WORKSHOP MEETING OF THE BOARD OF DIRECTORS WITH MET DIRECTORS MUNICIPAL WATER DISTRICT OF ORANGE COUNTY 18700 Ward Street, Board Room, Fountain Valley, California April 1, 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 <u>http://www.mwdoc.com</u>.

(NEXT RESOLUTION NO. 2011)

PRESENTATION/DISCUSSION/INFORMATION ITEMS

1. 2015 WATER SUPPLY REPORT

Recommendation: Review and discuss the information presented.

2. MET'S 2015 UPDATED INTEGRATED RESOURCES PLAN

Recommendation: Review and discuss the information presented.

3. OC WATER RELIABILITY DISCUSSIONS RELATED TO THE 2015 MET IRP UPDATE

Recommendation: Review and discuss the information presented.

4. 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.

5. OTHER INPUT OR QUESTIONS ON MET ISSUES FROM THE MEMBER AGENCIES

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

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

Recommendation: Review and discuss the information presented.

ADJOURNMENT

Note: <u>Accommodations for the Disabled.</u> Any person may make a request for a disabilityrelated 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

April 1, 2015

TO: Board of Directors

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

SUBJECT: Updated 2015 Water Supply Report

STAFF RECOMMENDATION

Staff recommends the Board of Directors review and discuss this information

REPORT

Current Water Supply Conditions

Unfortunately, the month of March did not improve water supply conditions. The "March miracle" of above average precipitation that we were hoping for did not occur, which forced DWR to keep the SWP "Table A" Allocation at 20%. In fact, not only did northern California's precipitation for the month of March come in at a record low of only 0.8 inches (a six-inch deficit compared to normal), but the average temperature for March was eight degrees above average. This resulted in the eight-station index accumulated precipitation for the Northern Sierra to report a decrease from 89% of normal to date to 78%.

However, most troubling has been the snowpack in Northern California. Last month we reported that the snowpack for the Sierra Mountains measured 17% of normal to date. Currently, the snowpack is at a record low of 7% of normal. Experts are predicting that 2015 will be the lowest snowpack year on record.

This is supported by the National Weather Service projections of continued above average temperatures for most of California over the next three months (April-June), and continuation of "persist or intensified" dry conditions for the southwest region.

Based on these conditions, Metropolitan staff will be recommending to its Board the implementation of its Water Supply Allocation Plan in April, in order to reduce imported demands and stretch dry-year storage supplies for the coming year. What not yet been determined is what regional shortage level MET staff plans to recommend. Last month, MET staff provided the Board with varies shortage level scenarios under different water supply conditions i.e. SWP at 25% and SWP at 35%. The scenarios showed a range of a regional shortage level 2 to level 4 depending on how much dry year storage MET would

Budgeted (Y/N): n/a	Budgeted amount: n/a		Core _X _	Choice
Action item amount: n/a		Line item:		
Fiscal Impact (explain if	unbudgete	d):		

use to meet expected demands. MET also show how the usage of storage this year could impact next year's available of storage.

MWDOC staff plans to provide the Board with a detail analysis of the different levels of shortages, the different usage of dry-year storage, and the impact to MWDOC under different regional shortage levels.

It is important to note that the effective date of water supply allocations would begin on July 1, 2015 and end on June 30, 2016. If a MET agency exceeding its allocation penalties would be assessed at the end of the allocation period (June 30, 2016).





Annual Precipitation (Santa Ana)







































2009 Vs 2015 Reservoir Storage



2009 VS 2015 Take aways

- 2015 drought is more severe than 2009.
- As MWD enter into allocation in July 2009 the follow two fiscal years were very wet, mild temperatures and a hurt economy that resulted in record low water demands throughout Southern California.
- Most local/State/Federal Reservoir levels are lower now than going into allocation in 2009 (Key reservoir that is not lower is San Luis).
- If above average wet conditions do not return in 2015 and 2016 it could be difficult for state and regional reservoirs to recover creating further stress on California's water system.
- Improving economic conditions could make it more challenging to keep demand low compared to 2009-10 which might result in allocation penalties.









SWP Allocation (2015 & 2016)2015 WSAP Level2015 Storage Take (TAF)2016 WSAP Level2016 Storage Take (TAF)No Allocation/ Level 1532511725%2439421333413310	Potential A	Potential Allocation Scenarios - Summary			
No Allocation/ Level 1 532 5 117 25% 2 439 4 213 3 341 3 310	SWP Allocation (2015 & 2016)	2015 WSAP Level	2015 Storage Take (TAF)	2016 WSAP Level	2016 Storage Take (TAF)
25% 2 439 4 213 3 341 3 310		No Allocation/ Level 1	532	5	117
3 341 3 310	2 <mark>5%</mark>	2	439	4	213
		3	341	3	310
			those Ch-		March 0, 2015

Potential A	llocatio	n Scenarios	s - Sumn	nary
SWP Allocation (2015 & 2016)	2015 WSAP Level	2015 Storage Take (TAF)	2016 WSAP Level	2016 Storage Take (TAF)
250/	No Allocation	341	No Allocation	<mark>3</mark> 10
35%	2	248	No Allocation	310
35% - 25%	2	248	No Allocation	500
WP&S Committee		Item 6b		March 9, 2015







Item No. 2



DISCUSSION ITEM

April 1, 2015

TO: Board of Directors

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

SUBJECT: Metropolitan's 2015 Updated Integrated Resources Plan (IRP)

STAFF RECOMMENDATION

Staff recommends the Board of Directors review and discuss this information

REPORT

On March 24, 2015, MET held its first IRP Committee meeting. The Committee covered:

- Background and History of Metropolitan A review of past Board actions that initiated water resource policies and responses to changing circumstances; and
- Overview of the 2010 IRP Update A review of the key components of the last IRP updated; and
- Review of the Proposed 2015 IRP Process and Schedule A review of the proposed timeline and process for IRP update.

MWDOC staff will brief the Board on the discussion of the first IRP Committee including some of the key comments committee members made at the meeting.

Budgeted (Y/N): n/a	Budgeted amount: n/a		Core _ X _	Choice
Action item amount: n/a		Line item:		
Fiscal Impact (explain if	unbudgete	d):		





MET 2015 IRP Committee Mtg

The 1st IRP Committee cover three items:
 Background and History of Metropolitan
 Key Components of the 2010 IRP
 Proposed 2015 IRP Schedule and Process



Metropolitan Act (1927):

"Metropolitan water districts may be organized for the purpose of developing, storing, and <u>distributing water for domestic and municipal</u> <u>purposes</u> and may provide, generate, and deliver electric power within or without the state for the purpose of developing, storing, and distributing water for such district."

Laguna Declaration (1952):

(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.



Background and History of MET

Laguna Declaration (1952):

(b) Taxpayers and water users residing within the District already have obligated themselves for the construction of an aqueduct supply and distribution system. This system has been designed and constructed in a manner that permits orderly and economic extensions and enlargements <u>to deliver the District's full share of</u> <u>Colorado River water and State Project water as well as water from</u> <u>other sources as required in the years ahead...</u>



Background and History of MET

Goals/Purpose of Metropolitan's Integrated Resource Plan:

- Provide a Long-Term plan (25 year horizon)
- Develop regional goals for water supplies and demand management – "where we want to go"
- Set a framework for the development of implementation approaches – "how we want to get there"
 - Conservation/WUE strategy
 - 6 Local resource Partnerships
 - Imported Supply Development
 - Storage Management



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Background and History of MET

2010 Integrated Water Resource Plan

Introduced an adaptive management approach

Seek to stabilize imported supplies and meet growth through water use efficiency and local resources























DISCUSSION ITEM April 1, 2015

TO: Board of Directors & MWD Directors

FROM: Robert Hunter, General Manager

Staff Contact: Karl Seckel

SUBJECT: OC Water Reliability Discussions Related to the 2015 MET IRP Update

STAFF RECOMMENDATION

Staff recommends the Board of Directors provide input and receive and file the report.

DETAILED REPORT

Understanding the Reliability of MET's future supplies is central to the work being conducted as part of the OC Water Reliability Study. MWDOC has started conducting work with its member agencies and the study consultant, CDM Smith. Part of the work being conducted by MWDOC is to "mimic" MET's IRP to test various scenarios for the reliability of imported water sources and to combine those supplies with existing local supplies to identify any potential supply GAPS that might arise under various scenarios. The MWDOC work will be completed prior to the completion of the 2015 MET IRP Update. Having our study underway at this time has positioned us to question certain assumptions that MET may or may not be testing under their IRP analysis and will allow us insight into the work they will be conducting for their entire service area. Our study scope of work and input by the member agencies has included a number of items which we would like to better understand. The attached presentation identifies the following issues that we believe would be important for MET and OC to address as MET moves forward with their IRP. These issues are:

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

- 1. Include a SYSTEM (Emergency) Analysis of a concurrent outage of the CRA and SWP to determine how demands will be met. This should include a review of the emergency storage criteria developed by MET to determine if it is still appropriate. MET's 2010 IRP did NOT include such an analysis and specifically noted that emergency planning was not part of the IRP. MWDOC staff feels that this type of planning would be beneficial to complete at the same time the other planning elements are addressed in the IRP. This likely requires MET to work with DWR on the impacts of an outage of the SWP and the Edmonston Pump Station due to a large earthquake; an outage analysis of the Delta Levee system should also be conducted. A concurrent outage of the CRA and SWP is beyond the ability of OC to handle via its own resources and requires coordination within the entire MET service area. Planning for earthquakes that occur in Orange County falls under planning both by MET and OC.
- 2. Climate variability impacts should be evaluated to determine if the historical 83 years of record are sufficient for future planning or if recent history might be more representative of what will occur in the future. The upcoming DWR report on the reliability of the SWP will include an update on climate variability on future SWP supplies. The work to be completed under the OC Water Reliability Study will likely consider variability more consistent with the past 10 years or so and we would recommend that MET consider such criteria.
- 3. The concept of managing groundwater storage within the MET service area in such a manner to maintain greater levels of storage within groundwater basins should be considered in advance of the next drought. MET has indicated that groundwater levels within their service area have been drawn down by about 1 MAF at the same time we are heading into water rationing. Providing incentives or developing programs that result in greater storage of imported water will likely be difficult, but should be considered as a resource to be developed for the good of the region.
- 4. Adaptive Management and Contingency Targets should be included in the IRP update. Adaptive Management and Buffer Supplies were first included in the 2010 IRP update. Given the complexity of coming to agreement on the BDCP, the adaptive management should consider what investments are needed for reliability until such time as the BDCP is completed and potentially consider what investments would be needed in the event the BDCP does not come to fruition. Contingency Targets (buffer supplies) should be targeted above the supplies needed to meet the reliability goal to ensure other options are always available. This issue is also considered in the discussion below on MET's Foundational Action Program.
- 5. The IRP should consider options for MET member agencies who might want a higher reliability than would normally be achieved under the IRP and the MET water supply allocation plan. Currently, agencies can develop additional local supplies, but the increase in reliability is only incremental; this results because as additional supplies are developed, the "need" for MET water (see item 6. below) and hence your allocation of MET water decreases. MET has allowed for "extraordinary" supplies that can measurably improve the reliability of an entity, but structuring these types of projects can be difficult as they must be measures

that are ONLYy utilized during allocation situations. Another options entities have noted that might improve reliability includes storage of MET water outside of the MET service area, but it is likely this would only be considered by MET in the event there is a benefit for MET to achieve that they could not have achieved by their own investment. The concept of "contracting" with MET, say on a subscription basis, for water transfers from outside of the MET service area could also allow for any member agency to contract for a higher reliability than would otherwise be achieved. This may be difficult for MET to develop and administer such a program.

- 6. MET's current water supply allocation plan has been approached for many years based on the "need" for MET water to meet demands. This keeps all agencies under the MET umbrella working together to meet the collective needs of the region, but similar to the issue raised under no. 5 above, the current methodology limits the ability of any member agency to significantly improve its reliability above that they otherwise would have achieved. There are many good reasons to maintain such a program, but there may also be good reasons to depart from such a system to allow greater incentives for "self-improvement" by local agencies. This issue should be discussed in the context of the IRP because of the magnitude of local investments needed to ensure reliability for the region. Departure from the current method could also affect incentives offered by MET towards the development of local projects. MWDOC sought to get a "local resource adjustment" included in the 2015 allocation plan, but was not successful.
- 7. An issue mentioned more often as water recycling is becoming more and more important towards reliability improvements for the region has to do with increasing TDS resulting from reuse of the water combined with water use efficiency efforts. A long term effect, especially to protect salt loading in groundwater basins, may require desalting a portion of the recycled supplies to ensure appropriate management of the salts. This is an area that MET may be able to investigate from a regional perspective to provide assistance.
- 8. Undoubtedly, there will be a myriad of other issues raised in MET's 2015 IRP Update. Several additional area for further exploration include:
 - What is MET's long term role in ocean desalination?
 - Where is Direct Potable Reuse (DPR) headed and what are the implications?
 - What are the key next set of Foundational Actions that should be investigated?
 - Others

Staff will maintain a list issues to offer into the IRP update as staff begins to participate in the IRP Technical Committee beginning on April 8. Other issues will probably continue to be developed in the OC Water Reliability Study Workgroup. The attached Powerpoint is

provided to assist in the discussion and to elicit additional input and comments from the Board members, MET directors and member agencies.



MET's 2015 IRP Update is Critical

The Integrated Resources Plan Reliability Goal

1996 IRP and 2004 IRP Update:

"Through the implementation of the IRP, Metropolitan and its member agencies will have the full capability to meet full-service demands at the retail level under all foreseeable hydrologic conditions"











Duration of Supply/System Reliability Events

Reliability Event	Duration
Droughts	One to 5 Years (historic hydrology) 8 out of 10? Years (recent variability?)
Pipeline Failures	7 to 30 Days
Diemer WTP Failure	Up to 60 Days
Delta Levee Failure	1 to 2 Years
Edmonston Pumping Plant	TBD
Colorado River Aqueduct	6 months
7	

















Item No. 4



DISCUSSION ITEM

April 1, 2015

TO: Board of Directors & MWD Directors

 FROM:
 Robert J. Hunter
 Staff Contact: Harvey De La Torre

 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

Unfortunately, the month of March did not improve water supply conditions. The "March miracle" of above average precipitation that we were hoping for did not occur, which forced DWR to keep the SWP "Table A" Allocation at 20%. In fact, not only did northern California's precipitation for the month of March come in at a record low of only 0.8 inches (a six-inch deficit compared to normal), but the average temperature for March was eight degrees above average. This resulted in the eight-station index accumulated precipitation for the Northern Sierra to report a decrease from 89% of normal to date to 78%.

However, most troubling has been the snowpack in Northern California. Last month we reported that the snowpack for the Sierra Mountains measured 17% of normal to date. Currently, the snowpack is at a record low of 7% of normal. Experts are predicting that 2015 will be the lowest snowpack year on record.

This is supported by the National Weather Service projections of continued above average temperatures for most of California over the next three months (April-June), and continuation of "persist or intensified" dry conditions for the southwest region.

As for the Colorado River system, precipitation and snowpack not improve for the month of March. The snowpack decreased from last month and is currently at 75% of normal to date.

Based on these conditions, Metropolitan staff will be recommending to its Board the implementation of its Water Supply Allocation Plan in April, in order to reduce imported demands and stretch dry-year storage supplies for the coming year. What not yet been determined is what regional shortage level MET staff plans to recommend. Last month, MET staff provided the Board with varies shortage level scenarios under different water supply conditions i.e. SWP at 25% and SWP at 35%. The scenarios showed a range of a regional shortage level 2 to level 4 depending on how much dry year storage MET would use to meet expected demands. MET also show how the usage of storage this year could impact next year's available of storage.

MWDOC staff plans to provide the Board with a detail analysis of the different levels of shortages, the different usage of dry-year storage, and the impact to MWDOC under different regional shortage levels.

It is important to note that the effective date of water supply allocations would begin on July 1, 2015 and end on June 30, 2016. If a MET agency exceeding its allocation penalties would be assessed at the end of the allocation period (June 30, 2016).

ISSUE BRIEF # B

SUBJECT: MWD's Finance and Rate Issues

RECENT ACTIVITY

MWD Financial Report

At March's Metropolitan (MWD) Finance and Insurance Committee, MWD staff provided a brief financial report. For cumulative water sales through the end of February, MWD reported sales of 122,300 Acre-Feet (AF) or 11% higher than budget and 84,300 AF higher than the five-year average. This is mainly due to increased untreated water sales. These increase sales will generate approximately \$84.6 million in additional revenue. Expenses continue to track under budget, and staff plans to provide further detail next month when they present their third quarter financial report.

ISSUE BRIEF # C

SUBJECT: Colorado River Issues

RECENT ACTIVITY

State Water Resources Control Board to Host Workshop on Salton Sea Petition

In February, the State Water Resources Control Board (State Board) distributed a notice of a public workshop to solicit comments regarding the status of the Salton Sea and the State Board Order WRO 2002-0013, which authorized the transfer of water from Imperial Irrigation District (IID) to San Diego County Water Authority. The workshop, which was held on March 18, 2015 in Sacramento, is in response to IID's November 18, 2014 petition to the State Board, which requests that new conditions be placed on WRO 2002-2013, which would require the state of California to develop and implement a restoration plan for the Salton Sea. In its notice, the State Board is seeking written comments in advance of the workshop, in particular as to the following three questions (paraphrased): (1) How can the State Board promote implementation of a restoration plan for the Salton Sea, (2) Is there an appropriate role for the State Board in the Salton Sea restoration process, and (3) What changes, if any, should be made to WRO 2002-0013? Metropolitan staff plan to report on the workshop and next steps.

Bureau of Reclamation (Reclamation) Updates Shortage Outlook

Also in February, staff from Reclamation provided results from an updated water supply modeling analysis that projects the future operations of the Colorado River, and includes outlooks for shortage declarations. After adjusting for the current below-normal snowpack in the Rocky Mountains, the model projected a 21 percent chance of a shortage in the Colorado River next year, and increase to a 54 percent in 2017. Even with the forecast for additional releases from Lake Powell, Lake Mead is projected to drop 8 feet this year, reaching an all-time record low level by the end of April.

In response to the increased likelihood of shortages in the next few years, Southern Nevada Water Authority (SNWA) and Central Arizona Project (CAP) are implementing actions within their respective states to reduce the projected decline in Lake Mead. Neither agency diverted all of the water that each was entitled to in 2014, and they both plan to leave additional unused water in Lake Mead in 2015. Additionally, both agencies are funding conservation programs within their states to create Intentionally Created Surplus (ICS) supplies that will be added to their storage accounts in Lake Mead this year. While SNWA already has approval to create ICS this year, CAP will need to obtain approval from various water agencies, including Metropolitan, in order to create ICS in 2015. If staff from Metropolitan and CAP agree on terms for the new ICS projects, the plan will be taken to Metropolitan's Board for consideration.

ISSUE BRIEF # D

SUBJECT: Bay Delta/State Water Project Issues

RECENT ACTIVITY

State Water Resources Control Board's Order

Metropolitan reported to the Board that on January 23, DWR and U.S. Bureau of Reclamation (USBR) submitted a Temporary Urgency Change Petition (TUCP) to the State Water Resources Control Board (SWRCB) to request temporary changes to the terms of the water rights permits for operation of the State Water Project and Central Valley Project. The TUCP requested temporary modification of water rights requirements to meet the objectives for Delta outflow, San Joaquin River flow, Delta Cross Channel (DCC) gate closure, and export limits. These changes would allow management of reservoir releases in a manner that conserves upstream storage for fish and wildlife protection and Delta salinity control while providing critical water supply needs.

On February 3, the SWRCB Executive Director issued the Order Approving In Part And Denying In Part A Petition For Temporary Urgency Changes To License And Permit Terms And Conditions Requiring Compliance With Delta Water Quality Objectives In Response To Drought Conditions (Order) approving some elements and denying some elements of the TUCP. In particular, the Order approved elements of the TUCP to adjust flow and water quality requirements that govern inflows and outflows in the Delta and operation of the DCC gates for the next two months. However, the Order did not approve the request for an intermediate level of export pumping under certain conditions to provide needed flexibility to increase exports above minimum levels only when water is moving through the system while maintaining protections for listed fish species. The Order denied this request due to stated potential additional risk of entrainment to listed species.

Metropolitan staff reviewed the Order and worked with state and federal water contractors to submit comments on the Order on February 13. The water contractors objected to the Order because it denied the request for an intermediate level of pumping, and in that denial did not adequately consider impacts on agricultural and urban communities, or give proper consideration of the additional protections for Endangered Species Act listed species provided under the biological opinions. The comment letter requests that the SWRCB reconsider the Order. Metropolitan also submitted separate comments on the Order addressing the water supply needs of Metropolitan's service area.

The SWRCB held an informational workshop on February 18 to receive public comment on the TUCP and the Order. Metropolitan coordinated with the State Water Contractors to provide oral comments at the workshop. It is unclear when the SWRCB may provide input or make any decisions concerning the Order.

Delta Flood Emergency Management Plan

Last month Metropolitan held briefings for the US Army Corps of Engineers (USACE) and DWR executive management, and separately for State Water Contractors' members, to

review the status of emergency preparedness and response activities to date. The briefings focused on the seismic threat, major materials stockpiling activities by both DWR and USACE for potential development of an emergency freshwater pathway, and research activities highlighting potential seismic concerns for Old and Middle River levees and remedial measures to better prepare for emergency response in the event of a major earthquake.

AECOM (previously URS) seismic studies commissioned by Metropolitan have compared modeled ground motions of the South Napa earthquake to the actual ground motions of this earthquake recorded in the Delta. It was found that the actual measurements of ground motions generally confirm the model predictions and the earthquake threat posed to Delta levees.

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

Doheny Desalination Project

On March 11, Karl Seckel and Richard Bell participated in a briefing and Tour for the MET staff involved in the Foundational Action Funding for the San Juan Basin Authority and for the Doheny Desal Project. The briefing included the following:

- Introduction by Karl Seckel and Richard Bell
- Presentation by Andy Brunhart on the Foundational Work for the Doheny Desal Project.
- Presentation by Geoscience Support Services (Dennis Williams, Ailco Wolf and Johnson Yeh) regarding the groundwater modeling work for both the San Juan Basin Authority and the Doheny Desalination Project.
- Presentation by Cathrene Glick, G3SoilWorks on behalf of the San Juan Basin Authority.
- Presentation by Dan Ferons on behalf of the San Juan Basin Authority.
- Tour of the Doheny Desal Pilot Project by Richard Bell.
- Tour of the South Coast Water District Groundwater Desalter by Andy Brunhart.
- The MET staff who participated included Stacey Takeguchi, Warren Teitz and Warren Hagstrom. MET was very appreciative of the presentations and tour as it answered many questions they had about the status of the projects. The information shared will be used in a subsequent MET Management and Board Briefing.

Huntington Beach Ocean Desalination Project (Poseidon Project)

The OCWD Board authorized their staff to enter into negotiations with Poseidon on the terms and conditions for the Huntington Beach Project. A revised draft Term Sheet was released by OCWD from their meeting on March 18. OCWD has established a Citizens Advisory Committee who will meet three times before the end of April; an OCWD Board meeting is scheduled for April 30 to consider actions on the Term Sheet. OCWD and MWDOC staff have met to work together on various aspects of integrating the project water into Orange County.

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

Karl Seckel and Richard Bell hosted the March Workgroup meeting for the OC Water Reliability Study following the Manager's meeting. The bulk of discussions were held regarding the regression analysis completed on historical demands in Orange County between 1990 and 2014. The regression was combined with water sector usage reported by agencies for 2013-14 for Single Family, Multi-Family and Commercial/Industrial/Institutional usages. The Workgroup requested that additional work be completed on breaking out potential demands that could be met by recycled water.

IRWD is proceeding with its own Water Reliability Study. MWDOC's consultant and the IRWD consultant met to coordinate data and analyses for the two studies.

MWDOC is working on setting a kick-off date for the updated Seismic Assessment work to be incorporated into the Water Reliability Study.

Summary Report for The Metropolitan Water District of Southern California Board Meeting March 10, 2015

INDUCTION OF DIRECTORS

Induction of Director Michele Martinez, representing the City of Santa Ana. (Agenda Item 5C)

COMMITTEE ASSIGNMENTS

Director Atwater was appointed Chair of the Integrated Resources Planning Committee, and Director Dake was appointed Vice Chair of the Integrated Resources Planning Committee. Directors Abdo, Beard, Blois, Calkins, Evans, Gray, Lefevre, Lewinger, McKenney, Morris, Peterson, Ramos, Steiner, and Touhey were assigned to the Integrated Resources Planning Committee. (Agenda Item 5E)

FINANCE AND INSURANCE COMMITTEE

Approved the draft Remarketing Statements; and authorized the General Manager to finalize, with changes approved by the General Manager and General Counsel, and execute the Remarketing Statements; and authorized distribution of the Remarketing Statements in connection with remarketing of the related Bonds. (Agenda Item 8-1)

WATER PLANNING AND STEWARDSHIP COMMITTEE

Authorized the General Manager to enter into an agreement with Arvin-Edison Water Storage District to pay up to \$3 million from the Water Management Fund for improvement of the return capacity of the Arvin-Edison/Metropolitan Water Management Program. (Agenda Item 8-2)

Authorized entering into an agreement with Kern-Delta Water District to pay up to \$2.5 million from the Water Management Fund for improvement of the return reliability of the Kern-Delta Water District Water Management Program. (Agenda Item 8-3)

Authorized General Manager to secure one-year water transfers with various Sacramento Valley water districts for up to 100,000 acre-feet of additional supplies; secure storage and conveyance agreements with Department of Water Resources and various Sacramento Valley water districts to facilitate these transfers, consistent with Articles 55 and 56 of Metropolitan's State Water Supply Contract and including an up to \$10 per acre-foot payment for DWR's administrative costs; and pay up to \$71 million from the Water Management Fund for such transfers; and grant the General Manager final decision-making authority to determine whether or not to move forward with these transfers following completion of any environmental reviews required under CEQA, subject to the terms and conditions in the board letter. (Agenda Item 8-10)

ENGINEERING & OPERATIONS COMMITTEE

Appropriated \$3.96 million; awarded \$996,600 contract to Environmental Construction, Inc. for revegetation at the Robert B. Diemer Water Treatment Plant; authorized Metropolitan force completion activities for the Diemer Oxidation Retrofit Project; and authorized increase of \$76,000 to an agreement with Helix Environmental Planning, Inc. for a new not-to-exceed total of \$386,000. (Approp. 15389). (Agenda Item 8-4)

Appropriated \$3.56 million; awarded \$2.09 million contract to Lasater Construction Company, Inc. to replace the wastewater systems at Julian Hinds and Eagle Mountain Pumping Plants; and authorized increase of \$110,000 to an agreement with MWH Americas for a new not-to-exceed total of \$1.01 million. (Approp. 15385). (Agenda Item 8-5)

Authorized execution of a purchase contract with Pacific Air Center in the amount of \$2,179,128 for the purchase of a 2015 Model 208 Cessna Caravan aircraft complete with all specified equipment and avionics. (Agenda Item 8-6)

LEGAL AND CLAIMS COMMITTEE

Authorized the General Counsel to amend the existing agreement with Van Ness Feldman LLP to increase the maximum amount payable by \$150,000 to \$250,000 for legal services related to preparation of the Bay Delta Conservation Plan. (Agenda Item 8-7)

Heard a report on water diversions in the Bay-Delta; and authorized an increase in the amount payable under contract with Duane Morris LLP by \$500,000 to a maximum amount of \$600,000 in connection with the filing of an administrative claim with the State Water Resources Control Board or other legal action related to water diversions in the Bay-Delta. (Heard in closed session) (Agenda Item 8-8)

COMMUNICATIONS AND LEGISLATION COMMITTEE

Authorized the General Manager to enter into a one-year agreement with Quigley-Simpson & Heppelwhite, Inc. for advertising and community outreach services related to water awareness and conservation, not to exceed \$5.5 million. (Agenda Item 8-9)

CONSENT CALENDAR

In other action, the Board:

Appropriated \$1.07 million; and authorized replacement of flow meters on the Casa Loma and San Diego Canals. (Approp. 15480). (Agenda Item 7-1)

OTHER MATTERS:

In other action, the Board:

Presentation of twenty- five-year service pin to Board Secretary John Morris, representing the City of San Marino. (Agenda Item 5D)

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

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