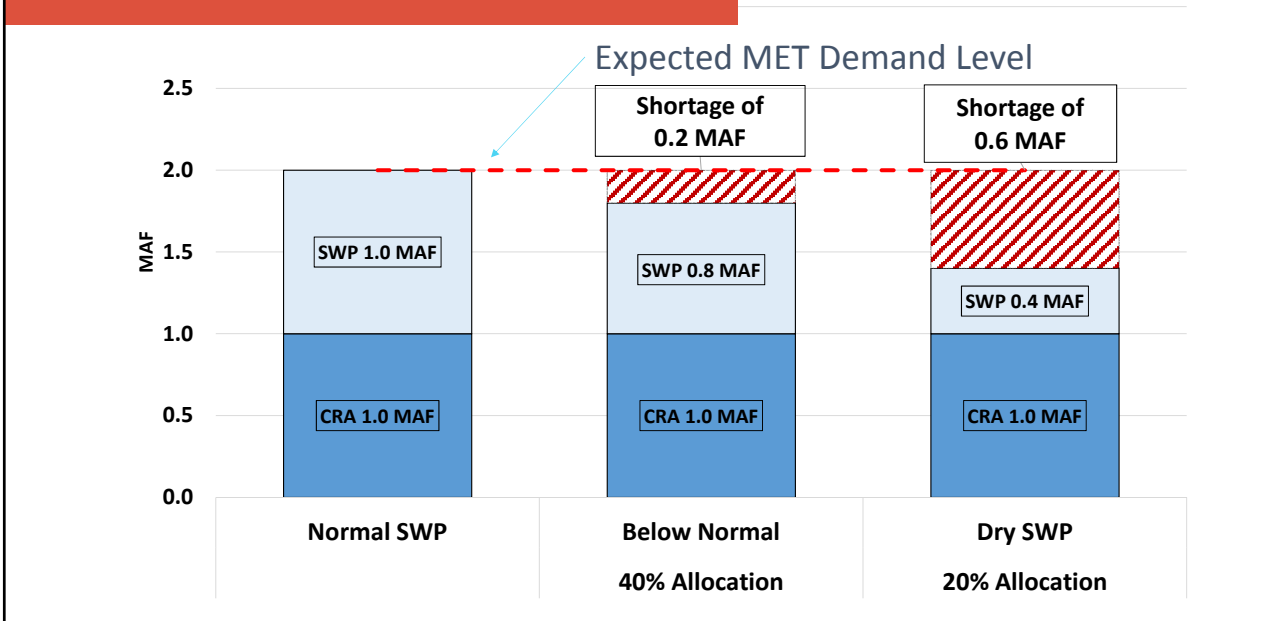


<http://droughtmonitor.unl.edu/>

Winter Drought Outlook



Chances of Allocations in 2015





Questions



Item No. 3

DISCUSSION ITEM

February 4, 2015

TO: Board of Directors & MWD Directors

FROM: Robert J. Hunter
General Manager

Staff Contact: Harvey De La Torre

SUBJECT: MWD 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 MWD issues that may affect Orange County:

- a) MWD's Water Supply Conditions
- b) MWD's Finance and Rate Issues
- c) Colorado River Issues
- d) Bay Delta/State Water Project Issues
- e) MWD's Ocean Desalination Policy and Potential Participation by MWD in the Doheny Desalination Project and in the Huntington Beach Ocean Desalination Project (Poseidon Desalination Project)
- f) Orange County Reliability Projects

ISSUE BRIEF # A

SUBJECT: MWD's Water Supply Conditions

RECENT ACTIVITY

State Water Project Deliveries

On January 15, the California Department of Water Resources (DWR) increased the State Water Project "Table A" deliveries for 2015 from 10 percent of their request amount to 15 percent. This increase is due to improved storage level in the state's major reservoirs and above average precipitation for the month of December. Furthermore, tight coordination these past months among the state and federal agencies, that operate the water projects in the Bay-Delta, allowed the projects to store stormwater runoff without violating statutory and regulatory obligations to protect water quality and wildlife.

Unfortunately, since the December storms there have been no significant levels of precipitation in the Northern Sierras to ease the drought, now in its fourth year. In fact, DWR's second manual snow survey, conducted on January 29 encountered below-normal snowpack. As a result of warmer temperatures and lack of precipitation, the survey reported only 2.3 inches of water – 12 percent of the historic average. Frank Gehrke with the DWR reported that these numbers indicate "that we lost a lot of snow since last month's survey" - Last month DWR reported 4 inches of snow water. *"This doesn't bode well for any improvement in water supply conditions for next season. While we gained reservoir storage in Northern California during the December storms, it didn't translate to the snow pack, which means that storage will be gone through quickly."*

This survey also makes it likely that California's drought will run through a fourth consecutive year. DWR said heavy precipitation and cooler temperatures in the next three months would be required for the snowpack to build and give Californians hope for beginning to recover from drought this year

Metropolitan Storage

MWD began CY 2015 with roughly 1.1 MAF of "Dry-Year Storage" (this does not include the ~650,000 AF of emergency storage). In past MWD has considered the 1.0 MAF storage level as the critical point in determining whether Drought Allocation are needed to prevent the further draw down of storage. MWD indicated at last month's Planning and Stewardship Committee that unless the SWP "Table A" allocation provides at least 40 percent, staff would be recommending the implementation of its Water Supply Allocation Plan for 2015. This month MWD staff will present an update to its Board on its current and projected water supply conditions, estimated demands, and storage levels for the year. If conditions do not improve at the end of February, MWD will likely present options for the Board to consider in March to manage this year's supplies and demand, including the implementation of Drought Allocations.

ISSUE BRIEF # B

SUBJECT: MWD's Finance and Rate Issues

RECENT ACTIVITY

MWD Financial Report

At January's Metropolitan (MWD) Finance and Insurance Committee, MWD staff provided a six-month financial review as well as projections for the end of the fiscal year 2014/2015. For cumulative water sales, as of December 31, 2014, MWD is projected to sell a total of 1.88 million acre-feet for the fiscal year; this is 130,000 AF higher than budgeted. It is mainly due to increase groundwater replenishment demands. The increase in sales will generate \$104 million in additional revenue. MWD's projected total revenue is expected to exceed its budget by \$93 million mostly due to increase water sales but with some slight decreases in power sales as a result of lower than expected State Water Project (SWP) deliveries.

MWD's total expenses are projected to end the fiscal year under budget by over \$54.3 million. This is due to State Water Contract costs projected coming in below budget mainly as a result of a significantly low "Table A" SWP allocation. Debt Service payments are also projected to come in at \$31 million below budget estimates due to bond refinances, but an increase in reserve requirements should even these savings out. Increases in the Colorado River Aqueduct's Power Costs of \$12.2 million are a result of increased deliveries causing MET to purchase additional supplemental power. While Demand Management costs increased by \$15.8 million due to increases in conservation spending for year i.e. increased turf removal program costs, both MET's departmental O&M and R&R program costs are projected to be on-budget for the year.

ISSUE BRIEF # C

SUBJECT: Colorado River Issues

RECENT ACTIVITY

MWD Signs Colorado River Drought Response MOU

On December 10, MWD along with Southern Nevada Water Authority (SNWA), Central Arizona Project (CAP), Bureau of Reclamation (Reclamation), Colorado River Board of California, Colorado River Commission of Nevada, and Arizona Department of Water Resources, signed a Memorandum of Understanding (MOU) aimed at adding 740,000 acre-feet of water to Lake Mead over the next three years. This includes the development of new water conservation programs, efforts to reduce Colorado River water demands, and options to reduce water that cannot be stored and is lost from the system. The goal of adding 740,000 acre-feet of water to Lake Mead consists of 45,000 acre-feet by SNWA, 345,000 acre-feet by CAP, 50,000 acre-feet by Reclamation, and 300,000 acre-feet by MWD. The MOU also recognizes the critical drought conditions in California and notes that MWD may need any new water supply it develops to meet local drought needs first before the water can be added to Lake Mead.

MWD and Imperial Irrigation District (IID) Amend Conservation Agreement

MWD staff completed a refinement to the Imperial Irrigation District (IID)/Metropolitan Conservation Program that is projected to save MWD in excess of \$2 million per year and assures conservation of 105,000 AF for the remainder of the contract. Based on a jointly funded 2013 study of the IID/MWD Conservation Program (Program), staff at both agencies identified an opportunity to: (1) reduce costs in the Program, (2) increase the reliability of the conserved water and thereby increase reliability to MWD, (3) identify additional conserved water for IID's own use for transfer or water use balancing on the River, and (4) reduce administrative overhead of the Program.

ISSUE BRIEF # D

SUBJECT: Bay Delta/State Water Project Issues

RECENT ACTIVITY

Bay Delta Conservation Plan Activities

On December 19, the Department of Water Resources (DWR) announced additional refinements to the proposed Bay Delta Conservation Plan (BDCP) water delivery facilities. In consideration of feedback received during the 2014 public comment period and additional engineering developments, the proposed BDCP water delivery facilities (Conservation Measure 1) have been refined to further reduce impacts to Delta communities, minimize disturbances or dislocation to Greater Sandhill Cranes, and improve the long-term reliability and operation of the proposed tunnels. The proposed changes, subject to further refinement, will be included in the recirculated BDCP and environmental review documents expected to be released for public review and comments in spring 2015.

Turbidity in the Delta during the December Storms

MWD staff assisted DWR and the U.S. Bureau of Reclamation (USBR) in developing an operational strategy following the large storms in early December. The storms brought high flows and high levels of turbidity into the Delta. High turbidity pulses in the winter coupled with high export levels have historically led to high levels of salvage of Delta smelt. In 2012, it is believed that a similar “first flush” condition allowed Delta smelt to move into the south Delta; their presence resulted in months of pumping restrictions.

USBR and DWR operators voluntarily reduced pumping for several days in mid-December to avoid establishing a turbidity “bridge” across the Delta. The goal is that by reducing the movement of turbidity into the south Delta now, pumping later in the season will be less constrained. Current monitoring data shows a turbidity spike moving down the Sacramento River. Fish trawling data continues to indicate few Delta smelt are present in the south Delta. Trawl and turbidity monitoring will continue to be closely watched.

This voluntary action by the state and federal water projects, while based on best available science, is not without risk. In the short-term, the action is estimated to cost tens of thousands of acre-feet of water. However, if successful, the action could potentially help avoid the loss of hundreds of thousands of acre-feet over the coming months by preventing significant movement of turbidity and Delta smelt into the south Delta channels as occurred two years ago. Some key parameters being monitored and analyzed are: (1) the size of the turbidity plume; (2) effects of subsequent storms; (3) actual Delta smelt behavior; and (4) future regulatory decisions.

ISSUE BRIEF # E

SUBJECT: MWD's Ocean Desalination Policy and Potential Participation by MWD in the Doheny Desal Project (formerly South Orange Coastal Ocean Desalination Project) and in the Huntington Beach Ocean Desalination Project (Poseidon Desalination Project)

RECENT ACTIVITY

1. Doheny Desalination Project

MWDOC staff participated in a coordination and groundwater modeling meeting with South Coast Water District's General Manager, staff from Geoscience Support Services and Dan Ferons and Cathrene Glick from the San Juan Basin Authority. The purpose of the meeting was to coordinate work on the MET Foundational Action Program between South Coast/Laguna Beach CWD and the SJBA. Both Foundational Action Plan Projects should be able to meet all of the schedule deadlines.

Additional discussions and coordination occurred with South Coast Water District and an agreement was prepared and approved by both the South Coast Board and the MWDOC Board to allow MWDOC to proceed with baseline environmental monitoring work that was previously scoped out but not funded by the Doheny Participants. This is part of the work that South Coast & Laguna Beach CWD need to proceed with the CEQA work for a 5 MGD demonstration project.

2. Huntington Beach Ocean Desalination Project (Poseidon Project)

In January, the OCWD Board authorized their staff to enter into negotiations with Poseidon on the terms and conditions for the Huntington Beach Project. One meeting was held so far. Staff is to report back at their March Board meeting. OCWD is also establishing a Citizen's Advisory Committee on the Project.

3. Orange County Water Reliability Study

Attached is a status report on the Orange County Reliability Study recently provided at MWDOC's P&O Committee. A number of efforts are related to the reliability of supplies available to MET over the long run, including puts and takes from storage as well as the emergency aspect of reliability in the event of major seismic impacts to MET's imported sources.

ISSUE BRIEF # F

SUBJECT: Orange County Reliability Projects

RECENT ACTIVITY

1. Central Pool Augmentation Program

There are no updates to report.

2. MWD Investigations of System Reliability

MWDOC staff has continued to meet with MET staff this past month on potential seismic impacts to Colorado River Aqueduct and the State Water Project (including the potential impacts to the Bay-Delta area exports) as part of the OC Water Reliability Study efforts (see attached summary report for the OC Water Reliability Study).



Item No.

INFORMATION ITEM

February 2, 2015

TO: Planning & Operations Committee
(Directors Osborne, Barbre, Hinman)

FROM: Robert Hunter, General Manager
Staff Contact: Karl Seckel/Richard Bell

SUBJECT: Status Update on the OC Water Reliability Study – January 2015

STAFF RECOMMENDATION

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

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

DETAILED REPORT

Staff has been providing monthly study updates. This update is a bit more comprehensive to give the Board more detail as to the efforts underway for the study after the first three months. The goals, key aspects, policy, economic or other Issues to be addressed in the Study and the progress through January 22 is provided below. In response to a Board request, staff has also provided an update with respect to the San Juan Groundwater Basin and the interrelationship with the Doheny Project. An updated study schedule is also provided below.

Goals for the OC Water Reliability Study:

1. To understand Orange County's current and future situation with respect to WATER SUPPLY and SYSTEM RELIABILITY issues
2. Develop and provide information towards prioritization and decision-making for reliability improvements in Orange County
3. Involve/engage large stakeholder group in the process of improving SUPPLY and SYSTEM reliability

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

Key Aspects of the Study:

- 10-Year update of Countywide Water Reliability
- Improved methodology for projecting water demands
- Agreed upon definition and evaluation of SUPPLY and SYSTEM Reliability
- Comprehensive Review of ALL Water Sources
 - MET Import including put and take from storage sources
 - Local supplies Including groundwater
 - Regional Projects
 - Storage
 - Water Banking
 - Transfers/Contracts
- Focus on utility of information for decision-making
- Decision making remains with local utilities

Key Tasks of the Study:

- Analyze historical demands and develop updated projection of future demands & potential for future WUE impacts in OC
- Review existing OC local supplies and project these supplies into the future
- Estimate of supplies available from MET – This will involve modeling of supplies from the State Water Project and the Colorado River Aqueduct as well “puts” into and “takes” out of MET storage accounts; will also characterize climate variability impacts and biops impacts on supplies as well as “with” and “without” a BDCP solution (note – our time frame is out to 2035, so under almost any condition, a BDCP solution will not be in place at that time)
- Develop a SUPPLY GAP Analysis – This is the most difficult analysis for the study, which is to estimate through the year 2035 what the reliability of our import supplies will be from MET under various scenarios. The goal of this task is to provide a reasonably analysis of what is to be expected and to understand the impacts of key drivers of reliability or the lack of reliability.
- Develop an Emergency SYSTEM GAP Analysis – Based on prior work completed by MET, the ability of the local water systems to provide supplies for 60 days assuming there is an outage of the MWD system will be made; the key analysis will be to estimate the potential impacts to local well production facilities due to earthquake ground acceleration and to examine recovery aspects.
- Review options for NEW local supplies & SYSTEM capabilities/supplies to resolve GAPS identified
- Recommendations/Follow-up

Policy, Economic or Other Issues to be Addressed in the Study:

Another key aspect of the study is to examine how supply and system benefits result from various types of projects and to understand to whom the benefits accrue and under what conditions. Listed below are a number of policy, economic or other issues that can become involved in decision-making for improvements in supply and system reliability. These issues will be further explored in the context of project implementation.

- Identifying and valuing benefits of Local Projects
 - Supply
 - System
 - Extraordinary Supply
 - Regional Benefits vs Local Benefits
 - Carry-Over Storage for Droughts
- Water Supply and Drought Management Plan and how NEW Projects are accounted for during drought allocations
 - Preferential Rights
 - Share the Pain Model
 - Others
- MWD as the regional provider
 - They build large local projects and provide reliability to ALL of Southern California via the IRP
 - Provide storage to deal with outages of the CRA and SWP
 - MWD has expectations for their member agencies to deal with local reliability issues
- Level and Extent of MWD Storage for Managing Supplies, WET TO DRY YEARS
- Incentives provided by MWD for Local Projects
- Extended Drought Planning Criteria
- Contingency Targets for Planning Purposes (what % over need should you be targeting for)
- Sharing of supplies within OC
- Santa Ana River (SAR) water policy issues
- Storage of MWD water by Member Agencies outside of MWD
- Introduction of Local water into the MET system
- Availability of water for groundwater replenishment
- MET as an Agent in seeking dry years or extraordinary supplies for its Member Agencies
- Poseidon Funding via SNWA and a MET CRA Water Exchange
- Others???

Study Progress Through January 22

Listed below are the key activities through the third Workgroup meeting held on January 22:

- The consultant Contract was approved by the Board on October 15
- The kick-off meeting with the Full Workgroup was held on Nov 20; subsequent meetings have been held on Dec 18 and January 22.

- Kick-off meetings were also held with:
 - MWDOC staff
 - OCWD staff
 - MET staff to discuss the IRP modeling
 - MET staff to discuss demand projections
 - MET staff to discuss seismic issues relative to meeting demands with outages of the CRA and SWP
 - IRWD to discuss their Reliability Study and the potential for expansion of the Irvine Regional Interconnection Project
- Information has been presented by local agencies at the Workgroup meetings on the following topics:
 - Demand modeling and trends – Anaheim, IRWD, Mesa
 - Cadiz Water Conservation, Recovery and Storage Project - SMWD
 - San Juan Basin Optimization Plan including Nexus with Doheny Desal - SMWD
 - IRWD Water Banking Projects – IRWD
- Surveys were prepared and sent out to our agencies and the Three Cities regarding:
 - 2013-14 Billing Data by Sector
 - 5 and 25 Year Projections, including Existing Projects Production Forecast
 - NEW Project Survey
 - Generator and Operating Information for Agencies during emergency situations
- Meetings were held with:
 - Semi-Tropic Water Storage District
 - Willow Springs Water Bank (formerly known as Antelope Valley Water Bank)
- Additional meetings will be held with:
 - Cal Domestic, Brea and La Habra on groundwater supplies and reliability
 - SMWD - Cadiz and SJBA
 - IRWD - Strand Ranch and IRWD system capacity
- A request has been placed with the Center for Demographic Research for information by member agency on population, housing, employment and economics; this information will be used in the demand modeling
- Consultant work by CDM has involved:
 - Work on demand modeling and IRP modeling
 - Work on data collection
 - Participation in kick-off meetings
 - Meetings with MWDOC on:
 - Seismic issues and development of an approach to estimate potential well damage from various levels of ground acceleration
 - An approach to estimate water use efficiency impacts in Orange County from various levels of investment
- Upcoming work will involve:
 - Completion of survey information from our agencies – information has been late in coming in
 - Development of a statistical model of water production for OC 1990 - 2014
 - Work with MET on demand projections out to 2035

- Preparation of an IRP Shadow Model by CDM to mimic MET's IRP model
- Review of the upcoming Release of the DWR Model on SWP Reliability scheduled for March or April
- Workgroup discussions have been held on:
 - Demands and demand trends
 - Definition of Reliability
 - Duration of Reliability events
 - Policy, Economic or Other Issues to be Addressed in the Study
 - Local benefits using an ocean desalination project and a Central Valley Transfer as examples
 - Seismic issues – an initial discussion

Revised Schedule for Study

1. The study is somewhat behind schedule due to several issues:
 - a. Time needed for the local agencies to respond to the MWDOC surveys
 - b. Time needed to authorize CDM to complete the shadow IRP model and the time needed to develop the model
 - c. The request to CDR to develop statistics for each of our agencies was submitted late
 - d. Based upon our initial discussions regarding mapping and other technical work for seismic ground accelerations in Orange County, we will have to update MWDOC's prior work from 2005; we are talking to CDM and other consultants that might be able to help in the analysis. Great strides have been made in recent years in evaluating ground accelerations resulting from various faults. The prior work by MWDOC is outdated. Additional structural/geotechnical work is likely needed to determine potential failure modes for wells and well-head facilities. Staff will focus on resolving this issue over the next month.
 - e. Following is the updated schedule for the study effort.

Revised OC Reliability Study Schedule – January 2015		
Meeting No.	Anticipated Date	Proposed Meeting Topics
3	Feb	Review Draft Water Demand Analysis and Method for Forecasting
4	Mar	Present Demand Forecast with Sensitivity; review reliability scenarios
5	Apr	Present Local Agency New/Potential Projects
6	May	Discuss Policy, Economic and Other Issues Relative to Improving OC Reliability

7	Jun	Present Supply and System Gap Analysis
8	Jul	Present Example Portfolios of New/Potential Projects
9	Aug	Demonstrate that New/Potential Projects Improve Reliability
10	Oct	Review Draft Report

Review of Doheny and San Juan Basin Work Activities

As part of the Study Status update, staff was requested to provide an update with respect to the San Juan Groundwater Basin and how that work relates to the Doheny Desalination Project. The information follows.

The end of 2013 culminated five years and \$6.2 million worth of work investigating a slant well intake for the Doheny Desal Project. The work concluded that the project was feasible and could produce 15 million gallons per day (mgd) of NEW POTABLE SUPPLIES at an estimated capital cost of \$153 million or \$1611 per AF (2012 dollars) not counting any subsidies. Incentives from Metropolitan Water District would reduce the cost of water by \$340 per AF for 25 years or \$475 for 15 years.

As the Doheny work was being completed, it was recommended that the five Project Participants, consisting of South Coast Water District, City of San Clemente, City of San Juan Capistrano, Laguna Beach County Water District and Moulton Niguel Water District, move the project forward by initiating \$5M in work towards:

- Permitting
- Preliminary engineering
- Geotechnical evaluations
- Additional groundwater modeling
- Offshore geophysical studies
- Conducting baseline environmental studies
- Initiating CEQA and NEPA

The Doheny Participants elected to hold off on this work in 2013.

In late 2013, the San Juan Basin Authority (SJBA) was just completing its groundwater management plan and proposed a project that involved increasing the sustainable yield of the groundwater basin through:

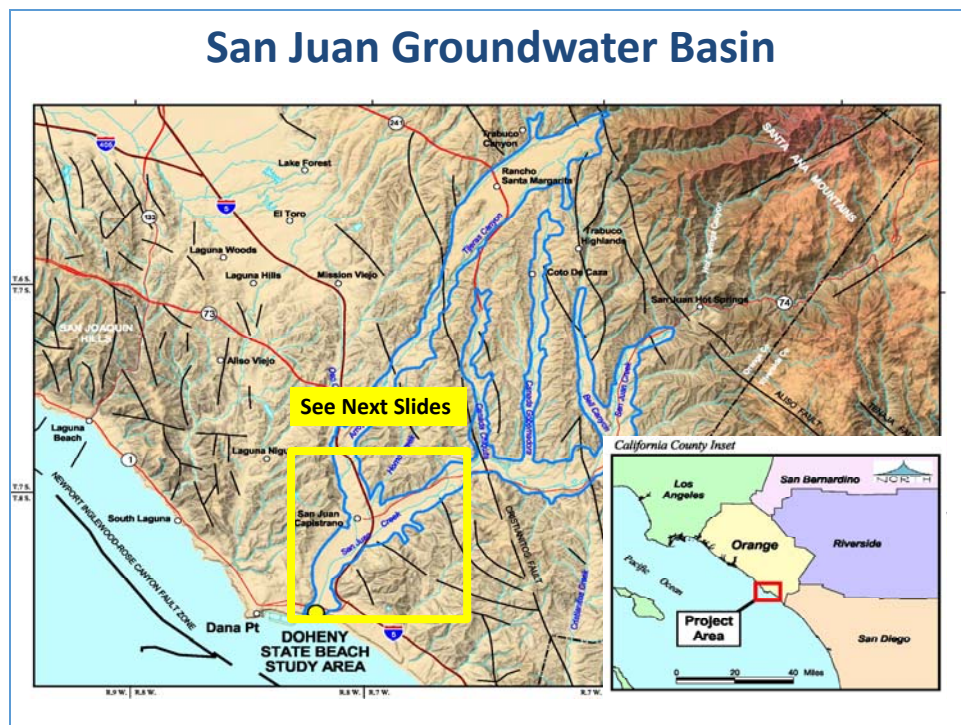
- Recharge of storm and recycled waters
- Creation of a seawater extraction barrier that will desalt seawater and generate a new supply of water
- Recharge large amounts of recycled water
- Recovery of the new recharge by expanding groundwater production facilities and treatment.

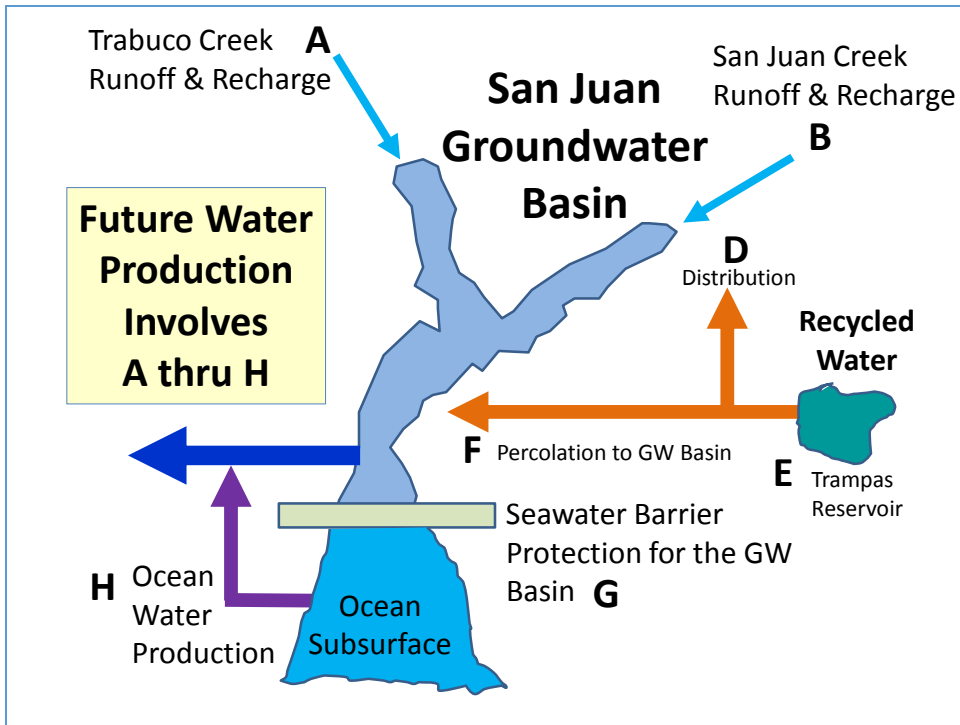
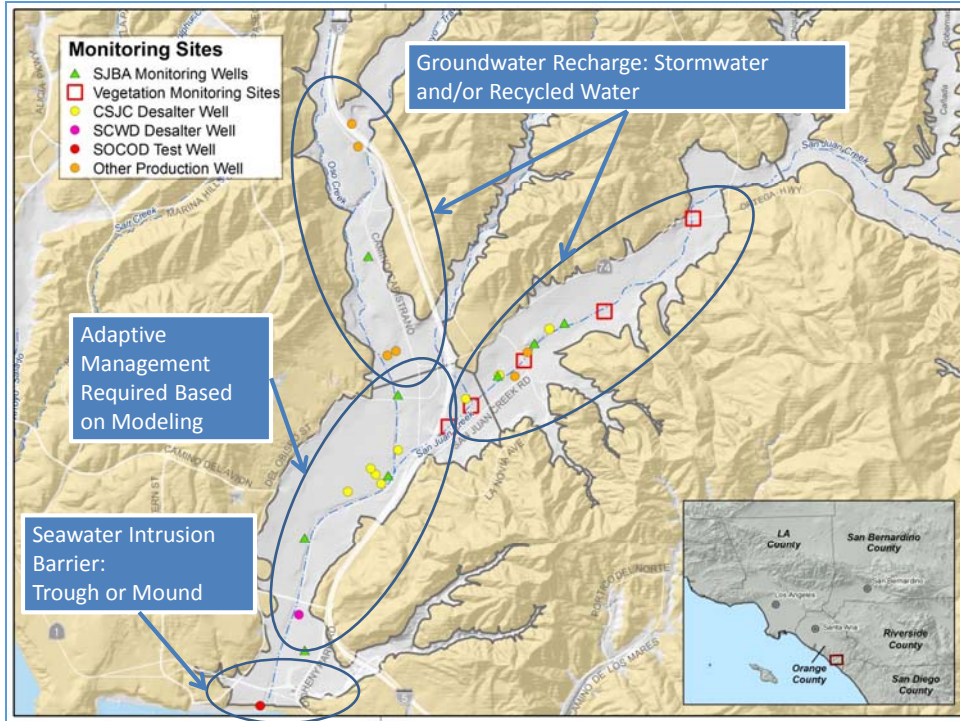
In the SJBA Groundwater Management Plan, it was recognized that the Doheny Desal Project could serve as the seawater extraction barrier and would also generate a new

supply of water. The SJBA members agreed that additional technical work was needed to be completed to develop the full understanding and relationships between the components of the Doheny and the SJBA projects. Some of this work has been started as follows:

- Additional groundwater and water quality modeling of the Doheny Desal Project subsurface intake system – by South Coast and Laguna Beach CWD via the MET Foundational Action Program
- Additional surface and groundwater modeling of the San Juan Groundwater Basin operations – by SJBA via the MET Foundational Action Program
- Additional monitoring of the groundwater basin operations under current drought conditions – by SJBA
- Geophysical work within the groundwater basin – by SJBA
- Investigation regarding the type of seawater barrier (injection or extraction) – by SJBA
- Work with the Regulatory Agencies on groundwater replenishment with recycled water – by SJBA
- Environmental Baseline monitoring of the San Juan Creek lagoon – by South Coast
- Development work for a demonstration 5 mgd Doheny Desal Project (South Coast WD & Laguna Beach CWD joint efforts)
- Work evaluating other supply options for South Orange County – MWDOC and others via the OC Water Reliability Study

The figures below depict the general relationship of the various water sources that could be utilized to enhance local water production in South Orange County.





It is anticipated that the work underway will result in a regional project for south Orange County that will include the following components:

1. San Juan Groundwater Basin Utilization/Management/Enhanced Yield
2. Recycled Water Storage, Production & Distribution System Expansions
3. Seawater Barrier to protect the San Juan Groundwater Basin
4. Ocean Desalination Facility for Potable Supplies
5. Other components and options that will come out of existing studies including those ideas and projects that are being considered in the Orange County Water Reliability Study which is underway at this time.

The current and future work of the above components will determine **exactly** which components move forward and which do not. All of these efforts are considered to be in the developmental stages at this time. Collectively, the overall investment being evaluated is on the order of \$500 million or more for development of 30,000 AF per year yield of NEW WATER SUPPLIES.

Drought Impacts to San Juan Basin

Historical quarterly monitoring of salinity and chloride levels in the basin raised concerns beginning in April 2014 when levels rose in the monitoring well closest to the South Coast groundwater desalter at Stonehill Dr. Reports of stressed vegetation in the watershed were also reported. Weekly water quality monitoring was initiated in September 2014 and the South Coast well and three City of San Juan wells were voluntarily turned off. These wells have remained off; water elevations have recovered by 6 to 8 feet close to the coast and by 9 to 15 feet further inland; the rise in chloride levels has remained constant or declined in the recent sampling. The rain events in December also helped. Sampling is continuing every two weeks and the decision to turn the wells back on is pending further monitoring and evaluation. The SJBA is conducting other technical geophysical work to try to get a better understanding of seawater intrusion and the flow of water in the basin. Production in the basin has been reduced from about 500 AF per month to about 300 AF per month since September 2014.

Attached are the Powerpoints from the January 22 OC Water Reliability Workgroup meeting.

**Summary Report for
The Metropolitan Water District of Southern California
Board Meeting
January 13, 2015**

INDUCTION OF DIRECTORS

Induction of Director Marsha Ramos representing the City of Burbank. **(Agenda Item 5C)**

COMMITTEE ASSIGNMENTS

None **(Agenda Item 5F)**

WATER PLANNING AND STEWARDSHIP COMMITTEE

Authorized the General Manager to enter into an agreement with the State Water Contractors, Inc. to pursue 2015 Sacramento Valley water transfer supplies, in a form approved by the General Counsel; and authorized making a \$5-per acre-foot initial administrative deposit and disbursements from that deposit consistent with the agreement not to exceed \$500,000 from the Water Management Fund; with direction to the staff to come back to the Board regarding recommendations whether or not to acquire water transfer supplies. **(Agenda Item 8-1)**

Authorized the General Manager to enter into the necessary agreements to facilitate an exchange with Westside Mutual Water Company and Kern County Water Agency, in a form approved by the General Counsel. **(Agenda Item 8-2)**

ENGINEERING & OPERATIONS COMMITTEE

Awarded \$3,067,900 contract to Zusser Company, Inc. to refurbish solids lagoons for the Joseph Jensen Water Treatment Plant; and authorized increase of \$300,000 to the existing agreement with MWH Americas, for a new not-to-exceed total of \$700,000. **(Agenda Item 8-3)**

Appropriated \$6.3 million; and awarded \$3,637,083 contract to Kana Engineering Group, Inc. to replace filter valves at the Joseph Jensen Water Treatment Plant's Module No. 1. (Approp. 15371) **(Agenda Item 8-4)**

Appropriated \$34.3 million; authorized the first phase of final design to rehabilitate the PCCP portions of the Second Lower Feeder; authorized preliminary engineering and environmental analyses to rehabilitate the PCCP portions of the Sepulveda Feeder, Calabasas Feeder, Rialto Pipeline, and Allen-McColloch Pipeline; authorized an agreement with Black & Veatch in an amount not to exceed \$16 million; and authorized an increase of \$350,000 to the agreement with ICF International, for a new not-to-exceed total of \$1.3 million. (Approp. 15471) **(Agenda Item 8-5)**

LEGAL AND CLAIMS COMMITTEE

Authorized the General Counsel to retain the firms listed in this board letter as special bond counsel and co-special bond counsel through June 30, 2018; and determined that special bond counsel fees may be approved by the General Counsel in amounts sufficient to procure special bond counsel and co-special bond counsel services for bond issues and for legal advice. **(Agenda Item 8-6)**

Authorized increase in maximum amount payable under contract for legal services with Quinn Emanuel Urquhart & Sullivan, LLP by \$3,150,000 to an amount not to exceed \$5,500,000, and authorized increase in maximum amount payable under contract for consultant services with Woodcock & Associates, Inc. by \$100,000 to an amount not to exceed \$200,000, both in connection with San Diego County Water Authority v. Metropolitan Water District of Southern California, et al., San Francisco County Superior Court Case Nos. CPF-10-510830, CPF-12-512466, and CPF-14-514004. **(Agenda Item 8-7)**

COMMUNICATIONS AND LEGISLATION COMMITTEE

Authorized staff to initiate a request for proposals for a summer water awareness and conservation advertising campaign; and authorized funding for a 2015 campaign, not to exceed \$5.5 million. **(Agenda Item 8-8)**

CONSENT CALENDAR

In other action, the Board:

Adopted resolution granting approval for the 104th Fringe Area Annexation concurrently to Eastern and Metropolitan and establish Metropolitan's terms and conditions for the annexation, conditioned upon approval by Riverside County's Local Agency Formation Commission, and upon receipt of annexation fee of \$327,044.44; and approved Eastern's Statement of Compliance with the current Water Use Efficiency Guidelines. **(Agenda Item 7-1)**

Appropriated \$430,000; and authorized two rehabilitation projects at the F. E. Weymouth Water Treatment Plant; and adopted an addendum to an environmental impact report for the Weymouth plant. (Approp. 15477) **(Agenda Item 7-2)**

Appropriated \$710,000; and authorized design to extend electrical service to the East Dam area at Diamond Valley Lake. (Approp. 15480) **(Agenda Item 7-3)**

Adopted a resolution supporting Metropolitan's application to DWR's 2014 Water-Energy Grant Program for the Weymouth solar facility and the High Efficiency Toilet Rebate program within the Weymouth service area, and authorized the General Manager to accept potential grant funding of up to \$2.5 million and to enter into an agreement with DWR in a form approved by the General Counsel; and adopted a resolution supporting Metropolitan's application to DWR's 2014 Water-Energy Grant Program for the Jensen solar facility and the High Efficiency Toilet Rebate program within the Jensen service area, and authorized the General Manager to accept potential grant funding of up to \$2.5 million and to enter into an agreement with DWR in a form approved by the General Counsel. **(Agenda Item 7-4)**

Authorized the General Manager to grant a permanent easement to city of South Gate on Metropolitan-owned property located in county of Los Angeles. **(Agenda Item 7-5)**

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>.



THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

MWD MEETING AGENDA

Regular Board Meeting

February 10, 2015

Tuesday, February 10, 2015 Meeting Schedule		
7:00-8:00 a.m.	Rm. 2-413	Dir's. Computer Training
9:30 a.m.	Rm. 2-145	L&C
12:00 p.m.	Board Room	Board Meeting

12:00 p.m. – Board Room

MWD Headquarters Building • 700 N. Alameda Street • Los Angeles, CA 90012

1. Call to Order

- (a) Invocation: James Spicer, Engineer, Engineering Services Group
- (b) Pledge of Allegiance: Director Linda Ackerman

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 January 13, 2015. (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 January

- C. Reappointment of Director John Murray, Jr. from City of Los Angeles
- D. Reappointment of Director Glen Dake from City of Los Angeles
- E. Presentation of five-year service pin to Director Laura Friedman, representing City of Glendale
- F. Presentation of ten-year service pin to Director Daniel Griset, representing City of Santa Ana
- G. Approve Commendatory Resolution for Director Glenn Brown, representing City of Burbank
- H. Approve committee appointments and waiver of Administrative Code Section 2401(b) relating to Directors serving for more than two 2-year terms as Chairman of standing committees (as voted on at the Executive Committee meeting of January 27, 2015)
- I. Nomination and election of nonofficer members of the Executive Committee for two-year term effective February 10, 2015
- J. Chairman's Monthly Activity Report

6. DEPARTMENT HEADS' REPORTS

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

7. CONSENT CALENDAR ITEMS — ACTION

- 7-1** Appropriate \$450,000; and authorize replacement of protection relays at Intake and Gene Pumping Plants (Approp. 15384). (E&O)

Recommendation:

Option #1:

Adopt the CEQA determination that the proposed action is categorically exempt, and

- a. Appropriate \$450,000; and**
- b. Authorize construction to replace protection relays at Intake and Gene Pumping Plants.**

- 7-2** Appropriate \$1.35 million; and authorize design to replace discharge valves at Copper Basin and Gene Wash Reservoirs (Approp. 15373). (E&O)

Recommendation:

Option #1:

Adopt the CEQA determination that this action is categorically exempt, and

- a. Appropriate \$1.35 million; and**
- b. Authorize final design to rehabilitate the discharge structures at Copper Basin and Gene Wash Reservoirs.**

(END OF CONSENT CALENDAR)

8. OTHER BOARD ITEMS — ACTION

- 8-1** Authorize entering into a two-year agreement with the California Department of Water Resources to pay up to \$46 million from the Water Management Fund to purchase State Water Project supplies under the Multi-Year Water Pool Demonstration Program. (WP&S)

Recommendation:

Option #1:

Adopt the CEQA determination that the proposed action is not subject to CEQA and is categorically exempt, and authorize the General Manager to enter into a two-year agreement with the California Department of Water Resources to pay up to \$46 million for State Water Project supplies under the Multi-Year Water Pool Demonstration Program to help improve dry-year water supplies in 2015 and 2016.

- 8-2** Appropriate \$13.5 million; and award \$9.31 million contract to C. W. Roen Construction Co. for upgrades to the east filters at the Robert B. Diemer Water Treatment Plant (Approp. 15436). (E&O)

Recommendation:

Option #1:

Adopt the CEQA determination that the proposed action is categorically exempt, and

- a. Appropriate \$13.5 million; and**
- b. Award \$9.31 million contract to C. W. Roen Construction Co. for upgrades to the east filters at the Diemer plant.**

- 8-3** Express opposition to SB 143 (Stone, R-Indio) – Diamond Valley Reservoir: Recreational Use. (C&L) **(To be mailed separately)**

9. BOARD INFORMATION ITEMS

- 9-1** Potential Turf Removal Program Modifications. (WP&S)

10. FUTURE AGENDA ITEMS

11. 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